

SUBSIDIARITY RELATIONSHIPS BETWEEN IMAGE-SCHEMAS: AN APPROACH TO THE FORCE SCHEMA¹

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ABSTRACT. In this paper, we investigate the nature of the FORCE image-schema as subsidiary to the PATH schema. On the basis that not all image-schemas can be ranked on a par (see Pauwels & Simon-Vandenberg 1993 and Peña 1998) we establish three different types of subsidiarity relationships between image-schemas. We further observe that the FORCE image-schema plays a prominent role in the conceptualization of metaphors for emotions in English. Additionally, the seemingly chaotic and abstract domain of emotions will be shown to be endowed with coherence and structure.

1. INTRODUCTION

With the appearance of cognitive linguistics around the mid 1970's, metaphor ceased to be regarded as a merely linguistic phenomenon. In some well-known seminal studies by George Lakoff and his collaborators (cf. Lakoff & Johnson 1980; Lakoff & Turner 1989), metaphor is defined as a mapping (or set of correspondences) between two conceptual domains in which one of the domains lends its conceptual structure to the

1. Financial support for this research has been provided by the DGES, Spanish Ministry of Education and Culture, grant no. PB96-0520, directed by Dr. Francisco José Ruiz de Mendoza Ibáñez. Correspondence to Sandra Peña Cervel, Departamento de Filologías Modernas, Edificio de Filología, c/San José de Calasanz s/n, 26004, Logroño, La Rioja; tel. (941) 299435/433; fax.: (941) 299419; e-mail: maria-sandra.pena@dfm.unirioja.es

other. Around the same time, Lakoff, Johnson, Turner, and other cognitive linguists realized the importance of some generic conceptual structures, called image-schemas, to account for many metaphoric expressions (see especially Johnson 1987). In this respect it is relevant to cite the research into emotion concepts and metaphor carried out by Kövecses (see especially Kövecses 1990).

Image-schemas are abstract topological conceptualizations which can be used to give structure to a wide variety of cognitive domains. Johnson (1987: 126) has provided a long list of basic image-schemas including, among others, the PATH, CONTAINER, VERTICALITY, FORCE, and MASS schemas. In more recent research (see Pauwels & Simon-Vandenberg 1993: 365) it has been suggested that image-schemas are to be arranged hierarchically. In Peña (1998) it is further argued that the PATH and CONTAINER schemas constitute the basic schemas with respect to which the others hold a subsidiary status either as conceptual dependencies or as logical entailments, and evidence is given that the FORCE image-schema is dependent on the PATH schema.

In this paper, it is our purpose to explore the nature of the various types of image-schemas which are conceptually subsidiary to the FORCE schema. In doing so, we shall argue for a distinction between three types of image-schematic subsidiarity: (i) by conceptual dependency, (ii) by logical entailment, and (iii) by enrichment. It will also be observed that image-schematic metaphors linked to the FORCE schema play a particularly prominent role in structuring the abstract domain of emotions and other related abstract entities².

2. BASIC IMAGE-SCHEMAS

Image-schemas provide the basis for a large number of metaphorical expressions. Even a cursory look at the literature on the subject reveals that the CONTAINER and PATH schemas play a prominent role in the construction of metaphors. We have argued elsewhere (see Peña 1997a, 1998) that this is essentially due to their basic status. The CONTAINER schema (see Johnson 1987; Lakoff 1987, 1989, 1990) consists of an interior, an exterior, and a boundary. According to Lakoff (1989: 116), its basic logic is articulated around the following postulates: the boundaries prevent what is outside from affecting the entity or entities found within the container; everything is either outside or inside the container; and if container A is in container B and B in C, then A is inside C.

2. The metaphorical occurrences provided in this paper have been extracted from several sources, especially the Master Metaphor List (<http://cogsci.berkeley.edu>), the Project Gutenberg (<http://promo.net/pg/index.html>), or the ATT-Meta Project Databank (<http://www.cs.bham.ac.uk/~jab/ATT-Meta/Databank>).

This description has been expanded in Peña (1997a) to include axiological values. For example, upon entering a container, an entity will be affected either positively or negatively by the entity or entities inside the container. The structural elements of the PATH schema (see Johnson 1987; Lakoff 1987, 1989) are a starting point, an end point, and a direction. Its basic logic tells us that if you go from a source to a destination along a path, then you must pass through each intermediate point on the path and that the further along the path you are, the more time has gone by since starting (see Lakoff 1989: 119).

3. THE FORCE IMAGE-SCHEMA

Motion is an important notion when dealing with the PATH image-schema. If we want to move from a source to a goal, we will have to invest some time in the activity and any obstacle may prevent us from reaching our goal. Motion is caused by some kind of force and, since the concept of motion cannot be understood without the notion of path, it may be postulated that the PATH and FORCE image-schemas are interrelated.

In Johnson's (1987: 43-44) account, forces display the following characteristics:

- Forces are always experienced through interaction. We become aware of force when we perform such everyday activities as entering an unfamiliar dark room and bumping into the edge of an object like a table, etc.
- Forces are provided with a vector quality or directionality. In other words, our everyday experience of force usually presupposes the movement of some object through space in some direction.
- Forces usually describe a single path of motion. Think for instance of the agitated path traced by a fly or that described by a leaf falling to the ground due to the force of gravity.
- Forces have origins or sources and agents can move them to targets or destinations. Forces usually come from somewhere and make objects which do not move on their own accord travel along a path.
- Forces have degrees of intensity. Some forces are stronger than others.
- Forces are one way in which we understand causal sequences (e.g. the fact that a door closes).

