RUN: A COGNITIVE ACCOUNT OF ITS MEANING TRANSFERENCE IN THE LIGHT OF AN IMAGE-SCHEMA BASED MODEL

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Abstract: This article aims at providing a more comprehensive picture of how meanings of “run” are transferred from spatial to non-spatial meanings by using the combined framework of Multimodal Image Theory and Extended Conceptual Metaphor. To be specific, 368 concordances of “run” extracted from the corpus of Contemporary American English in 2017, Genre Spoken were systematically analyzed to first identify the word’s meanings in its contexts of use and then account for its meaning transference. In other words, the prototypical meaning of “run” and its image complexes in three spaces namely Visual space, Maneuver space, and Kinetic space were analyzed in the light of Multimodal Image Theory, which provides concrete image-schemas mapped onto the word’s non-spatial meanings found in its Mental space in association with a range of conceptual metaphors. It has been shown that mapping together with image-schema transformations are the mechanisms of the word meaning transference.

Keywords: meaning transference, mechanism, “run”, conceptual metaphor, image-schema.

1. Introduction

Polysemy is an interesting phenomenon whereby a single form is paired with two or more meanings1. Although the distinction between polysemy, monosemy, and homonymy seems to be clear, it is still difficult to draw at the intuitive level. A clear-cut division between empty words and content words in traditional grammar have been proven false concerning the rich lexical meanings of English prepositions in which over is a case (Long, 2023). Interestingly, each preposition of the vertical axis (over, above, under, below) encodes functional information associated with different pairs of image complexes and the links amongst their meanings are closely related from the internal structure. In respect to English motion verbs, it is seen that their syntactic structures are often collocated with a preposition, making the direction of the motion events clearer. Here are four examples to show that the polysemous word “run” is used in different domains from SPACE to non-spatial ones:

(1) And a bunch of fraternity guys would run across the street [Cor17.65]
(2) We’re getting words inaugural address will run about 30 minutes [Cor17.62]
(3) The thing is, he hasn’t run a big corporation. [Cor17.1]

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1 In this study, a meaning of a word is a stationary concept while a sense of a word is construed in a certain context.
(4) And the Republicans will try to run a different race [Cor17.21]

The first sentence frames a motion event in which the domain is apparently SPACE due to the emergence of the noun phrase “the street” and the verb phrase “run across” denoting the direction of the motion event. The domain in sentence (2) is TIME while the domains in (3) and (4) are HIERARCHY and COMPETITION respectively. Besides the difference in domains, the image-schemas associated with run in the four above sentences cognitively differ in terms of length, force, and direction. This facilitates that the meanings of run have been transferred among different cognitive domains. The current paper hypothesizes that the internal concept structure together with image-schemas and other properties can be used to account for the meanings of the word “run” in different contexts. Consequently, the objective of the paper is to provide all the meanings of run and explain how other extended meanings are derived from the prototypical image complex, which are realized by answers to the following two research questions:

1. What are meanings of the word “run” in different contexts of use?
2. How do those meanings of the word “run” transfer in their contexts of use?

The article has the following structure. It first starts with the background of the meaning transference and other related operating concepts. The second part presents the conceptual framework and data analysis while the final section is the findings and discussion of run’s meaning transference.

2. Background

2.1. Key Terms

Consulting three dictionaries namely Oxford Dictionary, Cambridge Dictionary, Longman Dictionary shows that the motion verb “run” has 35 meanings in which run acts as either transitive or intransitive verb. The word is used in different domains beside SPACE such as TIME, COLOUR, RACE, ELECTION, etc. However, the way to organizing the meanings of run in those dictionaries does not provide an explanation for the word’s meaning transference. This study follows Frame Semantics advocated by Fillmore (1982) in order to analyze the meaning of run, which means that the sense of the word should be drawn from its contexts of use, or mental spaces in which run emerges. Additionally, as run is a motion verb, its usage entails motion events which are seen as a cognitive continuum which contains Talmų’s topology source – path – goal in a bounded or unbounded frame. In reference to the salient aspects of source-path-goal, the study also exploits two key elements Figure (F) and Ground (G), parts of image-schemas in Gestalt psychology, forces and direction between them. