

# *CUTTING AND BREAKING THE EMBODIED SELF*

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## **Abstract**

This paper analyzes the Cutting and Breaking (C&B) events affecting the tangible aspects of the personal domain, that is to say the body and its parts. The study of the embodied Self, as the affected theme of C&B events, provides a unique opportunity to contribute to the understanding of the conceptualization of the personal domain, as well as providing an additional distinction between cut-verbs and break-verbs. First, I propose to re-analyze three arguments of the C&B literature under the light of Talmy's *different levels of synthesis* (2000). I propose that cut-verbs can be distinguished from break-verbs based on the level of synthesis of the affected theme they encode. I support this argument with a corpus-based analysis of a series of syntactic-semantic tests. Second, while English does not have morphosyntactic strategies to make a distinction between alienable and inalienable possessions, I argue that the participation of C&B events affecting the corporeal Self to specific argument structure alternations (causatives – reflexives – possessor raising) shows that the distinction is syntactically encoded in the English language. Third, I analyze a testimony of a FGC/FGM<sup>1</sup> victim and demonstrate the sociocultural relevance of the distinction I propose in this paper.

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<sup>1</sup> Female Genital Cutting/Female Genital Mutilation

## 1. Introduction

### 1.1. The embodied Self

*The Self* is an intimate conceptualization of our human experience, which is both ubiquitous and complex to define. It has been the source of many contributions from a wide variety of disciplines like philosophy, “[t]he themes of parts and wholes and identity [...] are found in almost all philosophical schools” (Sokolowski 2000: 5), the neurosciences and cognitive sciences (*Brain and the Self: Bridging the Gap*, Feinberg 2011), and cognitive linguistics of course (Lakoff 1992, 1996; Lakoff and Johnson 1999; Moser 2007, Ahrens 2008, etc.) to cite just a few. Due its complex, multifaceted, and culturally specific nature (Markus & Kitayama 1991) however, a single definition is rarely agreed upon as Keenan *et al.* (2000: 338) formulate it about their own discipline:

Defining the concept of self and understanding the cortical underpinnings of such a concept is a challenge for scientists. Although the psychological and neuroscientific literatures include countless articles, chapters and books that touch upon such ideas as “self awareness,” “self-consciousness,” and “self-efficacy,” there is no coherent body of knowledge that comprises a cognitive neuroscience of self.

An exhaustive literature review cannot realistically be done here, and I thus suggest to merely focus on a few contributions from cognitive linguistics (CL), which are the most relevant to the focus of this paper. The foundational contributions to the understanding of the Self from a CL perspective were proposed by Lakoff (1992, 1996) and Lakoff and Johnson (1999)<sup>2</sup>. The authors observed that all metaphorical expressions referring to the Self are special cases of a “single general metaphor schema” (1999: 269). Interestingly, Lakoff and Johnson (1999: 269) describe this schema with the prototypical *cutting* and *breaking* verb “split”:

It is not a trivial fact that every metaphor we have for our inner life is a special case of a single general metaphor schema. This schema reveals not only something deep about our

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<sup>2</sup> See also Moser (2007) and Ahrens (2008) for two additional references using Conceptual Metaphor Theory to analyze expressions of the Self.

conceptual systems but also something deep about our inner experience, mainly that we experience ourselves as *split*<sup>3</sup>.

In this paper, I propose to focus on the representation of the *physical* manifestation of the Self as the affected theme of a material separation event. What I refer to as the *embodied Self* should not to be confused with the physiological tangibility of a human body: it is instead its experience and the way we conceptualize our physical manifestation. To better understand how a specific culture and its speakers “makes sense out of this experience”, I propose to analyze it from a CL standpoint and focus on how the embodied Self is captured by specific English constructions. Although the English word body “provides a relatively unproblematic starting point: the physical manifestation of a person” (Gaby 2006: 206), the definition of the corporeal Self, what is to be included in this bounded region and the way it is linguistically encoded, vary across cultures (Brown 1976, Andersen 1978, Chappell and McGregor 1996, Gaby 2006, Majid *et al.* 2006). I here propose to limit the scope of this investigation to the embodied Self encoded in the English language.

As a material entity, the body is subject to undergo a wide range of change-of-state events like cutting and breaking events. As any material affected theme it would be reasonable to predict that the defining characteristics of cutting and breaking verbs – henceforth C&B – identified by the literature are to be observed in the semantic domain of the corporeal Self as well. I analyze the participation of C&B verbs in three constructions: causative, possessor raising – henceforth PR – and reflexive structures. I will show the different profiles these constructions encode and what it says about the way we draw the contours of our Self. The experience of our embodied Self gives way to complex conceptualizations, captured by diversely articulated constructions, and consequently makes C&B of the embodied Self a privileged field of investigation to observe the continuum between semantics and syntax, and the way semantics inputs the grammar of a language.

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<sup>3</sup> my emphasis.

I propose to apprehend the Self as *a bounded region*, a notion Langacker (1990: 67) defines as follows:

A constellation is thus a region because its component stars are interconnected through a cognitive routine effecting their coordination as points in a schematic image. It is a bounded region because only a particular, limited set of stars are incorporated in the figure -- spatial contiguity is incidental, and other stars in the same area of the sky are excluded.

When starrng at the night sky looking for the Orion constellation for instance, we first aim for its easily recognizable three star belt that we connect with imaginary lines. From there we identify its distinctive hourglass-shaped asterism whose seven brightest stars are also conceptually connected with imaginary lines to form its global shape, that is, a *Gestalt*. A combination of Gestalt laws of perception such as figure and ground grouping, continuity, and proximity constitutes a cognitive routine that makes Orion a constellation as we know and perceive it. Perceptual grouping is a phenomenon of perceptual organization that we experience when we “perceive some elements of the visual field as going together more strongly than others” (Wagemans *et al.* 2012: 9). Orion is a bounded region as there is limited set of stars included in the constellation; this limit is drawn both perceptually and conventionally. On the one hand some stars do not abide by Gestalt laws to be grouped with the seven others. For instance Sirius does not abide by the law of proximity to be part of Orion and is therefore excluded from the region. On the other hand, some could in theory be grouped with the seven other stars as they respect Gestalt laws but they are conventionally excluded by the culture that also sets the boundaries of the asterism.

To a certain extent, although the operation is far more complex, conceptualizing one’s Self is similar to spotting a constellation in the night sky. The experience of the Self is a complex Gestalt made of a myriad of entities, which are interconnected through cognitive routines effecting the multi-faceted schematic image we live through. I suggest that the Self can therefore be apprehended as a region in Langacker’s terms. The Self is thus also a *bounded* region as there is a limit to the set of participating entities: there is a point where I start being me and a point where I stop. There are

entities which are clearly included in ‘the region of our Self’ (e.g. my hand) others that are clearly excluded (e.g. someone else’s hand) and some other entities which are at the frontier of where we stop being ourselves and we are not sure if they should be included or not (e.g. material possessions, transient emotions, bodily fluids). Defining one’s identity consists of including some characteristics and excluding others, connecting and disconnecting dots, and this in an attempt to draw clear lines of a silhouette, the Gestalt that characterizes a person as unique and complete. If drawing a clear line around this intimate cognitive domain satisfies the Gestalt laws of closure, completion and continuity and therefore give us a sense of ‘knowing ourselves’, the frontier where we start and stop being ourselves remains blurred. Some entities are not clearly excluded or included in the conceptual personal domain, and it would be more accurate to talk about a *degree* of inclusion (Devyllder 2016). For instance, when I cut my fingernails I still represent myself as being the same person. Contrastively if I become separated from what I consider to be more inalienably attached to my corporeal Self, like my right arm, I would conceptualize myself as having changed somehow. In other words the two ‘versions of myself’ (prior to, and after the amputation) would be considered as different. While this distinction seems obvious it remains to be clearly explained and tested for the less obvious comparisons. I propose to illustrate how the analysis of C&B events of the Self gives an opportunity to measure the degree of conceptual inclusion of certain body parts within the bounded region of the corporeal Self. I argue that these conceptual gradual distinctions are formally captured by English and can be inferred from the participation of C&B events of the Self to the three argument structure alternations mentioned above. Despite the fact that English lacks morphosyntactic incorporation strategies<sup>4</sup> I argue that it nonetheless grammatically encodes some kind of “inalienability” (Chappell & McGregor: 1996).

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<sup>4</sup> see Chappell and McGregor (1996) for languages who do have distinctive morphosyntactic markings of inalienable possessions.

## 1.2. Cutting and Breaking

In the semantic domain of “the separation of material integrity” (Hale and Keyser 1987), Majid et al. (2007), and Majid, Boster, and Bowerman (2008) brought to light several points of convergence in the distinction of C&B events over 28 languages. The authors wanted to know if there were similarities in the categorizing of separation events across these very diverse languages and used several statistical techniques (e.g. multidimensional scaling, correspondence analysis, or clustering) to address the question. Several dimensions emerged from the analysis among which three will be specifically considered throughout this paper. A first cross-linguistic convergence illustrates that C&B events represent a well-identified group, which is universally distinguished from other semantic domains of the superordinate SEPARATION frame (Majid *et al.* 2008: 237). A second point of convergence revealed and highlighted as the most important dimension by the authors is *the predictability of the point of separation* as a dimension to discriminate sub-events within the semantic domain of C&B. The study shows that across the very typologically and genetically different languages all speakers tend to respectively group together events where the locus of separation is highly, moderately or lowly predictable. For instance the cut-type verbs are characterized by a highly predictable point of separation as in ‘cutting a carrot’ whereas it is more difficult to predict the exact point of rupture in break-verbs as in ‘breaking a stick in two’. Third, Majid, Boster and Bowerman (2008) also notice that within the already distinct lowly predictable locus of separation events, ‘snapping’ and ‘smashing’ sub-events could be further distinguished.