As has become apparent, the FORCE image-schema calls for the PATH schema for its development and understanding. Forces possess a source, a directionality, and some destination or goal. Furthermore, they trace a path when moving themselves or when impelling other entities to move. Pauwels and Simon-Vandenberghe (1995) have

postulated that the FORCE image-schema interacts with the PATH schema. However, we contend that the FORCE schema, rather than simply interact with it, is but a conceptual dependency of the PATH image-schema for the reasons we have just sketched out.

In applying the FORCE schema to the analysis of our corpus, we find, among others, metaphors belonging to the system EMOTIONS ARE FORCES, such as EMOTIONS ARE PHYSICAL FORCES (e.g. *I was moved by the poem*), EMOTIONS ARE ELECTROMAGNETIC FORCES (e.g. *I can feel the good vibrations*), EMOTIONS ARE NATURAL FORCES (e.g. *Waves of emotion came over her*), and other less generic metaphors like EMOTIONS ARE OPPONENTS (e.g. *He was wrestling with his emotions*), or EMOTIONS ARE ANIMALS (e.g. *His emotions ran away with him*). On some occasions, emotions are seen as irrational forces which overpower us. The implication is that the subject must exert much counterforce if he or she does not want to be carried away by an emotion. However, on other occasions, it is possible to see emotions as entities which may be controlled, as in EMOTIONS ARE LIVING ORGANISMS (e.g. *She killed her emotions*).

Lakoff (1989) has studied the PATH schema in some detail. As has been advanced, related to this conceptual construct and depending on it for its understanding and development, we find the FORCE image-schema, which Johnson (1987: 45ff) has analyzed quite exhaustively. Johnson classifies the different types of forces into COMPULSION, BLOCKAGE, COUNTERFORCE, REMOVAL OF RESTRAINT, ENABLEMENT, DIVERSION, ATTRACTION, and REPULSION. We shall attempt to enquire into their structure and logic with a view to establishing different degrees of dependency among these constructs. In this connection, Peña (1997b, 1998), taking as a basis Johnson's (1987: 45-48) commentary on the most common force structures that are usually found in our experience, offers a summary in relation to emotions. At this moment, we would like to provide an expanded version of the analysis found therein.

3.1. COMPULSION

Sometimes we feel as if we were moved by some external force. In this regard, Mandler (1992: 593) has posited a twofold distinction between *self-instigated motion* (termed *self-motion*) and *caused motion*, both of which can be dealt with under the heading of *onset motion*. Self-motion, in its prototypical form, refers to the well-known experience of an object starting to move on its own as if it were animate. This is the picture Mandler (1992: 593) introduces in his discussion on the concept of animacy in order to illustrate this point:

SELF-MOTION A ○ →

On the other hand, caused motion makes reference to an object being pushed or moved. This is schematically represented as follows:

CAUSED MOTION → ○ A →

Caused motion involves two trajectors, one of them setting the other in motion. It is this fact that lies at the base of the difference between self and caused motion³. It is this latter type of motion which concerns us here.

As suggested by Mandler (1992) self-motion and animacy go hand in hand. Animate beings are usually endowed with will-power and are able to do such things as move on their own. On the other hand, Mandler goes on to point out that caused motion is related to inanimacy since it commonly happens that inanimate beings do not move on their own and need the force of some external agent for this purpose. We may apply these observations to obtain a fuller understanding of some emotion metaphors involving motion. Thus, sometimes we find that emotions are envisaged as entities which move without the aid of an external agent, as in *All emotions left him*. If we take into account that prototypical uses of the verb *leave* have a human agent, it is not unreasonable to consider that in this metaphor emotions may be seen as if endowed with will-power. The expression under consideration would be a case of the THINGS ARE LIVING BEINGS metaphor, of which we may have other examples like *Her sudden anger caught me by surprise*, which involves a different type of motion.

The concept of compulsion is an essential ingredient in the understanding of the category of caused motion. Consider the following examples:

- 1) I was moved by the poem
- 2) I was pushed into depression
- 3) Once it had, [...], led him into the way of happiness ...
- 4) She was carried away by the song
- 5) He loved another with a passion that has led to personal anguish
- 6) ... turbulent anxieties that drove him to suicide.

All these expressions conjure up the image of a path which comprises the following structural elements: a source or starting point, a destination or end point, a directionality,

3. Another difference to which we would like to point is that triggered by what Vandeloise (1996: 545) terms *asymmetric transmission of energy*. It refers to an exchange in which one of the participants holds a salient status because it has the power to initiate such an exchange. Caused motion might be put in relation to this notion.

and some force which causes some entity to move. We want to suggest that the basic logic which underlies the conceptualization of the metaphorical expressions motivated by the COMPULSION image-schema reads as follows: if any external force (either in the form of an emotion or of any other abstract entity) is seen as if endowed with will-power, it will be able to cause any passive subject to move and to exert control over such a subject; if you are taken from a source to a destination along a path, then you must pass through each intermediate point along the path, and the further along the path you are, the more time will have gone by since starting⁴.

