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Motion-emotion metaphors in Estonian: A cross-linguistic comparison with Finnish, English and Swedish

Liina Paju

Supervisor: Prof. Jordan Zlatev

Centre for Languages and Literature, Lund University

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ABSTRACT

The present thesis investigates motion-emotion metaphors in Estonian and compares them cross-linguistically with Finnish, English and Swedish. Motion-emotion metaphors (e.g. *I fell into depression*) are expression types that denote affective responses, which imply conspicuous bodily changes, using motion verbs and other linguistic expressions that typically express actual motion. Metaphor has been a topic characterized by much disagreement and there are many, often conflicting, explanations to the nature of it. The thesis aims to investigate what exactly motivates metaphorical expressions with a focus on motion-emotion metaphors. The cross-linguistic comparison of the languages revealed that there was interaction of several factors that motivate such expressions. Metaphor is not a simple construction on a single level that can be based solely on bodily experience, on culture, or on language. The study showed that metaphors emerge from the contextual level and that they are motivated by universal, genealogical, cultural and areal factors on the historical level where the conventional expressions reside. The different factors form a synthesis where, according to the findings of the present study, genealogical closeness between the languages is an important factor that contributes to the presence of conventional metaphorical expressions in a given language.

Keywords: conceptual metaphor, discourse metaphor, emotion, genealogy, integral linguistics, motion, non-actual motion, synthesis.

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ABBREVIATIONS

1 First person

2 Second person

3 Third person

CAUS Causative

DEF Definite

DET Determiner

GEN Genitive

MEM Motion-emotion metaphor

MLT Meta-language type

PASS Passive

PL Plural

PRF Perfect

PRS Present tense

PST Past tense

REFL Reflexive

SG Singular

CHAPTER 1. INTRODUCTION

It has been noted in previous research that motion is used cross-linguistically to talk about emotions (Zlatev et al., 2012; Jacobsson, 2015), as in the (authentic) examples from Estonian, Finnish, English and Swedish (1a-1d), respectively.

- (1a) *Nad* **vajuvad** sügavasse depressioon-i.
they sink.PRS deep depression-into
'They sink into deep depression.'
- (1b) **Vajosin** süväs masennukseen.
sink.PST.1SG deep depression.into
'I sunk into deep depression.'
- (1c) But suddenly today *I* **sunk** into a horrible and deep form of painful depression.
- (1d) Begär du verkligen på största allvar att jag ska vara helnöjd
desire-PRS.2SG you really with biggest seriousness that i should be thrilled
med att se *honom* **sjunka ned i** depression mer och mer för varje dag som går?
to see him sink.PRS down in depression more and more for every day that go.PRS
'Do you really seriously wish that I should be happy to see him sink into depression more and more each day?'

However, there is no full agreement on what exactly motivates such metaphorical expressions. Cognitive linguistics is the linguistic school that has studied metaphor most extensively in recent years. Even within this school, the following different approaches to metaphor can be found inter alia: (a) metaphor as a conceptual mapping (Lakoff & Johnson, 1980, 1999; Kövecses, 2005, 2010; Johnson, 2010), (b) metaphor as a linguistic form-specific expression (Zinken, 2007, Zinken et al., 2008) and (c) metaphor as situated language use (Steen, 2007, Steen et al., 2010; Semino et al., 2013). Therefore, the present study investigates metaphorical expressions that denote both motion situations and emotions, i.e. *motion-emotion metaphors* (MEMs) from three different perspectives: universal, conventional and contextual. However, in this thesis, I propose that these approaches should be seen as complementary rather than

contradictory. It is a special interest of the study how these approaches interact with each other and form a synthesis.

Previous research from English, Swedish, Bulgarian and Thai (Zlatev et al., 2012) and English, Swedish and Spanish (Jacobsson, 2015) has proposed that motion-emotion metaphors reside above all on the conventional level, constrained by, but not determined by universal bodily experiences. However, it has not been sufficiently clarified how exactly the expressions are conventionalized. Thus, in the present study the specific focus is put on the motivations on the conventional level and the influence of cultural, historical and genealogical transmission. I evaluate the possible impact of different factors which come from different approaches to metaphor. Thereby, the process of how metaphor transitions from novel to conventional will hopefully be made more explicit.

The current thesis investigates motion-emotion metaphors in Estonian and compares them cross-linguistically with Finnish, English and Swedish. These types of metaphors in Estonian and Finnish have not been studied before. Since Estonian and Finnish are genealogically related languages it could be expected that metaphors in two of the three largest Finno-Ugric languages, along with Hungarian, are very similar. However, Swedish is the second official language in Finland and has historically had a major influence on the culture in Finland (Lindgren, Lindgren & Saari, 2011). As a result of such cultural influence and linguistic borrowing (Häkkinen, 1997), motion-emotion metaphors in Finnish could be more similar to Swedish than to Estonian. Therefore, the present thesis poses four general research questions:

- i. Are motion-emotion metaphors more or less similar in all four languages because they are based on pan-human bodily experiences?
- ii. Are motion-emotion metaphors in Estonian more similar to Finnish than to other languages under study because the two languages are genealogically related?
- iii. Are motion-emotion metaphors more similar in Finnish and Swedish because they have the longest history of language contact out of the four languages studied?
- iv. Do motion-emotion metaphors overlap minimally across the four languages, indicating that such metaphors are strongly related to specific discourses?

English as the language of international communication, i.e. the “world language,” which influences languages in many cultures (Sharifian & Jamarani, 2013), is also studied. Through the cross-linguistic comparison it will become clearer what the differences and similarities between motion-emotion metaphors in the languages under study are, and what that will tell us

about the motivations in the process of conventionalizing a metaphor. The research aims to provide information on whether genealogical or cultural background plays a greater role in the formation of motion-emotion metaphors.

The thesis is divided into six chapters. Chapter 2 presents the theoretical background. The chapter begins by shortly explaining the field of cognitive semiotics and its central notions in the study of meaning. After that I discuss why defining the notion of metaphor is still an object of much disagreement. In an attempt to offer a resolution to the raised issues, three different perspectives of metaphor are discussed in relation to the different levels of language described by Eugenio Coseriu (1977, 1985). Finally, the so-called “domains” of motion and emotion are taken into discussion. It is of special interest for this study to better understand how motion situations and emotions are involved in the creation of motion-emotion metaphors. In Chapter 3 the methodology and criteria for the selection and classification of the motion-emotion metaphors is introduced, as well as the hypotheses presented. In Chapter 4 the results of this study are displayed and in Chapter 5 a discussion of these results is provided. Finally, Chapter 6 offers a short conclusion.

In addition to the aforementioned chapters, Appendix I-IV give the full list of metaphorical expressions in Estonian, Finnish, English and Swedish. Appendix V-VI show the sources of all the metaphorical expressions in Estonian and Finnish that were studied in this thesis.

CHAPTER 2. THEORETICAL FRAMEWORK AND HYPOTHESES

2.1 Cognitive semiotics and phenomenology

One way to provide a resolution to the controversies surrounding the nature of metaphor is to turn to cognitive semiotics and more specifically to phenomenology. Cognitive semiotics is defined as “the transdisciplinary study of meaning” (Zlatev, 2012: 2). It aims for

integrating methods and theories developed in the disciplines of cognitive science with methods and theories developed in semiotics and the humanities, with the ultimate aim of providing new insights into the realm of human signification and its manifestation in cultural practices. (ibid.)

Cognitive semiotics uses the triangulation of methods where first-person (e.g. systematic intuitions), second-person (e.g. empathy) and third-person (e.g. experimentation) methods can all be used (cf. Zlatev, 2012). Sonesson (2013: 309) following Peircian terminology refers to the three approaches as related, respectively, to *Firstness*, *Secondness* and *Thirdness*. Furthermore, “the epistemological¹ priority of first- and second-person methods in the study of meaning” (Zlatev, 2012: 14) is acknowledged. The emphasis on first-person methodology leads us to an influential tradition in the field: phenomenology.

Phenomenology is a philosophical tradition that was founded by Edmund Husserl at the beginning of last century (see Sonesson, 2015). It emphasizes the importance of experience and intentionality which is always directed towards something. This presumes a central role for conscious awareness. Focus is directed primarily toward the act rather than the object of awareness: “the theme is not the object outside, but the act of consciousness itself” (Sonesson, 2013: 300). Gallagher & Zahavi (2012: 9) explain that a phenomenologist studies perception as “lived through by a perceiver who is in the world,” i.e. in the lifeworld. They add that phenomenology is concerned with “the experiential structure of our mental/embodied life” instead of trying to offer “a naturalistic explanation of consciousness.” (ibid.). Therefore, phenomenology sets as its goal to “depart from experience itself, and to provide descriptions of the phenomena of the world, including ourselves and others, as true to experience as possible” (Zlatev, 2012: 15). This approach is becoming more and more central to cognitive studies (e.g.; Gallagher & Zahavi, 2012; Koch, Fuch, Summa & Müller, 2012; Blomberg & Zlatev, 2014).

¹ Epistemology is a branch of philosophy that studies the nature of knowledge and its relation to concepts such as belief and truth.

One of the central notions in phenomenology, *intersubjectivity*, can be defined as “the sharing of affective, perceptual and reflective experiences between two or more subjects,” (Zlatev, 2008: 215) and it can be both pre-linguistic (e.g. imitation, pointing) and linguistic (e.g. utterances) (Zlatev, 2008, 2013). But how is language defined in this framework? Zlatev (2008) defines it as “a conventional (normative) symbolic system for communication and thought, where symbols are understood as conventional pairings of expression and content” (ibid: 215). If language is seen as intersubjective and conventional, then meanings must be publicly shared and, therefore, the content of linguistic expressions cannot be described as purely subjective or “private” (Wittgenstein, 1953; Itkonen, 2016).

Intersubjectivity and more specifically *embodied intersubjectivity* becomes very helpful when trying to resolve the body vs. culture dichotomy, which is often one of the main issues when defining metaphor. The “pre- and extra-linguistic forms” (Zahavi, 2001: 227) of intersubjectivity, e.g. emotions and bodily awareness, have an influence on linguistic meaning. Embodied intersubjectivity brings up “the double aspect nature of the body” (ibid.) where the “internal” (felt) body and the “external” (observed) body ultimately coincide (Husserl’s *LeibKörper* duality). It is the realm where consciousness and body, and my body and that of another interact and come together. This makes it possible to understand others fundamentally as similar to myself, without disregarding the distinction between the experiences that are lived-through by someone and how they are displayed to me (Merleau-Ponty, 1962; Zlatev & Blomberg, 2016). Therefore, embodied intersubjectivity can be seen as an important factor underlying the intersubjective nature of language, as well as motivating motion-emotion metaphors.

Image schemas such as CONTAINER, PATH, BALANCE, have been an object of much controversy in cognitive linguistics (Hampe, 2005). Johnson (1987) defines image schema as “a recurring dynamic pattern of our perceptual interactions and motor programs that gives coherence to our experience” (ibid: xiv). However, the problem with this approach is that the importance of the biological body (*Körper*) alone is overestimated. This is not enough to give rise to shared intersubjective experience because, thus defined, image schemas are private (Zlatev, 2010). Thus, this kind of private bodily or (unconscious) mental processes cannot be the most important ones underlying language, which is intersubjectively shared. Furthermore, the fact that “perceptual interactions” vary in different environments and cultures has gotten little attention in mainstream cognitive linguistics.

Alternatively, linking image schemas, and the more specific mimetic schemas (Zlatev, 2005) like RUN, FLY, KISS and KICK to embodied intersubjectivity is more promising because it does not disregard the experiential (conscious) and intersubjective nature of meaning. Cognitive semiotics sees such schemas and other structures of embodied intersubjectivity as underlying linguistic meaning but maintains a strict separation between the motivating factors and convention-normative structures of languages that are sedimented upon them (cf. Zlatev & Blomberg, 2016).

This short section on cognitive semiotics, which serves as the overarching field for this thesis, introduced some central notions of the discipline and showed how a phenomenological approach sets different criteria for linguistic methods. A theoretically important point, also for the present thesis, is the claim that intersubjectivity and embodiment are complementary non-private and fundamentally conscious aspects of experience.

2.2 Different approaches to metaphor

Metaphor is a multi-faceted phenomenon belonging to “language, thought, social-cultural practice, brain and body” (Kövecses, 2010: 10). Therefore, it should be explained in a unified manner connecting all the above mentioned aspects. This, however, is not always the case. Rather surprisingly, there is little consensus on the definition of metaphor, even within cognitive linguistics. Different theorists differ on the level of focus that is put on each of these features and, therefore, construe approaches to metaphor that are contradictory to one another. For example, metaphor is claimed to be a phenomenon belonging to language and culture (Zinken, 2007). On the other hand, it can be described as based solely, or at least predominantly, on universal pan-human bodily experiences (Lakoff & Johnson, 1999).

The *Integral Linguistics* of Eugenio Coseriu (1977, 1985; Faur, 2009) may be used to explain how different theorists approach metaphor on different levels, as suggested by Zlatev (2011). In particular, Coseriu made a well-known distinction between the universal, the historical and individual levels of language. The *universal* level deals with language “as such” and, arguably, with the general pre-linguistic aspects of knowledge of the world and applies to all languages regardless of their differences. The historical (or more transparently phrased, the *conventional*) level operates on specific national, or communal languages, e.g. Estonian, Finnish, Swedish, on which languages function as social institutions with shared meanings, without considering

different contexts. The individual (or rather, the *contextual*) level of language concerns specific discourses and genres, where meaning is highly dependent on linguistic and extra-linguistic context.

On a universal level the metaphorical mapping between two distinct domains is in focus (Lakoff & Johnson, 2003), as in example (2) where the source domain BUILDINGS is mapped onto the target domain RELATIONSHIPS. However, on the conventional level, it is the normativity-driven language use that takes the center stage, like in example (3). The expression is based on the understanding of current political events and is stable and conventional in this point of time. However, it can evolve and change with the changing socio-political environment. Thus, this level includes linguistic expressions that are conventionalized and intersubjectively shared in a larger discourse. As shown in example (4), the contextual approach views metaphor dependent on a specific communicative situation or communicative act (Camp, 2005; Steen et al., 2010), i.e. to give the properties of a “cunning fox” to someone can change depending on a context. Metaphor can be considered contextual only if the specific context is analyzed as such and its influence on the meaning of the expression recognized.

- (2) Since then the two have built a solid relationship. → RELATIONSHIPS ARE BUILDINGS (Kövecses, 2005: 73)
- (3) War against terror (Zinken et al., 2008: 6)
- (4) The cunning fox is up to his familiar tricks. (Stern, 2000: 107)

In the remainder of this section, I discuss these three levels of metaphor, as well as their interrelations.

2.2.1 Metaphor as (universal) cross-domain mappings

The strong connection between bodily experience and metaphorical thought was first brought up by Lakoff and Johnson (1980), and elaborated in the new afterword to the 2003 edition of their famous *Metaphors We Live By*. In particular, Lakoff and Johnson claim that metaphors arise from conceptual schemas based on bodily experience and are, therefore, largely universal. Within their *Conceptual Metaphor Theory* (CMT), metaphor is not seen “merely” as a linguistic phenomenon but rather as a significant part of human cognition (Lakoff & Johnson, 1980, 1999; Johnson, 1987; Lakoff, 1987; Lakoff & Turner, 1989).

According to CMT, metaphor is embedded in cognition and operates mostly on the unconscious level. Source domains are supposedly structured by image schemas (see Section 2.1) (Johnson, 1987; Lakoff, 1987) and through metaphor these structures are projected onto more abstract target domains, such as time. In comprehending metaphorical expressions these projections and source domain schemas are reactivated. For example, Falk & Gibbs (2012) argue that in the process of comprehending metaphorical expressions like *I grasp your meaning* people create simulations, i.e. they imagine making the actual physical movement of grasping. Furthermore, they do so mostly unconsciously, making the proposal contradictory to phenomenology (see Section 2.1).

In short, CMT defines metaphor as “a set of correspondences, or mappings, between the elements of two mental frames” (Kövecses, 2015: 2). As illustrated above, the source domain, which is usually more physical, maps onto the target domain, which is more abstract (see also Boroditsky & Ramscar, 2002). According to this model, in the case of the conceptual metaphor MOTION IS EMOTION, the physically perceivable entity, motion (e.g. falling) is mapped onto the more abstract domain of emotion (e.g. depression). In addition, CMT claims that there are certain *primary metaphors* (Grady, 1997, 1999), such as KNOWING IS SEEING; AFFECTION IS WARMTH etc. which are universally shared. Therefore, the theory places itself on the level of universalism in Coseriu’s matrix, which means that metaphor is not dependent on a specific language or culture (cf. Zlatev, 2011).

There are, however, drawbacks with this perspective. For example, it is problematic to make the distinction between metaphor and metonymy. In theory, metaphor is defined as being based on two domains and metonymy on a single domain but in practice it is often challenging to categorize an expression as one or the other. For example, can the bodily and “mental” experiences of sinking in a depression, as in example (1) be regarded as separate domains or not?