Complementing this broad cross-linguistic experiment Bouveret & Sweetser (2009) and Fuji, Radetzky, and Sweetser (2013) focus on C&B verbs of typologically different languages (English, French, and Japanese). The authors propose that the discriminating dimensions identified by Majid *et al.* (2007) can be studied from a multi-frame analysis framework as they are “aspects of varying *frames* of separation” (Fuji, Radetzky, and Sweetser 2013: 138). They introduce new distinctive parameters of separation verbs like the LOSS OF FUNCTIONALITY. The English *break* primarily encodes a loss of physical

integrity, which often leads to a loss of functionality, but in contrast, the Japanese pair *kowasu/kowareru* is primarily about a loss of functionality. This was evidenced by a pilot experiment where six native Japanese speakers did not even once use the pair to refer to the video clips. In the following analysis we argue that the loss of integrity (which includes a loss of functionality in most cases) is a key parameter to distinguish cut verbs from break verbs in the sense that only some separation verbs prompt us to synthesize the affected theme at a specific level. The authors also propose a further distinction between OVERALL and PARTIAL LOSS OF INTEGRITY, which Fuji, Radetzky, and Sweetser (2013:144) illustrate as follows:

You can tear an entire sheet of paper to bits (OVERALL LOSS OF INTEGRITY), tear off (detach) a scrap of paper from the corner of a sheet (PARTIAL LOSS OF INTEGRITY), or tear the paper slightly at one edge (without detaching anything; PARTIAL LOSS OF INTEGRITY)".

Although quite distinct in some respect, particularly with regards to the singular nature of the Self domain, I argue and develop below that this dimension is connected to the different levels of synthesis to which different categories of separation verbs are keyed to applying. The authors also introduce *intentionality* and *agentivity* as important dimensions to consider in the distinction of C&B events.

Also complementing the Max Planck Institute extensionalist approach, the C&B literature has argued that C&B sub-events could be discriminated on the basis of their participation to certain argument structure alternations as Fillmore (1967) first suggested it: break-type verbs can be causatively alternating whereas cut-type verbs cannot. The alternation consists in including an agent participant (causative) or not (anticausative) to the event as (1-2) (Haspelmath 1993: 90) illustrate it:

- (1) a. the girl broke the stick (causative)  
       b. the stick broke (anticausative)

This alternation is considered to be unavailable for cutting events, which makes it a distinctive characteristic of the C&B sub-event:

- (2) a. the waiter cut the bread (causative)  
 b. \*the bread cuts (anticausative)

However this distinction has been amended. Bohnemeyer (2007: 159) introduced the idea that manner is not specifically encoded in 'cut':

Cut verbs, too, are rather flexible about the action performed and the instrument used (I can *cut* an orange using anything from a knife or axe to a metal string or laser beam, and I can do it by bringing the blade to bear on the fruits or by dropping the fruits onto the blade from sufficient height).

Based on this observation, among other considerations, Levin and Rappaport Hovav (2011) demonstrated that there were a certain porosity in the anticausative alternation distinction by providing examples of anticausative instances of 'cut' (2011:7):

- (3) a. The rope cut on the rock releasing Rod on down the mountain.  
 b. The sheath of the rope had cut on the edge of the overhang and slid down 2 feet.  
 c. The rope cut and the climber landed on his feet, stumbled backward and fell.  
 d. Suddenly, the rope cut and he fell down the well.

According to the authors these anticausative instances have been neglected probably because a majority of cutting events includes a continuously involved agent, which really is what blocks the verb 'cut' to participate in this alternation (Haspelmath 1993, Levin and Rappaport Hovav 1995, Levin and Rappaport Hovav 2011). As illustrated in (3) there are particular cutting events where the agent's continuous involvement is not required and the anticausative construction is therefore permitted. Levin and Rappaport Hovav (2011) go further and conclude that 'cut' does not actually lexicalize any specific information about the manner or the instrument, which instead is inferred from the context or from the *result state*. In this sense authors conclude that 'cut' in its basic form is a *result verb*. Also, Lemmens (2005: 128) explains that *break* is a prototypical ergative verb in the sense that it allows the causative/anticausative alternation as illustrated in (1). Lemmens (1998a, 2005) argues that ergative verbs like

*break* cannot participate in objectless constructions, which is “the ‘Actor-focusing’ counterpart of the [Patient]-focusing middle construction” (1998a: 142) because the object is at the core of the process a verb like *break* encodes.

Another alternation, which allows discriminating C&B sub-events, is the conative alternation. This transitive alternation is defined by Levin (1993:42) as “an ‘attempted action’ without specifying whether the action was actually carried out” whereas Perek and Lemmens (2010) argue against a lexical origin account in English “since the verbal distribution does not tell us much about the semantic contribution of the construction.” Cut-verbs may participate in conative alternation whereas it is not the case for the break-type:

(4) (Levin 1993: 156)

- a. Carol cut the bread
- b. Carol cut at the bread
- c. Carol broke the vase
- d. \*Carol broke at the vase

Guerssel *et al.* (1985) explained that distinction by finding that break-type verbs are *monadic*, meaning they encode a state change event with no reference to a cause, in contrast with *dyadic* cut-type verbs, which “lexicalize causal impact on a theme as the result of contact between the theme and some instrument or body part” (Bohnenmeyer 2007: 157). Bohnemeyer proposes an alternative distinction based on the level of specificity the C&B verbs encode. Cut-type verbs do not encode a specific *state change* of the theme whereas break-type verbs do and cut-type verbs encode specific information about the *cause* of the event whereas break-type verbs do not: “[t]his explains why the latter, but not the former, produce transparently related inchoative forms, while the former, but not the latter, may participate in conative alternations.” (Bohnenmeyer 2007: 172). The author concludes that the hypothesis is not universally verified and that a third category should therefore be included as some languages like

German, Biak, Mandarin and Yukatek display bipolar C&B verbs which are specific both on the state change and on the cause and do not participate in such alternations.

Acknowledging the already elaborated frameworks developed to better understand separation events and their conceptualization across cultures and languages, this paper is a proposal to contribute to the distinction of C&B sub-events in addition to learning more about the language and experience of the Self in its tangible aspect. I suggest to recruit a notion developed by Talmy (2000), which I believe is key to discriminate sub-categories of C&B events at a fine level of granularity and explain the participation of C&B verbs to certain argument structure alternations.

### 1.3. The Gestalt and componential levels of synthesis

To introduce the notion of conceptualizing the same entity from two different cognitive bases (or levels of synthesis in Talmy's words) consider the very common situation of asking for a glass of water (5a-b).

- (5) a. I would like a glass of water please.
- b. I would like about  $8.36 \times 10^{24}$  molecules of water in a tube shaped container opened on one side and composed of approximately 75% silicon dioxide (SiO<sub>2</sub>), sodium oxide (Na<sub>2</sub>O) from sodium carbonate (Na<sub>2</sub>CO<sub>3</sub>), calcium oxide, also called lime (CaO), and several minor additives. Please.<sup>5</sup>

Expressions (5a) and (5b) both refer to the same entity, however they are distinct in that (5a) evokes a holistic conceptualization of 'a glass of water' whereas (5b) evokes a componential conceptualization of that same referent. In other words (5a) evokes a

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<sup>5</sup> (5b) is obviously an artificial example that only expert would use or understand. I intentionally used it to highlight the contrast between the two levels of synthesis at work in both alternatives. "I would like 200 cl of transparent drinkable liquid in a tube-shaped container opened at the top and made of glass" would be a more likely alternative (i.e. non-expert) which would also code for a componential level of synthesis, and would also be very unlikely to be used in contrast to (5a).

*Gestalt* and (5b) evokes a set of interconnected components. (5a) and (5b) refers to the same object in the world but they code for two different *levels of synthesis*. Talmy (2000) introduced the notion by comparing the two following NPs (6a-b).

- (6) a. a set of trees  
 b. a cluster of trees

He explains that the first NP is conceptualized as a whole, or in other words synthesized at a Gestalt level, whereas the second encodes an “unsynthesized multiplexity of independent elements” (2000: 78). He accordingly calls these two levels of conceptualization *the Gestalt level of synthesis* and *the componential level of synthesis*. Talmy says that some grammatical constructions tend to profile one level more than the other and some open- or closed-class forms are “keyed to applying to only one or the other level of synthesis” (Talmy 2000: 78). I argue that this distinction is at work in C&B events of the Self and that it can serve as a tool to distinguish sub-categories at a fine level of granularity. Talmy’s notion of different levels of synthesis is also closely connected to Lakoff’s MULTIPLEX-MASS image schema transformation (1987: 440–444; 1989: 120–123), Ruiz de Mendoza and Peña’s interpretation of the latter (2009), Jackendoff’s (1991:20) *substances vs. aggregates*, Sonesson’s (2013: 537) *configurations vs. Structures*, and even from Langacker’s (2008: 571-572) *summary vs. sequential scanning* to a certain extent. This notion nonetheless varies from Talmy’s in several ways which I am not at liberty to detail here for lack of space and I therefore suggest to conventionally only refer to Talmy’s bi-dimensional synthesizing process<sup>6</sup>.