Let us take expression number 2 above⁵. The PATH schema underlies this expression but there is another image-schema involved in it: the CONTAINER. By virtue of the PATH schema, the starting point coincides with a non-depressive mood; the destination is a depression; there also exists some force. The subject is passive and that is the reason why he/she does not move on his/her own. In this expression the source domain is represented by a path; the metaphor includes the following mappings: the traveller is a passive subject; the path is whatever leads the subject to a depression; the end point or destination is the depressive mood, and the force involves movement and is external, as suggested by the verb in the passive voice. It must be noted that in this example, the destination takes the form of a CONTAINER which is projected onto the PATH schema in a way which is consistent with its general conceptual layout. As Fornés and Ruiz de Mendoza (1998: 27) have pointed out, image-schemas often provide the blueprint for the partial activation and projection of other ICMs onto them; this process results in what they call an *enrichment* of the highly skeletal structure of the image-schema. As a rule, generic concepts are used as the basis for the guided activation of other concepts as needed. The example we are analyzing is interesting in this respect. In it we combine one image-schema with another in such a way that the structure and logic of both have to be made compatible, but one of the schemas involved (i.e. the CONTAINER) acts as subsidiary to the other (i.e. the PATH). Another example which could be analyzed in terms of schematic enrichment is number 3, where the preposition *into* cues the activation of the CONTAINER image-schema. Compare the expressions 2 and 3 with examples 5 and 6. The latter only invoke the COMPULSION image-schema since this schema does not interact with other conceptual constructs. We can observe that in contrast to metaphors 2 and 3, in expressions 5 and 6 the end point of the path is a point

4. This point of the internal logic of the COMPULSION image-schema is not specially highlighted. However, it partakes in it because of its subsidiarity to the basic PATH schema.

5. Interesting insights might be derived from contrasting this expression with its Spanish counterpart: *Me dejé llevar por la depresión*. It is also the instantiation of the PATH image-schema which licences the construal of this sentence. In it, *depression* is personified and, as a consequence, is able to be endowed with will-power. The subject, who is devoid of any type of control, is affected by an external force (depression) in a negative way since such a force creates a negative area of influence which impinges on the subject.

in space (as indicated by the preposition *to*), which could be postulated as a conceptual dependency of the PATH schema.

In relating the analysis of these examples -which obey the internal logic of the COMPULSION schema- to the notions of TR and LM⁶, we shall claim that the TR displays the following features⁷:

- It is usually conceptualized as a person (or rather, a traveller along a path).
- It is passive.
- It is regarded as a point in space.

The LM⁸ is defined by the following characteristics:

- It is usually conceptualized as an emotion or abstract entity.
- It is identified with the destination of the path.
- It is regarded either as a point in space or as a container. It is in the latter case that the process of schematic enrichment takes place.

Finally, some additional features of the notion of compelling force are the following:

- It is either an unspecified force (cf. *I was pushed into depression*), an emotion (cf. *He loved another with a passion that has led to personal anguish*), an abstract entity (cf. *Once it had, by an opening undesigned and unmerited, led him into the way of happiness*), or even an entity which is able to elicit some kind of feeling (cf. *I was moved by the poem*).
- It is seen as active and endowed with will-power, due to the fact that it is personified.

In these cases, the subject does not seem to have any control over the emotion and, on many occasions, is unintentionally carried away along a path. As is the case with the CONTAINER metaphor, it is control⁹ that triggers a positive or negative axiology. Emotions are positive or negative in so far as they can be controlled or not. If controlled, they do not lead us to dangerous situations because there is no loss of balance. Therefore they are positive. On the other hand, if they are uncontrollable and equilibrium is lost, they are dangerous and, as a consequence, our cultural system sees them as negative.

6. The trajector (TR) is the profiled or highlighted entity, while the landmark (LM) merely acts as a reference point for the trajector (see Langacker 1987 for further details).

7. It should be borne in mind that this is a tendency rather than a rule.

8. Note that the LM is not always specified, as in the expressions *I was moved by the poem* and *She was carried away by the song*.

9. For a detailed description of the Control Idealized Cognitive Model, see Ruiz de Mendoza (1998: 265). As pointed out by Dik (1997: 112), a state of affairs (or possible situation) exerts control over another one if its first argument has the power to decide whether such a state of affairs will obtain or not.

Note that even in the case of expression number 3 above, the situation is portrayed as partially negative, even though the destination, which takes the form of a container, displays positive characteristics. We contend that this situation is negative in so far as the subject is unable to control it. This is not incompatible with the positive influence which happiness exerts on the subject.

3.2. *BLOCKAGE*

Sometimes, even though there is some attempt at control, we encounter some obstacles that prevent a moving entity from reaching a destination. For instance, we can say that HARM IS PREVENTING FORWARD MOTION TOWARD A GOAL (e.g. *Her accident was an enormous setback to her career*). Concerning metaphors for emotions, consider the following set of related examples:

- 7) The course of true love never did run smooth
- 8) Though to part with her at a moment when her modesty alone seemed, to his sanguine and preassured mind, to stand in the way of the happiness he sought,...
- 9) Whatever cross-accidents had occurred to intercept the pleasures of her nieces, she had found a morning of complete enjoyment.

