THE OBJECT IMAGE-SCHEMA AND OTHER DEPENDENT SCHEMAS[1]

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Image-schemas (e.g. CONTAINER, PATH, FORCE) are pervasive skeletal patterns of a preconceptual nature which arise from everyday bodily and social experiences and which enable us to mentally structure perceptions and events (Johnson 1987; Lakoff 1987, 1989). Within Cognitive Linguistics, these recurrent non-propositional models are taken to unify the different sensory and motor experiences in which they manifest themselves in a direct way and, most significantly, they may be metaphorically projected from the realm of the physical to other more abstract domains. In this paper, we intend to provide a cognitively plausible account of the OBJECT image-schema, which has received rather contradictory treatments in the literature. The OBJECT schema is experientially grounded in our everyday interaction with our own bodies and with other discrete entities. In the light of existence-related language (more specifically, linguistic expressions concerning the creation and destruction of both physical and abstract entities), it is argued that the OBJECT image-schema may be characterized as a basic image-schema, i.e. one that functions as a guideline for the activation of additional models, including other dependent image-schematic patterns (LINK, PART-WHOLE, CENTRE-PERIPHERY, etc.) which highlight various facets of the higher-level schema.

1. INTRODUCTION

Image-schemas are defined within the framework of Cognitive Linguistics as pervasive organizing structures in human cognition which emerge from our bodily and social interaction with the environment at a preconceptual level (Johnson 1987; Lakoff 1987, 1989). Although image-schematic patterns are not propositional, it is argued that their internal structure is sufficient to bring about meaningful implications. In this paper, the relevance of postulating the OBJECT image-schema is justified in experiential terms. Furthermore, on the assumption that not all image-schemas hold the same status in knowledge organization (cf. Peña 1999, 2000), we argue that the OBJECT image-schema constitutes a basic pattern comprising other

more specific embodied constructs (LINK, PART-WHOLE, CENTRE-PERIPHERY, etc.), which are subservient to it (i.e. they require the object notion for the development of their internal logic and structure). The theoretical relevance of the OBJECT schema is illustrated by means of actual linguistic expressions, taken from the British National Corpus (BNC) and corpus-based dictionaries, which reflect the creation/destruction of different types of entities; all these examples include either concrete or metaphoric instantiations of the basic model (and, generally, of one or more of the lower-level schemas).

2. IMAGE-SCHEMAS AND LEVELS OF SUBSIDIARITY

Image-schemas (e.g. CONTAINER, PATH, FORCE, PART-WHOLE, CENTRE-PERIPHERY, LINK) are meaningful, dynamic patterns which recur in everyday action and thought and which allow us to mentally structure our experiences and perceptions (Johnson 1987; Lakoff 1987, 1989; Turner 1991, 1996; Gibbs and Colston 1995). In Johnson's words (1987: 29), "image schemata operate at a level of mental organization that falls between abstract propositional structures, on the one side, and particular concrete images, on the other". These generic non-propositional gestalts, which often constitute generalizations over basic experiences of space and motion, have been used in the cognitive linguistics literature in order to provide well-motivated accounts of different aspects of linguistic and conceptual structure.

Image-schemas provide coherence and order to concepts in two fundamental ways:

a) Image-schemas serve to unify the different sensory and motor experiences in which they manifest themselves in a straightforward fashion (e.g. we experience our bodies as wholes with parts, and similar part-whole configurations are meaningfully perceived in other everyday physical objects);

b) Further, image-schemas may be metaphorically projected from the realm of the physical to other more abstract domains (e.g. we often speak and reason about different forms of human organization in terms of the elements and inferential patterns associated with the PART-WHOLE image-schema).

Image-schemas may interact with one another (e.g. the PATH and CONTAINER schemas frequently combine in expressions such as *get into trouble*, *come into existence*, etc.) as well as with cognitive material from other kinds of models (schemas may be propositionally elaborated, or figuratively mapped onto other domains). We are also capable of manipulating image-schemas in our minds at a level of abstraction over that of concrete rich images or mental pictures; image-transformations include the superimposition of one image-schema upon another, rotating images, making a set of objects into a homogeneous whole (multiplex to mass), profiling different points along a path, and mentally following a trajectory.

Some researchers (Pauwels and Simon-Vandenbergen 1993; Cienki 1997; Peña 1999, 2000) have aptly pointed out that it is not theoretically plausible to rank all image-schemas on a par. The most rigorous and systematic attempt to build a

hierarchy of image-schemas is found in Peña (2000), who, in the light of the analysis of a corpus of emotion metaphors, argues for the prominence of three basic image-schemas: the CONTAINER, PATH and PART-WHOLE schemas. In her view, these three patterns function as guidelines for the orderly activation of other subsidiary image-schemas; for instance, the FULL-EMPTY and EXCESS image-schemas are subservient to the CONTAINER schema, while the FORCE, PROCESS, CIRCLE, NEAR-FAR, and FRONT-BACK image-schemas depend on the PATH schema for their development and understanding. Most aspects of Peña's proposal are assumed to be correct as applied in this paper; however, we take sides with other authors (Deane 1992; Cienki 1997) in regarding the OBJECT image-schema as a general construct which comprises, among others, the more specific LINK, PART-WHOLE, CENTRE-PERIPHERY, MASS-COUNT, and COLLECTION image-schemas.

3. THE OBJECT IMAGE-SCHEMA AND OTHER RELATED SCHEMAS

The available literature is rather contradictory as to the status and characteristics of the OBJECT image-schema. This skeletal cognitive model is not described in detail in the seminal works by Johnson (1987) and Lakoff (1987), although the former includes it in his inventory of image-schemas (Johnson 1987: 126). Furthermore, its image-schematic nature seems to be taken for granted in positing the existence of the multiplex-to-mass image-schema transformation, by means of which a group of discrete objects is construed as a single homogeneous mass (Johnson 1987: 26). More elaborate accounts may be classified as follows:[2]

a) those which deny that the notion of OBJECT may be adequately abstracted away from our concrete experiences of objects in the shape of an image-schema (Quinn 1991; Peña 2000). Thus, Peña (2000) argues that OBJECT may be regarded as an element taking part in some image-schemas (e.g. the PATH or the CONTAINER image-schemas), but it fails to qualify as an image-schema on its own.[3] And, according to Quinn (1991: 69), it is possible to conceive of the CENTRE-PERIPHERY and PART-WHOLE image-schemas as metaphorical instantiations of a more general ENTITY schema; Quinn contends, however, that such a construct is placed at a higher level of abstraction than image-schemas.

b) proposals in which the OBJECT image-schema is taken to comprise other more specific image-schematic patterns (Deane 1992; Cienki 1997). In Cienki's taxonomy (1997: 12), for instance, the OBJECT image-schema groups together the PART-WHOLE, CENTRE-PERIPHERY, SURFACE, MASS-COUNT, and COLLECTION image-schemas. Deane (1992: 68), in turn, argues that the LINK, PART-WHOLE, and CENTRE-PERIPHERY image-schemas make up "a higher level schema characterizing objects as integrated wholes".

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[2] The different views on the OBJECT schema, with special attention to its place within image-schematic hierarchies in our conceptual system, are further discussed in Section 4.
[3] Peña's insights into image-schematic patterns are based on a corpus of metaphorical expressions of emotions in English. The fact that we arrive at different conclusions concerning the OBJECT image-schema is most probably related to the peculiarities of the domains under study.

c) the classification put forward by Clausner and Croft (1999: 15). In their view, it is plausible to rank the OBJECT image-schema on a par with the REMOVAL, BOUNDED SPACE, CYCLE, and PROCESS schemas under the more general heading of EXISTENCE, while the UNITY/MULTIPLICITY image-schema would comprise the MERGING, COLLECTION, SPLITTING, ITERATION, PART-WHOLE, MASS-COUNT, and LINK schemas. In each case, the higher level image schema is the domain against which the other schemas are profiled.[4]

Our view comes closer to an approach of the second type. The analysis of existence-related language with a strong image-schematic component leads us to argue that the OBJECT construct may be safely identified as a basic image-schema, i.e. one that provides a blueprint for the orderly activation of additional cognitive material (cf. Ruiz de Mendoza and Díez 2002), including other dependent image-schemas which bring to the fore different aspects of this higher-level gestalt structure. The OBJECT image-schema is experientially grounded in our physical and social interaction with our own bodies and with other discrete entities in the world:

a) We can move and manipulate objects in different ways, which may modify their properties as well as their relations with other entities.

b) Objects are typically perceived as unified wholes which, on closer inspection, may be mentally divided into parts in order to reason about their physical arrangement and functionality.[5]

c) As expounded below, loss of integrity may result in the destruction of the object.

The skeletal knowledge associated with the OBJECT image-schema, including inference patterns, may be metaphorically projected onto other domains of experience.[6] Thus, we can speak and reason about different kinds of abstract entities

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[4] In Cognitive Grammar (Langacker 1987a, 1991), a domain is a coherent area of conceptualization of any kind (a single concept, a knowledge system, a perceptual experience) which functions as a cognitive context for the characterization of a semantic unit. Such a characterization, which is made against a number of domains simultaneously, results from the combination of a base and a profile. The base is the presupposed cognitive structure, the part of the relevant domains (scope of predication) against which some entity stands out as the profile (e.g. the concept of finger is primarily profiled against the hand domain, Monday is profiled in the domain of the seven-day week, etc.).

[5] The notion of 'perceived whole' or *gestalt* must be traced back to well-known findings in the realm of gestalt psychology. According to Ungerer & Schmid (1996: 33), the principles which figure more prominently in gestalt perception are: (a) 'principle of proximity': individual elements with a small distance between them will be perceived as being somehow related to each other; (b) 'principle of similarity': individual elements that are similar tend to be perceived as one common segment; (c) 'principle of closure': perceptual organization tends to be anchored in closed figures; (d) 'principle of continuation': elements will be perceived as wholes if they only have few interruptions.

[6] It may be argued that this fact provides further evidence in support of the image-schematic nature of the OBJECT notion: if the object were just an element taking part in other image-schemas, it is not clear how it could generate metaphoric mappings of its own. For instance, the metaphorization of the OBJECT schema figures prominently in one of the two branches of the EVENT-STRUCTURE system, a generic-level metaphor which enables us to conceptualize different aspects of the internal structure of events in terms of motion in space (the LOCATION EVENT-STRUCTURE metaphor) and object manipulation (the OBJECT EVENT-STRUCTURE metaphor) (Lakoff 1993: 219-229; Lakoff & Johnson 1999: 170-

(e.g. feelings, attributes, organizations, mental constructs, etc.), as if they were discrete objects. For instance, we can *put together* a plan by mentally joining different ideas to each other (1a), a marriage may *fall to pieces* when the links which unite the spouses are severed (1b), or a defence may *come apart* at a trial if the arguments which make it up are proved to be incompatible and thus cannot be plausibly understood as a coherent whole (1c):

> (1a) Once all the reasons behind her aggressive behaviour are worked out, your vet may *put together* a therapy plan, or even arrange a consultation with a behaviour therapist. (BNC)

> (1b) The media seemed to be willing the marriage to *fall to pieces*. (BNC)

> (1c) It was probable that with a type of aggravated libel, and a defence that was blatantly bogus and *came apart* during the trial, they decided to add a nought to the amount of damages. (BNC)

This kind of evidence leads us to hypothesize that our experiential knowledge of tangible, three-dimensional entities (e.g. their perceptual features and internal composition, the way they are created or destroyed, etc.) must largely determine how we understand entities of a more elusive nature. This metaphor-based account differs in principle from approaches which attempt to encapsulate the commonalities between various types of entities by positing more generic abstractions, such as Quinn's ENTITY schema, or Langacker's THING (Langacker 1987ab, 1991). A THING may be defined, in highly schematic terms, as a region in some conceptual domain; within Cognitive Grammar, nouns are notionally characterized as symbolic structures which profile a thing.[7] Langacker (1998: 18-19) tentatively argues that the notion of 'thing' derives from two fundamental cognitive phenomena: *grouping* and *reification*. By means of grouping, "entities are singled out and conceived in relation to one another to the exclusion of others". Entities may be mentally grouped together for a variety of reasons: they may be perceived to be contiguous, relevant similarities may be identified, they may be understood to serve a common function, etc. The phenomenon of reification, in turn, consists in "the manipulation of a group as a unitary entity for higher level cognitive purposes"; for instance, several basketball players may be grouped together on the grounds of their common activity and interests and, accordingly, singled out in the shape of a unified whole, namely a team which may take part in a competition or may be compared with other teams. In Langacker's words, "(t)he reason physical objects are prototypical for nouns is that the grouping and reification of their constitutive entities is so basic and automatic

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234). In this sense, consider a pair of expressions like *I am in trouble* (STATES ARE LOCATIONS, in the Location branch) and *I have trouble* (ATTRIBUTES ARE POSSESSIONS, in the Object branch), which seem to place the conceptual relevance of the CONTAINER and OBJECT schemas at the same level as basic organizing structures of human cognition.

[7] More specifically, count nouns profile regions which are construed as bounded (i.e. they cannot be extended indefinitely), while mass nouns profile unbounded, typically homogeneous regions (cf. the construal variation in pairs like *stone/a stone*, *glass/a glass*). The regions designated by abstract nouns can be either bounded or unbounded, and they behave accordingly as count or mass nouns (e.g. *complaint* vs. *concern*).

that any awareness of them requires subsequent, higher level analysis" (1998: 19). In our view, it is precisely such features as basicness and automaticity that allow us to map spatial and kinesthetic knowledge of prototypical physical objects onto other more abstract, less clearly delineated domains. It should be observed, however, that both approaches do not necessarily exclude each other and may correspond to alternative cognitive mechanisms for the conceptualization of objects and other object-like entities.

The following subsections briefly examine several lower-level image-schematic patterns, such as the LINK, PART-WHOLE, and CENTRE-PERIPHERY schemas, which are conceptually subsidiary to the OBJECT schema.

3.1. The LINK image-schema

The LINK image-schema consists of two or more entities which are connected with each other by means of a linking device of some kind. In Johnson's words (1987: 117), we are continually involved in "an ongoing process of linking, bonding, and connecting that gives us our identity". It is only natural that we interpret many important aspects of our lives in terms of this notion. A case in point is our construal of social relationships. Thus, we speak of such things as *having connections*, *breaking social ties*, and *the bonds of slavery.* As occurs with all other image-schemas, the LINK schema also possesses a basic logic which includes at least the following ideas (Lakoff 1987: 274):

a) If A is linked to B, then A is constrained by B, and dependent upon B;

b) Symmetry: If A is linked to B, the B is linked to A.[8]

The internal structure of the LINK image-schema may be further specified. Thus, Deane (1992: 63) characterizes links in terms of two variables: a) *rigidity*, or "the extent to which the configuration may shift"; and b) *strength*, or "its capacity to overcome outside forces". These variables must be taken into account when we speak and reason about both the linking of parts to make up whole entities and different forms of destruction of those entities. In this sense, weak, flexible links may be easily destroyed, whereas rigid, strong links place higher constraints on the overall configuration and are thus more effective in preserving the integrity of the whole.

The aforementioned features of the LINK schema underlie our interpretation of many linguistic expressions. Consider the following examples, related to the activity of clothes making:

(2a) She stitches the pieces together to make a quilt. (Longman Dictionary of Contemporary English)

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[8] As pointed out by Deane (1992: 62), the concept of linkage is not inherently symmetrical, since we can often distinguish between autonomous and dependent entities. For example, the dependent element in the case of clothing tends to maintain its configural relation to the independent element (i.e. the human body).