A number of scholars claim that metaphor and metonymy are so interdependent that a line between them is “notoriously difficult” (Radden, 2000: 93) to draw (Barcelona, 2000a; Goossens, 2000; Riemer, 2002; Geeraerts, 2002). Following Roman Jakobson (1971), Bartsch (2002), claims that there are two different strategies involved in the creation of new metaphoric or metonymic expressions. Namely, metaphor is based on *similarity*, i.e. “on identity of one or more aspects between objects or situations” (ibid: 73), as shown in example (5) where the change in emotion (anger) is in some sense similar to raising pressure in a container. Those

aspects have to be “conventionally and consciously” separated into two domains (Barcelona, 2000b: 9). Metonymy, on the other hand, is based on *contiguity*, i.e. “following specific kinds of contiguity relationships in the perspective change” (Bartsch, 2002: 73), as in example (6) where money represents the quality of the one married.

(5) She got all *steamed up*. (Barcelona, 2000b: 10)

(6) She married *money*. (Warren, 2002: 115)

But again, this does not help us decide concerning sinking in the examples (1a-1d). Radden (2000: 93) proposes an intermediate notion of *metonymy-based metaphor*, that is defined as a mapping which includes two conceptual domains that can be reduced to a single conceptual domain. For example, in the metaphorical expression *My pride was wounded* the physical harm and psychic injury are not experienced as two separate domains but as interrelated and based on a common experiential basis (ibid: 102). Therefore, defining metaphor as involving two distinct domains is often problematic. For the topic of this thesis, it is especially problematic to define bodily experiences related to emotion as constituting a separate domain from this emotion, as this would contradict the phenomenological analysis of a unified *Leibkörper* presented in Section 2.1.

2.2.2 Metaphor as contextualized usage

Despite the fact that CMT has been very influential in cognitive linguistics over the past decades, the strongly universalist tendency in the approach has also been an object of much criticism. The overarching problem is setting aside the influence of culture, context and specific language use (Gibbs, 1999; Steen, 2007; Zinken, 2007, Zinken et al., 2008; Deignan et al., 2013).

Zinken (2007) claims that there is a gap between experience-based mappings across domains and verbal behavior, and that it can be overcome with the theory of *discourse metaphor*, which is

a linguistic expression containing a construction that, in the appropriate context, prompts the speaker/hearer to construct an analogical meaning that has been negotiated in the discourse. This means that discourse metaphors are *form-specific* in the sense that the analogy is evoked by a particular linguistic unit, i.e., a particular conventional form-meaning pairing. (ibid: 450)

Metaphor is thus described on a linguistic level and is primarily a matter of language use rather than experiential mappings (Zinken et al., 2008). Therefore, discourse metaphors are deeply rooted in cultural scripts and emerge from social interaction (ibid: 14). Stern (2008) and Steen et al. (2010) concentrate even more on the form- and context-specific meanings of metaphors and study the variation of specific linguistic expressions in corpora. On the other hand, CMT theorists acknowledge variation on the level of linguistic expressions but view this as relatively superficial. For them, the claim for universality comes from the level of primary metaphors not from the level of language use.

With the help of Coseriu's theory of language, we may view discourse metaphors as a combination between the conventional and contextual levels. As noted above, the conventional level concerns socially-shared context-general meanings. On this level, the key elements of a metaphor are the language and its cultural environment. In addition, discourse metaphors are supposed to emerge from actual discourse, which is more or less context-dependent, in the manner of analysis focused on by Stern (2008) and Steen et al. (2010), which above all focus on the contextual level of language.

Due to the high variability on the linguistic level, and historical and socio-cultural change on the cultural level, discourse metaphors are seen as changing in time (Zinken et al., 2008). A metaphor's "lifespan" is presented as going from novel metaphor to "dead" metaphor where the metaphorical expression is so conventionalized that it is perceived as literal instead on figurative (Riemer, 2002; Bowdle & Genter, 2005; Zinken, 2007; Saeed, 2016). On the contrary, metaphors in CMT, especially of the primary kind, are considered more or less atemporal, as they do not depend on language and culture.

In sum, discourse metaphors are inherently culture-specific and dependent on context, whereas cultural influence is insignificant for CMT, especially if complex metaphors are seen as compounds of primary metaphors (Lakoff & Johnson, 1999). The two kinds of theories constitute different kinds of explanations of the nature of metaphor: discourse metaphor theory claims that metaphor arises from language while conceptual metaphor theory insists that language arises from universal cognitive structures, such as image schemas and cross-domain mappings. In the next sub-section, we will see why separating and juxtaposing the two approaches is an object of concern.

2.2.3 Metaphors as conventionalized expression-types

The main problem with the metaphor theories presented in the previous sub-sections is that they do not approach language and cognition in a fully integrated manner. The different levels of Coseriu's *Integral Linguistics* should be viewed as interacting and, thereby, forming a matrix that governs all the different aspects of language (Coseriu, 1985). Instead, in the conflicting theories of metaphor, a single level is put in central focus, either the universal or the contextual. Although there are valid arguments in each theory, several issues arise from overemphasizing a single level.

Zlatev (2011) points out that the problem with conceptual metaphor theory is that it overemphasizes the universal knowledge aspect, which is assumed to be based on the "cognitive unconscious" (Lakoff & Johnson, 1999), a notion which is both phenomenologically and epistemologically problematic. This results in an oversight of "the truly creative side of metaphor, which must be a matter of process not structure" (Zlatev, 2011: 142). A further problem is that "linguistic metaphor [is] being reduced to mere realization of pre-existing structures (ibid.)"; thereby, language use is seen as a mere manifestation of those structures and not as a substantial aspect of metaphor itself.

An additional problem of over-focusing on the universal level concerns the explanation of metaphor as a cross-domain mapping. As we saw in Section 2.2.1, CMT claims that the main function of metaphor is to allow for abstract thought, for example concerning intangible things like emotions. However, Vervaeke and Kennedy (2004) question the idea that abstract thought is fully governed by metaphor, since pre-metaphoric and independent abstract thought also exists. Moreover, as indicated earlier, emotions do not necessarily constitute an abstract target domain and even less so one that is separate from their bodily experiences. Therefore, the claim that conceptual metaphor necessarily involves two distinct domains that form a cross-domain mapping might not stand on very strong grounds. Instead, the relevant bodily experience can be viewed as one of the motivations in the process of conventionalizing metaphors (cf. Zlatev, 2011).

The theory of discourse metaphor focuses on aspects which are disregarded by CMT. However, it is still problematic as it puts too much focus on the "form-specificity" of metaphors. Zlatev (2011) claims that the discourse metaphor theory disregards making almost any generalizations and describes metaphors as quite strict linguistic expressions where particular meanings are tied to particular forms. Johansson Falck (2013: 215) recognizes that lexical concepts can be "a

factor in the development of figurative meaning” but claims that the discourse metaphor theory fails to explain similarity between the mappings on a more general “superordinate” level. In addition, Faur (2009) proposes that contemporary linguistics in general often tends to “confuse meaning proper² with its contextual variants” (ibid: 125) by putting too much emphasis on the word’s contextual features thus leading to almost limitless polysemy. In her account linguistic “meaning proper,” is not highly context-dependent but relatively stable, and shared within a community. The theory of discourse metaphors does not always reach to that level, and even less is it able to explain why certain conventional metaphors appear across cultures. However, this perspective highlights the importance of language use and how over time contextual language variants might become conventionalized metaphorical expressions.

To resolve the shortcomings of universalist (CMT) and contextualist approaches, a synthesis of the different levels is needed, acknowledging “the respective roles of pre-linguistic subjective experience and linguistic expression” (Zlatev et al., 2012: 18). We may formulate such a synthesis schematically as in Figure 1, placing the conventional level of language (and metaphor) in the middle with influences coming from both universal and contextual levels.

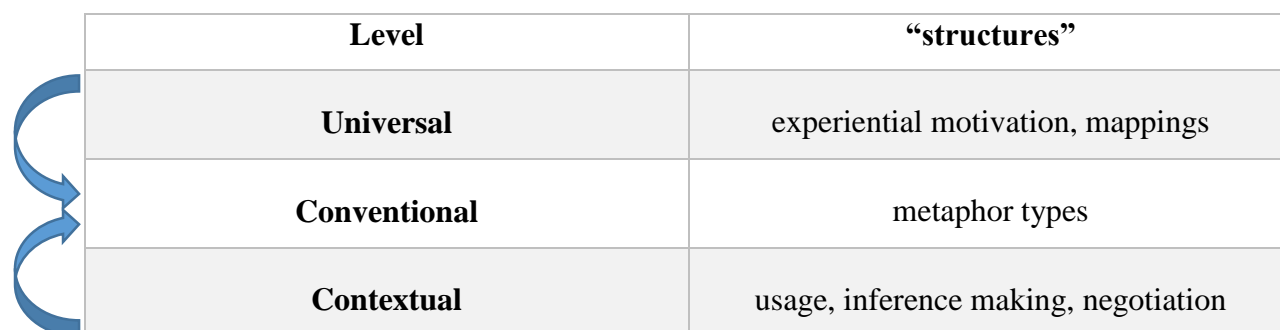


Figure 1. The interaction between three levels of metaphor which results in synthesis on the conventional level

The synthesis sees the conventional level as the middle ground where the bodily motivations from the universal level and language use in discourse meet, and which is grounded in the intersubjective (see section 2.1) nature of language. Zlatev et al. (2012) suggest that “when speakers need to talk about their emotional lives, they use expressions referring to intersubjectively observable phenomena” (ibid: 425). These expressions emerge from situated

² According to Coseriu meaning proper resides on the historical level and corresponds to Saussure’s signifieds (see Faur 2009).

language use in the discourse where cultural and historical transmission shapes the conventionalization process. Over time the expressions from the context can become conventionalized and form a unified level of shared expressions which is motivated by pan-human bodily experience, such as analogy and spatiotemporal association with the experience of the specific emotion. Therefore, metaphors as figurative linguistic expressions can be defined as *conventionalized expression types* like *the alphabet of life* (Zinken et al., 2008) and *our European home* (Zinken, 2007).

This holistic approach to metaphor acknowledges the role of pre-linguistic experiences such as *Leibkörper* duality, bodily resonance and body memory (cf. Zlatev & Blomberg, 2016), and expects to find these reflected in specific conventionalized expression types across even unrelated languages. As these are structures of embodied intersubjectivity, the problem of how they can be shared by people does not arise, as it does with many of the hypothetical structures of CMT, such as “mental simulation” (see Section 2.2.1). On the other hand, the approach welcomes influence from below, thus expecting communities that share discourses and cultures to also share more metaphors.

In sum, the universal, the historical (conventional) and the individual (contextual) levels of language and metaphor should not be seen as conflicting but rather as complementary, and we can expect that such a holistic approach will provide the most comprehensive approach to metaphor. Before further exploring the nature of metaphor conventionalization and its implications to the theory of metaphor in the form of a cross-linguistic study of motion-emotion metaphors, the notions of motion and emotion will need to be discussed and operationalized.

2.3 Motion and emotion

We all understand the meaning of the words *motion* and *emotion* but often do not think about how the two phenomena can be related. Furthermore, even if we grasp the laymen meaning of these words, difficulty arises when trying to define the notions. Therefore, in this section, motion and emotion are explained and the formation of expressions which combine the two into a single metaphorical expression are discussed.

2.3.1 Motion: actual vs. non-actual

What is motion? As Blomberg (2014) writes, it is a bit like when Augustine famously claimed about time: we all know what it is until we are asked to define it. Zlatev, Blomberg and David (2010) attempt to do so from the standpoint of an observational perspective as follows:

The experience of continuous change in the relative position of an object (the figure) against a background, in contrast to stasis – where there is no such change – and in contrast to a discontinuous change, as when a light suddenly lights up in position A, “disappears” and then appears in position B. (ibid: 393)

The authors proceed to offer a taxonomy of “motion situations” assumed to be independent of language, based on the following three different criteria:

- *Translocative vs. non-translocative motion*: Translocative motion involves the perception of continuous change of an object’s average position according to a spatial frame of reference, such as shown in example (7). In non-translocative motion the figure maintains its average (perceived) position, like in example (8).

(7) He is going uphill. (Zlatev, Blomberg & David, 2010: 395)

(8) He is running inside the room. (ibid: 392)

- *Bounded vs. unbounded motion*: In bounded motion the figure undergoes a clear transition of its state. This means that it will depart from a source or pass through a mid-point, or reach a goal or all three of these, as shown in (9). In unbounded motion, in principle, the motion of the figure can go on indefinitely, i.e. it is not bound with respect to beginning, middle, or end, like in example (10).

(9) He crossed the road. (Zlatev et al., 2012: 431)

(10) The balloon rises. (Blomberg & Zlatev, 2014: 405)

- *Caused vs. uncaused motion*: In caused motion, the figure is perceived as moving under the influence of an external cause, like in example (12). When there is no external cause making the figure move, the motion is presented as uncaused, as in (11).³

(11) Raindrops are falling on my head. (Zlatev et al., 2012: 431)

(12) John kicked the ball over the fence. (ibid.)

³ The relevant notion of causality concerns the experiential lifeworld (Husserl, 1970), a world of lived experiences that are shared with others, not the objective universe, as understood in natural sciences.

Jacobsson (2015), following Zlatev et al. (2012), gives the taxonomy of eight motion situation types (Table 1), following the systematic application of the three above mentioned parameters.

Table 1. Classification table showing the 8 motion situation types in English; F = Figure, LM = Landmark, A = Agent, View-C = Viewpoint centered, Geo-C = Geocentric, Obj-C = Object centered Frame of Reference. (Based on Zlatev, Blomberg and David, 2010)

	Uncaused motion	Caused motion
+translocative/+bound	F goes from LM (Source) F goes over LM (Mid-point) F goes to LM (Goal)	A takes F from LM (Source) A throws F over LM (Mid-point) A puts F into LM (Goal)
+translocative/-bound	F goes away (View-C) F goes up (Geo-C) F goes forward (Obj-C)	A takes F away (View-C) A pushes F upward (Geo-C) A pushes F forward (Obj-C)
-translocative/+bound	F jumps F blinks	A smashes F A tears F
-translocative/-bound	F waves F walks (on treadmill)	A waves F A bounces F (indefinitely)

All the cases of motion described so far concern *actual* motion, where the figure is “actually” perceived as changing its position against a background. But in all languages that have been studied for this phenomenon so far, it is possible to use a motion verb (e.g. *go*, *run*, *crawl*, *follow*) to denote a situation that lacks such observed motion, as defined earlier. Blomberg and Zlatev (2014) define such expressions as non-actual motion sentences, which can be illustrated with example (13).

(13) The road goes through the forest.

There is a variety of approaches in cognitive linguistics to this phenomenon. Talmy (2000) refers to it as “fictive motion”, whereas Langacker (2006) and Matsumoto (1996) talk about “subjective motion”. One of the latest contributions comes from Matlock (2010), who calls the phenomenon “abstract motion,” and proposes to explain it in terms of mental simulation, very much in line with Falk & Gibbs’ (2012) application of conceptual metaphor theory (see section 2.2.1). Although the aforementioned approaches are different, they all rely on the notion of (unconscious) mental representation in some way (Blomberg & Zlatev, 2014). This, however,

is problematic since it confuses the universal level of experiential motivations with the conventional and contextual levels. Furthermore, mental images are private but linguistic meanings are public (Itkonen, 2008, 2016) and they should not be melted together the way they are, when talking about linguistic meanings as mentally imaginable entities.

Blomberg and Zlatev (2014) distinguish three distinct pre-linguistic motivations for the use of non-actual motion (NAM) sentences, relating them to specific kinds of examples and phenomenological concepts:

- The enactive, action-oriented nature of perception, as shown in example (14)
- The correlational, act-object nature of (perceptual) intentionality, as in example (15)
- The imagination of counter-factual states, which is closest to a truly metaphorical “as if” reading of a NAM-sentence, as in (16).

(14) The road goes through the forest. (Blomberg & Zlatev, 2014: 399)

(15) The mountain range goes from Mexico to Canada. (Talmy, 2000: 104)

(16) Insanity runs in my family... It practically gallops! (Brandt, 2009: 573)

This classification, differently from the previously mentioned theories, proposes that non-actual motion sentences should be viewed as a “hybrid phenomenon” that can be motivated by different kinds of experiences, instead of looking for a single motivation (Blomberg & Zlatev, 2014: 401). We can apply this claim to sentences containing motion-emotion metaphors such as (1) and those in the examples below, as they also fulfill the definition of NAM-sentences: the presence of motion verbs used to denote situations without observed motion.