In our view, the BLOCKAGE image-schema consists of the following structural elements: a path, a directionality, a destination which is not reached, and, on many occasions, not specified, a moving entity, and another entity, which is usually stationary, which blocks or resists the force of the moving entity.

The internal logic of the BLOCKAGE schema is articulated according to these postulates: any entity or force on the way to a destination will be able to block the further progress of the moving entity; if any obstacle blocks the force of the moving entity, the latter will not be able to reach the intended destination, and the further along the path the moving entity is, the more time will have gone by since starting and the nearer it is to the intended destination.

Now we shall analyze expression number 9. In it, there exists a path whose destination is not specified but whose trajectory is described by some moving entity; the moving entity or TR is *the pleasures of her nieces*, and the notion of cross-accidents is conceptualized as an obstacle.

In application of the basic logic of the BLOCKAGE image-schema and of the insights derived from the skeletal conceptual structure of such a schema, we can observe that the progress of the TR, which is an emotion, is blocked by an obstacle. Such a barrier will prevent the TR from reaching the intended destination. An entailment which

derives from these considerations is that the moving entity, the emotion in question, will have to either stop or redirect its force, creating in this way a new path which will lead to a different destination from the initial one.

Now take these expressions:

- 10) She can't get close to him
- 11) We talk and talk, but I can't reach him.

On these occasions, there exists an implicit obstacle or barrier to the pursuit of a given destination which is encoded in the language by means of *can't*. For instance, let us analyze 10. The moving entity, which in this case is identified with the TR, is a subject; the destination, which takes the form of the LM, is another person; the path is the trajectory described by the potential movement of the TR towards the LM, and the obstacle is some kind of unspecified force.

Interesting insights can be gained from the consideration of the above mappings and of the internal logic of the BLOCKAGE image-schema. The TR is unable to reach the intended destination, another subject, due to some implicit force which prevents her from moving forward. As has been mentioned, it is the use of *can't* that instantiates the BLOCKAGE image-schema.

3.3. COUNTERFORCE

Johnson (1987: 46) defines such a force gestalt as “two equally strong, nasty, and determined force centres (that) collide face-to-face, with the result that neither can go anywhere”. For instance, in our view, this is the case with EMOTION IS AN OPPONENT (see Kövecses 1990: 163-164) (e.g. *He was wrestling with his emotions*). There are two force vectors which move along a path (sometimes within a container) and they collide face-to-face because both of them, the emotion and the subject, want to control the situation:

- 12) She had been feeling neglected, and been struggling against discontent and envy for some days past
- 13) If her aunt's feelings were against her, nothing could be hoped from attacking her understanding
- 14) She had, moreover, to contend with one disagreeable emotion entirely new to her-jealousy
- 15) His cheerfulness can counteract this
- 16) Under this infatuating principle, counteracted by no real affection for her, ...

All these examples involve an implicit COUNTERFORCE image-schema. This must be understood in metaphorical terms because in regarding emotions as disruptive forces, any subject trying to suppress or control them (as is the case in *She had... been struggling against discontent and envy for some days past*) is amenable to be construed as another force which attempts to counteract the action of the other force vector. Observe, however, that this example and related ones suggest that the COUNTERFORCE image-schema is subsidiary to the PATH schema only in metaphorical terms. Note that when struggling neither a static nor a dynamic path is implied. Nevertheless, as pointed out before, forces are provided with a vector quality or directionality and describe some kind of path. Moreover, forces are usually aimed at some destination. In the light of this, any force which tries to oppose another can be treated as a counterforce which precludes the former from reaching its intended goal.

This image-schema is interrelated to the BLOCKAGE schema. Note that the two force centres which collide by virtue of the COUNTERFORCE schema are somehow an obstacle which prevents an entity or some entities from reaching the intended destination.

Let us analyze this schema in some detail. First consider its structural elements: a path; two directionalities (each of them followed by each of the moving entities involved); a destination which is not reached, and, on many occasions, not specified; a moving entity or TR, and another entity, which is kinetic as well, which blocks or resists the force of the moving entity.

Observe that the COUNTERFORCE and BLOCKAGE schemas share many of their structural elements. However, while the latter seems to involve a moving and a stationary entity, the former invokes two kinetic entities. Now let us consider the basic logic which derives from the skeletal conceptual structure of the COUNTERFORCE schema: any entity or force moving in a way opposite to another kinetic entity will be able to block the further progress of the latter entity; if any force blocks the progress of the moving entity, the latter will not be able to reach the intended destination, and the further along the path the moving entity is, the more time will have gone by since starting and the nearer it will be to the intended destination.

On the basis of these observations, we shall analyze expression 15, which instantiates, although only in an implicit way, the COUNTERFORCE image-schema. In it *this* is a moving entity along a path which aims at a certain destination; *cheerfulness* is the counterforce, a kinetic entity in the form of an emotion, which opposes the force of the other moving entity; there exist two directionalities. One is that followed by *this*, and the other is the trajectory described by *cheerfulness*¹⁰, and the path is that described

10. There exists no evidence that the counterforce which opposes a given force aims at any specific destination.

by the movement of *this*. What is entailed by these considerations is that the two moving entities (*this* and *cheerfulness*) collide and neither of them can reach a destination. The expression suggests that these two forces are endowed with will-power and one of them (*cheerfulness*) is stronger than the other and imposes on it.

Up to now we have been dealing with examples of implied COUNTERFORCE which involved static paths¹¹ where movement is only implicit. On the other hand, consider expressions like 17 and 18:

17) Our confidences in you clashed

18) Our hopes clashed with theirs.

The verb *to clash* instantiates an explicit COUNTERFORCE image-schema which prompts a kinetic path. Let us analyze 18. In this metaphorical expression *our hopes* are seen as a collection of entities travelling along a path which aim at some unspecified destination. They are one of the counterforces; *theirs* (their hopes) are the other counterforce. They are regarded as a dynamic collection of entities identified with an emotion, which opposes the force of the other entities; two directionalities are described: the first is the one traced by the trajectory followed by *our hopes*, and the other by *theirs*, and the path is described by the movement of *hopes*.

As was the case with the previous examples we have dealt with, two moving entities clash and neither of them can reach its intended destination. Both *our hopes* and *theirs* are personified and endowed with agency. However, neither of them is stronger than the other. Therefore neither of them yields.

3.4. REMOVAL OF RESTRAINT

In our view, REMOVAL OF RESTRAINT and ENABLEMENT go hand in hand. We shall relate these two schemas to both the CONTAINER and PATH image-schemas. When something such as a container is opened, we are free to come into it (e.g. *I entered a state of euphoria*) or to get out of it (e.g. *I emerged from the catatonic state I had been in*). On such occasions, the subject has some control over the interior of the container

11. The motion component plays a prominent role in the conceptualization of PATH metaphors. Nevertheless, movement along a path is not a necessary prerequisite for the instantiation of this image-schema. We might even talk about static paths. Movement through space from one point to another along a path is the prototype. But on some occasions what is profiled is not the motion aspect but the point at which some entity is located along a path, as in *Like anxiety, foreboding is midway between dread and apprehension in its formality, its intensity, and its conviction of certain or possible harm; But this was only the beginning of her surprise*. These instantiations of the PATH schema do not constitute the prototype but poor examples of the category.

(the emotions). In relation to the PATH schema the implication is that since the obstacle is removed, any force can move along the path. Take the following examples:

- 19) Real journalists keep their feelings from getting in the way
- 20) I'm very sorry that you should have been giving way to any feelings
- 21) His good and her bad feelings yielded to love.

Consider the structural elements which, according to us, make up the REMOVAL OF RESTRAINT schema: a path; a directionality; a destination; an obstacle which is removed so that it does not block the further progress of the kinetic entity, and a moving entity which reaches the intended destination.

Now we shall spell out the internal logic by which all those expressions instantiating the REMOVAL OF RESTRAINT schema abide: if any obstacle along a path is removed, any entity will be able to move from a source to a destination along a path; such a kinetic entity must and will be able to pass through each intermediate point on the path; once the obstacle is removed and does not block the further progress of the TR, the latter will be able to reach the intended destination, and the further along the path the kinetic entity is, the more time will have gone by since starting.

We can apply this rationale to the analysis of the metaphorical expression number 19. In it, the TR or moving entity is not specified (even though we might reasonably suggest that it is the journalists' professional careers); the destination is not specified either, and "feelings" is the obstacle which is removed so that it does not block the progress of the unspecified kinetic entity. In the light of the above statements and bearing in mind the internal logic of the REMOVAL OF RESTRAINT schema, we observe that it is the removal of feelings from the professional career which allows it to keep going and succeeding (i.e., reaching the intended goal).

3.5. *ENABLEMENT*

As has been pointed out in our discussion on the REMOVAL OF RESTRAINT image-schema, ENABLEMENT is but a logical entailment of it, rather than an independent schema. We can postulate its subsidiarity with respect to REMOVAL OF RESTRAINT. Notice that when any obstacle disappears, entities are able to move or to act in some way or another. By way of illustration, take example 19. By removing feelings from their work, journalists are able, among other things, to be objective in relation to the news they report.

ENABLEMENT takes place when people become aware that they have some power to carry out some action because there exists no obstacle or counterforce. In our view,

these are the structural elements which the ENABLEMENT image-schema comprises: a path; a directionality; a destination, and a moving entity which reaches the intended destination. We could also add to this list of structural elements the lack of any obstacle which blocks the further progress of the kinetic entity.

From our point of view, the internal logic which underlies the conceptualization and construal of all those expressions activating the ENABLEMENT schema is articulated according to the following postulates, which are related to those of the REMOVAL OF RESTRAINT schema: if any entity moves from a source to a destination along a path, then it must and will be able to pass through each intermediate point along the path; if no obstacle blocks the further progress of the TR, the entity will reach the intended destination, and the further along the path the kinetic entity is, the more time will have gone by since starting.

By way of illustration, take metaphor 22:

22) He is wild to make his pleasure conduce to yours.

