Image Schemas for *In-Out* Orientation
-With Special Reference to *Out, Come, Appear, Occur,* and *Emerge*-

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1. Introduction

One of the crucial tasks in linguistic science is to clarify the ways in which image schemas characterize the conceptual structure of natural language. Image schemas are embodied, that is, they are directly and repeatedly experienced because of the nature of the body and its mode of functioning in our environment (cf. Lakoff 1987: 267-268). They influence conceptualization or conceptual structure and a part of it is reflected in linguistic expressions. Therefore, we cannot understand linguistic meaning without image schemas. The main objectives of this paper are to examine the conceptual structures of *out, come, appear, emerge* and *occur* in terms of image schemas and to propose that there is a schema or a recurrent pattern of our experience preserved in their conceptual structures. If it is possible that the same schema characterizes the conceptual structures of different linguistic expressions, the schema can be seen as one of the most common embodied structures which are fundamental to our cognition. In what follows, this attempt will solve one of the interesting questions we should ask: to what extent image schemas are universal.

In the next section, we will see a general definition of image schemas. In section 3, I will review the research of OUTs[1] in Lindner (1982). It will be argued that the concept of 'movement' serves a great deal to characterize the conceptual structure of *out* as well as the concept of 'containment.' In section 4, I will examine the conceptual structures of *come, appear, emerge* and *occur* in terms of image schemas. I will suggest that the same image-schematic structure characterize the conceptual structures of *out* and these verbs.

2. Our Bodily Experience, Image Schema and Conceptual Structure

Image schemas are fundamental to human cognition. Since image schemas or the image-schematic structures "emerge" naturally as a consequence of our experience and structure our bodily experience preconceptually, they are recurrent patterns, shapes, and regularities in, or of, ongoing ordering activities like our actions, perceptions, and conceptions. In other words, they are directly and repeatedly experienced because of the nature of the body (i.e. the nature of our biological capacities) and its mode of functioning in our environment (cf. Lakoff 1987: 268 and 292).

Image schemas are embodied, i.e., they are experienced directly and repeatedly. Therefore, image schemas are meaningful themselves. Those embodied schemas give rise to conceptual structure and a part of it is reflected in ordinary language. In this way, image schemas influence the conceptual or semantic structure of natural language and make it meaningful.

Another important feature of image schemas we should notice here is, as Johnson (1987: 28) suggests, that image schemas exist at the level of generality and abstraction. This feature allows them "to serve repeatedly as identifying patterns in an indefinitely large number of experiences, perceptions, and image formations for objects or events (*ibid.*)." In short, image

[1]Capital letters represent concepts.

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schemas can influence the ways in which we can make sense of things or events and reason about them.

Thus, image schemas (i) emerge from our daily experiences, (ii) serve to organize our experience or comprehension and to form particular mental images and (iii) characterize the conceptual structure of natural language.

Some of the most common image schemas are schemas for CONTAINER, SOURCE-PATH-GOAL, LINK, PART-WHOLE, CENTER-PERIPHERY, UP-DOWN and FRONT-BACK. These schemas structure our experience of space. Lakoff (1987: 283) proposes that image schemas which structure space are mapped into the corresponding abstract configurations which structure concept. He calls it the "Spatialization of Form Hypothesis."

In the next section, I will review Lindner's study of the particle *out*. The schemas for *out* are schemas including both the CONTAINER schema and the SOURCE-PATH-GOAL schema.

3. Image Schemas for *Out*

Let us take as an example of schemas those for *in-out* orientation in our experience, understanding, and language. My example is adapted from Lindner (1982).

Lindner (1982) observes verb particle constructions with *out* in English and finds a small number of prototypical schematic structures (i.e. OUT schemas) that could be systematically extended to cover nearly all occurrences of the particle *out*. First, she identifies three basic uses of the particle *out*. The relevant domain is the domain of physical space. See the examples in (1).

(1) a.(OUT-1)He ironed out the wrinkle in his shirt./She went out./She picked out a piece of candy and ate it .
b.(OUT-2)The lava spread out./Hand out the brochures./She fills out that dress.
c.(OUT-3)He set out for Nepal./He reached out to grab it.

Lindner assumes that OUT-1 is the most prototypical subschema of the three because the relation is most readily identified as OUT. The others are extended from OUT-1.

Then, she illustrates a network of image schemas for *out* as Figure 1.