Following Bohnemeyer (2007), *sensu stricto* cut-verbs only encode generic information about the change of state and according to Levin and Rappaport Hovav (2011) ‘cut’

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<sup>6</sup> For instance the MULTIPLEX schema implies that the multiple entities are *members* of a whole, which considerably differ from *parts* of a whole (see Winston *et al.* 1987). Talmy’s bi-dimensional synthesizing process is not restricted to *members* and is therefore more relevant in the analysis of expressions referring to the human body which is made of uneven *parts*.

essentially is a result verb whose information about manner, instrument or state change may only be inferred from the result, context or shared knowledge but not lexicalized by the verb itself. I believe that these two points allow a first sub-category of C&B events to emerge and to be characterized by its capacity to synthesize the affected theme either at a Gestalt level or at a componential level. Furthermore I am in line with Majid *et al.* (2007) and Majid, Boster and Bowerman (2008) as I argue that *the predictability of the locus of separation* identified by the authors allows to distinguish the results of the separation either as *parts*, or *pieces*. The latter is defined by Cruse (1986) as having arbitrary boundaries in contrast with the former. Within the semantic domain of the corporeal Self the *parts vs. pieces* distinction contributes to understand how break verbs are only keyed to applying to a Gestalt level of synthesis of the theme they affect because this second sub-category of C&B events affects the integrity of the Self as an undifferentiated whole, which by definition cannot be decomposed into parts.

#### 1.4. Research Questions

This paper aims at contributing to a further understanding of two distinct domains of investigation: Cutting & Breaking events and the Self. The first hypothesis tested throughout the paper is that Talmy's notion of different levels synthesis is relevant to a fine grain understanding of C&B sub-events distinctions. The second claim I make is that the participation of some C&B verbs in the PR and reflexive construction alternations capture these distinct levels of synthesis and consequently contribute to a detailed identification of C&B sub-events. Third, I propose that these two first points reaffirm three points developed by the C&B literature: the level of specificity of the state change and of the cause encoded in C&B verbs (Bohnenmeyer 2007); the notion of manner/result complementarity of 'cut' (Levin and Rappaport Hovav 2011); *the predictability of the locus of separation* (Majid *et al.*: 2007 ; Majid, Boster, and Bowerman: 2008). I re-analyze these discriminating dimensions based on Talmy's notion of different levels of synthesis and on the participation of C&B events of the Self to PR and reflexive alternations. Fourth, I argue that these three hypotheses contribute to the understanding of how we conceptualize our corporeal Self in four points: the degree of

inclusion of body parts within the conceptual domain of the embodied Self; the idea that we alternatively apprehend our Self as componential or Gestalt wholes; that certain events we go through as a person are keyed to applying to either level of synthesis, and finally that these complex conceptual mechanisms are captured by language in a syntax-semantics continuum.

### 1.5. Methodology

To test these four hypotheses I based this study on corpora composed of the Corpus of Contemporary American English (COCA), the British National Corpus (BNCweb) and Google. I interrogated the corpus on the participation of C&B verbs in the causative-PR alternation and causative-reflexive alternation. For instance to search for a PR construction of the verb *to cut* in the COCA I entered:

(7) [pp\*] cut\* [ppx\*] [i\*]<sup>7</sup>

Then I manually sorted the results to distinguish instances like “I cut myself on my embroidery scissors” from actual possessor raising examples like “she cut herself on the arms”. Although Google-based corpus linguistics has its pros and cons<sup>8</sup> it appeared to be a complementary third source of data. It proved to be an efficient third source to avoid overlooking instances which were not found in the COCA or in the BNCweb but which are nonetheless available in the English language. Indeed, as cited above, Levin and Rappaport Hovav (2011) reported online examples of anticausative constructions

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<sup>7</sup> COCA simple query syntax: (any personal pronoun) *followed by* (any form of cut) *followed by* (any reflexive pronoun) *followed by* (any preposition)

<sup>8</sup> As an anonymous reviewer rightfully pointed it out, it is difficult to assert that examples extracted from Google come from English native speakers. In this paper however, only examples (12), (18) and (19) were extracted from a Google search. Examples (18) and (19) are extracted from a script of the American TV show “Modern Family”, which was thus assumed to be written by native speakers of English. However there was no information about the speaker’s native tongue in (12).

of the verb *cut* although this structure is nowhere to be found in the COCA and BNCweb.

Once it was verified that some C&B verbs were available or not in these argument structure alternations I analyzed these syntactic constraints from a semantic angle. I used several cognitive linguistic frameworks (Frame Theory, Cognitive Grammar, Image Schemas) to show that the participation in specific argument structure alternations corresponds to certain conceptualizations of our corporeal Self. More specifically I use Talmy's (2000) notion of different levels of synthesis to both verify the dimensions brought to light by the C&B literature and to contribute to the understanding of the Self concept.

Finally I analyze a case study with this composite framework, which clearly illustrates the points I demonstrate throughout this paper. It consists of an interview titled "I have been cut but don't say that I am mutilated", the story of Jay Kamara-Frederick<sup>9</sup>, a British woman who at aged 15 was brought to Sierra Leone to undergo what is commonly known as FGM for *Female Genital Mutilation*. Mrs. Kamara-Frederick, who almost died following this ritual practice, considers the act as a human right violation but is fighting against the stigmatizing effect of calling it FGM which according to her makes victims feel ostracized from society and considered "less of a woman". Instead she would rather have it call "female cutting" or FGC. This testimony is a stunning illustration of how the meaning of words implies a specific conceptualization and of how it actually affects people's lives in the 'real world'. I propose that 'cut' is keyed to applying to both levels of synthesis which means it does not necessarily have to affect the integrity of the person as a whole in contrast with the verb 'mutilate' which

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<sup>9</sup> Ms Frederick has personally authorized me to quote her by her real name. She is an activist and a public figure and so is her name. Moreover, and more importantly perhaps, and contrary to what I have been suggested by an anonymous reviewer, she agreed that anonymizing her name would imply that there is something shameful, or to hide from about what she underwent, and this is precisely what Jay Kamara-Frederick is fighting against.

(similarly to ‘break’) constraints to conceptualize the affected theme as a Gestalt and consequently results in taking away the integrity of the person as a whole. I show that because it imposes two radically different ideas of what a person is (“less of a woman” in one case, “a whole woman” in the other) this *cognitive basis switch* is exactly what Jay Kamara-Frederick is fighting for.

I argue that the phenomenon I propose to bring to light in this paper could be a considerable contribution to a fine-grained categorization of C&B verbs and to a better understanding of the Self. This paper therefore aims to qualitatively define the basis of this phenomenon, which will hopefully serve as a basis for future quantitative corpus-based research.

## **2. Cutting and Breaking the Embodied Self**

### **2.1. The Causative – Possessor Raising / Reflexive alternations**

I argue that English makes a distinction between alienable and inalienable body parts. Here I discuss the semantic tests that allow to pin down the semantic distinction, namely with alternations of causative – possessor raising (henceforth PR) and reflexive construction. PR is canonically defined as a construction where the possessor of an object in a causative structure (e.g. *I kissed her cheek*) is ‘raised’ from the modifier position to the direct object position (*I kissed her on the cheek*) whereas the body part is the object of a locative preposition (see Levin 1993:71-72 on possessor raising in English). The PR construction hence evokes the event as affecting the person as a whole. What I mean by ‘reflexive construction’ is the one described by Kemmer (1993: 43) as the “direct reflexive” which can be simply defined as a construction where the agent and patient are two participants of a predication which both refer to the same entity. English does not have any morphosyntactic incorporation structures that encode the conceptualization of body parts as alienable or inalienable in contrast with Paamese for instance (Crowley 1996). I argue that English nonetheless has a syntactic measure of embodiment, which precisely encodes whether an entity is conceptualized

as alienable or inalienable<sup>10</sup> from one's body. This is evidenced by manipulations with PR and reflexive constructions when comparing (8) and (9) for instance.

- (8) a. I cut my finger  
       b. I cut myself on the finger  
       c. I cut myself
- (9) a. I cut my fingernails  
       b. \*I cut myself on the fingernails  
       c. \*I cut myself
- (10) a. I broke my finger  
       b. \*I broke myself on the finger  
       c. \*I broke myself

Furthermore, it is a way to distinguish C&B sub-events encoded in English verbs at a fine level of granularity: for instance a comparison between (9) and (10) illustrates how the verbs *cut* and *break*, which prototypically represents the two main C&B sub-events can be distinguished based on their participation to the PR and reflexive constructions.

Langacker's notion of profile/active-zone discrepancy sheds an interesting light on these syntactic constructions and the acceptability of their alternations. The author (2009: 48) defines the notion of active zone as follows:

An entity's active zone, with respect to a profiled relationship, is that facet of it which most directly and crucially participates in that relationship. The reason for defining this notion is that the entity that most directly participates in a relationship is often not precisely the same as the one profiled by the nominal expressing its trajector or landmark.

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<sup>10</sup> Cruse (2002: 249) refers to this notion as *detachable vs. integral* parts of a whole.

There is therefore always a certain level of *discrepancy* between the *profile* and the *active zone*, which the author illustrates with the expressions “the cigarette in her mouth was unlit”. We automatically understand that *only a portion* of the cigarette is in her mouth, and that only *part* of her mouth (a segment of the lips) contains the cigarette. The *portion of the cigarette* and the *portion of the mouth* are what the author calls the ‘active zones’. The same phenomenon is at work when one says “I cut myself” to refer to a cut which actually happened on the speaker’s finger: in this case what the expression profiles is the ‘speaker’s embodied Self as a whole’. The active-zone is the implicit ‘finger’. This discrepancy can be reduced by adding a prepositional phrase like “on the finger” as in (8b) or by contextual information (e.g. “I cut myself chopping carrots”). In that latter case, Langacker explains that we fill in the gaps by referring to our shared encyclopedic knowledge (e.g. of cutting carrots) and thus infer what the active-zone probably is (e.g. the hand, or a finger). There is thus a profile/active-zone discrepancy inherent to the PR and reflexive constructions. In all cases of this profile/active-zone discrepancy we instantly understand that when someone says “I cut myself” that the cut does not affect the whole body but only a specific zone of the body (i.e. the active zone). From the standpoint of Langacker’s notion, why is a profile/active-zone discrepancy accepted in the case of a cutting event (8), but not in the case of a breaking event (10)? What blocks us from interpreting “\*I broke myself” in the same way that we instantly interpret “I cut myself”, in other words that only a specific ‘zone’ of the speaker has been ‘broken’? I argue that C&B verbs can be further distinguished with regards to the level of synthesis some verbs impose on the conceptualization of the affected theme. In brief, *cut verbs* allow us to synthesize the affected theme either at a componential level (i.e. a whole made of parts) or at a Gestalt level (i.e. an undifferentiated whole), whereas *break verbs* imposes a conceptualization of the affected theme at a Gestalt level only. A profile/active-zone discrepancy may only be observed in the case of a componentially synthesized theme so that the profiled entity is the *whole* (i.e. the whole body encoded in “myself”) and the active-zone is a *part* (e.g. the body *part* “finger”). There cannot be any profile/active-zone discrepancy between a whole and a part in an expression which prompts to synthesize the affected theme as

an undifferentiated whole, since there is no *parts* to refer to. Furthermore, there cannot be any acceptable profile/active-zone discrepancy between a whole (i.e. the whole body encoded in “myself”) and an entity which is not an *inalienable part* of this whole (e.g. fingernails) which also explains the unavailability of the PR and reflexive construction alternative in (9). In the following sections, I propose to detail how this conceptual process is linguistically encoded in the distribution of C&B verbs to PR and reflexive argument structure alternations.

## 2.2.C&B of (in)alienable body parts

I will first analyze the distinctions between (8) and (9). Considering Guerssel *et al.*'s Lexical Conceptual Structure (LCS) of cut, what varies between (8) and (9) is the nature of *y*: “*cut* LCS: *x* produces CUT on *y*, by sharp edge coming into contact with *y*” (Guerssel et al. 1985:51). I argue that the semantic nature of the affected theme is what constrains the syntactic availability of PR and reflexive constructions in (8) and (9). Certain languages have morphosyntactic strategies to encode the degree of integration of body parts into their wholes like the above-mentioned Paamese language (Crowley 1996: 395-400). In contrast to Paamese, English do not display morphosyntactic strategies marking a distinction between ‘alienable vs. inalienable’ parts. This distinction is defined by Cruse (2002: 248) in the following words:

Parts may be necessary or optional. The necessity in question is not a logical necessity, but a wellformedness condition: a hand with a finger missing is still a hand, but it is not a well-formed hand. In this sense, finger is a necessary (or canonical) part of hand, as is prong of fork. On the other hand, faces may be perfectly well-formed without beards, and doors without handles - here we are dealing with optional (or facultative) parts. Some parts are more tightly integrated into their wholes than others.

I argue that English formally captures this distinction to some extent as the comparison between (8) and (9) illustrates. The participation of a cutting event affecting a body part to certain argument structure alternations determines whether the affected body part is conceptualized as an inalienable/integrated/necessary part or as an alienable/detachable/optional part of its whole. Therefore I propose that what contributes to block the PR and reflexive constructions in (9) and make them available

in (8) is the conceptualized alienable nature of ‘fingernails’ for the former and the conceptualized inalienable nature of the integrated part ‘finger’ for the latter.

It could be argued that the PR is not receivable in (9b) because “on” is not the right preposition to describe a *complete* separation event, as it is the case in cutting one’s nails. This argument is valid, however it does not explain the unavailability of the reflexive construction from where the preposition is absent. Furthermore, if we replace the present cutting-event by another change of state event like ‘paint’ as in (11a-c) which does not evoke a complete separation of the theme, the PR and reflexive constructions remain unavailable. It must also be noted that the spatial information the preposition “on” encodes corresponds to the referred event of “putting paint *on* one’s nails”.

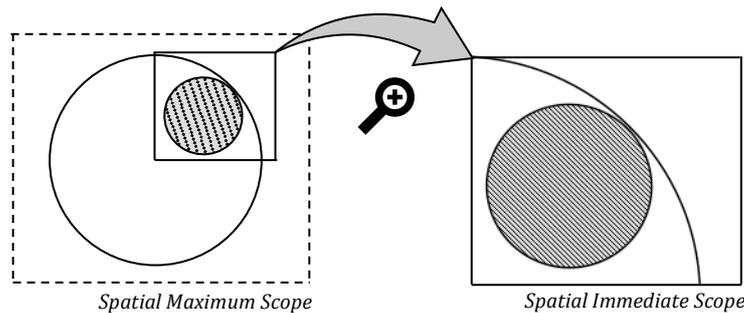
- (11) a. I painted my nails black  
 b. \*I painted myself black on the nails  
 c. \*I painted myself black

If we do the same manipulation with the other canonically considered alienable body part ‘hair’, as in the change of state event “to dye one’s hair”, the causative construction is obviously available (12a), the PR (12b) is not receivable (as could have been predicted) but surprisingly the reflexive construction was rare but nonetheless found in my corpus as in (12c). This distribution seems to indicate there is a gradual hierarchy in the inclusion of alienable parts in the semantic domain of the Self, which would be worthy of further investigations.

- (12) a. I dyed my hair red  
 b. \*I dyed myself red on the hair  
 c. I dyed myself red

When we look at possible schematic representations of these cutting-events the semantic motivation underlying these syntactic constraints appears quite clearly.

Figure 1 to 5 illustrate distinct schematic representations of the cutting events encoded in (8) and (9). The bigger circle represents the conceptual domain of Self and the small hashed circle represents the affected theme of the cutting event which is conceptualized as an integrated part of the Self as a whole in (8) and as a detachable part in (9). The scissors symbol is only meant to stand for a generic cutting-event and does not entail any instrument or cutting manner in particular. (8a), (9b) and (10c) have three different schematic representations. First, *Figure 1* illustrates that the causative construction “I cut my finger” evokes a spatial maximum scope whose lines define the frontiers of the embodied Self as a whole (e.g. the entire body) made of components (e.g. body parts) and an immediate scope of predication which is a zoomed in perimeter of the profiled affected theme (my finger).



*Figure 1. spatial M.S and I.S of ‘my finger’*

*Figure 2* depicts the cutting-event evoked by the causative construction whose temporal scope of predication is set by the temporal information encoded in “cut”. As represented in the figure, the affected theme clearly is “my finger”.

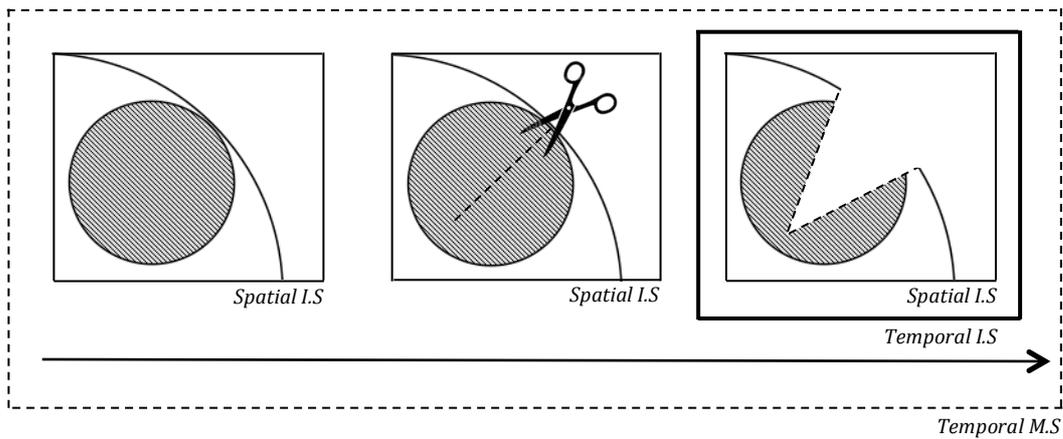


Figure 2. "I cut my finger"

Figure 3 illustrates that the Spatial Immediate Scope of predication encoded by the PR structure differs from the one encoded by the event illustrated in Figure 2. Here, the cutting-event prompts us to look at the scene from a "zoomed out" perspective encoded in the PR construction where "myself" is the new immediate focus of attention. The focus switch between (8a) and (8b) is comparable to the change of focus evoked by the terms 'hypotenuse' and 'right triangle'. The former gives salience to a specific component of a right triangle whereas the latter profiles the geometrical figure as a whole (Langacker 1986). In other words the causative structure in (8a) profiles an event affecting a component of a componential Self whereas (8b) profiles an event affecting the Self as a *Gestalt*, a point I develop in the 2.4.

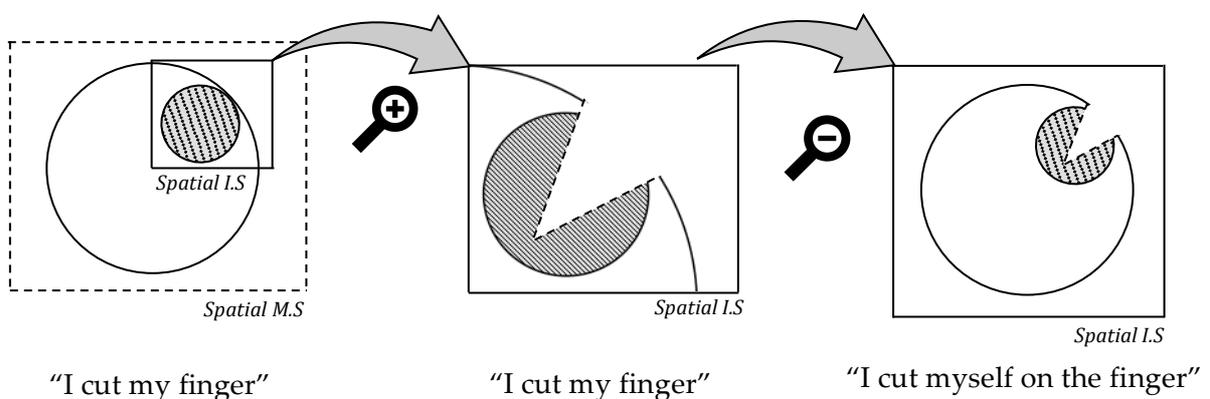


Figure 3. Focus shift from causative to possessor raising

Figure 4 illustrates that the PR construction encodes that the affected theme is “myself” and the cutting-event happened *on* a specific location (vs. *to* a component) of the coherent whole (in the present example the event location happens to be on the finger). This is a rather classic case of mereological transitivity: what affects the part, affects the whole.

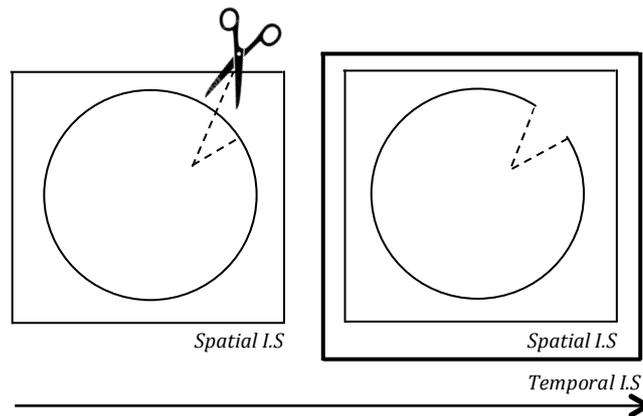


Figure 4. “I cut myself on the finger”

There is no shift in focus to be observed between PR and reflexive constructions as Figure 5 illustrates it. Compared to PR the schematic representation only varies in that the reflexive construction does not encode a specific location within the conceptual domain of Self where the cutting-event took place in contrast with the PR construction. Similarly to PR the profiled affected theme in the reflexive structure is the Self as a coherent whole but unlike PR, the reflexive construction does not encode specific information about the location of the cutting event within the conceptual domain of Self.

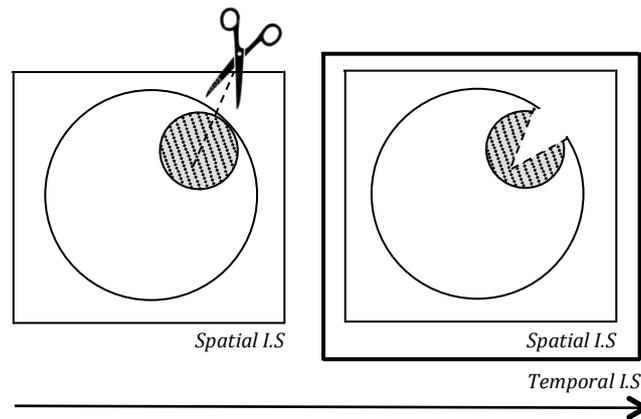


Figure 5. "I cut myself"

Now consider the schematic representation of (9) in Figure 6. I conventionally chose to illustrate the different degree of integration of body parts like 'fingernails' in contrast with 'fingers' by representing the affected theme as connected with the semantic domain of Self but not *integrated* in it as any limb would be for instance. Figure 6 illustrates two main points. First, the cutting event of (9) is not conceptualized as affecting the semantic domain of Self in contrast with the information (8) encodes which, by overlapping, affects both the part (the finger) and the whole (the Self). Second, Figure 6 illustrates that although (9) does not lexicalize it we infer from the sentence 'I cut my fingernails' that the affected theme is a *completely* separated from the finger. This example illustrates manner/result complementarity developed in Levin and Rappaport Hovav (2011) who claim that 'cut' is a result verb with an often inferred prototypical manner.

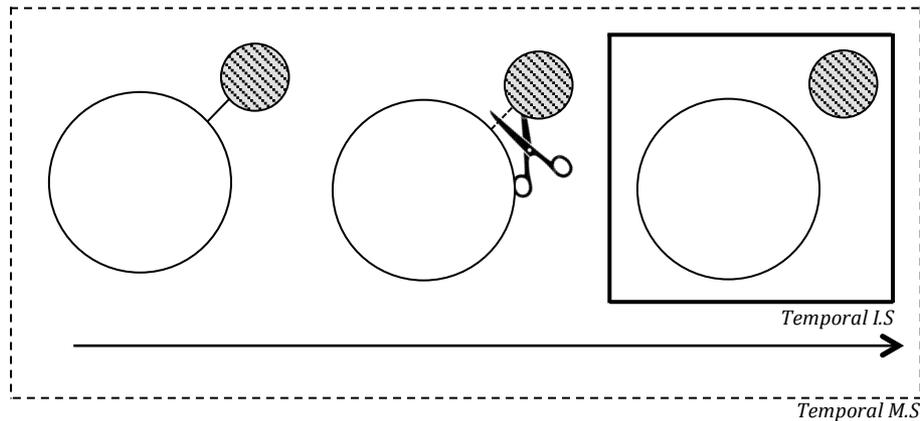


Figure 6. "I cut my fingernails"

Considering these two points, PR and reflexive constructions involving body parts, which are conceptually integrated to the Self cannot be available in a situation where the part is perceived as separable from the whole, without affecting its integrity.

To sum up this point, I argue that the conceptualization of a part as integrated to a whole or as alienable is what constrains the availability of PR and reflexive alternations in the cutting-event affecting the semantic domain of the embodied Self. Although the alienable/inalienable character of the affected theme leads to syntactic constraints, it cannot be held fully responsible for it. In the following sub-section I show how the generic state change information encoded in the verb 'cut' leaves room for interpretation, which consequently allows the PR and reflexive alternations in (8), but blocks it in (9).

### 2.3. Specificity of cause and state change

Cutting verbs only encode generic information about the state-change of the affected theme (Bohnenmeyer 2007). Levin and Rappaport Hovav (2011) go further and argue that *cut* does not actually lexicalize any specific information about the manner or the instrument, which instead is inferred from the context or from the *result state*. In this sense the authors conclude that *cut* in its basic form is a *result verb*. If, as the authors say the verb *cut* encodes only a "cleanly separated" result, it is also true that whether this separation is *partial* or *complete* is not lexicalized by the verb itself but inferred:

situation (8) prototypically evokes a *partial* separation of the theme (i.e. an *incision*) in contrast with (9) which prototypically encodes a *complete* separation. I argue that the generic information 'cut' encodes affects the availability of argument structure alternations hence providing an illustration of the syntax-semantics continuum.

A higher level of specificity of the state change in cut-verbs can be obtained by adding a particle like *off* to the base *cut* which encodes a complete separation of the theme as in (13). A higher level of specificity of the state change in cutting events is also encoded in verbs like *slice* (14) and *chop off* (15). And when such a specific *manner* of the event is encoded (i.e. the complete separation of the affected theme), the PR and reflexive are made unavailable (13b-c), (14b-c) (15b-c).

(13) a. I cut off my finger

b. \*I cut off myself on the finger

c. \*I cut off myself

(14) a. I sliced my finger

b. \*I sliced myself on the finger

c. \* I sliced myself

(15) a. I chopped off my finger

b. \*I chopped off myself on the finger

c. \*I chopped off myself

A higher level of specificity in the state change may also be encoded in verbs like *slash* which encodes a particular manner of cutting (with a violent sweeping movement) and whose more specific results could therefore be inferred (a deep cut for instance); or in verbs like *slit* which encodes more information about the result of the cutting event (a long and narrow cut). The availability of the PR and reflexive constructions in (16-17) shows that it is not the level of specificity encoded in these verbs *per se* which

constraint these constructions but the *complete* or *partial separation* information either lexicalized by the verbs in (13-15) or inferred in (8-9).

- (16) a. I slashed my arm  
       b. I slashed myself on the arm  
       c. I slashed myself
- (17) a. I slit my wrists  
       b. I slit myself on the wrists  
       c. I slit myself

'Fingers' are prototypically conceptualized as inalienable possessions in contrast with 'nails', as we have just seen above. However if an integrated part undergoes a complete separation event as encoded by 'cut off' its status goes from 'integrated part' to '*de facto alienated* part' which consequently affects the availability of PR and reflexive alternations. I argue that this change of status is what disables PR and reflexive constructions in (13-15).

As illustrated in *Figure 7*, when the prototypically inalienable body part 'finger' is completely separated it becomes physically and conceptually forced out of the conceptual domain of Self. It is because the 'cut off finger' is excluded from the semantic domain of Self that the Self as a whole remains unaffected by the cutting event similarly to the unaffected Self of *Figure 6*. Consequently, because the *de facto* alienated body part is not imbued with the identity of its 'former possessor' (the Self as a whole) anymore, the PR and reflexive constructions are made unavailable.