2.3.2 Emotion: in experience and language

If it was difficult to define motion, it is even more so in the case of emotion, since emotions are considered among “the most complex phenomena of subjective experience” (Fuchs & Koch, 2014: 1). From the pan-human perspective, basic emotion should be common to all mankind, since we have the same kinds of bodies. At the same time, cultural variation cannot be ignored (Elfenbeit & Ambady, 2002; Kövecses et al., 2002). Fuchs & Koch (2014: 1) present two contrasting theories on emotion:

- Bodily component (James, 1884) – we do not shiver because we are scared of the lion, but we shiver, and this is what we feel as our fear. In other words, emotions are feelings of bodily changes where the bodily experience is primary. The theory is criticized for ignoring the intentionality (in the phenomenological sense, meaning directedness towards an intentional object) of emotions because emotions are often directed at someone or something.
- Emotion as an act of evaluation or appraisal of a situation (Solomon, 1976; Lyons, 1980; Nussbaum, 2001) – we believe or judge the lion to be dangerous, want to run away, and this is our fear of him. The bodily experience of emotions is then regarded as just an additional “quale” without further relevance (Gordon, 1987) or serving the limited purpose to assure us that an emotion is going on (Lyons, 1980). This approach fails to account for the experiential and phenomenal aspect of emotions, i.e. does not capture the changing intensity of emotions.

Analogous to our discussion concerning different approaches to metaphor, each of these two theories seems to capture something essential about emotion, but a synthesis can combine their strengths while avoiding their weaknesses.

According to Fuchs and Koch (2014), emotions can be seen as an interplay between perception and evaluation of a given situation, i.e. constant interaction between the self and the other through “body feedback” (e.g. impression) and “bodily resonance” (e.g. mirroring, kinesthetic empathy) (ibid: 6). Moreover, a number of studies have shown the close connection between our emotional life and bodily experience (Williams & Bargh, 2008; Zhong & Leonardelli, 2008; Fuchs, 2012; Meier et al., 2012; Fuch & Koch, 2014). In a non-actual motion sentence concerning emotion such as (17) the self of some salient “part” of the lived body (*Leib*) is typically described as undergoing motion.

(17) My heart dropped.

As stated in the previous section (2.2.3), emotion is often described as something entirely abstract in a sense that it cannot be perceived via the five basic senses. However, “emotion can have an effect in the body which then becomes perceivable by the senses” (Foolen, 2012: 357). Further, Barsalou and Wiemer-Hastings (2005) argue that “a concrete metaphor can not be mapped into an abstract concept, if the abstract concept doesn’t have its own structure [...]. If

an abstract concept has no structure based on direct experience, the concrete metaphor would have nothing to map into” (ibid: 133).

In line with this, Crawford (2009) proposes that instead of trying to construe the notion emotion as a highly abstract entity, the following approach should be taken:

We may think of affect in terms of other physical dimensions not because affect is abstract or poorly delineated and has no clear representation of its own, but because doing so allows us to exploit advantages that these dimensions have for reasoning and communicating. (ibid: 359)

Foolen (2012: 359) adds that thinking of emotions in physical terms comes from the need for expressivity “when we talk about emotions, in particular when we talk about our own emotions.” He further explains that “affect is fundamental to why and how people use metaphor [...]. This being so, the affective cannot be just added on the conceptual but should be seen as a driving force in the use and evolution of metaphors through real-life talk” (ibid.).

In sum, figurative language is often used in relation to emotions, but this does not necessarily imply explanations along the lines of CMT, relaying on notions such as cross-domain mappings and mental simulation. Emotional and (other) bodily experiences such as those of actual motion are too closely related to be easily described as involving qualitatively different experiential domains. Schnall (2005) refers to Kövecses (1990) and Gibbs et al. (2002) and claims that “figurative expressions of specific emotions reflect aspects of the bodily experience of those emotions” (Schnall, 2005: 30) and some of these “aspects” may in fact be experiences of motion. Thus, the most appropriate definition of emotions for the present thesis appears to be the following: “affective responses to certain kinds of events of concern to a subject, implying conspicuous bodily changes and motivating a specific behavior” (Fuchs & Koch, 2014: 2).

2.3.3 Motion-emotion metaphors

Given the synthetic approach to metaphor defended in Section 2.3.3, and the discussions of motion (2.3.1) and emotion (2.3.2), it is possible to define motion-emotion metaphors (MEMs) as *expression types that denote affective responses, implying conspicuous bodily changes, using motion verbs and other linguistic expressions typically expressing actual motion*.

This definition differs from previous definitions (Zlatev et al., 2012; Jacobsson, 2015) by completely avoiding the notion of “domain” and “mapping” As discussed in earlier sections (2.2.3; 2.3.2) the cross-domain mapping between the “abstract” domain of emotion and

concrete domain of motion is not always as clear-cut as proposed by CMT. Furthermore, in this definition of MEMs the linguistic expressions themselves are considered as metaphors, rather than treating them as “shadows” of cognitive processes that take place under the surface (as discussed in section 2.2.2). MEMs as conventionalized expression types are thus expected to be constrained both “from above” (the pan-human bodily motivation) and “from below” (the culture and context-specific discourses).

It is still possible to apply the operational definition of MEMs used by Jacobsson (2015): “the expression (in *italics*), which denotes the ‘as if’ moving figure refers to the self (or part of the self) of the protagonist, and that there is a motion verb complex (in **boldface**)” (ibid: 16). All the other elements that the expression includes as well as the grammatical meanings are open to variation. This can be illustrated by four motion-emotion metaphors in Estonian, Finnish, Swedish and English (18-21). Examples (18) and (20) are metaphorical expressions where the self is represented by a personal pronoun and presented “as if” in motion with the help of the expressions in boldface. In examples (19) and (21) a body part is the figure that is “as if” moving.

- (18) *Ta* **lasku-b** meeleheite-sse.
 s/he descend-3.SG.PRT despair-into
 ‘S/he descends into despair.’
- (19) *Hänen* **mielialansa** nousee.
 her mood.NOM rise-3.SG.PRT
 ‘Her mood is rising.’
- (20) *Jag* **attrahera-des** **av** hennes skratt.
 i attract-1SG.PST.PASS by her laugh
 ‘I was attracted by her laugh.’
- (21) My *heart* just **sank**.

2.4 Summary and hypotheses

To summarize, this chapter presented the theoretical framework for understanding the notions of metaphor, motion and emotion. First, a short summary of the field of cognitive semiotics and its unique triangulation of methods, with the importance of first-person methods (e.g. intuition),

was given (section 2.1). After that, I discussed the popular but controversial notion of metaphor according to conceptual metaphor theory and its universalism (section 2.2.1), and discourse metaphors with the focus on language use and context (section 2.2.2). I argued for the need of a more integrated account, using Coseriu's division of levels of language (2.2.3).

Metaphorical expression types were found to reside on the conventional level. However, the universal and contextual levels were not set aside, since the first provides the pre-linguistic motivations (as structures of embodied intersubjectivity), and the second the specific socio-cultural context where language is creatively used. Thus, a synthesis, with focus on the conventional level was argued to be the best motivated theory.

In addition, the concepts of motion and emotion were discussed and defined. Motion was defined as perceived change of a figure's average position and different kinds of motion situations were described according to the taxonomy based on three general parameters proposed by Zlatev et al. (2010). Non-actual motion sentences follow the same taxonomy, but describe situations that lack observed motion. Emotions were described as closely related to bodily affect and perceived bodily movements, and hence it was concluded that they do not constitute a separate domain from motion. Sentences such as (1) and (18-21) thus may be characterized as non-actual motion sentences, and like these they can be motivated by different kinds of experiences.

This led to our theoretical and operational definitions of motion-emotion metaphors (MEMs) (section 2.3.3). Based on this framework, and the four research questions brought up in the introduction, we could formulate the following hypotheses for the empirical study of motion-emotion metaphors in Estonian, in comparison to Finnish, Swedish and English, described in the reminder of this thesis.

H1. *UNIVERSAL FACTORS*: If pan-human bodily based experiences play a dominant role in constraining motion-emotion metaphors, there must be a considerable overlap in the four languages under study.

H2. *GENEALOGICAL FACTORS*: Due to the genealogical connection, motion-emotion metaphors in Estonian are more similar to Finnish than to the languages not belonging to the same branch, i.e. English and Swedish. In addition, motion-emotion metaphors in English overlap more with Swedish than with genealogically non-related languages Estonian and Finnish.

H3. *NON-GENEALOGICAL FACTORS* (cultural/historical transmission): Due to the more extensive historical and cultural influence, the motion-emotion metaphors in Swedish and Finnish overlap more than in other languages studied.

H4: *CONTEXTUAL FACTORS*: Motion-emotion metaphors that exist only in one language, i.e. are language-specific, can be related to discourses that are language/culture specific. The specific discourse determines the specificity of the metaphorical expression and for this reason, there will be motion-emotion metaphors not shared by any other language under study.

It should be noted that while privileging different kinds of factors, these hypotheses should not be viewed as mutually exclusive. Rather, the extent to which each is found to be supported will be indicative of the relative contribution of the different factors in the formation of motion-emotion metaphors.

CHAPTER 3. METHOD

This chapter describes how the empirical data for the thesis was generated and analyzed, in line with the methodological triangulation of cognitive semiotics (see Section 2.1).

3.1 Data Generation

Two methods were combined to elicit original data from Estonian and Finnish. A first person methodology, based on systematic native speaker intuition (Itkonen, 2008; Zlatev, 2010), was used to identify the relevant motion-emotion metaphors (MEMs). Such first-person methodology is an extremely valuable method in search for metaphors. It is arguably the only method to find a more or less exhaustive list of metaphorical expressions, such as motion-emotion metaphors. The reason for this is that metaphorical meanings do not present themselves directly in the corpus data and, therefore, intuition-based analysis is needed to find and evaluate the expressions. The first-person approach was complemented with a third-person methodology – the analysis of examples from corpora, as well as blogs and other internet resources – which was used to find specific contextual examples of MEMs. Thereby, the expression types, which were found through intuition, were confirmed to be present in actual use.

Estonian examples were collected, inter alia, from *Eesti keele tasakaalus korpus* (The Balanced Corpus of Estonian), *Sünonüümisünastik* (Dictionary of Estonian Synonyms) (1991), *Fraseoloogiasõnaraamat* (Dictionary of Estonian Phraseology) (2000), *Eesti keele seletav sõnaraamat* (Explanatory Dictionary of Estonian) (2009). In addition, various online sources were used. Finnish examples were collected from newspapers, blogs and other resources on the internet. The full lists of specific example sentences and their sources in Estonian and Finnish can be found in Appendix V and Appendix VI, respectively. For cross-linguistic analysis, English and Swedish data was taken from previous research (Table 5, 6 and Appendix A, B from Jacobsson, 2015) with some new motion-emotion metaphors found in English (*slip into LM*, *FP shrinks*, *FP shivers* and *crush FP*) and added to the table. The new expressions were found while collecting and evaluating data from Estonian and Finnish.

The Estonian data was collected on the basis of the intuitions of the author of this thesis, a native speaker of Estonian. In the first stage of the data collection, motion-emotion metaphors from English and Swedish (taken from the appendix A and B from Jacobsson, 2015) were controlled against native speaker intuition and simultaneously corpora were used to detect

similar or overlapping expressions in Estonian. Further, all possible expressions that express both motion and emotion were considered in Estonian. To support that examination, an extensive list of hundreds of verbs was conducted and each verb was then investigated within the corpora, dictionary or other source to look for possible examples of expressions that would correspond to MEMs. Finally, all the metaphorical expressions that included a motion verb and expressed emotion were evaluated according to the selection criteria described in Section 3.2 and the expressions that qualified were categorized according to the taxonomy of motion situation types presented in Section 2.3.1 (see Table 1).

The Finnish data was collected from two informants who were meta-linguistically aware native speakers of Finnish. Both had studied linguistics for approximately five years and could understand the selection criteria. Data from Finnish was elicited in two steps: (1) The first informant was presented with example sentences of motion-emotion metaphors in English and Swedish (taken from Jacobsson, 2015 and Zlatev et al., 2012). The informant was then asked to come up with respective Finnish examples (if possible) and based on the connections that these expressions brought up, to attempt to formulate Finnish specific motion-emotion metaphors, i.e. the metaphors that did not occur in English and Swedish. (2) The second informant evaluated the sentences from the first informant and made some corrections, mainly considering the selection criteria A and B, e.g. in the case of substitution of the figure, the sentence would express actual motion (see below). In addition, the second informant compared Estonian examples with Finnish and helped with further selection and categorization of Finnish examples.

In both Estonian and Finnish, some examples were considered incorrect when checked against native speaker intuition. These involved what seemed to be direct translations from English. For example, *sydän tipahti* ‘heart dropped’ in Finnish and *depressiooni libisema* ‘slip into depression’ in Estonian were found from online sources (single instances) but categorized as direct translations from English that are (not yet) conventionalized. Therefore, such expressions were excluded from the study. The final decision of exclusion in Finnish was made if both informants agreed that it is not a conventional expression in the language. In Estonian, the decision was made after further research of the expression from corpora, online resources and dictionaries which showed no other instances.

3.2 Selection

The selection criteria, for Estonian and Finnish data, followed those used by Jacobsson (2015; based on Zlatev et al., 2012). The same selection criteria were used to establish the comparability in the four languages studied. As a result, the data set included the same kinds of expressions and the material was limited in the same manner, i.e. even if the MEM lists in the languages were not fully exhaustive, they were all studied to the same extent and according to the same criteria.

The five selection criteria are presented below and illustrated with Estonian examples, and in some cases compared to other languages that are included in the study.

A. The sentence in which the MEM occurs does not express actual motion.

As shown below, example (21) fulfills criterion A, as there is no figure that changes its relative position in space.

- (21) Mu tuju tõuseb.
My mood rise.2SG.PRS
'My mood is rising.'

On the other hand, example (22) does not qualify. The sentence expresses an emotional state/process of the figure. However, it also describes actual movement in physical space.

- (22) Ta jooksis õnnelikult trepist üles.
S/he run.2SG.PST happily stairs up
'She ran happily up the stairs.'

B. Substitution of figure expression in MEM can lead to actual motion sentence.

As shown in examples (23-24), the sentence becomes a description of actual motion when the figure-expression (and the landmark-expression, if necessary) is substituted for an expression referring to a physical object. This criterion can be seen as an operational specification of A.

- | | | | |
|------|-----------------------------------|---|--------------------------------|
| (23) | Ta laskub meeleheite-sse. | → | Ta laskub mäest alla. |
| | s/he descend.PRS.3SG despair-into | → | s/he descend.PRS.3SG hill down |
| | 'S/he descends into despair.' | → | 'S/he descends down the hill.' |

- (24) Mu tuju tõuseb. → Päike tõuseb.
 My mood rise.PRS.2SG → sun rise.PRS.2SG
 ‘My mood is rising.’ → ‘The sun is rising.’

C. Motion is expressed by the verb-root and not only in a “satellite” (Talmy, 2000) or preposition.

The expression (25) fulfils the criterion as the motion of the figure part is expressed by the verb-root.

- (25) Süda hüppas kurk-u.
 Heart jump.PST.2SG throat-into
 ‘I suddenly became very afraid’

On the other hand, the Swedish example (26), even though it expresses the same emotion, does not fulfil the criterion. Although the heart is claimed to have moved from the breast to the throat, this is not expressed by the verb.

- (26) Jag fick hjärta-t i halsgrop-en.
 I get.PST.3SG heart-DET.DEF in throat-DET.DEF
 ‘I became very afraid.’

D. The expression of the figure denotes the self or a part of the self in an MEM.

As implied by criterion B above, the semantics of the expression that denotes the figure, i.e. whatever is presented “as if” moving in a motion-emotion metaphor, is crucial for interpretation. Thus, self-referring expressions like (27) qualify.

- (27) Ta lausa hõljub õnnest.
 s/he really hover-PRS.2SG happiness-from
 ‘She really hovers from happiness’

On the other hand, example (28) does not qualify as the notion *mure* ‘worry’ does not represent anything that can be construed as a part of self, but is rather an emotion itself. In order to limit the material and make it comparable to that of earlier studies, expressions like this fall out of the scope of the current study.

- (28) Mure laskub hinge-le.
 Worry descend-PRS.2SG soul-on
 ‘The worry descends on the soul’ → To become worried.

However, emotional life, e.g. *mood* and *feelings*, can be seen as part of the figure, as shown in example (29). But specific emotions, e.g. *fear*, *anger* and *joy* are not seen as part of the figure in the study due to their highly varying nature, like in (30).

- (29) Mu tuju tõusis.
 my mood rise.PST.1SG
 ‘My mood rose.’
- (30) Südant haaras erutus ja rõõm.
 heart grasp.PRS.CAUS excitement and happiness
 ‘Excitement and happiness grasped my heart.’

E. Both “source” (motion) and “target” (emotion) meanings are accessible to speakers.

In the case of “dead metaphors” the meanings of “source” and “target” are not accessible to speakers anymore (see Section 2.2.2). However, there are some conventionalized metaphors (Bowdle & Genter, 2005), where speakers are still able to access the meanings. For example, in sentence (31) the motion and emotion are, arguably, both accessible (cf. Jacobsson 2015).