The moving entity (*his pleasure*) describes a path with some directionality which will lead to a destination; the destination is someone else's pleasure, and there does not seem to be any kind of obstacle. Since there is no obstacle which blocks the movement towards the intended destination, the entity will be able to reach it. Moreover, the subject is aware that he can control the situation since no counterforce or obstacle prevents it from doing so. These same entailments are implied by all those expressions in which no obstacle is a barrier to the movement of some entity towards some destination.

3.6. DIVERSION

As postulated in our analysis of the BLOCKAGE schema, when an entity encounters a barrier on its way along a path it either stops or redirects its force. The DIVERSION image-schema profiles this latter alternative. This schema could thus be thought of as a conceptual dependency of the BLOCKAGE image-schema or as a variation of it. Moreover, it could even be claimed that it is a logical entailment of the COUNTERFORCE schema. Bear in mind that when two forces collide face to face, they often take separate ways in order to reach different destinations, which makes DIVERSION subsidiary to BLOCKAGE and to COUNTERFORCE. Take these examples:

23) Their marriage has gone off the track

24) It is the warmth of her respect for her aunt's memory which misleads her here

25) She and her husband drifted apart and, eventually, they divorced

26) They've moved away from each other emotionally.

From our point of view, its structural elements comprise: a moving entity endowed with force; a second force or entity which makes the first deviate from the intended original destination; an initial path; an intended initial destination; a second path which is created by the deviation; and a second destination instantiated by the new path created by the impediment along the path which makes the force or entity deviate from its intended initial path.

Now let us sketch out the basic logic possessed by the DIVERSION image-schema: if the further progress of an entity or force is blocked by another force or entity, the former entity or force will be impelled to deviate from its initial path, and if a new path is created, it will lead the entity or force to a destination which is different from the initial one.

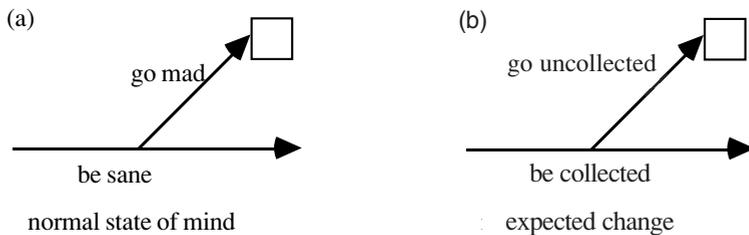
By way of illustration, take sentence 24. In this expression, *her* refers to an entity which travels along a path; there exists some unspecified initial path along which this entity has been travelling; the initial destination corresponds to that to which the initial path has led the subject; *the warmth of her respect for her aunt's memory* is a force which blocks the subject's further progress. Thus, the subject is made to redirect her force, and this new path will lead the subject to a destination which is not the initial or intended one.

Finally, consider the following set of related expressions:

- 27) She has gone mad over him
- 28) The friendship turned sour last summer
- 29) My father became fierce when he lost his temper
- 30) He was growing anxious for her being again at Mansfield.

Not all these sentences invoke emotional states. However, they have been added in order to show that the constructions above are attested across the English language in a variety of expressions. According to Radden (1996: 447-450), all of them conjure up the DIVERSION schema. He studies this conceptual construct in connection with the verbs *to go* and *to come*. We have added some more verbs which abide by the same logic to our study. In Radden's account, *to go* portrays a change of state which takes place much more slowly than that described by *to come*. Moreover, he claims that those changes which are invoked by the DIVERSION metaphor are usually sudden, unexpected, unintentional, and inchoative. Regarding the speed of change, Radden argues that changes suggested by *go* are faster than those invoked by *become*, but slower than those cued by *turn*. We would like to add that *grow* in the expression above, like *become*, portrays a rather slow change. No matter the speed of the change invoked by each verb, each of the expressions quoted above has a metaphorical basis, even though nowadays they may not be felt as metaphors in everyday language. Let us comment a bit further on their metaphorical root. Bear in mind that these changes are sudden and undesirable. The desirable result was the contrary. Therefore, we share Radden's belief that this kind of

expressions make use of the DIVERSION schema since they involve some kind of abstract motion which departs from the expected path and metaphorically describes a change that departs from the normal state of affairs. This triggers a negative axiology for this image-schema. In this connection, Radden (1996: 449) formulates two mappings which are complementary versions of the DIVERSION schema: UNEXPECTED CHANGE IS DIVERSION FROM A NORMAL STATE OF AFFAIRS OR COURSE OF EVENTS and UNEXPECTED STATE IS DIVERSION FROM EXPECTED CHANGES. This is the way in which Radden (1996: 449) represents these metaphorical mappings in graphic terms:



The situation which concerns us here is a). In order to illustrate these ideas, let us analyze example 29. In it, some kind of unexpected, but not sudden, change has taken place. The normal state of affairs is not specified but it is implied that it was a different one from that prompted by the expression. In order to construe it, we might imagine a path in which the trajector is a subject, the starting point is not specified, the destination (the LM) is an emotional state which was not the expected one: fierce, and the directionality is that traced by the unexpected change. Since the subject (the TR) diverts from the expected destination, the DIVERSION schema could be postulated to lie at the base of this metaphorical expression.