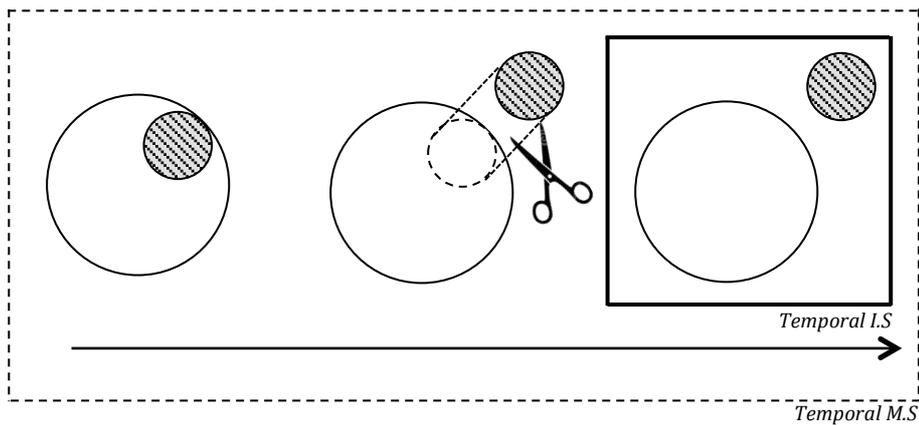


Figure 7. "I cut off my finger"

Although it is rather easy to understand that the integrity of a person remains untouched when that person clips his nails it is more difficult to accept that in the case of a serious amputation like losing one's finger the Self remains unaffected by the event. This apparent contradiction would invalidate the semantic-syntactic continuum between conceptualization of the corporeal Self and the PR/reflexive alternations. What may be misleading here is the vagueness of the terms "affected" and "unaffected": of course the Self is "affected" when one chops his finger off. But the question is what do we mean by "affected"? Even more importantly what do we mean by "Self"? To explain this apparent contradiction I argue that the *cognitive bases* of the Self, to which the above described events are anchored, are of a very different nature from one construction to another.

#### 2.4. Levels of synthesis and cutting events

Levin observed the limited availability of constructions in cut-verbs and suggested that "this limitation may arise because only some of them can take body parts as objects" (1993:157). Based on the above linguistic tests (8-17) and to elaborate on Levin's explanation I suggest that the distribution of English cut-verbs constructions in the semantic domain of Self is also dependent on the conceptualization of the affected theme: the part must be construed as integrated to the whole Self. A prototypically alienable (or *de facto alienated*) body part affected by a complete separation cutting

event blocks the PR and reflexive constructions because the event affecting the theme (the body part) cannot affect the Self as a whole if the theme is not conceptually integrated to the whole.

Talmy (2000) suggests that some grammatical constructions tend to profile different levels of synthesis (Gestalt or componential) and some open- or closed-class forms are “keyed to applying to only one or the other level of synthesis” (Talmy 2000: 78). I suggest that this phenomenon is at work in the cutting events of the Self mentioned above. I argue that the conceptual operation at work in (18) is what Talmy would call *componentializing*. In (18a) the speaker reports that the change of state event has affected his Self as a whole indicating that the speaker’s Self is synthesized at a Gestalt level, or in other words that he conceptualizes himself as an undifferentiated whole. In (18b) there is a switch of the cognitive basis of the Self from a *Gestalt level* to a *componential level*: the speaker profiles a component of his corporeal Self to give it a specific prominence. He changes the argument structure from a reflexive to a causative construction where the profiled affected theme is the body part and not the Self as a whole anymore as in the reflexive construction. He can only do so if the cognitive basis has switched from a ‘Gestalt holistic Self’ to a ‘componential holistic Self’ from where he was able to extract a part and to lexicalize it as “my finger”.

(18) a. [...] “OW! I cut myself on the keyboard!”

b. [...] And as he throws it into the recycle bin I’ll hear him cry: “Ow! I cut my finger on that stupid thing!”

In other words, there is a rather high level of profile/active-zone discrepancy in (18a) which is reduced in (18b). The profiled entity in (18a) is the embodied Self as a whole, and at this point, with no further contextual information, the active-zone of the cutting event could potentially be situated anywhere on the speaker’s body. In (18b), the discrepancy is reduced by referring to the cutting event with a causative (i.e. “I cut my finger”).

The reverse conceptual operation can also take place, for instance in (19). Here the speaker is shifting from a componential Self cognitive basis from where a component (the finger) is lexicalized and profiled (19a) to a Gestalt Self that the cutting event affects as a coherent whole (19b-c). I argue that the cognitive operation at work is what Talmy calls *Gestalt formation*.

- (19) a. [...] Damn it! I cut my finger! Ha, ha, happy Halloween.
- b. No, really -- I cut myself.
- c. [...] I'm actually hurt.

The generic information about the change of state encoded in the verb 'cut' (or only inferred according to Levin and Rappaport Hovav: 2011) permits a certain latitude in the interpretation of the scene, that is to say in the conceptualization of the cognitive basis of the Self as a *Gestalt* or as a *set of interconnected components*. Consequently I suggest that it is this greater flexibility of interpretation that allows a cognitive basis switch between the Gestalt and the componential levels of synthesis. In contrast, when the state change specifically encodes a complete separation as in (13)-(15) the cognitive basis switch is blocked and the PR and reflexive constructions are consequently made unavailable. As illustrated in *Figure 6*, if the part (the finger) is physically and conceptually separated from the Self, the loss of physical continuity between the two participants (the body and the separated body part) entails a breach of continuity of the conceptual Self domain which disables the semantic domain of Self to extend to the amputated body part once it is cut off. As a result, the cutting event perceived as affecting the separated part will not affect the whole as it would be encoded by PR and reflexive constructions. It can be concluded that PR and reflexive constructions of a cutting event are keyed to applying to a Gestalt level of synthesis of the affected theme. I argue that the notion of different levels of synthesis of the Self also contributes to the discrimination of cutting events from breaking events.

## 2.5. Levels of synthesis and breaking events

### 2.5.1. Parts and pieces

In the previous section we saw that the causative, possessor raising (PR), and reflexive constructions were available for what Bohnemeyer (2007: 159) calls the “sensu stricto cut verbs”, that is to say cut verbs which do not encode specific results (e.g. slice, carve, chop off). According to the author the level of specificity of the state change and of the instrument (or its use) is what allow distinguishing the two sub-events in the separation of the material integrity of an object semantic domain across many languages<sup>11</sup>. Similarly to what I observed with cut verbs specifying particular results encoding a complete separation of the affected theme we could predict that break verbs, which also encode specific results, would not allow an alternation with PR or reflexive constructions. This prediction is verified in (20). If the points developed above about the semantic-syntactic continuum are correct they should also explain the unavailability of PR and reflexive constructions in breaking events illustrated in (20) as well.

- (20) a. I broke my finger  
 b. \*I broke myself on the finger  
 c. \*I broke myself

In cut verbs we saw that both the (in)alienable nature of the affected theme and the Self level of synthesis was to be considered to explain certain syntactic constraints. The nature of the affected parts does not appear to affect the distribution of argument structures since the PR and reflexive constructions are not available both for inalienable parts (20) and alienable parts (21).

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<sup>11</sup> but not all, as for instance Mandarin, German, and Biak have bipolar verbs which constitute a third category.

- (21) a. I broke my fingernail
- b. \*I broke myself on the fingernail
- c. \*I broke myself

What however appears to play an important role in discriminating C&B sub-events is the level of synthesis of the affected theme imposed by the nature of the event. Consequently, a distinction can be made with regards to the conceptualization of the results imposed by the events: after a C&B event the affected theme can be conceptualized as *parts* or *pieces*. A finger is a body *part* but when it undergoes a breaking event, but the results of this change of state event are *pieces*. No matter how serious the fracture is, the results of the breaking event in (21-23) are conceptualized as *pieces*, not *parts*.

(22) I broke my arm in two

(23) I crushed my finger

According to Cruse (1986) and Winston et al. (1987: 422):

[...] we can distinguish 'components' from 'pieces' [...] pieces lack a determinate functional relation to their wholes, and, as Cruse notes, have arbitrary boundaries. Pieces of objects are thus distinct from their components, and 'pieces' belong to a different family of meronymic relations that we call the portion-mass relation.

In their taxonomy of part-whole relations what Winston *et al.* call 'the portion-mass relation' corresponds, as the term suggests it, to the partitioning of an uncountable entity, in contrast with what they coined 'the component-integral object relation' which entails the conceptualization of the whole as a set of interconnected components. In the context of C&B events affecting a part of the Self, the PR and reflexive alternations require to conceptualize a mereological transitivity (what affects a part, affects the whole) between the affected part and the whole person. This *sine qua non* transitivity cannot be achieved for separation events of the break sub-type because the results encoded by break verbs are *pieces*. *Pieces* of a whole are anchored to a cognitive basis

which prompts to conceptualize the whole as a *Gestalt*, in contrast with *parts* of a whole which evoke a conceptualization of the whole as a *componential* entity. In (8) the finger is profiled as an inalienable body part and this partonomic status is preserved even after the cutting event. In (8) “my finger” can therefore be elevated to the whole as coded in PR (8b) and stand for the whole in the reflexive (8c). This mereological transitivity cannot be transposed to a state change event affecting a theme, which is not conceptualized as a componential entity but as an undifferentiated whole. Considering that, it is then quite easy to comprehend that when an entity is conceived as an undifferentiated whole, there is no part of that undifferentiated whole to profile since by definition there is no part to begin with. Consequently the PR and reflexive constructions cannot be available. Accordingly, I argue that break verbs are keyed to applying to a Gestalt level of synthesis: the theme is affected as a whole and its integrity is consequently threatened. As Bouveret and Sweetser says: “[t]he event of BREAKing takes away the integrity of this object” (Bouveret and Sweetser 2009: 2). That is to say, the maximum scope of predication in (20) is the finger as a whole entity. This loss of integrity includes a loss of functionality (a broken finger loses his motor functions) as Fuji, Radetzky and Sweetser explain (2013: 139-140) although I argue the primary and salient frame here is *the loss of integrity*. As the authors demonstrate the English verb *break* does not necessarily includes a loss of functionality frame (e.g. *to break a cookie in two*) and conversely *break* may include a loss of functionality but not necessarily a physical damage (e.g. *a broken computer or cell phone*). Moreover I show in the case study of section 3 that the necessity of the distinction of these two frames exceeds the scope of a linguistic debate. The shared knowledge according to which this body part is connected to our whole body is not questioned here but it is neither evoked nor is it relevant in the present scope of predication of a broken finger. The breaking event of a body part is not conceived through its partonomic relation with the whole body: the speaker primarily conceives this event as affecting the entity as a whole and therefore lexicalizes this conceptual process with verbs encoding it (i.e. break verbs). This loss of integrity will most of the time result in a loss of functionality of certain motor functions. Under a breaking event, and in case of broken bones the

physical continuity of the bone is disrupted which makes the results of the events *pieces* according to Cruse's definition cited above. These semantic considerations contribute to explain the syntactic constraints in the unavailability of the PR and reflexive alternations for breaking events: these two constructions, because they synthesize the Self as a Gestalt and transfer the state change of the body part to the whole corporeal Self, would imply that the event threatens the integrity of the person as a whole. And 'threatening the integrity of the person as a whole' means that the person would physically cease to exist, in other words *die*.