- (31) He fell passionately in love.

However, in example (32) most speakers would not recognize the meanings: In this expression it is difficult to recover the meaning that standing on the rear legs traces back to an animal who is irritated by something and standing up due to that. The meaning is so conventionalized that Estonian speakers cannot directly access its source anymore.⁴

- (32) Opositsioon tõusis tagajalga-de-le
 opposition stand.PST.3SG back.foot-PL-on
 ‘The opposition stood on it’s rear legs.’ → The opposition was extremely irritated.

Therefore, expressions like (31) are included in the study and expressions as in (32) are excluded.

⁴ Accordig to a mini-study that I performed asking Estonian native speakers “why do we say so?” People were not able to instatntly trace the meaning back to an animal (e.g. a horse) standing on it’s rear legs when disturbed by something. In some cases, after a short discussion they were able to recover the original meaning.

3.3 Classification

3.3.1 Motion situation types

The taxonomy of motion situation types presented in Section 2.3.1 was used for classification of all the MEMs in Estonian and Finnish, which were chosen after applying the selection criteria. The MEMs in both languages were classified as belonging to one of the eight types (Table 1), based on the motion verb which, for example, determined whether the movement of the figure or part of the figure was unbounded or had gone through a transition of a state (bounded).

The following expressions from the study exemplify some of the motion situation types. As examples from Estonian show, (33) is based on translocative (+bounded) and (34) on non-translocative (+bounded) motion; (35) is classified as bounded, non-translocative motion, whereas (36) as unbounded, non-translocative. Example (37) includes uncaused motion and (38) expresses caused motion.

- (33) Süda **hüppa-b** rinnust välja.
heart jump.-PRS.2SG breast.inside out
'Heart jumps out of the chest.' → Feeling very anxious.

- (34) Mu *tuju* **tõus-is**.
my mood rise-PST.3SG
'My mood rose.'

- (35) Süda **murdus** tuhande-ks killuks.
heart break.PST.2SG thousand-into piece.PL
'Heart broke into thousand pieces' → Feeling very hurt

- (36) Süda **värele-b** sees.
Heart shiver-PRS.2SG inside
'Heart shivers inside.' → Feeling very afraid

- (37) Ma **langes-i-n** masendu-sse.
I fall-PST-1SG depression-into
'I fell into depression.'

- (38) Ta **liigu-ta-s** mind pisara-te-ni.
 he move.PST.2SG me tear-PL-to
 ‘He moved me to tears.’

3.3.2 Meta-language types

To make the cross-linguistic comparison of motion-emotion metaphors more systematic than comparison simply based on motion-situation types, Jacobsson (2015) introduced the scheme of *meta-language types* (MLT). While he created the scheme of MLT based on English, Swedish and Spanish, the present study introduced a scheme that was developed based on Estonian, Finnish, English and Swedish (see Table 2). The meta-language types were expressed by using English glosses. However, it is important to note that they were not restricted to English and more than one verb could be used to express the MLT in the languages under study. Additionally, there were two sub-types for each MLT based on the figure of expression: self (1) or part of the self (0).

The numbers in brackets after each motion type indicate the index of the example in the respective language database (see Appendix I-IV). There were two levels in the meta-language chart: coarse-grained level and fine-grained level. On the coarse-grained level no distinction between *self as a figure* and *part of self as a figure* was made. For example, SINK INTO was, therefore, considered as one MLT. On the fine-grained level, SINK INTO was divided into two separate MLTs according to the figure type, i.e. either the ‘figure’ sinks into a landmark or the ‘part of self’ sinks into a landmark, or both.

Table 2. Segment of the meta-language type (MLT) scheme, with motion-emotion metaphors, shown as motion types, in Estonian, Finnish, English, Swedish

Trans	Bound	Cause	F=Self	MLT	Estonian	Finnish	English	Swedish
1	1	0	1	FALL INTO	F langeb LM (1)	F vaipuu LM (1)	F falls into LM (1)	
1	1	0	0	FALL INTO				
1	1	0	1	PLUNGE INTO			F plunges into LM (2)	
1	1	0	0	PLUNGE INTO				
1	1	0	1	SINK INTO	F vajub LM (3); F upub LM (2)	F vajooa LM (2)	F sinks into LM (4)	F sjukner ned i LM (1)
1	1	0	0	SINK INTO				

The basic principle of the MLT scheme was to have as few MLTs as possible and “to introduce a new one only when a relevant semantic distinction with respect to motion-emotion metaphors was to be made” (Jacobsson, 2015: 25). For example, *F upub LM* (F drowns into LM) and *F vajub LM* (F sinks into LM) were considered as the same MLT because there was no semantic distinction between the motion verbs when it comes to the type of movement. Both express downward movement through a liquid surface.

For example, expressions (39) and (40) were considered as belonging to the same MLT. Their verb root was identical and, therefore, they were both classified as instances of PRESS DOWN.

(39) Ma **surus-i-n** oma tundeid **alla**.

i press-PST-1SG my feeling.PL down

‘I pressed my feelings down.’

(40) **Allasurutud tunded** on nagu tammi taha suletud seisev vesi.

downpressed feeling.PL are like dam behind closed standing water

‘Down pressed feelings are like water that is closed behind the dam.’

In sum, the combination of applying the five selection criteria and classifying the MEMs according to the eight motion situation types reassured that the data in the four languages that were studied in this thesis was compared on equal basis. Moreover, the MLT scheme made it possible to compare Estonian, Finnish, English and Swedish cross-linguistically in a systematic manner. This means that neither the linguistic form-specificity nor the pre-linguistic

conceptualization was overemphasized. In the following section, MEMs in the four languages are analyzed on a *coarse-grained level* or on a *fine-grained level* with the help of the MLT scheme.

CHAPTER 4. RESULTS

This chapter presents the results of the study, first in a more descriptive and exploratory manner, and then in relation to the hypotheses given in Section 2.4.

4.1 Motion-emotion metaphors in Estonian, Finnish, English, and Swedish

In total, 229 motion-emotion metaphors were found in the four investigated languages, belonging to 89 meta-types in the course-grained level analysis. On the fine-grained level, where the distinction between ‘self’ and ‘part of self’ as figure is made, the number of MLTs was 103 (out of the maximum possible number of 178).

Table 3 presents all 69 MEMs found in Estonian in schematic manner⁵, and Appendix I shows the full expressions which are actual representations of the MEM types given in the table below. Of these, 39 were based on caused motion and 30 were based on uncaused motion. 35 had self as figure and 34 had part of self (for example, 23 instances of *süda* ‘heart’) as figure.

⁵ The representation in schematic manner means that the MEM types are represented, i.e. many different sentences and contextual utterances can instantiate the type.

Table 3. Estonian MEMs: F = Self is Figure, FP = Part of Self is Figure; LM = Landmark, A = Agent

	Uncaused motion	Caused motion
+translocative/+bound	F langeb LM F vajub LM F upub LM F laskub LM FP kaob (ära) FP hüppab LM FP kukub LM FP hüppab välja	A liigutab F to LM A juhatab F to LM A viib F to LM A annab FP to LM
+translocative/-bound	FP tõuseb FP upub	A tõmbab ligi F A ligitõmbab F A tõukab eemale F A eemaletõukab F A painutab F A surub alla FP A allasurub FP A pühib minema FP A tõstab FP
-translocative/+bound	F murdub F variseb kokku F puruneb kildudeks F plahvatab F lendab õhku FP lõhkeb FP murdub FP variseb kokku	A purustab F A lõõb jalust F F on lõõdud A rebib tükkideks F A lõhkab F A plahvatab F A avab FP A sulgeb FP A vabastab FP A murrab FP A hõivab FP A rebib FP pooleks A purustab FP A pillub FP laiali
-translocative/-bound	F paisub F hõljub F rabeleb FP hüppab FP tantsib FP väreleb FP kõigub FP paisub FP tõmbub kokku FP peksab FP rabeleb FP tuiskab	A rõhub F A liigutab F A raputab F A segab F A lõdvestab F A rahustab F A kõigutab F A loksutab F A põrutab F A liigutab FP A heidab FP A üleskihutab FP

There were 54 MEMs found in Finnish, as shown in Table 4 with full expressions in Appendix II. 31 of these were based on caused motion and 23 were based on uncaused motion. 31 had self as a figure and 23 had part of self (for example, 16 of them had *sydän* ‘heart’) as figure.

Table 4. Finnish MEMs: F = Self is Figure, FP = Part of Self is Figure; LM = Landmark, A = Agent

	Uncaused motion	Caused motion
+translocative/+bound	F vaipuu LM F vajoaa LM FP hyppää LM	A liikuttaa F to LM A johtaa F to LM A vie F to LM A antaa FP to LM
+translocative/-bound	FP kohoaa FP nousee	A viehättää F A kohottaa FP A mieltäkohottaa FP on poispyyhkäisty
-translocative/+bound	F hajoaa (ihan) F luhistuu F romahti F meni pirstaleiksi F räjähtää F halkeaa FP halkeaa FP murtuu	A tyrmää F A repii F kappaleiksi A musertaa F A heittää F F on lyöty A avaa FP A sulkee FP A vapauttaa FP A särkee FP A kaappaa FP A musertaa FP
-translocative/-bound	F paisuu F leijuu F rypee F irtoaa FP läpätää FP vapisee FP horjuu FP paisuu FP hyppelee FP lyö	A painaa F A pakottaa F A liikuttaa F A repeää F A järkyttää F A sekoittaa F A kiihdyttää F A rentouttaa F A rauhoittaa F A heilauttaa F A repeää FP A liikuttaa FP

As explained in Chapter 3, the English data for the study was adopted from the research of Jacobsson (2015). In addition, four new English MEMs were found and added to the chart (see Table 5; Appendix III): *slip into LM*, *FP shrinks*, *FP shivers* and *crush FP*. Altogether, 58 motion-emotion metaphors were found in English. 37 of these were based on caused motion

and 21 were based on uncaused motion. 39 had self as figure and 19 had part of self as figure (e.g. two instances of ‘spirit’).

Table 5. English MEMs: F = Self is Figure, FP = Part of Self is Figure; LM = Landmark, A = Agent

	Uncaused motion	Caused motion
+translocative/+bound	F falls into LM F plunges into LM F sinks into LM F slips into LM F falls under LM FP disappears	A moves F to LM A drives F to LM A brings F to LM A leads F to LM A gives FP to LM
+translocative/-bound	FP soars FP rises FP sinks FP drops FP creeps	F is downcast A pulls F A attracts F A repels F A uplifts F A blows F away A carries F away
-translocative/+bound	F breaks down F explodes F breaks F collapses FP collapses FP caves in	A puts F off A throws F off feet A upsets F A shatters F A knocks F off feet A knocks F out A floors F A tears F apart A explodes F A bursts F A breaks FP A opens FP A closes FP A releases FP A captures FP A crushed FP
-translocative/-bound	F swells FP flutters FP shrinks FP shivers	A shrinks F A presses F A moves F A shakes F A stirs F A agitates F A calms F A perturbs F A relaxes F

Similarly to the English data, the Swedish data was also adopted from previous studies (Jacobsson, 2015; Zlatev et al., 2012). In total, 48 MEMs were found (see Table 6; Appendix IV for full expressions). Of these, 18 were based on uncaused motion and 30 were based on caused motion. 28 metaphors had self as figure and 20 had part of self as figure (e.g. *humör* ‘mood’ with three instances).

Table 6. Swedish MEMs: F = Self is Figure, FP = Part of Self is Figure; LM = Landmark, A = Agent

	Uncaused motion	Caused motion
+translocative/+bound	F sjunker ned i LM FP försvinner	A driver F till LM A kastar F ner LM A rör F till LM A ger FP till LM
+translocative/-bound	FP stiger FP sjunker FP faller FP kryper	A trycker F ner A stöter bort F A fränstötande F A attraherar F A tilltalar F A upplyfter F A blåser bort FP
-translocative/+bound	F flyger i F bryter ihop F rasar ihop FP brister F exploderar	A knockar F A golvar F A sliter sönder F A exploderar F A spricker F A släpper F fri A krossar FP A knäcker FP A fångar FP A sliter FP i stycken A öppnar FP A stänger FP
-translocative/-bound	F svävar F sväller F kopplar av FP svajar FP går vilse FP klappar FP växer	A lugnar F A (om)skakar F A upprör F A rör F A pressar F A vacklar F A rubbar FP

The parameters of the motion taxonomy applied to the four languages show both considerable similarities and differences. The data is presented in Table 7 according to the three different parameters: translocation, boundedness and causation. The parameter *causation* showed that there was a substantial difference between caused (137 MEMs) and uncaused motion (92 MEMs). On the other hand, the parameter *boundedness* showed very little difference (116 bounded vs. 113 unbounded).

Table 7. Overview of MEMs in Estonian, Finnish, English and Swedish according to the three parameters of the motion situation taxonomy (See Table 1)

Parameter	Estonian	Finnish	English	Swedish	Total
Total MEMs	69	54	58	48	229
+translocation	23	13	23	17	76
-translocation	46	41	35	31	153
+boundedness	34	26	33	23	116
-boundedness	35	28	25	25	113
+causation	39	31	37	30	137
-causation	30	23	21	18	92
Figure = Self	35	31	39	28	133
Figure = Part of Self	34	23	19	20	96

However, the most remarkable difference occurred in observing the parameter *translocation*. 76 MEMs were based on translocative motion and more than twice as many, 153, were based on non-translocative motion. All studied languages had more non-translocative motion than translocative. Of the four languages, Finnish showed the most remarkable contrast between translocative and non-translocative MEMs with three times more non-translocative motion than translocative. Estonian and Swedish also stood out with the former having twice as many non-translocative motion expressions than translocative ones and the latter having nearly twice as many. English showed the most equal distribution of MEMs according to the parameter translocation by having a third more non-translocative motion than translocative.

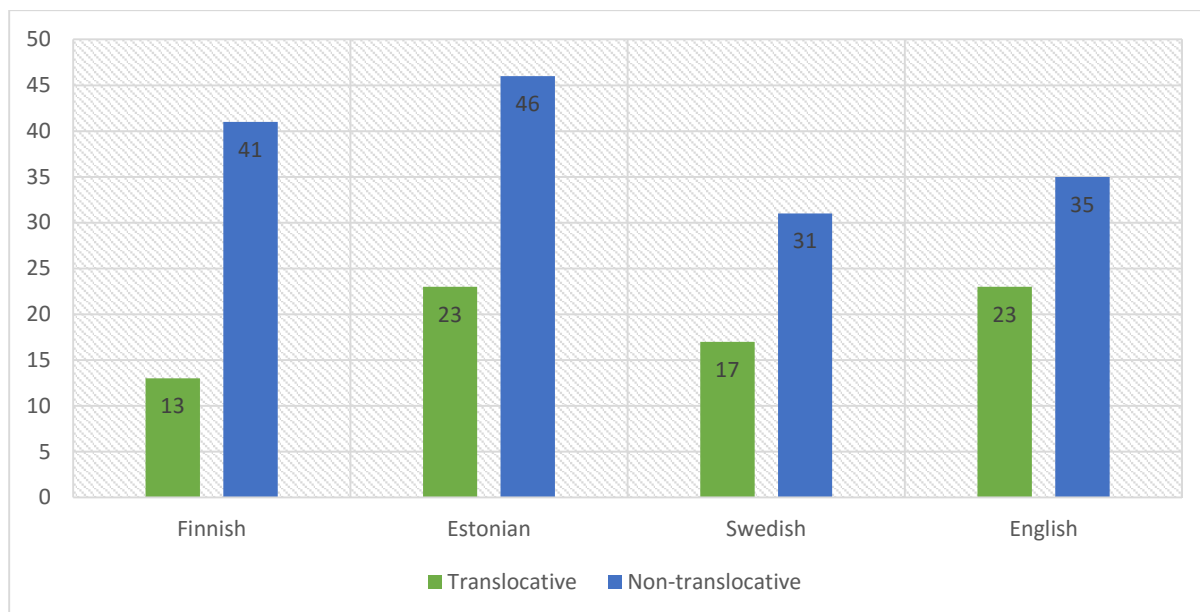


Figure 2. Distribution of MEMs in English, Estonian, Finnish and Swedish according to the parameter translocation

Another parameter that showed differences was the distinction between ‘self as figure’ or ‘part of self as figure’. The comparison of the languages under study showed that Estonian differed from the other languages offering almost identical distribution of MEMs between the ‘self’ (35) and ‘part of self’ (34). At the same time, ‘self as figure’ was the preferred figure type in Finnish (57%), Swedish (58%) and English (67%).