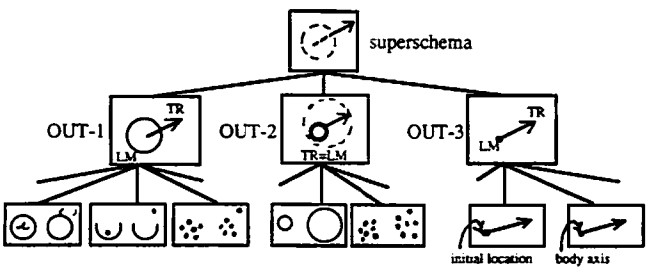


Figure 1

We notice here that the particle *out* is characterized by the schema for 'movement' (i.e. the schema for SOURCE-PATH-GOAL) represented by a vector as well as the CONTAINER schema depicted by a circle.[2] In other words, as the superschema shows, the concepts which characterize

[2]Though the schema for OUT-3 might not seem to have a schema for 'containment,' it does have the concept of 'containment.' The initial location or the initial position can be seen as a small container.

the basic uses of the particle *out* are the concept of 'containment' and the concept of 'movement.'

I stress here the significant role of the concept of 'movement' in characterizing the conceptual structure of *out*. Though the concept of 'containment' or the CONTAINER schema has been highlighted in the previous researches of *out*, it is a part of the conceptual structure of *out*. Since *out* represents the trajector's movement from INSIDE to OUTSIDE, the concept of 'movement' as well as the concept of 'containment' plays a significant role in characterizing OUT.

Then, Lindner (1982: 310) shows in great detail numerous kinds of metaphorical elaboration of the OUT-1 schema. Some of the examples are seen in (2).

(2) a. The debutante came out.
b. The stars/the sun finally came out.
c. I figured out a solution to the problem.

In these sentences, which was hidden, unknown, inaccessible, or unnoticed before has become public, known, accessible, or noticed. (2a) represents a man's becoming public by making a debut, (2b) the stars' or the sun's becoming visible and (2c) a solution's coming to be known. The relevant domains of these sentences are the domain of social interaction, the domain of perception and the domain of cognition, respectively. The concept of 'movement from inside to outside' in the basic use of OUT-1 is shifted to an abstract movement, i.e. a change of state from inaccessible to accessible states. Lindner (1982: 311) illustrates the metaphorical uses of OUT-1 in (2) as seen in Figure 2. "Viewpoint" is used metaphorically in this schema. The viewer can be identified with the experiencer.[3] Therefore, I call the viewer's range the experiencer's domain.

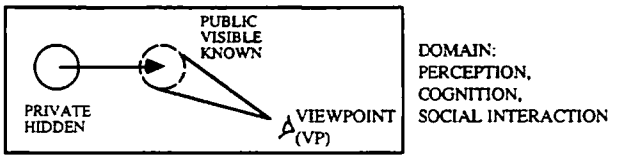


Figure 2

Lindner also discusses *out* in sentences like (3). The examples in (3) describe something's becoming inaccessible to perception, memory or consciousness.

(3) a. Turn out the static; it drowns out the music.
b. The light went/faded out.
c. He tried to blot out the painful memory.

Though *out*'s in the sentences of (3) are defined in these same domains, there is an important difference between (2) and in (3): while the LM (landmark)[4] in (2) is the inaccessible state, the LM in (3) is the accessible state to the experiencer. Therefore, the difference in meaning between (2) and (3) emerges from a difference in the specification of LM .

Lindner illustrates the image schema of *out* in (3), as seen in Figure 3.

[3] "Experiencer" means a person who perceives, recognizes and judges the object. In most cases, it is the speaker or the conceptualizer.

[4] The "landmark" is that in relation to which the trajector moves. In other words, trajector's path or trajectory is defined relative to the landmark.

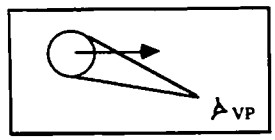


Figure 3

In our ordinary experiences of spatial events, 'going out of a certain domain' implies simultaneously 'coming into another domain.' Therefore, the schema in Figure 3 can be revised as a schema in Figure 4.

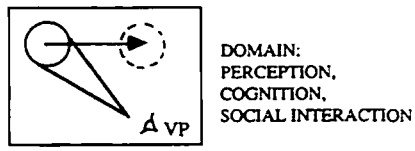


Figure 4

These opposite perspectives in terms of the specification of LM can be also observed in the basic uses of OUT-1.

(4) a. She came out.
b. She went out.

Come out represents 'moving into the speaker's (i.e. the experiencer's) domain,' while *go out* describes 'moving from the speaker's domain.' In other words, the LM in (4a) is the physical space non-proximal (or inaccessible) to the speaker and, in (4b), it is the domain proximal (or accessible) to the speaker. Here, we notice that in the basic and extended uses of OUT-1 the proper perspective or orientation is context-dependent, though some perspective is embodied in the concept of 'movement.' This means that the LM is not specified in the conceptual structure of the particle *out*.

Lindner (1982: 312) suggests that both image schemas in Figure 2 and Figure 4 preserve "the same schematic OUT path." This means that whether or not the experiencer's domain serves as the LM, the concept of 'moving from one domain (LM) to another domain' is preserved in basic and metaphorical uses of OUT-1.

Figure 5 is a conflation of Figure 2 and Figure 4. It is a revised version of the schema in Lindner (1982: 312). Since the opposite perspectives are also observed in the basic use of OUT-1, the domain of physical space can be included in the relevant domains.

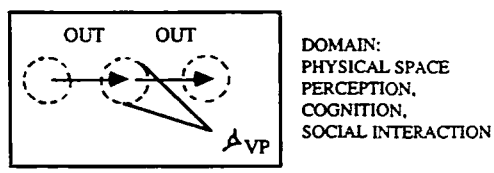


Figure 5

Lindner's study of *out* provides us with the following suggestions: (1) there are three basic

image schemas for the particle *out*, (2) the basic use of OUT-1 whose relevant domain is the physical space is metaphorically extended to more abstract domains like perception, cognition and social interaction and (3) there is no specified LM in the conceptual structure of OUT-1.

Let us examine here whether the concept of 'movement' is preserved in all versions of the particle *out*.

The conceptual structure of OUT-1 involves the concept of 'moving from one domain (LM) to another domain.' In OUT-3, the concept of 'movement' is still preserved, though the domain becomes narrower. OUT-3 involves the concept of 'moving from one location to another.' Even in OUT-2, does involve the concept of 'movement.' Consider the examples of OUT-2 again.

(5) (=1b)(OUT-2)The lava spread out./Hand out the brochures./She fills out that dress.

When we focus on a certain point of the trajector (TR), e.g. a certain point of the flowing lava, one of the brochures, and a certain point of the dress, we can see that every part of TR is moving from the initial location (LM) to another. Figure 6 illustrates 'movement' in OUT-2. Compare the schema in Figure 6 with the schema in Lindner (1982: 310).

< Schema for OUT-2 in Lindner (1982)>

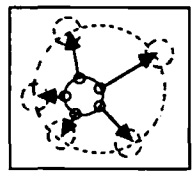


Figure 6

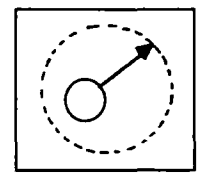


Figure 7

We might say that in OUT-2 the conceptualizer scans the component movements of the TR holistically as a single gestalt (summary scanning).

In this way, the concept of 'movement' is involved in all uses of the particle *out*.

The concept, however, is not particular to the conceptual structure of the particle *out*. It is also involved in *out* in sentences describing static configurations. Consider the next sentence.

(6) She is out in the pool.

In saying this sentence, the conceptualizer mentally scans the pool and judges that it is outside the his/her domain. In other words, the conceptualizer traces a mental path by scanning in a particular direction and then, he/she construes that the pool is "out." Mental path or mental scanning is considered to be an abstract movement. Therefore, *out* in sentences describing static configurations also has the concept of 'movement.'

Therefore, the concept of 'movement' plays a significant role in characterizing the conceptual structure of *out*.

4. Image Schemas for Verbs of Appearance

In this section, we will see that the image schemas for verbs like *appear, occur, emerge* and *come* have similar characteristics to one of the image schemas for *out*.

In Fukada (1996), I have discussed semantic extensions observed in verbs like *appear, occur, emerge* and *come*. I have found that the same extension pattern is commonly observed in the senses of these verbs. In the basic use, these verbs convey the sense of 'coming out into view.' In the extended uses, they come to convey the sense of 'coming out into consciousness.' I have called this semantic extension a metaphorical extension from the physical space to a mental space (more precisely, a metaphorical extension from the conceptualizer's field of view to the conceptualizer's consciousness) through schematization and domain shift (cf. Fukada 1996: 66).

Compare the sentences in (7) and (8). In the basic uses of (7), the verbs convey the sense of 'a [+visible] entity's coming out into view.' In the metaphorical uses of (8), they come to convey the sense of 'a [-visible] entity's coming out into consciousness.'

(7) a. The ship appeared in sight.
b. Typhoons occur in late summer. (*Progressive*)
c. The sun has emerged. (*op.cit.*)
d. The shore came in sight. (*op.cit.*)

(8) a. The more clearly their excellences must appear. (*OED*)
b. An idea occurred to me. (*Progressive*)
c. A conclusion began to emerge. (*op.cit.*)
d. The solution to the problem just came {to me/into my head}. (*op.cit.*)

Figure 8 depicts a metaphorical extension suggested above.[5]

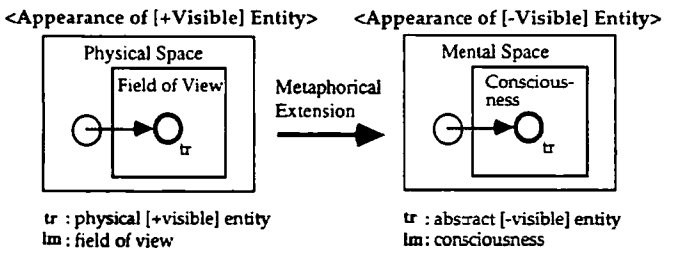


Figure 8

It should be noticed here that the original image-schematic structure is preserved in this extension. The concept of 'coming into the experiencer's (relevant) domain' in the basic use is preserved in the metaphorical uses.[6] In other words, the conception of 'moving into the experiencer's domain'[7] plays a significant role in characterizing the conceptual structures of both basic and metaphorical uses of these verbs.

Figure 9 illustrates an image schema which seems to characterize the semantic structures of the relevant verbs *come, appear, emerge,* and *occur*. I call it the image schema for 'appearance.'[8]

[5]The schema is slightly revised from the schema in Fukada (1996).

[6]The relevant domain of the basic uses is the experiencer's field of view and that of the metaphorical uses is the experiencer's mind. Again, the term 'experiencer' means in this paper a person who perceives and comprehend the object or the event. The experiencer is in most cases the speaker and/or hearer, i.e. the conceptualizer.

[7] The concept consists of the conception of 'containment' and the conception of 'movement.'

[8] A vector in Figure 9 illustrates the conception of 'movement' (i.e. 'moving toward the experiencer's domain') in the basic

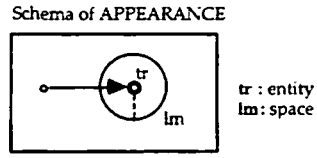


Figure 9

Compare the schema for 'appearance' with one of the image schemas for *out* in Figure 2. The difference between them is that only the former schema involves the concept of 'existence,' though both schemas involves the conception of 'movement.'

There is a difference in conceptual structure between *come* and the other verbs. Only the conception of 'movement,' i.e. the conception of 'moving into the experiencer's domain' is profiled in the conceptual structure of *come*, though the conception of 'existence' as well as the conception of 'movement' is made salient in the conceptual structures of the other verbs. In other words, although the verbs *appear*, *emerge*, and *occur* convey that something comes to exist in the experiencer's domain as a result of its movement, the verb *come* conveys the movement of the trajector's rather than its existence. This property of *come* is similar to that of *out*.

Here, we notice that there is a conceptual relationship among *out* and these verbs. Although what is made profiled differs from each other, their conceptual structures have in common the same conception of 'movement' and preserve the same image-schematic structure. It seems to me that there is a superschema subsuming the schemas for *out* and the schemas for these verbs. If it is correct, the superschema is one of the limited set of basic image schemas.

In the following sections, I will show the basic and extended meanings of the verbs *come*, *go*, *appear*, *emerge*, and *occur*. The differences in conception of these verbs will be explained in terms of image schemas.

4.1 Image Schemas for the Conceptual Structures of *Come* and *Go*

4.1.1 Conceptual Structures of *Come* and *Go*

The basic use of *come* describes 'to move toward the speaker's physical domain,' while *go* represents 'to move from the speaker's domain.'[9] See the following pairs.

(9) a.come {here/*there}[10]
b.go {*here/there}[11]

In the basic and prototypical use, *here* refers to a physical space proximal to the speaker and

uses of *appear* and *come* and the conception of 'change of state in the experiencer's domain' in the basic uses of *occur* and *emerge*. I will discuss it in detail in the following sections.

[9]The following example, however, does not express Mary's moving toward the speaker, though the relevant domain seems to a physical domain.

(i) Mary came to his house.

Sentences like this are often seen in novels. The physical relation between the speaker and the person described at the speech time in the prototypical use is changed into a physical relation between the subject and the location in which the conceptualizer's perspective is located in a more abstract space like a novel. Thus, they cannot be seen as a basic use of *come* and *go*. In order to explain the meanings of *come* and *go* in these examples, we must take into consideration the concept of "empathy" in Kuno (1987) or the role of "ground" in Langacker (1990).

[10]*Come there* is used in the context that "the speaker will be at that place when the person described is to do his coming (Hofmann and Kageyama 1986: 44)." However, this context is not a basic use discussed here.

[11]*Go here* is used as a direction in using computers (Tsubomoto, p. c.). Anyway, this use is not a basic use of *go*.

there refers to a physical domain which is not proximal to the speaker. The restriction in co-occurrence with *here/there* reflects one of the significant characteristics of the conceptual structures of *come* and *go*: at least in the basic use, *come* inherently has the concept of 'moving toward the speaker' and *go* has the concept of 'moving from the speaker.' In other words, the difference in conceptual structure between these motion verbs emerges from the difference in perspective embodied in each conceptual structure, 'toward the speaker' or 'from the speaker.'

The difference in context in which these verbs are used also reflects the semantic difference between these verbs. Consider the following examples.