### 2.5.2. Predictability of the locus of separation and levels of synthesis

Majid et al. (2007) and Majid and Bowerman (2008) brought to light several points of convergence in the distinction of C&B events over the 28 studied languages of the study. The study shows that across very typologically and genetically different languages all speakers tend to respectively group together events where the locus of separation is highly, moderately or lowly predictable. For instance the cut-type verbs are characterized by a highly predictable point of separation as in "cutting a carrot" whereas it is more difficult to predict the exact point of rupture in break-verbs as in "breaking a stick in two". I argue that this distinction of C&B sub-events is connected with the different levels of synthesizing the theme they affect.

I demonstrated above that breaking events of the corporeal Self are only keyed to synthesize the theme they affect at a Gestalt level which amount saying they affect the integrity of the theme. The event consequently produces *pieces* not *parts*, in contrast with cutting events which are keyed to both componential and Gestalt levels of synthesizing the theme due to the generic information encoded in *cut*. This does not mean that cutting a theme produces *parts* symmetrically to break verbs produce *pieces*. It means that due to the vagueness of state change *sensu stricto* cut verbs encode, the integrity of the body part affected by the event does not have to be impaired and consequently may remain an integrated body *part* if it was originally conceptualized as such as in (8a). Consequently, constructions such as PR and reflexive constructions

(which requires prior conceptualization of the theme as parts of the whole they profile) are available for *sensu stricto* cut verbs, because the cutting event does not affect the integrity of the theme. Conversely, break verbs, which produce *pieces*, do not participate in these argument structure alternations. The breaking event of a theme imposes to conceptualize that theme as a whole whose integrity is damaged by the event. The results of this event are *pieces* and *pieces* cannot be raised to their possessor in a PR construction or stand for their whole in a reflexive alternation. Although I exclusively focus on English and that my conclusions do not extend outside the limits of this language I argue that this argument structure alternation distinction reinforces the cross-linguistic distinctive dimension identified by Majid et al. (2007) and Majid, Boster, and Bowerman (2008) as *the predictability of the locus of separation*. This dimension is semantically verified by the fact that events of the low predictability cluster produce *pieces*. Pieces are defined by Cruse (1986) as distinct from *parts* in that they have arbitrary boundaries. I argue that the boundary arbitrariness of *pieces* is the logical consequence of a category of events, which produce a separation at unpredictable locations. Cruse (2002: 248) also notes that “the things we habitually call parts typically have a distinctive function or they are separated from sister parts by a formal discontinuity of some sort (or both)” (2002: 248). Cut verbs *can* but do not *have to* produce *pieces* whereas break verbs because the locus of the separation they cause are lowly predictable are bound to produce ‘results with arbitrary boundaries’, in other words: *pieces*.

### 2.5.3. Snapping vs. smashing

At a deeper level of taxonomy of C&B sub-events I argue that the participation in the PR and reflexive alternations of C&B verbs correlates with another dimension observed by Majid *et al.* (2008: 242):

Dimension 3 makes a further distinction among the events already distinguished along dimension 1 as low in the predictability of the location of separation: it differentiates between events of ‘snapping’ and ‘smashing’.

The dimension the authors identified between snapping and smashing events seems to correlate with the distinction of participation of the English verbs in PR and reflexive constructions. It appears that the distinction made by the extensionalist approach has a counterpart in argument structure alternation as illustrated by (24) and (25).

- (24) a. I snapped my neck  
       b. \*I snapped myself on the neck  
       c. \*I snapped myself
- (25) a. I smashed my nose  
       b. I smashed myself in the nose  
       c. I smashed myself against the door

At a closer look it may however be argued that the profiled frame of *smash* varies from (25a) to (25b) and (25c) and that it is the reason for the participation in these alternations. The manipulations in (26) and (27) show that both the BREAK frame and the HIT frame encoded by the verb *smash* are profiled in (25a) whereas only the HIT frame is salient in (25b) and (25c).

- (26) a. I broke my nose  
       b. \*I broke myself in the nose  
       c. \*I broke myself
- (27) a. I hit my nose  
       b. I hit myself in the nose  
       c. I hit myself against the door

A more systematic study of “snapping and smashing” events of the corporeal Self would be required for the third dimension identified by Majid et al. to be verified by our Talmyan approach of different levels of synthesis.

The variability of salience in the various frames encoded by verbs needs to be further investigated in order to answer the question “what belongs in the meaning of a verb?” (Levin and Rappaport Hovav 2011) but it already exposes the complexity of factors that requires to be taken into account to identify C&B sub-events at a fine level of granularity.

To sum up, cut verbs can refer to either a Gestalt or componential synthesis of the corporeal Self whereas break verbs may only affect a theme, which is conceptualized as a Gestalt whole. On the one hand the separation events captured by a verb of the cut type in English allows to conceptually switch back and forth from a componential to a Gestalt level of synthesis which is evidenced by the participation of this category of verbs in PR and reflexive alternations. On the other hand the separation events evoked by verbs of the break type does not allow to switch between these two levels of synthesis: this category of separation verbs only prompt to conceptualize the theme they affect as a Gestalt.

In the following section I propose to analyze the testimony of a woman who was affected by a C&B event to illustrate the points I have argued throughout the paper and to show the broader implications of meaning and conceptualization in a socially relevant situation.

### **3. “I have been cut but don’t say that I’m mutilated”: a case-study of C&B of the Embodied Self**

One of the interests of analyzing C&B events mapped onto the conceptual domain of Self is that we are intimately connected to this target domain to the point that it would actually be more proper to say that we *are* the target domain. This singular status gives way to singular observations and phenomena. A situation, which is of particular

interest, is when the tangible Self collides with the intangible Self in the sense that what affects the body affects the idea a person has of herself more or less permanently and importantly. This collision is what I refer to with the term 'Embodied Self'. Here again looking at it through the lens of C&B events reveals some mechanisms both about the way we conceptualize ourselves and about C&B events themselves.

In the present part I propose to analyze extracts from an article about Jay Kamara-Frederick, a British woman who at age 15 was brought to the Sierra Leone where she underwent what is commonly known as FGM (for 'Female Genital Mutilation'). She considers that this tradition is a human right violation but thinks the term 'mutilation' in FGM is stigmatizing for the women who suffered from it and would rather like it to be called 'female cutting', or FGC. Despite the sensitive nature of this subject, it is a very interesting case study for this paper as Jay Kamara-Frederick expresses her feelings and thoughts about a traumatic event, which affected her tangible and intangible Self. To sum up, Mrs. Kamara-Frederick would like the general population to understand that the cutting event she underwent did not affect her integrity as a woman, and accordingly she would like the official term to change in order to accurately encode this consideration. This reinterpretation of conceptualizing herself, and having the strong desire that others consider herself as a person whose integrity has not been affected by this ritualistic cutting event provides a particularly relevant illustration of the points I have developed throughout this study.

The title for the London Evening Standard article is a quote from Mrs. Kamara-Frederick: "I have been cut, but don't say that I'm mutilated. I think FGM is degrading". According to Mrs. Kamara-Frederick the term FGM was coined by a feminist activist in the seventies and not by the medical community. On this matter, Mrs. Kamara-Frederick says that: "I wish I could say to that one woman, 'How dare you?' I would not hold my hand up to say I've been mutilated — I'm not. I'm a woman. I'm a *whole* woman. And using that terminology erodes the perception of what a woman looks like" [emphasis mine].

The British woman argues that calling what she has been through 'Female Genital Mutilation' "strips women of their dignity": "the terminology is aggressive [...] calling it FGM creates a stigma around survivors, who are sometimes made to feel 'less of a woman' ". These few sentences illustrate how language is the symbolic interface human beings use to structure themselves in relation to the world. Specific verbs encode specific events and when events affect the Self, selecting one verb instead of another affects the structure of a person in a specific way, shapes the way she conceptualizes herself, and how she thinks society sees her. Furthermore the commitment of Mrs. Kamara-Frederick to change this terminology indicates that the two change-of-state events captured by the verbs "mutilating" and "cutting" cannot be harmlessly interchanged. The reason she gives, and that I reformulate, is that the word "mutilation" encodes an event which affects the person as a whole whereas "cutting" does not have to because of the generic information and vagueness it encodes. Consequently "female cutting" would avoid stigmatizing the women who suffered from it.

Although everybody in their right state of mind is empathetically and unanimously considering this event as an atrocious act of unspeakable barbarism some woman are victims of (a fact that Mrs. Kamara-Frederick is more than anyone in line with) we are, at the same time, also evoking that these women are "less of a woman". Indeed the West London born woman explains that by putting an emphasis on the mutilation and atrocity these women suffered from we also imply that because they have been denied the natural right of experiencing sexual pleasure they are not 'proper women' anymore. And this is the perverse effect of calling this ritual practice 'Female Genital Mutilation' according to her.