4.2 Results by hypothesis

The hypotheses (Section 2.4) proposed the influence of four different factors in the process of conventionalizing a metaphor. Therefore, in this section the data is analyzed in three sections which comprise all four hypotheses. The first hypothesis predicted that metaphors in these four languages overlap extensively due to the universal bodily motivations. The second hypothesis proposed that the languages that are genealogically related share more metaphors than the genealogically unrelated languages. The third hypothesis, however, claimed that cultural influence could be the key contributing factor to metaphor formation. Finally, the fourth hypothesis brought up the dependence on context and proposed that metaphors which are language-specific can be related to discourses that are specific to a certain language or culture.

4.2.1 Universal factors

First, the data was analyzed according to the universal level and, therefore, motion-emotion metaphors that were shared in all four languages are presented. The data was analyzed both on the coarse-grained level and on the fine-grained level. The metaphors shared by all four languages on the coarse-grained level are presented in Table 8.

Table 8. MEMs shared in all four languages on the coarse-grained level and their possible universal motivations

Universal motivation	MLT	Estonian	Finnish	English	Swedish
SAD IS DOWN	SINK INTO	F vajub LM	F vajoaa LM	F sinks into LM	F sjunker ned i LM
HAPPY IS UP	RISE	FP tõuseb	FP nousee	FP rises	FP stiger
	LIFT X UP	tõstab (üles) FP	kohotti FP	F is uplifted	F upplyfts
DESIRE IS ATTRACTION	ATTRACT X	tõmbab ligi F ligitõmbab F	viehättä F	attracts F	attraherar F tilldrager F
GRIEF IS DESTRUCTION	BREAK DOWN	F variseb kokku	F hajoaa ihan F luhistui F romahdin	F breaks down F collapses	F rasar
	BREAK	FP murdub	FP murtuu	FP breaks	FP brister
	TEAR X APART	rebib F tükkideks	repii F kappaleiksi	tears F apart	sliter sönder F
	CRUSH X	purustab FP	musertaa FP	crushes FP	krossar FP
	BREAK X	murrab FP	särkeä FP	breaks FP	krossar FP
LOVE IS WAR	CAPTURE X	hõivab FP	kaapaa FP	captures FP	fångar FP
EMOTION IS A FORCE DISLOCATING THE SELF	MOVE X	liigutab F	liikuttui F	moves F	rör F
EMOTIONAL FREEDOM IS FREEDOM TO MOVE	RELEASE X	vabastab FP	vapauttaa FP	release FP	släpper F fri
MIND IS BODY	CALM X	rahustab F	rauhoittaa F	calms F	lugnar F
UNCOMFORT IS PRESSURE	PRESS X	rõhub F	painaa F	presses F	pressar F
	STIR X	segab F	sekoitetaan F	stirs F	upprör F
UNEASE IS COMMOTION	SHAKE X	raputab F	järkytyin F	shakes F	(om)skakar F
OPEN/CLOSE BODY PART	OPEN X	avab FP	avaa FP	open FP	öppnar FP
	CLOSE X	sulgeb FP	sulkee FP	close FP	stänger FP
DRIVE FIGURE TO SADNESS/HAPPINESS	MOVE X TO	liigutab F to LM	liikuu F to LM	moves F to LM	rör F till LM
GIVE BODY PART TO X	GIVE X TO	annab FP to LM	antaa FP to LM	gives FP to LM	skänker FP till LM
INCREASE IN SIZE	SWELL	F paisub	F paisuu	F swells	F sväller

Further, meta-language types (MLTs) were used for the analysis which means that expressions such as *uplifted* and *lift up* were considered as the same MLT. The “universal motivations” indicate only tentative labels for possible (bodily) motivations. In some cases, they are similar to CMT mappings but in other cases they do not correspond to the one-directional mapping from more concrete concept to more abstract entity (for more discussion see section 5.1).

In total, 21 MLTs were common to Estonian, Finnish, English, and Swedish on the coarse-grained level. This corresponds to 23% of the total 89 MLTs, which means that nearly a quarter of the MLTs were found to be shared between the four languages which indicates that (universal) bodily experience underlines certain affective expressions. However, three quarters of the MLTs were shared by one or more languages, but not by all the languages.⁶

The analysis on the fine-grained level was very similar to the coarse-grained level. 19 of the MLTs that were shared on the coarse-grained level were also shared on the fine-grained level. The meta-language type LIFT X UP had ‘heart’ as a figure in Estonian and Finnish, but in English and Swedish it was the selves themselves who were presented as moving. In RELEASE X the figure was moving in Swedish. However, in Estonian, Finnish and English it was the part of self that was moving.

4.2.2 Genealogical vs. non-genealogical factors

In order to take a closer look at the data according to either genealogical or non-genealogical (cultural) level, the four languages were divided into language pairs. The number of overlapping metaphors was measured on two levels: the full number of metaphors shared between the two languages (including the expression types that are shared by other languages), and the expression types that are shared only by the given two languages. The analysis was conducted both on the fine-grained and on the coarse-grained level, using the MLT scheme.

First, for detecting the genealogical connection, two language pairs were construed: Estonian-Finnish and English-Swedish. On the coarse-grained level, Estonian and Finnish shared 37

⁶ The results were similar with Jacobsson’s (2015) study of MEMs in English, Swedish and Spanish. He found in total 22 MLTs out of 84 MLTs, e.g. 26% overlapping in the three languages. Compared to the present study, on the coarse-grained level only four MLTs were different from the previous study and 18 MLTs were considered overlapping in both studies. In the previous study REPEL, EXPLODE X, BURST X and FALL/DROP were not found to be universally shared between the languages. Instead, three new MLTs were found overlapping cross-linguistically in the present study: CAPTURE X and MOVE X, RELEASE X.

MLTs and 8 of them were shared exclusively between the two Finno-Ugric languages, for example those given in (41) and (42). On the fine-grained level, Estonian and Finnish shared 39 MLTs and 10 of them were specific to the two languages, including (43).

- (41) a. *Süda hüppa-s* kurk-u.
heart jump-PST.3SG throat-into
'Heart jumped to the throat.'
- b. *Sydän hyppä-si* kurkkuun.
heart jump-PST.3SG throat-into
'Heart jumped to the throat.'
- (42) a. Tee, mis **vii-b** *meid õnne-ni*.
road that take-PRS.3SG us happiness-to
'A road which takes us to happiness.'
- b. Heikkouteni rakkauteen, **vie** *nyt minut hulluutee*.
weakness love-to take-PRS.3SG now me craze-to
'My weakness to love takes me to a craze.'
- (43) a. *Süda paisub* uhkuse-st.
heart swell-PRS.3SG pride-from
'Heart swells with pride.'
- b. *Sydämeni paisuu* ylpeydes-tä.
heart swell-PRS.3SG pride-from
'Heart swells with pride.'

English and Swedish shared 31 MLTs on the coarse-grained level and 6 of them were shared exclusively between the two Germanic languages (e.g. 44-46). On the fine-grained level, English and Swedish shared fewer MLTs than on the coarse-grained level, resulting in 28 MLTs, 5 of which were specific to the two languages (e.g. 44-45).

- (44) a. She just **floored** *me*.
- b. Hennes beteende fullständigt **golv-ade** *honom*.
her behavior completely floor-PST him
'Her behavior completely floored him.'

- (45) a. She **drove me to** despair.
 b. Hennes sätt kan **driva** mig **till** vansinne.
 her ways can drive.PRS me to madness
 ‘Her manner may drive me crazy.’
- (46) a. *I’m **blown away** by her beauty! As for her hair - perfection!*
 b. För övrigt kan jag säga att alla mina *känslor* **är bortblåsta** efter att
 moreover can I say.PRS that all my feeling.PL are blown.away after that
 jag märkt att hon är så dryg och tråkig nu på sistone.
 i notice.PST.1SG that she is so self-important and dull now at last
 ‘Moreover, I can say that all my feelings are blown away after I finally noticed
 that she is so full of herself and dull.’⁷

Secondly, the languages were compared on a non-genealogical (cultural) level. For this purpose, four different language pairs were compared: firstly, Finnish-Swedish and Estonian-Swedish for their close areal connection and possible cultural transfer. To reiterate, the third hypothesis proposed that Finnish and Swedish share more MEMs than Estonian and Swedish. Sweden and Finland are historically closely connected due to cultural exchange and the languages have been in constant contact for over 500 years (Lindgren, Lindgren & Saari, 2011). Further, language pairs of Estonian-English and Finnish-English were put together to explore possible culture/language (non-genealogical) transmission.

Finnish and Swedish shared 25 MLTs on the coarse-grained level and only one of them was exclusively shared by the two languages (example 47). On the fine-grained level, 23 MLTs overlapped between Finnish and Swedish, and identically to the coarse-grained level, only one of them was specifically shared by Finnish and Swedish. The MEM expression that was exclusively shared was similar between the two languages when considering the literal meaning. However, the metaphorical meanings were considerably different. The Finnish MEM expressed disconnecting in a sense of ‘to let go’ and ‘get away’, whereas the MEM in Swedish expresses relaxation.

⁷ It may be noted that the overlap is here only with respect to the source domain, but not the target domain, and that the metaphors in effect differ. This is a consequence of the adopted methodology, and should serve as a reminder that "metaphor overlap" does not imply meaning-equivalence.

- (47) a. En pääse **irti** hänes-tä.
no get away/off him-from
'I cannot disconnect from him.'
- b. *Maria* **koppl-ar** **av** med resor.
Maria connect.-3SG.PRS off with travelling
'Maria unwinds by travelling.'

On the coarse-grained level, Estonian and Swedish shared 30 MLTs and 2 of them were shared only between the two languages, as shown in examples (48) and (49). On the fine-grained level, 28 MLTs were shared between Estonian and Swedish. Of these, 2 were shared exclusively by the two languages, like in examples (49) and (50).

- (48) a. Ma **surus-i-n** oma tundeid **alla**.
I press-PST-1SG my feeling-PL down
'I pressed down my feelings.'
- b. *Jag* **tryckte-s ner** av omständighet-er-na.
I press-PASS down by circumstance-PL-DEF
'I was pressed down by the circumstances.'
- (49) a. *Ma* **lenda-n** kohe **õhk-u**, sest ei tea, mida teha.
i blow-PRS.1SG now air-up because no know what do
'I will blow up right away because I do not know what to do.'
- b. När allt hängde upp sig **flög han i** luften.
when everything hang.PST up REFL fly.PST he in air.DEF
'When everything got stuck... he exploded.'
- (50) a. Läheda-se vaimuhaigus **reb-i-s** emal *südame pooleks*.
relative-GEN mental disease tear-PST-3SG mother's heart half
'A relative's mental disease tore mother's heart to half.'
- b. Hennes röst **slit-er mitt hjärta i styck-en**.
Her voice tear-PRS my heart in piece.PL
'Her voice tears my heart into pieces.'

Furthermore, continuing with the non-genealogical comparison which involves the influential “world language” status of English, the analysis of the language pair Estonian and English showed that 31 MLTs were shared on the coarse-grained level and 2 of them were shared only between the two languages, as shown in examples (50) and (51). On the fine-grained level, 32 MLTs were shared between Estonian and Swedish. Of these, 3 were shared exclusively by the two languages, like in examples (50) to (52).

- (50) a. She **knocked** *me* **off** my feet.
 b. Ma olen **jalu-st** **löödud**.
 i am foot-PL-off knock-PRS.PRF
 ‘I am knocked off my feet.’
- (51) a. *My heart* **shrunk** with horror.
 b. *Süda* **tõmbu-b** mure-st **kokku**.
 heart shrink-PRS.3SG worry-from together
 ‘My heart shrinks from worry.’
- (52) a. Everything *in me* **collapsed**.
 b. Ütleme teistele, et meil on kõik hästi, aga samas tunneme,
 tell-PRS.1PL others’ that we have everything good but same time feel-PRS.1PL
 et *sees* **varise-b** kõik **kokku**.
 that inside collapse-PRS everything together
 ‘We tell to others that we are okay but feel at the same time that everything inside collapses.’

Finnish and English shared 29 MLTs on the coarse-grained level and 3 of them were exclusively shared by the two languages, as shown by examples (53) and (54). On the fine-grained level, 30 MLTs overlapped between Finnish and English and 4 of them were shared only by the two languages, (53) to (55).

- (53) a. *My spirit* **soared**.
 b. *Mielialani* **koho-si** entisestään.
 spirits soar-PST further
 ‘My spirits soared even further.’

- (54) a. You **knock me out**.
 b. Menim-me ovista sisään ja uskomattoman ihana tuoksu suorastaan
 go-PST.1PL door-PL inside and unbelievably lovely smell really
tyrmä-si *minut*.
 knock-PST.3SG.down me
 ‘We went through the doors inside and an unbelievably lovely smell knocked
 me down.’
- (55) a. I was **agitated** by the film.
 b. Michael Jacksonin kuolema sai *minut* todella **kiihtyneeksi**.
 Michael jackson death get.PST me really speedup
 ‘Michael Jackson’s death got me very agitated.’

The distribution of the MLTs between the language pairs that were genealogically related and the non-genealogically (but culturally connected) related language pairs are shown in Figure 3.

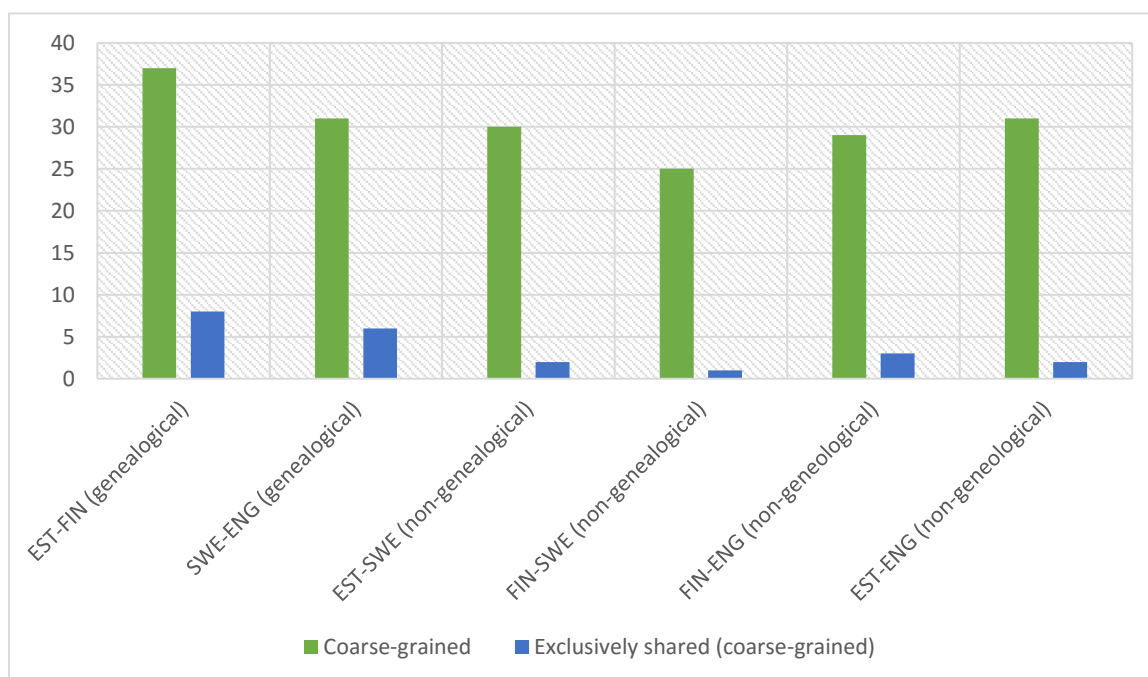


Figure 3. The overlap of MLTs in different language pairs according to genealogical and non-genealogical motivations on the coarse-grained level. In addition, MLTs that are shared only between the specific language pair (“exclusively shared”) are given on the coarse-grained level

In sum, the cross-linguistic comparison in different language pairs showed most overlap (especially in terms of “exclusively shared”) between the languages that were genealogically related. The overall numbers of MLTs shared between the six language pairs is shown in Table 9.

Table 9. MLTs shared between six language pairs according to different motivations (genealogical vs. non-genealogical). The results are given on both the coarse-grained and on the fine-grained levels with the number of MLTs shared only by the given language pair shown in brackets

Motivation	Language pair	Coarse-grained	Fine-grained
Genealogical	Estonian-Finnish	37 (8)	39 (10)
Genealogical	Swedish-English	31 (6)	28 (5)
Non-genealogical (cultural/historical)	Finnish-Swedish	25 (1)	23 (1)
Non-genealogical (cultural/historical)	Estonian-Swedish	30 (2)	28 (2)
Non-genealogical (cultural)	Estonian-English	31 (2)	32 (3)
Non-genealogical (cultural)	Finnish-English	29 (3)	30 (4)

4.2.3 Contextual factors

Finally, the data was analyzed on a single language level and the expressions which did not overlap between the languages were analyzed both on the coarse-grained and on the fine-grained levels. However, in this analysis metaphorical expressions themselves, i.e. motion-emotion metaphors, were studied, not just MLTs. The specific MEM expressions are in focus to conduct a more specific analysis of the MEMs that belong to the same MLT. Moreover, on the contextual level, where the expressions are claimed to be highly form-specific, this type of analysis gives more information about the differences on the contextual level.