(2b) Shiraz has stitched up major deals all over the world to boost sales. (Collins Cobuild English Dictionary)

(2c) The leisurewear industry would come apart at the seams, literally, without this indispensable fastening. (BNC)

In (2a) the quilt is the physical result of linking pieces of cloth with (possibly) thread or any other sewing material. It must be noted that the PART-WHOLE schema is also present in this conceptualization in the sense that the quilt is seen as a composite entity, made up of parts. (2b), where the action of linking is figurative, is based upon the same conceptual principle as (2a): a complex whole derives from connecting different parts. In this case, the preposition *up* is used to indicate completion, i.e. the links are strong enough to assume that the deals will not be easily broken. Example (2b), therefore, shows how the LINK image-schema permits inferences beyond the realm of spatial experience by licensing the mapping of conceptual structure from the activity of sewing onto more abstract domains. It may be objected to this image-schematic analysis of the expression that the mapping does not really take place at such a level of genericity, that is, sewing and business involve important amounts of relatively specific knowledge. However, it is our belief that, even though both accounts may in principle seem plausible, the use of image-schemas increases the explanatory value of the analysis, since this kind of cognitive model functions as a fundamental blueprint for the activation and projection of other knowledge structures. Example (2c) also constitutes an instance of metaphoric linking. Apart from the obvious play on words, in this expression a kind of link typically associated with clothing, i.e. seams, is invoked within a business context. The perceptibility of seams in a piece of clothing may be interpreted as a sign of the weakness of the link, i.e. the pieces which make up the garment may not be fastened to each other in a very secure way and may thus be separated. This is the reason why we can describe a tightly integrated whole as *seamless*, i.e. an object in which no significant breaks or gaps can be detected.

3.2. The PART-WHOLE image-schema

According to Lakoff (1987: 273-74), the PART-WHOLE image-schema is a gestalt structure which consists of a whole, parts, and a configuration.[9] The experiential grounding of this skeletal pattern is most clearly connected with the perception of our own bodies as part-whole configurations, i.e. wholes with parts arranged in a particular fashion. At the same time, it is also possible for us to recognize a part-whole organization in other objects of our physical environment

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[9] The part-whole relationship, which is analyzed here as a preconceptual embodied pattern, has been extensively dealt with from different points of view in what we could call propositional terms. This is the case of studies in lexical semantics like the ones in Lyons (1977) or Cruse (1986: ch. 7 on meronymy), or the experimental work based on subjects' ratings, which is chiefly interested in distinguishing different types of meronymic relations (e.g. Chaffin & Herrmann 1988; Iris et al. 1988; Chaffin 1992). An image-schematic analysis is not necessarily incompatible with these other attempts to characterize the notion of a part-whole configuration. In fact, in being experientially grounded, the PART-WHOLE image-schema may be regarded as the natural basis for propositional versions of this concept.

(clothes, tools, machines, furniture, etc.). Lakoff (1987: 273) makes explicit the connection of the PART-WHOLE image-schema with the notion of existence in the following part of its basic logic:

> It cannot be the case that the WHOLE exists, while no PARTS of it exist. However, all the PARTS can exist, but still not constitute a WHOLE. If the PARTS exist in the CONFIGURATION, then and only then does the WHOLE exist. It follows that, if the PARTS are destroyed, then the WHOLE is destroyed.

Although this is basically true, it is also true that, by virtue of the CENTRE-PERIPHERY image-schema, the destruction of peripheral parts in the configuration does not necessarily bring about the destruction of the whole.

It may be theoretically interesting to expand the conceptual structure of the PART-WHOLE image-schema in order to accommodate Cruse's (1986) useful distinction between *parts* and *pieces*. In Cruse's words, "(t)he contrast between parts and pieces is potentially operative even with highly integrated wholes such as animal bodies: there is a clear difference between such a body *hacked to pieces*, and one carefully *dissected into its parts*" (1986: 158). Parts display three main characteristics: they are relatively autonomous (as opposed to pieces, which cannot be understood independently of the whole from which they are derived), their boundaries are not arbitrary (i.e. they are either spatially or functionally motivated), and, most significantly, they possess a certain function relative to the whole. In contrast, pieces only exist inasmuch as they are the result of the (total or partial) destruction of the whole; they are not autonomous, their boundaries are random, and they have no functional significance whatsoever. In order to avoid misunderstandings, it should be noted that there is not always an exact correlation between the concepts of 'part' and 'piece' and their lexical counterparts (for instance, *take to pieces* invokes the notion of 'part', whereas *come apart* relates to the notion of 'piece').

Tversky and Hemenway (1984) have provided experimental evidence as to the psychological importance of parts at the basic level of categorization (see also Tversky 1990). Our knowledge of parts has been found to account for the convergence of cognitive tasks at this basic level. A central finding of the empirical research by prototype theorists relates to the existence of a basic level of categorization at which most of our knowledge is organized. Basic-level categories (e.g. DOG, CHAIR) stand midway between superordinate categories (ANIMAL, FURNITURE) and subordinate categories (ALSATIAN, ARMCHAIR). The basic level is the level at which human beings interact most efficiently with their surroundings. According to Rosch et al. (1976), this is the highest level at which similar overall shapes are perceived and a single mental image may be associated with the entire category. This is also the highest level at which people use similar motor programs for interacting with category members, the first level to be named and understood by children, and the level typically associated with neutral communication contexts. The cognitively basic status of this level strongly refutes the objectivist idea of

conceptual compositionality. For objects in which it is possible to recognize a part-whole configuration, parts constitute the main way of establishing a direct relationship between structure and function: parts are perceptually identifiable segments of objects and, at the same time, they are typically associated with a specialized function.

Consider in this connection the primary metaphor ORGANIZATION (or ABSTRACT STRUCTURE) IS PHYSICAL STRUCTURE, one of the mappings into which Grady (1997) decomposes the well-known THEORIES-AS-BUILDINGS metaphor.[10] We argue that this metaphor must be understood in terms of the basic logic of the PART-WHOLE image-schema. The physical arrangement of functionally specialized parts into a configuration is mapped onto the structure of abstract entities, which allows us to speak and reason about them. In Lakoff's words, "(t)he general concept of structure itself is a metaphorical projection of the CONFIGURATION aspect of PART-WHOLE structure" (1987: 274).

These considerations are very useful when dealing with the conceptualization of existence-related concepts. Thus, by making use of the functionally relevant notion of 'part', it is possible to speak and reason about taking a complex object to pieces that may later be put together again. Part decomposition may provide useful insights into the functioning of the properly constituted whole. Consider the following examples:

> (3a) The BMWs slowly roll down the impressive new production line where the team of mechanics eagerly await their arrival —so they can carefully *take* the cars *to pieces*. (BNC)

> (3b) I sit down and say to myself, how can I convert a mileage reading of one hundred and fifty thousand into only ten thousand without *taking* the speedometer *to pieces*? (BNC)

> (3c) How do you *take apart* a quality chair in order to refix loose joints? (BNC)

> (3d) I was always very interested in how things operated and used to *take them apart* to see how they worked, but I was not so good at *putting them back together* again. (BNC)

> (3e) ...more radical feminist theories (such as those of Daly or Irigaray) which criticise and *take apart* the metaphysical implications inherent in philosophical conceptions of the subject.

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[10] Primary metaphors (e.g. STATES ARE LOCATIONS, KNOWING IS SEEING; see Grady 1997; Lakoff & Johnson 1999: 45-73) arise naturally from direct associations between subjective and sensorimotor experience. These metaphoric primitives combine with other conceptual metaphors (or other knowledge structures, like frames) to yield compound metaphors.

(3f) Sensations of white, for instance, are classed together, not because we can *take* them *to pieces*, and say they are alike in this, and not alike in that, but because we feel them to be alike altogether, though in different degrees. (BNC)

Examples (3a-d) involve part decomposition of physical objects (cars, a speedometer, a chair, things in general). In (3e-f), however, the notion of part-whole configuration is mapped onto the realm of abstract entities (in this case, metaphysical implications and colour sensations). Thus, in (3e) an apparently complex philosophical point may be metaphorically divided into its constituent parts so that the way the whole has been constructed may become the subject of criticism. In (3f) a similar metaphoric conceptualization is considered (and negated) in order to account for colour perception: it is claimed that we do not perceive the features of colour sensations as discrete entities which may be assessed and contrasted independently.

On the other hand, the concept of 'piece' is commonly connected in our minds with recurrent experiences of fragmentation. It is possible to abstract away a meaningful core from such experiences, which lead us to argue for the existence of what we can label the FRAGMENTATION image-schema; this image-schematic pattern would be linked with the PART-WHOLE schema by means of a relationship of subsidiarity. It should be observed that other image-schemas in the literature, like the SPLITTING schema, do not encapsulate exactly the same kind of experience. The skeletal construct which we put forward corresponds to our common experience that, as a result of an object breaking, its pieces may lie scattered over an area, and also that the pieces may be rearranged in order to bring that object back into existence (figure 1).
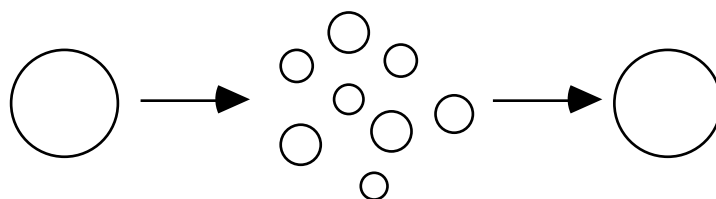

Figure 1. The FRAGMENTATION image-schema

By way of illustration, consider the following expression, in which the idea of fragmentation is strengthened by the high number of resulting 'pieces' (even though they are, once more, labelled as *parts*) as well as by the activation of the PATH image-schema (i.e. the resulting pieces move away from the location of the initial whole):

(4) ...the bullet hit him in the chest and his body seemed to *disintegrate* and fly in all directions, and he knew that death was on him and that it was something that *divided you into a million parts and each fragment screamed as it flung itself into eternity*. (BNC)

Here are some more expressions containing instances of physical fragmentation, which show the pervasive presence of this image-schema in language and thought:

> (5a) From there, he lobbed the bottle to the tiled floor beneath the sink unit, where it *smashed into pieces*, releasing its contents to flow over the floor. (BNC)

> (5b) The divine child Dionysos, son of Zeus and Persephone, said this story, was *torn to pieces* and devoured by the wicked Titans. (BNC)

> (5c) But the curtains, it says please don't touch, if you touch them they'd *fall to bits*, they're that old. (BNC)

> (5d) There was a huge bang and the toilet bowl in one cubicle was *blown to smithereens*. (BNC)

> (5e) The wall close to the tunnel had *crumbled*, undermined by long years of dampness and pressure from protruding tree-roots. (BNC)

> (5f) The dam began to *disintegrate*, though, in the early 1960s. (BNC)

> (5g) THE town of Albert was *reduced to rubble* in the First World War and rebuilt in the 1920s. (BNC)

In (5a-g) different integrated wholes (a bottle, a body, a dam, a town, etc.) are physically destroyed. Part configuration is lost in both spatial and functional terms and, therefore, the affected objects are no longer perceived as independent entities; the resulting pieces, however, may become objects of their own (e.g. bits, smithereens) or just an undifferentiated mass (note the use of the uncountable noun *rubble* in 5g). The destruction-related inferences derived from the activation of the FRAGMENTATION image-schema are also at work when this construct is metaphorized in order to deal with non-physical entities of different kinds (hopes, feelings, a person's credibility, the Communist world, etc.):

> (6a) The story is not primarily about salvation, but about severe judgement, and it ends in tragedy, in hopes *dashed* most cruelly *to smithereens*. (BNC)

> (6b) As the credibility of the DLV *lay in shreds*, the greater consequences for world sport were being considered by, among others, Norbert Laurens, the lawyer for the DLV. (BNC)

> (6c) Dartford's hopes also *crumbled* rapidly when Exeter scored three times in an eight-minute spell in the second half. (BNC)

> (6d) Mrs Margaret Thatcher has struck three notes since the Communist world began to *disintegrate*. (BNC)

(6e) Sometimes truth may be suppressed for a long time but while it is imprisoned it gathers to itself more and more power so that on the day that it is finally released it explodes, *blowing* everything *asunder*. (BNC)

(6f) She felt as though she was dying, as though her heart was being *ripped piece by piece into shreds*, but she had to go on and finish the programme. (BNC)

(6g) My mother, I'm afraid, *went* quite *to pieces* after his death. (BNC)

These examples are illustrative of the different ways in which the epistemic component associated with the FRAGMENTATION image-schema may be exploited metaphorically. It is relevant in this respect that the destruction of an abstract object is not necessarily understood as cessation of existence. Thus, in expressions such as (6f) and (6g) the notion of destruction rather bears upon the proper functioning of the affected entity, that is, what is metaphorically foregrounded is the functional motivation of part-whole configurations. In (6f) the experience of fragmentation is mapped onto the domain of strong feelings and emotions, which are conventionally linked through metonymy to the heart. And in a conceptually related example like (6g), the destruction of the self is understood in functional terms not as death, but as loss of emotional balance which hinders normal behaviour.

Finally, it should be observed that these and other related examples in the subsection contain linguistic realizations of some interaction patterns between the PART-WHOLE schema and other image-schemas which are very common in the characterization of the notions of construction and destruction in English. For instance, in examples (5a-d), (6a), and (6f-g), the lexicalized pieces (*pieces*, *bits*, *smithereens*, *shreds*) are understood metaphorically as the endpoints of a trajectory. In (5a) the CONTAINER image-schema is also activated (*into pieces*);[11] the containment notion is present as well in (6b), where the resulting state rather than the process is profiled (*in shreds*).

3.3. The CENTRE-PERIPHERY image-schema

In order to conclude our characterization of the OBJECT image-schema in the light of existence-related linguistic expressions, we briefly comment here on the CENTRE-PERIPHERY image-schema (cf. Lakoff 1987: 274; Johnson 1987: 124).[12] In our bodies we can draw a twofold distinction between central (the trunk and internal organs) and peripheral parts (fingers, toes, hair). A similar centre-periphery organization may be identified in other everyday objects. According to the basic logic of the schema, the periphery depends on the centre, but not the other way round. Centrality is typically associated with importance, whereas peripheral parts

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[11] This is a case of *schematic enrichment*, a conceptual interaction mechanism which allows us to build some schemas into the structural slots of others (Fornés & Ruiz de Mendoza 1998).

[12] Peña (2000) argues that the CENTRE-PERIPHERY image-schema constitutes a specification of the more basic PART-WHOLE gestalt. Other related image-schemas (the MATCHING, MERGING, and COLLECTION schemas) may be understood as different ways of making up the whole.

are less important and they may be damaged or even destroyed without necessarily giving rise to the disintegration of the whole.

The importance of the centre-periphery distinction surfaces in everyday linguistic expressions. The fact that a given abstract entity (e.g. a system, an organization) may continue to exist is often associated by means of metaphor with the preservation of its spatial centre. Consider the following examples:

> (7a) The animal rights movement threatens *the very core* of what the Public Health Service is all about. (BNC)

> (7b) It worked on every occasion when it was tried both the north and the south and was used very widely in the republic in the past to *behead* the terrorist organizations. (BNC)

> (7c) It is unlike East London, where over the last ten or twenty years *the heart* has been torn out of manufacturing industry in the docks and with it has gone traditional working-class organisation. (BNC)

In (7a) the centre is identified in generic terms as *the very core*. In examples (7b-c), however, two vital body parts (the head and the heart) are conjured up. If we conceive of our own bodies as part-whole configurations, it is obvious that the heart occupies a central position both spatially and functionally. It may be argued from the perspective of spatial organization that, in spite of its functional indispensability, the head is not strictly a central part of the body. This may be true if we abide by a very restricted idea of centrality, but in ordinary interaction our attention is directed towards the head more frequently than to any other external body part (it is typically people's faces that we remember), which makes it perceptually central to us.

In relating the LINK, PART-WHOLE, and CENTRE-PERIPHERY image-schemas under the umbrella of the OBJECT schema, which characterizes objects in physical space as integrated wholes, Deane (1992) makes a distinction between two different ways in which discrete entities may be articulated into parts: a tightly integrated network of parts (figure 2) and a linkage pattern with bottlenecks and local centres (figure 3).[13]

This distinction is relevant to our purposes. Thus, it can be argued that an integrated linkage pattern tends to preserve its integrity because of its internal cohesion, whereas, in Deane's (1992: 70) words, "parts with local centers, which can be separated from the whole by breaking a single link, come very close to being whole objects themselves, and divide naturally from other parts at the same level of organization, to which they are attached by only a few links". These considerations underscore the dynamic nature of the OBJECT schema in our conceptual system; this

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[13] The characterization of the OBJECT image-schema proposed in this paper is in part coincident with Deane's (1992). In both accounts the OBJECT schema is argued to comprise other lower level schemas, such as LINK, PART-WHOLE, and CENTRE-PERIPHERY. Deane's approach to the issue, however, is more formal since it is intended to function as the grounding for his work on cognitive syntax. What we have done here is rather to explore the image-schematic basis of the object notion in order to demonstrate the central role which it plays in the semantics of existence in English.

notion is dependent upon our ability to conceptualize regions of our experience as discrete integrated wholes, which may be further analyzed as configurations of parts, linked to each other in different ways and with various degrees of centrality with respect to the whole.
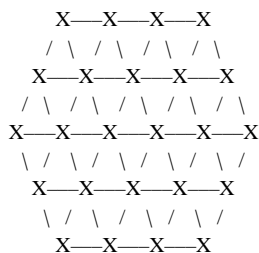
```
              X—X—X—X
             / \ / \ / \ / \
            X—X—X—X—X
           / \ / \ / \ / \ / \
          X—X—X—X—X—X
           \ / \ / \ / \ / \ /
            X—X—X—X—X
             \ / \ / \ / \ /
              X—X—X—X
```

Figure 2. An integrated linkage pattern (from Deane 1992: 70)

```
                        X
                       / \
                      X—X
                       \ /
        X—X            X            X—X
       / \ / \        / \          / \ / \
      X—X—X—X—X—X—X—X—X—X
       \ / \ /        \ /          \ / \ /
        X   X          X            X   X
                      / \
                     X—X
                      \ /
                       X
```
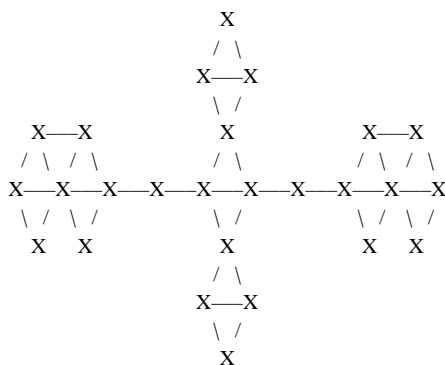
Figure 3. A linkage pattern with local centres (from Deane 1992: 70)

4. IMAGE-SCHEMATIC HIERARCHIES

In the light of the foregoing discussion, this section critically examines in some more detail the place assigned to the OBJECT schema in the different image-schematic hierarchies which have been put forward in the literature. By pointing to the inadequacies of other accounts we will be able to provide further evidence for the central role played by the OBJECT construct in our conceptual system, especially as regards its basic status (in the sense that it is not conceptually dependent on other image-schemas in order to function as an organizing structure at the preconceptual level).

The analysis of existence-related expressions has demonstrated that the LINK, PART-WHOLE, and CENTRE-PERIPHERY image-schemas are conceptually subsidiary to the OBJECT schema, which is directly grounded in embodied experience and which accounts coherently for the development and understanding of the subsidiary schemas. To the image-schemas under study in the previous section

we could possibly add other image-schematic patterns in the literature, such as the MASS-COUNT or the COLLECTION schemas, which basically reflect our mental ability to group together similar object-like entities. As well, as shown above, the FRAGMENTATION image-schema is conceptually dependent on the PART-WHOLE schema (figure 4).
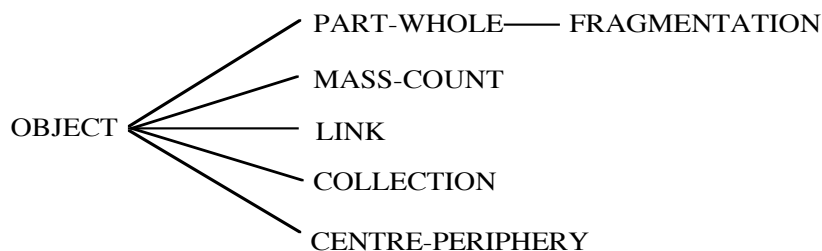
PART-WHOLE——— FRAGMENTATION

MASS-COUNT

OBJECT LINK

COLLECTION

CENTRE-PERIPHERY

Figure 4. The OBJECT image-schema and other dependent schemas

The resulting hierarchical classification under the OBJECT heading is consonant with the taxonomies of image-schemas put forward by Deane (1992) and Cienki (1997). Our proposal about the image-schematic nature of the fragmentation notion and its subsidiary status with respect to the PART-WHOLE schema might easily be incorporated into accounts of this kind.

However, there are other scholars who argue that the OBJECT notion, in spite of being pervasive in language and thought, is not properly image-schematic. Peña (2000) contends that objects are conceptual elements which recur in different image-schemas (e.g. in the PATH schema an object moves along a path from a source to a destination, and the CONTAINER schema typically involves entities containing other entities), but not as an image-schema experienced independently and with its own internal structure. In her view, it is the PART-WHOLE schema that is basic and comprises other more specific constructs, such as the CENTRE-PERIPHERY or the COLLECTION schemas. The relationship between the PART-WHOLE and the LINK schemas is included in her account as a special case, since this image-schematic notion is also at the base of other schemas (e.g. ATTRACTION, NEAR-FAR; see figure 5).
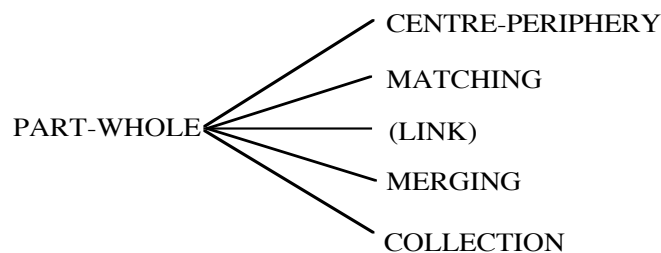
CENTRE-PERIPHERY

MATCHING

PART-WHOLE (LINK)

MERGING

COLLECTION

Figure 5. The basic status of the PART-WHOLE image-schema (Peña 2000)

Peña's proposal is systematic and basically well-argued, but it fails to do justice to the organizing role of the OBJECT notion in our preconceptual experience. In other words, it is not completely accurate to argue that the OBJECT schema lacks the internal logic and structure required to qualify as an image-schema, since, as we have seen, it is precisely the directly meaningful interaction with discrete integrated entities that endows the subsidiary schemas (including the PART-WHOLE image-schema) with an indispensable part of their structure.

Quinn (1991: 69-71) also denies the image-schematic nature of the OBJECT schema, though for different reasons. According to this researcher, the PART-WHOLE and CENTRE-PERIPHERY image-schemas are metaphorical instantiations of a more general ENTITY schema, which is placed at a higher level of abstraction than image-schemas. In a similar way, for instance, the abstract RELATION schema is argued to subsume image-schemas such as LINK, CONTACT, MERGING, SPLITTING, and NEAR-FAR. Quinn's proposal is based on the analysis of metaphors for marital relationships in American English. The ENTITY schema is instantiated, for example, by expressions in which marriage is conceptualized as a manufactured product: "It was stuck together pretty good. It was going to be a solid thing. You have to start out with something that's strong if it's going to last" (Quinn 1991: 70-71). The preference for this level of abstraction, however, is not adequately justified and necessarily involves the rejection of fundamental assumptions within the Cognitive Linguistics framework, especially as regards the embodied nature of abstract reasoning. It is true that cognitive linguists generally accept the importance of generic-level knowledge structures, but not regardless of their experiential grounding.

Finally, a recent proposal by Clausner and Croft (1999: 15) groups together image-schemas which are typically co-experienced under such headings as EXISTENCE (figure 6) and UNITY/MULTIPLICITY (figure 7). According to these researchers, the higher-level schemas function as background domains for the profiling of the corresponding image-schemas.
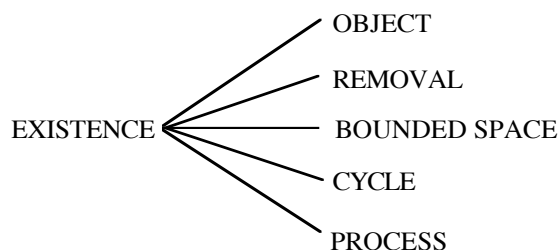
EXISTENCE
- OBJECT
- REMOVAL
- BOUNDED SPACE
- CYCLE
- PROCESS

Figure 6. The EXISTENCE image-schema (Clausner & Croft 1999: 15)

MERGING

COLLECTION

SPLITTING

UNITY/   ITERATION
MULTIPLICITY
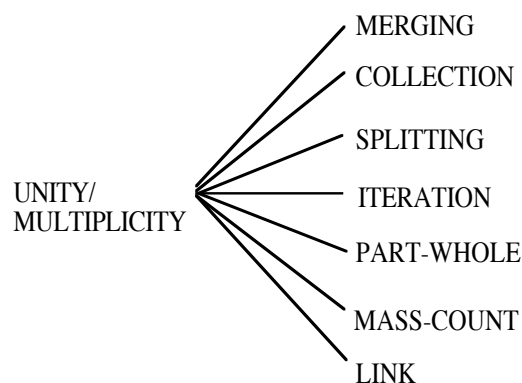PART-WHOLE

MASS-COUNT

LINK

Figure 7. The UNITY/MULTIPLICITY image-schema (Clausner & Croft 1999: 15)

This classification derives from the authors' conception of image-schemas as the domains which are most frequently used as a background for the characterization of human concepts: "domains which are image schematic are those found in the largest number of domain matrices (for the concepts used in human experience)" (Clausner and Croft 1999: 22). However, if we adopt a standard definition of image-schematicity, in the sense used by Lakoff and Johnson, the proposal turns out to be counterintuitive in several ways. First, in connection with the linguistic evidence we use in this paper, it is at least doubtful that the idea of existence may be directly meaningful in our perceptual experience and thus qualify as an image-schema. Clausner and Croft do not get down to the specifics of this issue, but we prefer to look upon existence as an abstract concept partly structured by the OBJECT image-schema. Moreover, their classification fails to reflect the fairly self-evident connection between the OBJECT image-schema and such notions as unity, multiplicity, or part-whole configuration.

5. CONCLUSION

In this paper, we have tried to provide evidence for the conceptual import of the OBJECT image-schema, which emerges from our interaction with discrete entities in the world, especially our own bodies. In doing so, we have underlined its basic status with relation to other schemas, such as LINK, PART-WHOLE, and CENTRE-PERIPHERY, which are conceptually dependent on it. By looking into the conceptual nature of existence-related expressions, we have exemplified how each subsidiary image-schema focusses on different aspects of the OBJECT schema. From a theoretical standpoint, it may be argued that our analysis is largely in tune with recent proposals concerning levels of subsidiarity between image-schemas (e.g. Peña 1999, 2000), although the resulting hierarchies are not completely coincident. Furthermore, we have shown that the OBJECT image-schema figures prominently in the metaphoric conceptualization of abstract entities, which are often understood in physical terms.

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