The underlying principles at work in this lexical change proposition have to do with the way certain verbs constraint us to perceive our Self in a specific way. 'Mutilate' similarly to 'break' constrains us to conceptualize the affected theme at a Gestalt level of synthesis. It means that when one says a person is "mutilated" it describes the violation of the *whole undifferentiated* person, a damage of her integrity, which leads to

consider the person as *not complete* anymore (“less of a woman” in Jay’s words). In Mrs. Kamara-Frederick’s words: “it erodes the perception of what a woman looks like”. Similarly to what has been studied above when one says “I’m broken” it cannot mean “I broke my finger”. The verb “to break” simply does not allow to switch from a Gestalt level of synthesis to a componential level of synthesis where the breaking event only affect a part of the whole. In contrast, the verb “to cut” allows to switch back and forth from these levels of synthesis, alternatively profile a part or the whole, and allow PR and reflexive alternations, as demonstrated above. I argue this is precisely what Mrs. Kamara-Frederick is looking for by supporting to adopt the term “female cutting”, or FGC instead of FGM. Indeed, the semantics of the term she proposes allows a greater flexibility in the interpretation of the affected theme in general and specifically for this case it would mean that women who suffered from female cutting did not loose their integrity as a person and were not made “less of a woman”. We can also interpret the distinction defended by the British woman with regards to the OVERALL vs. PARTIAL LOSS OF INTEGRITY dimension identified by Fuji, Radetzky and Sweetser (2013) following the work of Bouveret and Sweetser (2009): according to Mrs Kamara-Frederick the term “mutilate” profiles an overall loss of her integrity as a woman whereas “cut” leaves the possibility of only a partial loss of integrity. Moreover, the necessity of distinguishing the LOSS OF INTEGRITY and LOSS OF FUNCTIONALITY frames as identified by the authors is established by this testimony: if there are any “loss of functionality” involved by this awful tradition (i.e. the ‘functionality’ of experiencing sexual pleasure, although the term is already highly derogatory in this context) it cannot be confused with a loss of integrity of the person who suffered from it. This confusion is precisely what the term FGM leads to according to Mrs Kamara-Frederick. Jay Kamara-Frederick, who almost died from the complication of this “coming-of-age celebration”, concludes with these words: “I have to live this life — and I don’t want to do it as a victim [...] I’m [...] going to embrace life and enjoy sex. I’m not going to be defined by that label”.

This example of a C&B event affecting the Self confirms the points I developed throughout this paper that within the boundaries of the C&B semantic domain there are two sub-categories which are keyed to synthesize the theme they affect in different ways: as a Gestalt, or as a componential entity.

#### 4. Conclusion

To conclude, thanks to the notion of different levels of synthesis, I believe to have contributed to re-affirming the C&B dimensions identified by Bohmeyer (2011) regarding the level of specificity encoded in C&B verbs, the notion of manner/result complementarity developed by Levin and Rappaport Hovav (2011), and the extensionalist dimensions brought to light by Majid et al. (2007), and Majid, Boster, and Bowerman (2008). I proposed that the causative, PR and reflexive construction alternations capture different levels of synthesis of the theme C&B events affect, that these constructions are heavily semantically charged, and that syntactic constraints correlate with semantic constraints thus providing a good illustration of the syntax-semantics interface. Moreover, analyzing the C&B events of the corporeal Self provides an opportunity to show that the conceptualization we have of our own person can be anchored to two very different cognitive bases: we can alternatively apprehend ourselves as a componential entity, a bounded region composed of interconnected entities, or as an undifferentiated whole, the Self as a Gestalt.

Taylor's concluding thoughts (2007: 335) on the C&B cross-linguistic analysis are that the project leads to many other open questions, one of them being about the availability of C&B verbs for metaphorical extension beyond the domain of material separation. Here also I argue that analyzing C&B events affecting the Self constitute a very fertile domain of investigation to learn more about metaphorical extensions of C&B verbs. Indeed I solely focused on the corporeal aspects of the Self in this paper but this intimate and complex entity is for an important part an abstraction made of immaterial stuff. In Devylder (2016) I also focused on the C&B of the *intangible* Self and showed that C&B verbs can behave very differently when metaphorically extended.

Notably, a significant amount of the tested C&B verbs show variations between their material meaning and metaphorical sense in their participation to PR, reflexive and anticausative alternations: for instance the reflexive alternation is unavailable for the literal sense of *to cut off* (e.g. “\*I cut myself off” for “I cut my finger off”) whereas it is widely recruited in its metaphorical extension (e.g. “I cut myself off from my family). In conceptual metaphors what exact frame is being mapped onto another needs to be precisely identified because: “metaphoric mappings may sometimes fail to map aspects of frame structure from the source domain, when they lack a counterpart in the frame of the target domain” (Bouveret & Sweetser 2009: 56). Bouveret & Sweetser (2009) report a point discussed by Sullivan (2007) which well illustrates the importance of identifying what exact frame is being mapped with example of the two pairs (28) and (29).

(28) a. a sunny disposition

b. \*a sunny student.

(29) a. a brilliant student

b. \*a brilliant disposition

When we closely look at the mapping it turns out that it is specifically the light *emission* frame that maps onto intelligence and the *ambient light emission* which maps onto cheerfulness.

It does not seem unreasonable to predict a similar mechanism in the mapping of cutting and breaking semantic domains onto the abstract domain of Self and I propose to explain the syntactic distribution discrepancies observed by clearly identifying what frame is being mapped or not between material and metaphorical C&B events.

It is interesting to note that Lakoff's (1996: 102) and later Lakoff and Johnson's (1999: 269) significant contribution to the subject of the Self is based on a primary observation which illustrates the conceptualization of the Self as a C&B event encoded in the C&B verb *to split*.

Indeed there seems to be a significant amount of C&B verbs and more generally of the SEPARATION super-ordinate schema, which are mapped onto the conceptual domain of Self for various expressive purposes: emotional ("I broke into tears"), physical ("I'm shattered") intellectual ("this question puzzles me"), moral ("a corrupt<sup>12</sup> man"). I share Lakoff and Johnson's (1999: 269) view on the following statement: "This schema reveals not only something deep about our conceptual systems but also something deep about our inner experience" [...].

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<sup>12</sup> From latin *com-*, intensive prefix + *rup-*, past participle stem of *rumpere* "to break"

Finally another correlate of these first generalizations inferred from the C&B of the Self could contribute to the debate of linguistic diversity vs. universals. Similarly to the conceptualization of Orion, I argue that conceptualizing the Self is both the result of sensorimotor experience *and* cultural mediation. If the ramifications of our nervous system enable us to 'feel' our hand and therefore include it in the definition of our Self<sup>13</sup> (De Vignemont et al. 2009; De Vignemont 2011), we also include abstract and symbolic entities, which are not directly accessible by our senses and are rather a result of conceptualizations. Following Blomberg and Zlatev (2014: 412) "it is experience that proposes, but convention that disposes", and the frontiers of the Self are not only drawn by our embodied experience but also by a set of culturally specific conventions and beliefs. The distinctive pattern of Orion has been identified by numerous cultures around the world, the earliest account of which dates back to 38.000 years ago on a prehistoric mammoth ivory carving<sup>14</sup>. Since then, Babylonians, Egyptians, Greeks, Romans, Hungarians, Finns, Chinese, Siberians, Ojibwa and others have given the constellation different meanings and symbolisms. This illustrates the human mind's propensity to fill in the gaps left by the vacuum (here also in the astrophysical sense) that separates the seven stars of the constellation and create meaning. Similarly, depending on the culture an individual is brought in, the frontiers and symbolisms of what it means to be a person vary and so do the cognitive routines connecting the dots of our personal Gestalt. Regarding the physical Self for instance, Alice Gaby says that "in English, the term *body* provides a relatively unproblematic starting point: the physical manifestation of a person" (Gaby 2006: 206). However, she also explains that

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<sup>13</sup> (dysfunctions: rubber hand exp ; mental disorders where the patient wants to get rid of a perceived alien limb)

<sup>14</sup> Rappenglück, Michael (2001). "The Anthropoid in the Sky: Does a 32,000 Years Old Ivory Plate Show the Constellation Orion Combined with a Pregnancy Calendar". *Symbols, Calendars and Orientations: Legacies of Astronomy in Culture*. IX<sup>th</sup> Annual meeting of the European Society for Astronomy in Culture (SEAC). Uppsala Astronomical Observatory. pp. 51–55.

in Kuuk Thaayorre (a Paman language of Cape York Peninsula, Australia) the closest concept to the English term *body* is *pam-minj* (literally 'true man') and it not only includes the physical corpse of a person but also:

[...] includes in its scope many non-corporeal components of a living person (e.g. their tracks, voice, shadow, etc.). Since the terms denoting these non-corporeal human parts appear in morphosyntactic constructions reserved for parts of the body, there is good reason to consider them alongside the more traditional hand, head, leg, etc. (Gaby 2006: 201-221).

The Western and Thaayorre bounded region of the Self apparently have different frontiers and if the bounded region of the Self include or exclude certain entities from one culture to another so do the cognitive routines that connect its entities. For instance, the relation between what the Western thought has segmented into *the body* and *the mind* is of a very different nature from the Chinese holistic conceptualization of the Self (see Markus & Kitayama 1991 and Zhang 2001). A study on the matter would be the starting point of many opened questions. If we consider language to be a vehicle for the ethos and worldview of a given culture, and that the concept of Self varies from one culture to another, does it mean we are a different person when we speak a different language? What consequences such a statement would have for the personal identity of bilinguals or multi-linguals? Would it also allow drawing some lines between the specificities of certain creoles and the cultural frontiers its speakers find themselves at? Crucially, when an endangered language dies are we also loosing "a way of being"? These questions show how language and philosophical questions are tightly interwoven and as Lakoff (1996: 118) says:

The conceptual system that we function with every day contains implicit philosophical theories. There are questions that we all need answers to in order to function, and our own unconscious conceptual systems have naturally evolved to provide them.

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