On the coarse-grained level, Estonian had 14 language-specific MEMs (12 MLTs) whereas on the fine-grained level 18 MEMs (16 MLTs) were detected, as shown in examples (56) to (58).

- (56) *Ta lasku-b meeleheite-sse.*
 s/he descend-PRS.3SG despair-into
 ‘S/he descends into despair.’
- (57) *Mu sees pillu-takse kõik laiali.*
 my inside throw-CAUS.PRS everything apart
 ‘Everything in me scatters.’
- (58) *Naine rabele-b kahtlus-te-s.*
 woman flounder-PRS.3SG doubt-PL-in
 ‘The woman flounders in doubt.’

The distribution of language-specific MEMs was similar in English. On the coarse-grained level, English had 12 MEMs (12 MLTs) that did not exist in other languages under study and on the fine-grained level the number was 14 (14 MLTs), as in examples (59) to (61).

- (59) He **plunged into** despair.
- (60) He **brought me to** a craze.
- (61) She was **upset**.

However, Swedish and Finnish had fewer language-specific MEMs than the other two languages. On the coarse-grained level, Swedish had 6 MEMs (6 MLTs) and on the fine-grained level the MEMs numbered 10 (10 MLTs), as can be seen from the examples (62) to (64).

- (62) *Mitt hjärta väx-er för att jag älsk-ar er.*
 my.DEF heart grow-3SG.PRS because i love.1SG.PRS you
 ‘My heart grows because I love you.’
- (63) *Mitt hjärta gick vilse i natten.*
 my heart go.3SG.PST astray in night.DET.DEF
 ‘My heart went astray in the night.’
- (64) *Han kasta-des ner i en djup depression.*
 he throw-3SG.PST down in DET.DEF deep depression
 ‘He was thrown down into a deep depression.’

There were 5 MEMs (3 MLTs) found in Finnish on the coarse-grained level and 7 MEMs (5 MLTs) on the fine-grained level, for example sentences (65) to (67).

- (65) Välttämättä ei kannata **rypeä** itsesääli-ssä.
necessarily no wise wallow self-pity-in
'It is not necessarily wise to wallow in self-pity.'
- (66) ...tai katsoessani ympärilläni tapahtuvaa tuhoutumista, joka **repii** sydäntäni.
or looked around happening destruction which tear.3SG.PRS heart
'... or when I have looked at the destruction happening around me that tears my heart.'
- (67) **Heittäydyin** vain täysillä mukaan.
throw-PST.1SG just fully
'I just threw myself in fully.'

On both, coarse-grained and fine-grained levels, English and Estonian had more language-specific MEMs than Swedish and Finnish (see Figure 4).

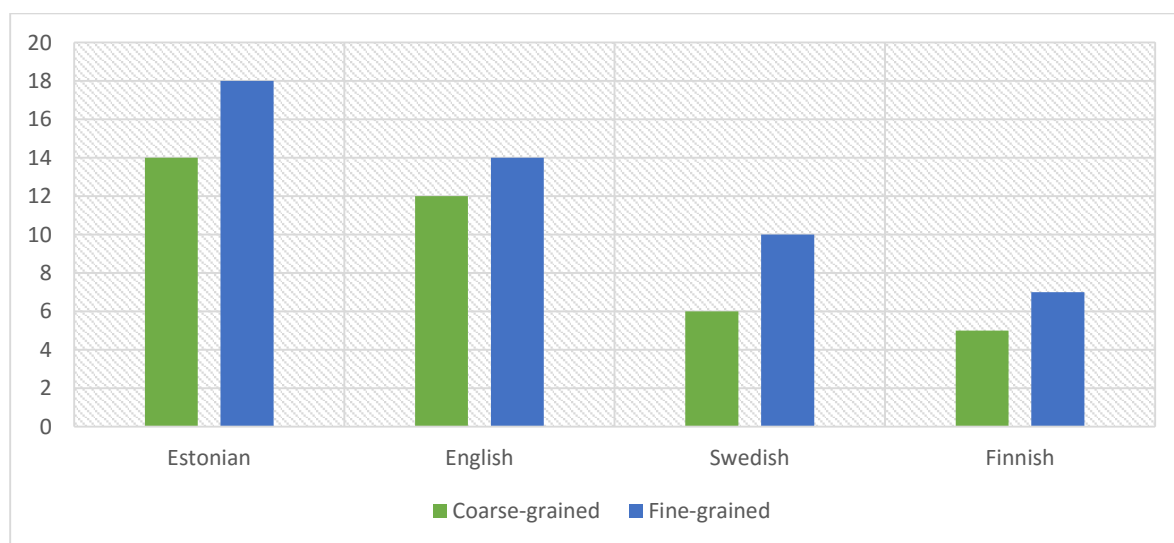


Figure 4. Language-specific metaphors in Estonian, English, Swedish and Finnish on the coarse-grained and on the fine-grained levels

4.2.4 Summary of main findings

The distribution of MEMs in the four languages showed that Estonian had the highest number of MEMs (69). It was followed by English and Finnish (58 and 54 respectively) and Swedish which had the lowest number of MEMs (48). In the analysis on the universal level, the four languages showed considerable overlap by sharing nearly a fourth of all the MLTs on the coarse-grained level. The analysis of genealogical vs. non-genealogical motivations showed more overlap between genealogically related languages than between non-genealogically related languages. Finally, the numbers of language-specific MEMs were higher in Estonian and English and lower in Swedish and Finnish.

CHAPTER 5. DISCUSSION

The purpose of this study was to examine motion-emotion metaphors in Estonian and to compare them cross-linguistically to Finnish, English and Swedish. The cross-linguistic research aimed to clarify which factors contribute to the presence of conventional metaphorical expressions in a given language. For this purpose, four different hypotheses were proposed, formulated in Section 2.4. To remind, the first hypothesis expected that metaphorical expressions across languages should overlap extensively due to universal (bodily) motivations. The second hypothesis suggested a distinction between genealogical and non-genealogical motivations, and the third hypothesis expected strong cultural influence in metaphor formation. The fourth hypothesis predicted a connection between language-specific metaphors and their dependence on discourse in a specific culture/language. By comparing MEMs in all languages and in different language pairs, the results from the study have implications about the factors that contribute to the existence of motion-emotion metaphors.

5.1 Universality and cross-domain mappings

First, the analysis of the universal motivations revealed a considerable overlap of MEMs in four different languages. Nearly a fourth of all the MLTs were shared cross-linguistically on the coarse-grained level. Moreover, the more specific analysis on the fine-grained level gave similar results. These results give support to the claim that bodily motivations play a role in MEM formation. However, it rejects the CMT approach that metaphors are solely based on bodily experience.

Some general tendencies emerged, such as HAPPY BEING UP and SAD BEING DOWN which according to Lakoff and Johnson (1980) are related to bodily posture (higher vs. lower). This type of cross-linguistically shared metaphorical expressions support the embodied intersubjectivity approach (Chapter 2.1) where *LeibKörper* duality manifests itself quite clearly. For example, in the meta-type SHAKE X there is the “internal” felt effect and the “external” bodily experience. This is where the two experientially different sides of the body coincide. On the other hand, the connection between the inner and the observed external can also manifest itself through analogy. For example, PRESS X and TEAR X APART show the experienced inner sensation to be analogous with the movement of pressing something down or ripping something into pieces. Both of these expressions indicate strong negative emotions

because e.g. the destructive nature of tearing something apart is analogous with the inner sensation that indicates the “destruction” happening emotionally.

Should such an analogy be described as a cross-domain mapping? According to the metaphorical expressions analyzed in the present study, emotions do not necessarily include an abstract target domain that is distinct from their bodily expressions. Instead, it is shown by the data that the majority of the MEMs refer to the body and, therefore, the “internal” and “external” sides of emotion are in close connection and the emotion can be perceived directly, i.e. without simulation etc. (see Fuchs et al. 2012). Therefore, the overlap of the MEMs on the universal level is better explained as intercorporeally⁸ motivated rather than as a mapping between two distinct domains. The extensive usage of motion in expressing emotion can, therefore, phenomenologically be explained through bodily resonance (Fuch et al., 2012) and *LeibKörper* duality (Merleau-Ponty, 1962; Husserl, 1973). Another kind of critique of the standard CMT account of metaphor is that of Faur (2009: 129), who sees metaphor as a “trans-domain projection of images” but she emphasizes that these mappings “occur between two linguistic contents” not between conceptual domains, and proposes that the so-called source domain is “part of the background knowledge one acquires through previous experience” (ibid.).

In any case, pre-linguistic bodily motivations, as one of many factors, clearly influence the conventionalization of a metaphor. The intecorporeal motivations are, however, not to be confused with the notion of metaphor itself. The pre-linguistic motivations are not treated here as the universal pre-linguistic embodiment via image schemas because as Itkonen (2008) notes, mental images (or representations in general) are private whereas linguistic meanings are public (e.g. normative and conventional) and, therefore, the two should not be confused. Instead, differently from the general view in CMT that metaphor functions on the conceptual domains level which does not depend on language, the present approach sees language as an essential part of the cognitive processes involved in metaphor creation and metaphors are seen to require a (linguistic) expression to function.

In sum, the various forms of embodied intersubjectivity can be seen as plausible explanations of the cross-linguistic use of non-actual motion expressions, such as motion-emotion metaphors, with their partial overlap between languages.

⁸ The term “intercorporeality” is synonymous with “embodied intersubjectivity” (Zlatev and Blomberg, 2016).

5.2 Genealogical vs. non-genealogical influence

As noted at the beginning of this chapter, some clear connections between different language pairs emerged on the level of genealogical connection vs. non-genealogical level. It was shown that the languages that were genealogically connected shared the highest number of MLTs. The analysis of the data showed the strongest connection between Estonian and Finnish, two of the three largest Finno-Ugric languages. English and Swedish, despite demonstrating a weaker connection than Estonian and Finnish, still showed a stronger connection between each other than with any other language. These results indicate that there appears to be a *considerable genealogical influence in the process of metaphor conventionalization*, which means that many of the MEMs could be historical relics that could have existed already in the proto-language of that family, or alternatively, that closely related languages more easily borrow metaphors from one another.⁹ However, here the areal closeness seems to play a role as well. This would explain why Estonian and Finnish, which are geographically close, share more metaphors than English and Swedish. This proximity could mean that Estonian and Finnish were less of a subject to other influences than English and Swedish which are geographically further apart. In addition, Estonian and Finnish can be seen as culturally more close than English and Swedish are to each other.

The third hypothesis proposed that languages that are historically, culturally and aurally more closely connected share more MEMs than the languages that show more cultural differences due to historical reasons. Therefore, the hypothesis proposed that Finnish and Swedish must be more similar than for example Estonian and Swedish. Sweden and Finland share a long history together and due to cultural exchange the languages have been in constant contact. Furthermore, Swedish is the second official language in Finland, which is taught in school and widely spoken in the areas around the country's Swedish borders. The analysis of the data provided some unexpected results. MEMs in Finnish and Swedish showed minimal overlap. In fact, the connection between Estonian and Swedish was stronger than between Finnish and Swedish. The results of this part reinforce the importance of the influence of the genealogical relation. It suggests that language contact by itself is not a strong enough motivation to integrate metaphorical expressions, such as MEMs, to a language.

⁹ For example, the use of the verb *golva* ('to floor') in Swedish as a motion-emotion metaphor appears to be relatively recent, and is probably borrowed from the corresponding expression in English, which means to overwhelm, defeat or puzzle someone.

To detect the influence of a language which is neither aerially nor genealogically but to some level culturally related and has a strong impact on many languages in the world, English MEMs were compared with Estonian and Finnish. The results showed similar connection with English in both languages, with Finnish having a slightly stronger connection with English than the overlap between Estonian and English. Furthermore, Finnish demonstrated a stronger connection with English than with Swedish. This indicates that English which is widely spoken in Finland as a second language has a stronger impact on metaphor formation and conventionalization than Swedish. It is not just the impact of the language but also the impact of the culture that the language is embedded in (e.g. Hollywood, Google, Youtube etc). Estonian, however, displayed similar overlap with both English and Swedish. Although English is by far more widely spoken in Estonia than Swedish, the results did not indicate that this has a major impact on the MEMs. Again, the overlap between MLTs and especially the sharing of the specific MEMs that are common only to a certain language pair, show the importance of the genealogical connection.

The present analysis seems to support the proposition from Zlatev et al. (2012) that on the level of conventionalized metaphorical expressions, languages and cultures that are more similar have more overlapping metaphors. However, they made no distinction between genealogical and non-genealogical motivations which appears to be rather important. The present study indicates that the most important factor grounding this similarity is the genealogical connection between the languages, which is followed by areal and cultural closeness of the languages. The results revealed that MEMs in the studied languages are more likely to originate from the common background shared by the genealogically related languages than by being borrowed via language contact between unrelated languages.

5.3 Language-specific expressions

The results showed that there also existed language-specific MEMs that did not have a corresponding expression in any of the other languages studied. For example, the Estonian MEM *Naine rabeleb kahtlustes* ('The woman flounders in doubt') occurred only in the given language and proved to be difficult to understand or to translate to other languages. The sentence involves a rapid movement to express the nature of doubt. The floundering movement indicates indecisiveness and shows that this is a short term sensation. The expression occurs in highly figurative contexts where there is a need to express a highly affective emotional state of

doubt and the anxiousness that comes with it. Therefore, the context which is highly affective needs a motion verb that expresses intensive rapid movement to give forth the intensity of the situation. In addition, the context always has to specify in what the agent flounders to have the expression perceived as metaphorical instead of literal.

Another expression that appeared only in one language was the Finnish MEM *Heittäydin vain täysillä mukaan* ('I just threw myself in fully') where the sentence shows full commitment to something by using the motion verb 'throw in'. The verb indicates a full commitment because in the case of throwing yourself in, no precautionary measures are used, e.g. protecting yourself with putting hands forward while the movement is happening. Although, the metaphorical meaning is dominant, the expression can be perceived as literal in specific contexts where actual water activities are described (e.g. in a water park). Therefore, certain contexts can change the predominantly metaphorical meaning to a literal interpretation.

Further, another MEM expression that figured only in Estonian was MEM *Paistab, et tüdruk teda natuke ikka loksutab* ('It seems that the girl still slops him a little bit') where the sentence implies that a person still cares about the other person and is affected by their actions. The movement in this expression is always caused by someone and cannot be interpreted metaphorically without a causative verb. The analogy in the expression is based on a scene with moving water and it is possible that it has become conventionalized as a metaphorical expression due to the importance of sea-related activities, which have historically played a major role in the everyday life of Estonians. The MEM can also be used in negative form expressing that something does not "slop you" which means that one does not care and does not let themselves be affected by certain external influences.

In both of these examples the meaning of a motion verb is extended to an emotional state in a novel way (novel compared to the other languages under study). These results indicate that there are certain contextual influences that determine the form-specificity of an expression. Estonian and English had a higher number of language-specific metaphors than Swedish and Finnish. However, the language-specific MEMs formed a small part of the total number of MEMs. There were 49 language-specific metaphorical expressions on the fine-grained level, which means that 21% out of all the expressions were specific to one of the four languages. The result is not insignificant and shows the influence of cultural and linguistic context. However, 79% of the MEMs were shared between two or more languages.

5.4 New synthesis

The analysis of the results has shown the importance of all three levels of language – the universal, conventional and contextual – in the conventionalization process of motion-emotion metaphors. This reassures the importance of the synthesis approach to metaphor where the three levels are seen as interacting with each other. Faur (2009) explains the interaction based on ideas expressed by Zlatev (2009): “The universe of discourse is extended to include the inferior levels and is largely based on language and culture; but these, in turn, are based on consciousness of the lived body, and ultimately in autopoiesis¹⁰ of the living.” Therefore, the different factors pointed out in the sections above coincide in the form of synthesis where embodiment and intersubjectivity are fused together by pre-linguistic sedimentations (Zlatev & Blomberg, 2016). The notion of sedimentation describes the layered nature of meaning where the conventional meanings of language are sedimented upon those that emanate from embodied intersubjectivity. This means that language presupposes the existence of intercorporeality but cannot be equated with it (*ibid.*), just as MEMs are motivated by embodied intersubjectivity but not reduced to it.

In addition, the present thesis has revealed an additional motivation in the conventionalization of metaphorical expressions, at least in the case of motion-emotion metaphors. The genealogical relation seems to be a motivating factor for the conventional level next to cultural and areal closeness and embodied intersubjectivity. Conventionality, however, is dynamic and before the linguistic meanings can be shared, they need to be created (*cf.* Faur, 2009). Therefore, the contextual level where the metaphorical expressions first emerge is also important. Faur (2009) explains the directionality of conventionality as following: “The conventionality of language is not something that could just be added to one’s pre-verbal representations; rather, the representations are reinterpreted from the viewpoint of the emerging language categories” (*ibid.*: 122). The interconnection of different levels and motivations is visually presented in Figure 5.

¹⁰ A system that is able to reproduce and maintain itself, literally a self-creating system.

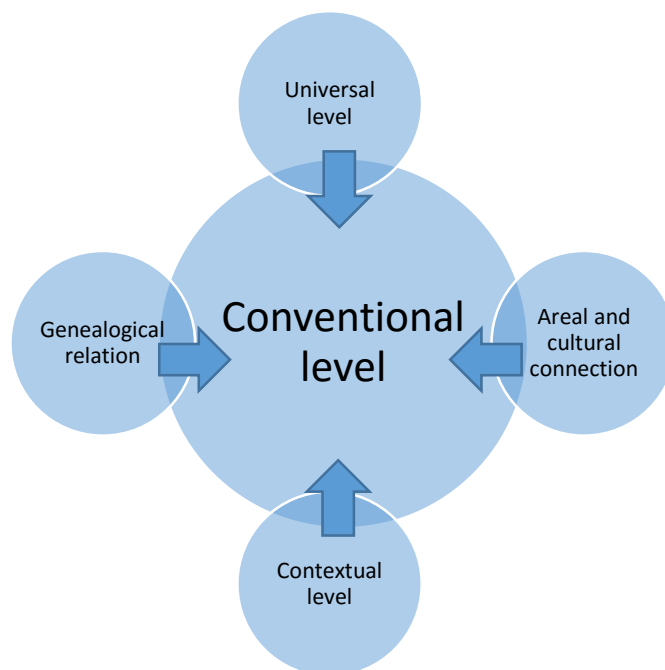


Figure 5. Interaction of different levels and motivations in conventionalizing motion-emotion metaphors

In sum, the results of the study described by this thesis have highlighted the importance of the interaction of different perspectives. Metaphor is not a simple construction on a single level that can be explained solely based on the bodily experience or culture. Instead, many different factors are involved in the process of conventionalizing a metaphorical expression. The present study demonstrated that conventional metaphorical expressions are emerging from the contextual level and that they are motivated by universal, genealogical, cultural and areal factors as they enter the conventional level. In addition, the study supported the claim that “the metaphor cannot be conceived as content of thought independent from the primordial linguistic structuring of experience” (Faur, 2009: 129).

5.5 Limitations and outlook

The study has indicated that it is immensely difficult to capture a full list of motion-emotion metaphors in a language. Even the mixed methodology approach, which combines intuition and corpus analysis, does not reassure that an exhaustive list of all MEMs in a certain language could be found. Metaphorical language, as well as language in general is ‘alive’ and to capture all the expressions which combine motion and emotion in a single expression is extremely hard,

if not impossible. This however, does not prevent the study of motion-emotion metaphors in different languages, where with the help of the methodology that was used in this thesis the number of expressions could be limited and analyzed based on the same categorization and selection criteria. In addition, if all the languages under study are studied approximately in the same manner, then the data set can be assumed to include the most common ('core') expression types in all the languages.

Further, the informants of the present study are all either native speakers of Estonian or Finnish. However, all of them speak near-native English as well and live in a largely English-speaking environment. This could mean that the influence of English on the metaphorical expressions might be more difficult to detect. Ideally, the informant would be a native speaker of the language that is investigated and not be (strongly) influenced by other languages.

In addition, since the data was collected from three informants, there is no differentiation between the potential regional variants in the language. This, however, would be an interesting future study object, i.e. whether the motion-emotion metaphors vary within a language (e.g. within Estonian or Finnish), and whether the dialectal differences have an influence on motion-emotion metaphors in a certain language.

Another future research prospect would be to include more languages in the study, especially to compare motion-emotion metaphors in other genealogically related languages to further investigate the finding in the present study that genealogical closeness between languages is an important factor contributing to the presence of conventional metaphorical expressions in a given language. Moreover, it would be important to compare the main study object of this thesis, Estonian, to languages such as German and Russian to explore possible cultural transfer. The biggest group of loan words in Estonian comes from German (Low German and High German) due to historical reasons. Whether such transmission could have a considerable impact on metaphor formation would be an important study topic for the future.

CHAPTER 6. CONCLUSIONS

The present thesis investigated metaphors based on expressions that denote both motion situations and emotions, i.e. motion-emotion metaphors in Estonian, Finnish, English and Swedish. It was argued that different theories of metaphor in cognitive linguistics should be seen as complementary instead of being opposed to one another. Through a cross-linguistic comparison it was studied which factors contribute to the process of conventionalization of metaphors.

The study indicated that several different factors play a role in the presence of conventional metaphorical expression in a given language. It also demonstrated that the universal level and the pan-human bodily motivations are among the factors that participate in the process of conventionalizing a metaphor that initially emerges from the contextual level of actual discourse. There was a considerable amount of metaphors that were shared between all four languages and were, therefore, considered universally motivated. However, the universal motivations do not have to be explained as cross-domain mappings, where the “source” and “target” domain are clearly separated. Instead, the link between bodily experience and emotion is often more direct than as usually described by conceptual metaphor theory. Motion-emotion metaphors were rather analyzed as non-actual motion expressions, sedimented upon motivational experiences that cannot always be fully traced back.

Another important factor for metaphor overlap that the study supported was the genealogical connection between languages. Namely, the languages that were genealogically related shared the highest number of motion-emotion metaphors. The connection was the strongest between Estonian and Finnish. The connection between English and Swedish was somewhat weaker, however, still stronger than between genealogically unrelated languages. This difference indicated the presence of another factor, the areal closeness (and cultural closeness), which possibly made Estonian and Finnish less of a subject to other influences compared to English and Swedish.

The study found some unexpected results when it compared motion-emotion metaphors in Finnish and Swedish. The two languages shared considerably fewer metaphors than any other languages in the sample. The finding contradicts the hypothesis that due to areal closeness and extensive cultural exchange there would be a significant number of motion-emotion metaphors shared between Finnish and Swedish. Instead, Swedish was shown to have more overlapping

metaphors with Estonian, and Finnish had a stronger connection with English than with Swedish. English as an international language of communication seemed to have an effect on all the languages studied.

The thesis also showed the existence of language-specific metaphors that are dependent on the context in all four languages/cultures. These motion-emotion metaphors require knowledge of the specific language and/or culture in order to understand the relevant discourse dependent meaning. These expressions involve an extension of the meaning of the motion verb to describe an affective state in a manner which requires some extra contextual information to grasp the metaphorical meaning of the expression. However, it is noteworthy that only a considerably small number of all the expressions studied in the four languages were specific to a certain language and that the majority of the metaphors were shared by two or more languages.

These findings are in line with Zlatev et al.'s (2012) research which indicates that on the "historical" level of conventionalized metaphorical expressions the similarity between languages and cultures determines the amount of overlapping metaphors, i.e. the more similar the languages and cultures are, the more metaphors overlap and the further apart they are, the number of overlapping metaphors decreases. In addition, the study revealed that the genealogical closeness between the languages is an important factor that contributes to the conventionalization process of metaphorical expressions, next to bodily motivations, contextual influences and the proximity of languages and cultures.

For future research it would be important to continue studying motion-emotion metaphors in more related and unrelated languages to determine the extent of different factors and possibly detect other factors that contribute to the conventionalization process of metaphors.

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APPENDIX I. Estonian motion-emotion metaphors. The MEMs are classified according to motion situation typology

Uncaused motion		
	Self is figure	Part of self is figure
+translocative/ +bound	<ol style="list-style-type: none"> 1. <i>Ma langen</i> sügavasse masendusse. (F falls into LM) <i>I fall into deep depression.</i> 2. Kui oleme loomult depressiivsed, kaldume uppuma süütundes ja enesepõlgusesse. (F drowns into LM) <i>If we are depressive in nature, we tend to drown into guilt and self-despise.</i> 3. <i>Nad vajuvad</i> sügavasse depressiooni. (F sinks into LM) <i>They sink into deep depression.</i> 4. <i>Ta laskub</i> meeleheitesse. (F descends into LM) <i>He descends into despair.</i> 	<ol style="list-style-type: none"> 5. Ühes ära kadus minu süda ka. (FP disappears) <i>With my heart disappeared as well.</i> 6. Süda hüppab kurku. (FP jumps to LM) <i>Heart jumps to the throat.</i> 7. Süda kukub saapa sääarde (FP drops into LM) <i>Heart drops into the boot split.</i> 8. Richard tundis, et tema süda rinnust välja hüppab. (FP jumps out) <i>Richard felt that his heart jumps out from the chest.</i>
+translocative/ -bound		<ol style="list-style-type: none"> 9. Mu tuju tõusis. (FP rises) <i>My mood rose.</i> 10. Süda uppus sinu silmades, palus luba jääda igavikuni. (FP sinks) <i>My heart sunk in your eyes, asked a permission to stay forever.</i>
-translocative/ +bound	<ol style="list-style-type: none"> 11. Kuidas avakosmoses käinud astronaut armusuhete pinge all murdus. (F breaks) <i>How the astronaut who had been in space broke under the pressure of relationships.</i> 12. Ma varisesin vaimselt kokku. (F collapses) <i>I collapsed mentally.</i> 13. Ma lausa plahvatasin. (F explodes) <i>I exploded.</i> 14. Ma lendan kohe õhku, sest ei tea, mida teha. (F blows up) <i>I will blow up right away because I do not know what to do.</i> 15. Ma puhnen kildudeks. (FP shatters) <i>I shatter.</i> 	<ol style="list-style-type: none"> 16. Mu süda murdus. (FP breaks) <i>My heart broke.</i> 17. Ütleme teistele, et meil on kõik hästi, aga samas tunneme, et sees variseb kõik kokku. (FP collapses) <i>We tell to others that we are okay but feel at the same time that everything inside collapses.</i> 18. Süda lõhkeb rinnus. (FP bursts) <i>Heart bursts in the chest.</i>

-translocative/ -bound	<p>19. Aga <i>tal</i> jäi üle vaid uhkusest paisuda. (F swells) <i>All she had left to do was to swell from pride.</i></p> <p>20. Kuuendal päeval <i>ma</i> küll õnnes ei hõlju. (F hovers) <i>On the sixth day I am not hovering in happiness.</i></p> <p>21. Naine rabeleb kahtlustes. (F flounders) <i>The woman flounders in doubts.</i></p>	<p>22. Mu süda hüppab sees. (FP jumps) <i>My heart jumps inside.</i></p> <p>23. Süda tantsib rõõmust. (FP dances) <i>Heart dances from happiness.</i></p> <p>24. Süda väreleb sees. (FP shivers) <i>Heart shivers inside.</i></p> <p>25. Minu meeleolu kõigub. (FP fluctuates) <i>My mood fluctuates.</i></p> <p>26. Süda paisus uhkusest (FP swells) <i>Heart swelled with pride.</i></p> <p>27. Süda tõmbub murest kokku. (FP shrinks) <i>My heart shrinks from worry.</i></p> <p>28. Süda peksab hirmust, ärevusest. (FP beats). <i>Heart beats/kicks from anxiety.</i></p> <p>29. Mu hing ja süda rabelevad viimasel piiril. (FP flounders) <i>My soul and heart flounder on the edge.</i></p> <p>30. Põues tuiskavad tunded lasknud tal uinuda. (FP whirls) <i>Feelings that whirl inside would not let her fall asleep.</i></p>
Caused motion		
	Self is figure	Part of self is figure
+translocative/ +bound	<p>31. Ma olin pisarateni liigutatud. (A moves F to LM) <i>I was moved to tears.</i></p> <p>32. Selles raamatus juhatatakse sind inimliku õnne juurde. (A leads F to LM) <i>You are lead to humane happiness in this book.</i></p> <p>33. Tee, mis viib meid õnneni. (A takes F to LM) <i>A road which takes us to happiness</i></p>	<p>34. Anna, mu poeg, oma süda mulle. (A gives FP to LM) <i>Give, my son, your heart to me.</i></p>
+translocative/ -bound	<p>35. Hea etendus tõmbab publikut ligi. (A attracts F) <i>A good show attracts the crowd.</i></p> <p>36. Tema oli küll lausa ohtlikult ligitõmbav. (A attracts F) <i>S/he was dangerously attracting.</i></p> <p>37. Tema välimus on eemaletõukav. (A repels F)</p>	<p>40. Ma surusin oma tunded alla. (A presses FP down) <i>I pressed down my feelings.</i></p> <p>41. Allasurutud tunded on nagu tammi taha suletud seisev vesi. <i>Down pressed feelings are like water that is closed behind the dam.</i></p>

	<p><i>His looks are repelling.</i></p> <p>38. Ta tõukab mind igat moodi eemale. (A repels F) <i>S/he pushes me away every possible way.</i></p> <p>39. Ühe ja sama raskuse all võib üks maani painduda, teine aga murdub. (A bends F) <i>Under the same weight (pressure) one can bend to the ground but the other breaks.</i></p>	<p>42. Kõik varasemad negatiivsed <i>tunded</i> olid justkui minema pühitud. (A swipes away FP) <i>All the previous negative feelings were as if swept away.</i></p> <p>43. Ta tõstab meie <i>tuju</i>. (A lifts FP) <i>He lifts our mood.</i></p>
-translocative/ +bound	<p>44. Ta purustas mu kalestunult. (A shatters F) <i>S/he shattered me without hesitation.</i></p> <p>45. Ma olen jalust löödud. (A knocks F off feet) <i>I am knocked off my feet.</i></p> <p>46. Tudeng oli eksamil läbikukkumisest väga löödud. (F is beaten) <i>The student was beaten by failure in the exam.</i></p> <p>47. See rebib sind pidevalt tükkideks. (A tears F into pieces) <i>It tears you repeatedly into pieces.</i></p> <p>48. Kui kuulsin, et ta ootab last, pidin õnnest ja uhkusest lõhkema. (A bursts F) <i>When I heard that she is expecting I had to burst from happiness and pride.</i></p> <p>49. Mind võib panna vihast plahvatama mõte sellele, et ... (A explodes F) <i>The thought of ... can make me explode from anger.</i></p>	<p>50. Ava oma süda uuesti armastusele. (A opens FP) <i>Open your heart to love again.</i></p> <p>51. Iga pettumus avab silmad, kuid sulgeb südame. (A closes FP) <i>Every disappointment opens eyes but closes the heart.</i></p> <p>52. Vabasta oma süda vihast. (A releases FP) <i>Release your heart from anger.</i></p> <p>53. Te murdisite mu südame. (A breaks FP) <i>You broke my heart.</i></p> <p>54. Tema südame on hõivanud uus armastus. (A captures FP) <i>New love has captured her heart.</i></p> <p>55. Lähedase vaimuhaigus rebis emal südame pooleks. (A tears FP apart) <i>Relative's mental disease tore mother's heart to half.</i></p> <p>56. Oled mu hinge, südame igaveseks purustanud. (A shatters FP) <i>You have crushed my soul, heart for forever.</i></p> <p>57. Mu sees pillutakse kõik laiali. (A scatters FP) <i>Everything in me scatters.</i></p>
-translocative/ -bound	<p>58. Õe haigus rõhub mind. (A oppresses F) <i>My sister's disease oppresses me.</i></p> <p>59. Eriti liigutas mind inimeste intelligentsus ja tundlikkus. (A moves F) <i>I was especially moved by people's intelligence and sensitivity.</i></p> <p>60. Lugejaid raputasid kurvad uudised. (A shakes F) <i>Readers were shaken by the sad news.</i></p>	<p>67. Ta lõnad liigutasid mu südant. (A moves FP) <i>His words moved my heart.</i></p> <p>68. Ta oli meelt heitmas, isa oli haige ja ema suremas. (A casts FP) <i>S/he was about to cast mind, father was sick and mother was dying.</i></p> <p>69. Tema meeli kihutavad üles tavainimestele arusaamatud detailid. (A speedup FP) <i>Details that are incomprehensible for ordinary persons speed up his mind.</i></p>

	<p>61. Midagi võõra käitumises segas <i>mind</i>. (A stirs F) <i>Something in the stranger's behavior stirred me.</i></p> <p>62. Muusika, mis lõdvestab teid. (A relaxes F) <i>Music that relaxes you.</i></p> <p>63. Muusika rahustab <i>mind</i>. (A calms F) <i>Music calms me.</i></p> <p>64. <i>Mind</i> ei kõigutanud jutud tema ootamatust õnnest. (A wavers F) <i>The stories of his sudden happiness did not waver me.</i></p> <p>65. Paistab, et tüdruk <i>teda</i> natuke ikka loksutab. (A slops F) <i>It seems that the girl still slops him a little bit.</i></p> <p>66. Mis ma teada sain, põrutas <i>mind</i> väga. (A jolts F) <i>What I became to know jolted me a lot.</i></p>	
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APPENDIX II. Finnish motion-emotion metaphors. The MEMs are classified according to motion situation typology