3.7. *ATTRACTION and REPULSION*

We are attracted to good or beneficial forces or emotions such as happiness or love and try to get rid of or to be far from harmful emotions or forces such as sadness, hatred or fear, so that they cannot control us because the further the subject is from the harmful force, the less control such a force has over the subject. The connection of this idea with the PATH schema is very clear. There is an imaginary path along which there exist two or more forces which try to approach each other or to be far from each other. Thus, we encounter such a metaphorical system as DESIRES ARE FORCES BETWEEN THE DESIRED AND THE DESIRER. Take these examples:

ATTRACTION

- 31) They were drawn to each other
- 32) Something in me pulls me toward the wrong kind of man
- 33) Something about him drew me to him.

REPULSION

- 34) Mrs. Rushworth was received by her with a coldness which ought to have been repulsive
- 35) She found him repulsive.

All these expressions conjure up the image of a path which comprises the following structural elements: a source or starting point; a destination or end point; a directionality, and some force which causes some other entity to move toward it (in the case of ATTRACTION) or far from it (whenever REPULSION is involved).

In our view, the basic logic which underlies the conceptualization of the metaphorical expressions motivated by the ATTRACTION image-schema reads as follows: if any force (either in the form of an emotion or of any other abstract entity) is personified, and thus, endowed with will-power, it may be able both to cause a passive subject or entity to move and to exert control over such a subject or entity; if any entity is taken from a source to a destination along a path, then such an entity must pass through each intermediate point on the path, and the further along the path the entity/ies is/are, the more time will have gone by since starting.

Notice that the COMPULSION and ATTRACTION/REPULSION schemas share the same structural elements and internal logic. As a consequence, we could claim that the ATTRACTION/REPULSION schemas hold a subsidiary status with respect to the COMPULSION image-schema. Nevertheless, we should mention some nuances of meaning which trigger subtle differences between these two schemas. First of all, let us argue that while in the case of COMPULSION there exists some external force which moves the entity/ies, ATTRACTION/REPULSION usually imply some force whose source is the entity/ies itself/themselves or some force which, in spite of being external to the entity/ies, is very close to it/them. Moreover, the destination in the case of ATTRACTION corresponds to the stronger entity. On the contrary, the destination in the case of REPULSION is any point far from the stronger entity. We may illustrate this by means of metaphorical example 33. Consider the following mappings: the stronger force is *something about him*; the other entity, *me* (the speaker), which was stationary, is attracted to the stronger entity. In other words, the former makes the latter move towards it; as a result, the destination of the path is *him*, that is, the stronger entity. Moreover, the stronger entity will affect the other entity and will control it. Observe that in this case the force which moves the subject is external to the individual. However, it is very close to

him. In studying this example, we have attempted to show how the ATTRACTION image-schema, even though in a rather implicit way, functions. In addition, it has been our intention to make clear the difference between the COMPULSION and ATTRACTION schemas.

4. TYPES OF IMAGE-SCHEMATIC SUBSIDIARITY

As has been sketched out, in our view, three types of image-schematic subsidiarity underlie the understanding of the taxonomy of FORCE image-schemas we have traced in this paper: (i) by conceptual dependency, (ii) by logical entailment, and (iii) by enrichment. In this section, we shall proceed to briefly discuss these kinds of subsidiarity on the basis of the evidence provided by the detailed analysis of the FORCE image-schema.

(i) Conceptual dependency. Conceptual dependency is the phenomenon by virtue of which a conceptual construct (e.g. an image-schema) needs another (or others) in order to develop its structure and internal logic. For instance, the FORCE image-schema has been found to depend on the PATH schema for its development and understanding. They share most of their structural elements and basic logic and it is only some nuances that trigger their differences. In this respect, expressions instantiating the FORCE schema would not be liable to be construed without a preliminary understanding of the basic PATH image-schema. The same goes for other conceptual dependencies we have outlined all along this paper. In this connection, we have suggested that the COMPULSION, BLOCKAGE, and REMOVAL OF RESTRAINT schemas are directly subservient to the FORCE image-schema. Furthermore, we have established a four-level taxonomy where ATTRACTION and REPULSION depend on COMPULSION, and COUNTERFORCE and DIVERSION on BLOCKAGE. In other words, we can arrange all these categories in a four-level hierarchy where lower categories make use of the generic structure of that/those type/types of higher categories. For instance, in interpreting an expression activating ATTRACTION, we shall activate the generic structure of higher levels in the taxonomy, that is, of the COMPULSION, FORCE, and PATH schemas, as well as the specific structure of the subsidiary ATTRACTION image-schema.

(ii) Logical entailment. A conceptual construct like an image-schema is a logical entailment from another one if the former results from the internal logic of the latter. For instance, take REMOVAL OF RESTRAINT and ENABLEMENT. As has been previously noted, ENABLEMENT derives from the basic logic of REMOVAL OF RESTRAINT. In contrast to subsidiarity by mere conceptual dependency, when

construing an expression involving an image-schema which is a logical entailment of another such conceptual construct, we shall only make use of part of the internal logic of the immediately preceding category in the hierarchy. That is, in interpreting an expression invoking the ENABLEMENT image-schema, we shall only activate part of the internal logic of REMOVAL OF RESTRAINT (that which reads: “if any obstacle along a path is removed any entity will be able to move from a source to a destination along a path”). In the same way, we have also argued that DIVERSION could be felt as being a logical entailment of COUNTERFORCE, which is a further specification of the BLOCKAGE schema. Consider that part of the basic logic of COUNTERFORCE according to which if any obstacle blocks the force of a moving entity along a path, this entity will not be able to reach the intended destination. As a consequence, the kinetic entity can either stop or redirect its force. As has been noted, the DIVERSION schema profiles the latter alternative and derives from part of the internal logic of COUNTERFORCE.