(10) "The train is coming into the station."
<Relevant Context>
a. The sight of the train is getting larger and more clear from the speaker's point of view.
b. *The sight of the train is getting smaller and vaguer from the speaker's point of view.

(11) "The train is going to New York."
<Relevant Context>
a. *The sight of the train is getting larger and more clear from the speaker's point of view.
b. The sight of the train is getting smaller and vaguer from the speaker's point of view.

The sight's getting larger and more clear implies that the trajector is moving into the speaker's domain, while the sight's getting smaller and vaguer implies that the trajector is moving from the speaker's domain.

Here is a conflation of the image schemas for the basic uses of *come* and *go*.

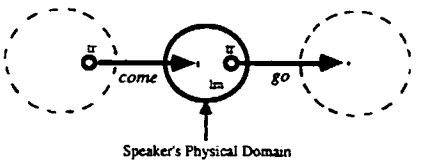


Figure 10

The schema above is very similar to the schema for *out* in Figure 5.

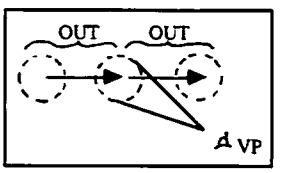


Figure 5

Here, we notice that the same schematic structure is preserved in the conceptual structures of *out*, *come*, and *go*. The concept of 'movement' depicted by a vector is involved in their conceptual structures. The difference between *out* and the motion verbs lies in the specification of LM. Though the LM in OUT schemas is not always the experiencer's domain, the LM in COME or GO schemas is specified. It is the speaker's domain. Therefore, the difference in meaning between *out* and the motion verbs emerges from the difference in the specification of LM.

Let us consider next *come* and *go* occurring with the particle *out*. The examples in (12) are the most prototypical uses. The relevant domain is the physical space.

(12) a. She (finally) came out. <PHYSICAL SPACE>
b. She went out. <PHYSICAL SPACE>

The examples in (13) and (14) are the extended uses of *come out* and *go out*. The domain is shifted to abstract domains like social interaction, perception, and cognition.

(13) a. The debutante came out. <SOCIAL INTERACTION>
b. The stars/the sun finally came out.[12] <PERCEPTION>
c. It finally came out that he had lied to us. <COGNITION>

(14) a. His fame went out soon. <SOCIAL INTERACTION>
b. The light went out. <PERCEPTION>
c. Memories of their old house went out soon. <COGNITION>

Notice here that the LM is extended from the **speaker's** physical domain to the **experiencer's** domain of perception, cognition or social interaction in metaphorical uses.[13] I have called the latter domain as the experiencer's domain in section 2.

Even in the extended uses of *come out* and *go out*, however, the proper perspectives in COME and GO are preserved. *Come out* conveys 'moving into the experiencer's domain' and *go out* 'moving from the experiencer's domain.' Hence, *come out* in (13) represents something's becoming public or something's becoming accessible to perception or consciousness, while *go out* in (14) represents the opposite meaning, i.e. 'something's becoming inaccessible to perception or consciousness.' Figure 11 and 12 illustrate the image schemas for metaphorical uses of *come out* and *go out*.

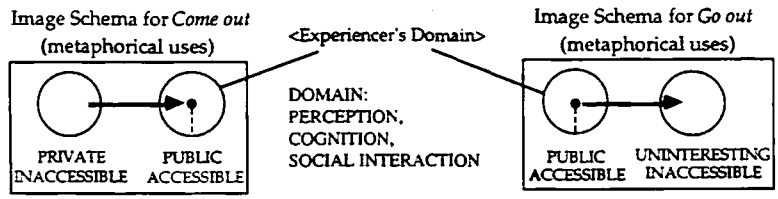


Figure 11

Figure 12

It should be noticed here that 'something's becoming inaccessible to the public' in the conception of *go out* of (14a) does not imply 'something's becoming private.' 'Becoming inaccessible to the public' implies 'becoming unnoticed or less interesting to the public.'

The schema for *come out* in Figure 11 is based on the schema for OUT-1 and the schema for 'appearance.' In the schema for *come out*, the movement depicted by a vector is profiled, while the trajector's existence in the experiencer's domain illustrated by a dotted line is not profiled. Though both the concept of 'movement' and the concept of 'existence' are involved in COME OUT, the former is more profiled than the latter.

Let us return to *come* and *go* without the particle *out*. In the metaphorical use, an interesting difference between *come* and *go* can be observed. See the following pairs.

[12] I don't know whether *come out* in (13b) is an example of the metaphorical uses and whether there is a clear semantic difference between *come out* in (13b) and the same verb phrase in (12a).

[13] The speaker sometimes functions as an experiencer.

(15) a. A memory comes to {me/us/her/him/them} of snowfield in June.
b. *A memory goes to {me/us/her/him/them} of snowfield in June.

The relevant domain in the examples of (15) is the domain of cognition. The examples show that *come* can occur with *to*-dative, while *go* cannot. The difference in acceptability is closely related to the following reasons. First, *to*-dative highlights the concept of 'moving **toward** the mind of a certain experiencer's' and this property of *to*-dative is incompatible with the central conception of *go*, i.e. the concept of 'moving **from** the experiencer's domain.' Second, through our experience, we believe that abstract entities like a memory or a thought cannot move from someone's mind to another's, though they can come into someone's mind.

The same is true in the structure of [*It* + verb + *to*-dative + *that*-clause].

(16) a. It came to {me/us/her/him/them} suddenly that what was wrong was that I was tired.
b. *It went to {me/us/her/him/them} suddenly that what was wrong was that I was tired.

My claim in this section is that the same image-schematic structure is preserved in the conceptions of *out, come* and *go*. The structure seems to be one of the fundamental image schemas which emerge from our recurring physical experience. The difference in meaning between *come* and *go* is a difference in perspective or orientation. The difference between the conception of *out* and those of these verbs is a difference in the specification of the LM. In the next section, I will compare *come* and *come out* in metaphorical uses.

4.1.2 *Come* vs *Come Out*

In this section, I will compare *come* and *come out* in metaphorical uses.

In the structure of [*It* + Verb + *that*-clause], *come* shows different characteristics to *come out*.

(17) a. It came out that he has been seriously ill.
b. It came out that his complaints were founded.

(18) a. * It came ϕ that what was wrong was that I was tired.
b. It came {to me/us/him/her/them} that what was wrong was that I was tired.

(19) a. It came {to me/us/him/her/them} suddenly that what was wrong was that I was tired.
b. (%) It came out {to me/us/him/her/them} that he has been seriously ill.

The relevant domain prototypically imagined differs from each other. In most cases, the domain in which *come out* is used is the domain of social interaction, while the domain in which *come* + *to*-dative is used is the domain of cognition. Therefore, the entity which becomes accessible to the experiencer differs from each other: what has "come out" is a fact, while an entity that has "come to a certain person" is a thought or an idea. *Come out* expresses a certain fact's becoming known to the public, while *come* + *to*-dative conveys a certain idea's coming to someone's mind. If the relevant domain is shifted to the domain of cognition in (19b), *come out* can occur with *to*-dative. In these sentences, a certain fact comes to be known only to the person expressed by *to*-dative, not to the public.

This difference between *come out* and *come* + *to*-dative is also seen in the following examples.

In the sentences of (20), *come out* represents the sense of 'becoming public' or 'coming to be known or noticed to the public' and *come* + *to*-dative conveys the sense of 'coming to be known or noticed only to the speaker.'

(20) a. The fact {came out/?came to me}.
b. An idea {came out/came to me}.

In this way, *come* tends to highlight the domain of social interaction or the public domain when occurring with *out* but when it occurs with *to*-dative, the same verb comes to highlight the domain of cognition or the personal domain.

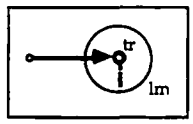
4.2 Schema for the Conceptual Structure of *Appear*

The basic use of *appear* represents something's coming out into view, as seen in (21). The relevant domain is the domain of physical space. There are two important semantic properties in the verb *appear*. First, since the experiencer's visual field is specified as the landmark, a particular perspective 'to the experiencer's field of view' is embodied in the conceptual structure of *appear*. Second, the verb represents not only the trajector's movement but the trajector's existence as a result of its movement. In other words, the concept of 'existence' is embodied in the conceptual structure as well as the concept of 'movement.' So, the verb *appear* profiles the existence of the trajector as well as its movement. In this sense, the conceptual structure of this verb differs from those of *out* and *come*.

(21) a. (=7a) The ship appeared in sight.
b. The stranger suddenly appeared in the doorway. (*Progressive*)

The image schema for the basic use of *appear* is illustrated in Figure 13. It is based on the schema of 'appearance' in Figure 9.

Image Schema for *Appear*
(basic uses)



tr : [+visible] entity
lm: speaker's field of view

Figure 13

As seen in (22), the verb *appear* can be used metaphorically. Since the relevant domain is changed to the cognitive domain, it is a metaphorical extension through domain shift.

(22) (=8a) The more clearly their excellences must appear.

In the metaphorical use of *appear*, one of the original conception of this verb 'movement' is not made salient, i.e. it is made background. Instead, a resultant state motivated by movement like 'becoming accessible' or 'becoming clear' is made salient. The verb, thus, comes to convey the sense of 'something's becoming accessible to consciousness' or 'something's becoming clear to understanding' rather than the sense of 'coming into consciousness.'

There is another example which is in the middle stage of a semantic shift in meaning from 'coming into view' and 'becoming accessible to the experiencer.'

(23) He appeared as a wise man.