Uncaused motion		
	Self is figure	Part of self is figure
+translocative/ +bound	<ol style="list-style-type: none"> 1. Nuori voi vaipua masennukseen. (F falls into LM) <i>Young can fall into depression.</i> 2. Vajosin kamalaan ja syvänlaiseen tuskaiseen masennukseen. (F sinks into LM) <i>I sunk into a terrible and deep form of agonizing depression.</i> 	<ol style="list-style-type: none"> 3. Sydän hyppäsi kurkkuun. (FP jumps to LM) <i>Heart jumps to the throat.</i>
+translocative/ -bound		<ol style="list-style-type: none"> 4. Mielialani kohosi entisestään. (FP soars) <i>My spirits soared even further.</i> 5. Hänen mielialansa nousee. (FP rises) <i>Her mood is rising.</i>
-translocative/ +bound	<ol style="list-style-type: none"> 6. Jotenkin tunnen myös oudolla tavalla syyllisyyttä siitä, että reagoin niin voimakkaasti ja tuntuu, että hajosin ihan täysin. (F breaks down) <i>Somehow I also feel guilty about reacting so strongly, and it feels like I broke down completely.</i> 7. Silloin hajosin ja menin pirstaleiksi. (F shatters) <i>Then I broke down and shattered.</i> 8. Vaikka hänen onnistui sanoa se vakaalla äänellä, syvällä sisimmässään hän luhistui. (F collapses) <i>Even though she managed to say it out loud, deep inside she collapsed.</i> 9. Romahdin erossa täysin. (F collapses) <i>I collapsed completely in breakup.</i> 10. Räjähdän ja murisen kuin vihainen koira. (F explodes) <i>I am going to explode and growl like an angry dog.</i> 11. Kasvattaja meinaa haljeta ylpeydestä ja onnesta. (F bursts)/ <i>The breeder is about to burst with pride and happiness.</i> 	<ol style="list-style-type: none"> 12. Sydämeni murtuu. (FP breaks) <i>Heart breaks.</i> 13. Sydämeni halkeaa surusta. (FP bursts) <i>Heart bursts with sorrow.</i>

-translocative/ -bound	<p>14. Kiinalaisten rintakehä paisui ylpeydestä. (F swells) <i>The chest of the Chinese swelled up with pride.</i></p> <p>15. Kysytään vaikka <i>Avalta</i>, jonka pitäisi leijua onnesta mentyään naimisiin unelmiensa miehen. (F hovers) <i>Let's ask Ava, who should be hovering of happiness after getting married to the man of her dreams.</i></p> <p>16. Välttämättä ei kannata rypeä itsesälissä. (F wallows) <i>It is not necessarily wise to wallow in self-pity.</i></p> <p>17. En pääse irti hänestä. (F disconnects) <i>I cannot disconnect from him.</i></p>	<p>18. Silloin purjehtijan <i>sydän</i> läpättää kuin rakkaudesta. (FP flutters) <i>The sailor's heart flutters from love.</i></p> <p>19. <i>Mieli</i> horjuu. (FP wavers) <i>Mind wavers, teeters.</i></p> <p>20. Minun <i>sydämeni</i> vapisee minussa. (FP trembles) <i>My heart trembles inside.</i></p> <p>21. <i>Sydämeni</i> paisuu ylpeydestä. (FP swells) <i>Heart swells with pride.</i></p> <p>22. <i>Sydämeni</i> hyppelee ilosta. (FP jumps – continuous) <i>My heart jumps with joy.</i></p> <p>23. <i>Sydän</i> lyö rakkaudesta. (FP beats) <i>Heart beats from love.</i></p>
Caused motion		
	Self is figure	Part of self is figure
+translocative/ +bound	<p>24. Veteraanien koskettava esitys liikutti Sauli Niinistön kyyneliin. (A moves F to LM) <i>The veterans' touching song moved Sauli Niinistö in tears.</i></p> <p>25. Tämä johtaa vääjäämättä onneen. (A leads F to LM) <i>This leads unavoidably to happiness.</i></p> <p>26. Heikkouteni rakkauteen, vie nyt minut hulluutee. (A takes F to LM) <i>My weakness to love takes me to a craze.</i></p>	<p>27. Paatunut rikollinen, joka odottaa, että annan sydämeni hänen runneltavakseen. (A gives FP to LM) <i>Impenitent criminal who awaits that I give my heart to him to tear apart.</i></p>
+translocative/ -bound	<p>28. Hän on älykäs, rikas ja seksikäs, joten ymmärrän miksi hän viehättää. (A attracts F) <i>He is intelligent, rich and sexy, so I understand why he attracts you.</i></p>	<p>29. Se kohotti mieltäni pitkäksi aikaa. Siis ei mitään järkeä, tunnetta vain. (A lifts up FP) <i>It lifted my mood for a long time. Not my senses, just the emotions.</i></p> <p>30. Pramea ja aidosti mieltäkohottava elokuva, jopa kaikesta surumielisyydestään huolimatta. (A uplifts FP) <i>Flamboyant and genuinely uplifting movie, even despite all the melancholy.</i></p>

		<p>31. Kaikki <i>tunteeni</i> olivat kuin poispyyhkäistyt. <i>All feelings were as if swept away.</i></p>
-translocative/ +bound	<p>32. Menimme ovista sisään ja uskomattoman ihana tuoksu suorastaan tyrmäsi minut. (A knocks F out) <i>We went through the doors inside and an unbelievably lovely smell knocked me down.</i></p> <p>33. Suru repii minut kappaleiksi. (A tears F apart) <i>Grief tears me into pieces.</i></p> <p>34. Pienen pojan kuolema musersi Tapio Rautavaaran. (A crushes F) <i>Little boy's death crushed Tapio Rautavaara.</i></p> <p>35. Heittäydyin vain täysillä mukaan. (A throws F in) <i>I just threw myself in fully.</i></p> <p>36. <i>Tunsin</i> itseni niin turhaksi, lyödeksi ja epäonnistuseeksi. (F is beaten) <i>I felt so useless, beaten and as a failure.</i></p>	<p>37. Avaan <i>sydämeni</i> rakkaudelle. (A opens FP) <i>I am opening my heart to love.</i></p> <p>38. Suljen <i>sydämeni</i>, suljen sen kaikelta. (A closes FP) <i>I close my heart I close it from everything.</i></p> <p>39. Vapauta <i>sydämesi</i> vihasta, mielesi huolista. (A releases FP) <i>Release your heart from anger, your mind from worries.</i></p> <p>40. Hän särki <i>sydämeni</i>. (A breaks FP) <i>He broke my heart.</i></p> <p>41. Tämä naisjärjestö yksinkertaisesti kaappasi <i>sydämeni</i> jo rippikouluikäisenä. (A captures FP) <i>This female organization simply captured my heart already as a teen.</i></p> <p>42. Mutta nykyinen vaikuttamisen halu musertaa <i>mieleni</i> haikeudesta. (A crushes FP) <i>But the current desire to influence crushes my mind with longing.</i></p>
-translocative/ -bound	<p>43. <i>Mua</i> on painanut se. (A presses F) <i>It has pressed me.</i></p> <p>44. Olosuhteet pakottavat <i>minua</i>. (A forces F) <i>I am forced by the circumstances.</i></p> <p>45. Elastinen Vain Elämää – kuvauksista: Liikutuin todella isosti. (A moves F) <i>Elastinen about Vain Elämää shootings (video recordings): I was moved big time.</i></p> <p>46. <i>Meinasin</i> revetä ilosta (A rips F) <i>I was about to crack with joy.</i></p> <p>47. Järkytyin iskusta, mutta en hämmästynyt ollenkaan. (A shakes F) <i>I was shaken by the blow, but I wasn't surprised at all.</i></p> <p>48. Suru sekoitti minut. (A stirs F) <i>Grief stirred me.</i></p>	<p>53. ...tai katsoessani ympärilläni tapahtuvaa tuhoutumista, joka repii <i>sydäntäni</i> (A rips FP) <i>... or when I have looked at the destruction happening around me that tears my heart.</i></p> <p>54. Muuan viesteistä liikutti <i>sydäntäni</i>. (A moves FP) <i>One of the messages moved my heart.</i></p>

	<p>49. Michael Jacksonin kuolema sai minut todella kiihytyneeksi. (A agitates F) <i>Michael Jackson's death got me very agitated.</i></p> <p>50. Musiikki lohduttaa, rentouttaa ja antaa voimia. (A relaxes F) <i>Music comforts, relaxes and gives comfort.</i></p> <p>51. Klassinen musiikki rauhottaa minua. (A calms F) <i>Classical music calmed me.</i></p> <p>52. Hänen päätöksensä ei heilauttanut. (A wavers F) <i>His decision did not waver me.</i></p>	
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APPENDIX III. English motion-emotion metaphors. The MEMs are classified according to motion situation typology. Adopted from Jacobsson (2015)

Uncaused motion		
	Self is figure	Part of self is figure
+translocative/ +bound	<ol style="list-style-type: none"> 1. I fell into a state of depression. 2. He plunged into despair. 3. Knowing what to do when you are depressed can mean the difference between slipping into a serious depression or turning things around early. 4. But suddenly today I sunk into a horrible and deep form of painful depression. 5. Beautiful women of today will hold back from turning their beauty and charm on full to keep unwanted males from falling under their charm. 	<ol style="list-style-type: none"> 6. And with her <i>my heart</i> had disappeared.
+translocative/ -bound		<ol style="list-style-type: none"> 7. <i>My spirit</i> soared. 8. <i>Her mood</i> is rising. 9. <i>My heart</i> just sank. 10. I have a creeping feeling that this is not going to work. 11. <i>My heart</i> dropped.
-translocative/ +bound	<ol style="list-style-type: none"> 12. I broke down under the pressure. 13. She collapsed and started crying. 14. He exploded and started swearing. 	<ol style="list-style-type: none"> 15. <i>My heart</i> broke. 16. Everything <i>in me</i> collapsed. 17. I didn't really never wanna see you again and <i>my heart</i> caves in when I look at you.
-translocative/ -bound	<ol style="list-style-type: none"> 18. He swelled with pride. 	<ol style="list-style-type: none"> 19. The sound of his voice in the hall made <i>her heart</i> flutter. 20. <i>My heart</i> shivers with the memories of you. 21. <i>My heart</i> shrunk with horror.

Caused motion		
	Self is figure	Part of self is figure
+translocative/ +bound	<p>22. He moved me to tears.</p> <p>23. She drove me to despair.</p> <p>24. He brought me to a craze.</p> <p>25. Her story: Losing my mother led me to happiness.</p>	<p>26. Give your heart to love.</p>
+translocative/ -bound	<p>27. I was downcast by the whole situation.</p> <p>28. I was pulled by her smile.</p> <p>29. She was attracted by the sound of his voice.</p> <p>30. His expression repelled me.</p> <p>31. I felt uplifted by what he said.</p> <p>32. I got carried away by your enthusiasm.</p> <p>33. I'm blown away by her beauty! As for her hair - perfection!</p>	
-translocative/ +bound	<p>34. His bad manners put me off.</p> <p>35. I was thrown off my feet.</p> <p>36. She was upset.</p> <p>37. I was just shattered.</p> <p>38. She knocked me off my feet.</p> <p>39. You knock me out.</p> <p>40. She just floored me.</p> <p>41. The injustice will tear you apart.</p> <p>42. My parents were bursting with pride when I graduated from college.</p> <p>43. Oscar Pistorius has reportedly "exploded with anger"... when asked how he was doing just days.</p>	<p>44. Open your heart to love.</p> <p>45. Close your heart to sadness.</p> <p>46. Release your heart.</p> <p>47. An open letter to the woman who broke my heart.</p> <p>48. You've captured my heart.</p> <p>49. You crushed my spirit.</p>
-translocative/ -bound	<p>50. I was slightly perturbed by the frenetic, obsessive surge of emotionalism that the installation invoked.</p>	

	<p>51. Their threats made <i>me</i> shrink.</p> <p>52. <i>I</i> was pressed by the circumstances.</p> <p>53. <i>I</i> was moved by her story.</p> <p>54. <i>I</i> was shaken by the news.</p> <p>55. It stirred <i>me</i> deeply.</p> <p>56. <i>I</i> was agitated by the film.</p> <p>57. The music relaxed <i>me</i> fully.</p> <p>58. The music calmed <i>me</i>.</p>	
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APPENDIX IV. Swedish motion-emotion metaphors. The MEMs are classified according to motion situation typology. Adopted from Jacobsson (2015)

Uncaused motion		
	Self is figure	Part of self is figure
+translocative/ +bound	1. Begär du verkligen på största allvar att jag ska vara helnöjd med att se <i>honom sjunka ned i</i> depression mer och mer för varje dag som går? (sink down into)	2. Jag gav henne ringen och det kändes som om också hälften av <i>mitt hjärta försvann</i> . (disappear)
+translocative/ -bound		3. <i>Mitt humör steg</i> . (rise) 4. <i>Mitt humör sjönk</i> . (sink) 5. Jag hade en krypande känsla av obehag. ('creeping') 6. Varje gång jag tänker på dig med någon annan känns det som att <i>mitt hjärta faller</i> . (fall)
-translocative/ +bound	7. När allt hängde upp sig flög han i luften. (blow up) 8. <i>Han bröt ihop</i> under begravningen. (collapse) 9. <i>Hon rasar ihop</i> . (break down) 10. Sker inte det jag önskar blir <i>jag</i> till slut vansinnig och exploderar .	11. <i>Mitt hjärta brast</i> . (break)
-translocative/ -bound	12. <i>Hon svävar</i> av lycka. (hover) 13. <i>Han sväller</i> av stolthet. (swells) 14. <i>Maria kopplar av</i> med resor. (disconnect)	15. <i>Hans humör svajar</i> på ett oberäkneligt sätt. (sway) 16. Mitt hjärta gick vilse i natten. (go astray) 17. <i>Hjärtat klappar</i> för kärleken på denna vår jord. (beat) 18. <i>Mitt hjärta växer</i> för att jag älskar er . . . (grow)

Caused motion		
	Self is figure	Part of self is figure
+translocative/ +bound	<p>19. Hennes sätt kan driva mig till vansinne. (drive to)</p> <p>20. <i>Han kastades ner i</i> en djup depression. (throw down into)</p> <p>21. Han rör henne till tårar (move to tears)</p>	<p>22. Anna Henderson var typen som skänkte sitt <i>hjärta till</i> den hon älskade och sådana kvinnor höll sig Cesare på behörigt av stånd ifrån. (give to)</p>
+translocative/ -bound	<p>23. <i>Jag trycktes ner</i> av omständigheterna. (press down).</p> <p>24. Hans röst kan stöta bort <i>vem som helst</i>. (repel)</p> <p>25. Hon hade ett tilldragande sätt. (attracting) Hans utseende är fränstötande. (repelling)</p> <p>26. Hennes röst attraherade mig. (attract)</p>	<p>27. Vi fick lyssna till en upplyftande predikan. ('uplifting')</p> <p>28. För övrigt kan jag säga att alla mina känslor är bortblåsta efter att jag märkt att hon är så dryg och tråkig nu på sistone. (blow away)</p>
-translocative/ +bound	<p>29. Hennes skönhet knockade mig. (knock down)</p> <p>30. Hennes beteende fullständigt golvade <i>honom</i>. (floor)</p> <p>31. <i>Jag slets sönder</i> av tvivel på hennes kärlek. (tear apart)</p> <p>32. <i>...holländaren exploderade</i> av glädje när han gjorde målet. (explode)</p> <p>33. Släpp mig fri från känslan att bli retad. (release)</p> <p>34. Spricker du av glädje när det närmar sig jul?</p>	<p>35. Hon krossade mitt <i>hjärta</i>. (crush)</p> <p>36. Misslyckandet knäckte min <i>självkänsla</i>. (break)</p> <p>37. Så här fångar man mitt <i>hjärta</i>. (capture)</p> <p>38. Hennes röst sliter mitt <i>hjärta</i> i stycken. (tear apart)</p> <p>39. Öppna sina <i>hjärtan</i> för att söka efter och välja kärleken. (open heart)</p> <p>40. Människor har utnyttjat mig under mitt liv och därför har jag stängt mitt <i>hjärta</i> för alla. (close heart)</p>
-translocative/ -bound	<p>41. Jag lugnade mig. (calm)</p> <p>42. <i>Jag</i> var djupt (om)skakad. (shaken)</p> <p>43. Hans handling upprörde mig. (stir)</p> <p>44. Hans sätt rör mig. (move)</p>	<p>47. Jag trodde livet var slut. Hela min <i>självkänsla</i> rubbades och jag fick börja om från noll igen, säger Martin. (dislodge)</p>

	<p>45. Pressar man <i>honom</i> för hårt blir han aggressiv och hotfull. (press)</p> <p>46. <i>Han</i> började veckla under motståndarens argument. (totter)</p>	
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APPENDIX V. Sources for Estonian examples

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