(iii) Enrichment. According to Fornés and Ruiz de Mendoza (1998: 27), as has been advanced in our analysis of the COMPULSION schema, for reasons of cognitive economy, at least in great part of our metaphorical processing, some image-schemas, which are given priority over other non-generic cognitive models, are activated and, when the activation of another cognitive model is unavoidable, such an activation takes place in a partial way as guided by the general basic patterning of the image-schema. This guided activation is what they call *schematic enrichment*. Such a process makes use of cognitive models of all sorts: image-schemas, metaphor, metonymy, and propositional models¹². Consider for instance *He went into trouble after his father died*. This linguistic expression calls for the instantiation of both the PATH and CONTAINER image-schemas. The trajector’s goal is conceptualized as a container which will impinge on the subject (*he*) in a negative way due to its negative axiological value. The principle which triggers such an interpretation of this expression is part of the internal logic of the CONTAINER schema which reads “the entity or entities which enter a bounded region is/are affected positively or negatively by those other entities found within such a container”. Whereas we have suggested that subsidiarity both by conceptual dependency and by logical entailment is cued by virtue of hierarchical relationships among members of the same category (for instance, in this paper we have attempted to establish a taxonomy in which the PATH schema is the higher member in the hierarchy and FORCE and the different types of FORCE constitute the lower layers), schematic enrichment may take place across members of the same category; however, prototypical schematic enrichment occurs across constructs belonging to different categories (we have just seen

12. For more information about cognitive models, see Lakoff (1987).

how the CONTAINER schema holds a subsidiary status with respect to the PATH schema in expressions like *He went into trouble after his father died* enriching in this way the skeletal conceptual structure of the basic PATH image-schema).

In figure 1 below we attempt to establish a hierarchy where the PATH schema is the basic construct to which the rest of them are subservient in different degrees either by conceptual dependency or by logical entailment.

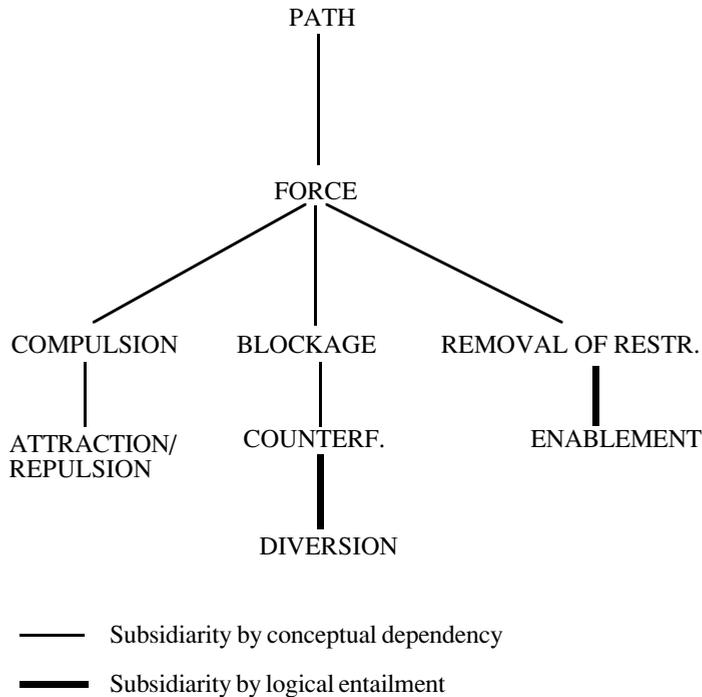


Figure 1

5. CONCLUSION

In this paper, we have attempted to make a brief synopsis of the way the FORCE and PATH schemas are related to one another. We find an implicit PATH schema with a source, a destination, and a reference point. Emotions are forces which move along such a path. Up to the moment when the force reaches the reference point, the subject does not lose control over the situation but when the emotion or force goes beyond such a limit, the subject loses control over the emotion and produces in this way a dangerous

situation. In this respect, it can be argued that the FORCE image-schema provides the abstract domain of emotions with coherence and structure. This is something Kövecses (1990) had noted in connection with the CONTAINER schema.

Additionally, our analysis of the corpus reveals that there exist three prominent types of force (COMPULSION, BLOCKAGE, and REMOVAL OF RESTRAINT) with respect to which the rest hold a subsidiary status either as conceptual dependencies on them or as logical entailments. For instance, while the ATTRACTION/REPULSION schema was found to be a conceptual dependency of the COMPULSION image-schema, ENABLEMENT was postulated as a logical entailment of REMOVAL OF RESTRAINT. In contrast to subsidiarity by dependency and by entailment, which take place within the same category, we have also distinguished another type of subsidiarity usually across different categories, that is, image-schematic enrichment.

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