The sentence in (23) can express both the trajector's movement 'coming into the experiencer's sight' and a visual impression of the trajector expressed by *as*-phrase, though the latter is a primary interpretation. In the former interpretation, the relevant domain is the physical space, i.e. the experience's field of view, and the conception of 'movement' is still profiled. In the latter interpretation, however, the relevant domain is changed to the experiencer's mind or the experiencer's cognitive domain and the conception of 'movement' is made background. The verb comes to convey a sense like 'a certain thought's[14] becoming accessible to the experiencer's consciousness.'

Also, *appear* is used in the sentence of [*It* + verb + *that*-clause]. The relevant domain is the domain of cognition. See the following examples of (24).

(24) a. It appears that he is wise. <THOUGHT>
b. It appears, in fact, that reference points are fundamental to both linguistic and cognitive organization. <FACT>

The content of what becomes clear, i.e. the content of the fact or the thought, is explicitly expressed in *that*-clause. This means that the content is paid more attention to than the movement. The conception of 'movement' in the original sense of *appear* is more background and the meaning of 'becoming accessible' becomes more salient in the sentence of (24) than in the sentence of (22) and (23).

Sentences with *appear to*-infinitive like (25) represent the speaker's belief toward the situation or the speaker's subjective judgement of the object (tr). In these sentences, the conception of 'movement' seems to be bleaching. The sense of 'a certain thought's becoming accessible to the speaker' comes to be the only meaning of the verb *appear*.[15]

(25) Sam appears to realize the importance of the problem. (Fukada 1996)

I do not know whether the conceptual structure of *appear* in this use can be characterized by the image schema in Figure 13. I believe, however, that the image schema in Figure 13 is still preserved in the conceptual structure of *appear* in (25).

As Fukada (1996) suggested, there seems to be a gradual shift in meaning from 'coming into view' to 'becoming accessible to the experiencer.' The uses of *appear* in (22), (23), and (24) are in the middle stage of the extension from the basic meaning of *appear* in (21) 'coming into view' to the extended meaning in (25) 'becoming accessible.'

Appear is also used in the domain of social interaction. See the following examples. The verb comes to convey a change of state from private/hidden to public/known.

(26) His picture appeared in the paper. <SOCIAL INTERACTION>

[14] In (23), what becomes accessible to the experiencer is a thought that 'he is a wise man.'

[15] It should be also noticed that the experiencer in *appear to*-sentences is restricted to the speaker. Consider the following sentences.

(i) a.? Sam appears to be wise to me.
b.?* Sam appears to be wise to her.

Sentences with the explicit experiencer is less usual or less acceptable than sentences without the explicit experiencer like *Sam appears to be wise*. Moreover, when the explicit experiencer is not the speaker, the sentence is least acceptable. This observation shows that the proper experiencer in *appear to*-sentences is implicitly understood as the speaker.

(27) He had always seemed the perfect husband but it now appeared that he had frequently beaten his wife. <SOCIAL INTERACTION>

To sum up, the schema for *appear* in Figure 13 involves the concept of 'movement' as well as the schemas for *out* and the schema for *come*. One of the most significant differences between APPEAR and the other terms is that the concept of 'existence' is made salient only in the conceptual structures of *appear*. Moreover, these terms show the same semantic extension pattern from the domain of the physical space to abstract domains like cognition, perception and social interaction. Through domain shift, the conception of 'movement' is bleached and the conception of 'becoming accessible' is salient. This characteristic is most saliently observed in the semantic extension of *appear*.

4.3 Schema for the Conceptual Structure of *Occur*

Let us consider next the conceptual schema of *occur*. The most prototypical or basic use of *occur* is to describe an event's coming about, though *occur* can be also used to express a [+visible] entity's coming into view like (29).

(28) a. Typhoons occur in late summer. <Event>
b. Several traffic accidents occurred yesterday. <Event>

(29) Bats occurs almost everywhere. <Entity>

Since the objects construed in the basic use are events and they cannot "move," the conception of 'movement' does not seem to be involved in the conceptual structure of the verb. Rather, the concept of 'change of state' seems to be involved inherently.

Since the verb frequently occurs with the word *suddenly*, the change involved in OCCUR is a sudden one from non-existence to existence.

(30) The traffic accident suddenly occurred.

Occur is also used metaphorically. The relevant domain in the examples of (31) is the domain of cognition. In these metaphorical uses, the same verb can also occur with the term *suddenly*.

(31) a. An idea {ϕ /suddenly} occurred to me.
b. It occurs to me {ϕ /suddenly} that I may have misunderstood you.

A tentative schema for the conceptual structure of *occur* is illustrated in Figure 15. The experiencer's domain serves as the LM. One of the most significant differences between the image schema for *occur* in Figure 14 and that of *appear* in Figure 13 is that OCCUR involves the concept of 'change of state in one domain' while APPEAR involves the concept of 'moving from one domain to another.' However, in both image schemas for *appear* and *occur*, a vector illustrates the concept of 'movement' or the concept of 'change of state' and the experiencer's domain serves as the LM. Therefore, we can say that these schemas preserve the same image-schematic structure.

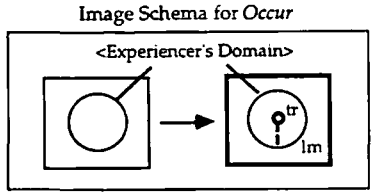


Figure 14

4.4 Schema for the Conceptual Structure of *Emerge*

Emerge conveys a change of state from non-existence to existence as well as *occur*. The most prototypical use of *emerge* is seen in (32).

(32) The sun has emerged.

Emerge in (32) represents the sun's change of state 'from invisible to visible' rather than the sun's moving toward the speaker's field of view.

However, there is a difference between the conceptual structure of *emerge* and that of *occur*. Consider the following examples. *Emerge* occurring with *suddenly* is less acceptable than *occur*.

(33) a. The traffic accident suddenly occurred.
b.?? The sun suddenly emerged.

The change expressed by the verb *emerge* is a gradual one, while *occur* represents a sudden change of state. In other words, the original sense of *emerge* is 'something's gradually coming to exist.' This means that the middle stage in a sequential change of state is involved and is made salient in the conceptual structure of *emerge*, while it is not salient in that of *occur*. This difference is tentatively illustrated as follows.

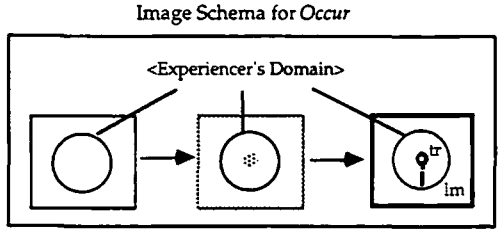


Figure 15

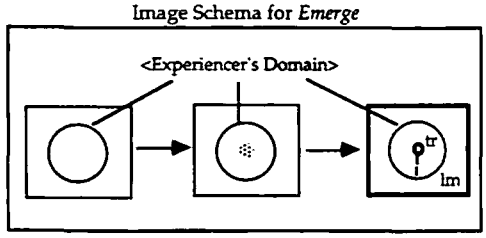


Figure 16

Emerge is also used metaphorically to express something's becoming accessible to consciousness. The relevant domain is the domain of cognition.

(34) a. A conclusion began to emerge. (Fukada 1996)
b. It emerged that she had been drinking. (*ibid.*)

5. Concluding Remarks

Image schemas are fundamental to our cognition. They emerge as meaningful structures for us at the level of our perceptual interactions, bodily experiences, and cognitive operations. Since they preconceptually structure our bodily experience, image schemas influence the ways in which we make sense of things or events and reason about them and characterize the conceptual structure of natural language. To explore the conceptual structure of natural language in terms of image schemas is not only to explore our ability to make linguistic expressions meaningful but to clarify the emergence of meaning.

I have attempted to suggest in this paper that the same image-schematic structure is preserved in the conceptual structures of *out* and the verbs *come, appear, occur,* and *emerge* and that it is one of the most common embodied structures which constantly recur in our everyday bodily experience. In all the conceptual structures of *out, come, appear, occur,* and *emerge,* the concept of 'movement' is embodied as well as the concept of 'containment.' The difference in conception between *out* and the relevant verbs is that the LM is not specified in OUT, while the LM is the experiencer's domain in the other conceptions. In other words, a particular perspective is not embodied in OUT. Also, though the conceptual structures of these verbs are based on the same image schema, i.e. the schema for 'appearance,' their meanings are different from each other. *Come* profiles the movement of trajector with a particular perspective 'toward the experiencer' but it does not profile the existence of trajector. *Appear,* unlike *come,* profiles the concept of 'existence' as well as the concept of 'movement.' Both *occur* and *emerge* express a change of state in the experiencer's domain rather than a movement toward the experiencer's domain. However, *occur* expresses a sudden change of state, while *emerge* represents a gradual one. These differences in meaning among *come, appear, occur,* and *emerge* are explained in terms of image schemas.

This paper clarified the crucial roles of image schemas in characterizing the conceptual structures of *out, come, appear, occur,* and *emerge.* If there is a schema that characterizes the conceptual structures of some linguistic expressions, the schema is one of the most common embodied structures that occur directly and repeatedly in our everyday bodily experience and that are fundamental to our cognition. In future research, I will examine other linguistic expressions concerning appearance or perception of appearance in terms of image schemas. It will be argued that a limited number of image schemas characterize the conceptual structures of those expressions. The ways in which those expressions give rise to a variety of abstract meanings by employing the image schemas metaphorically will be also explored.

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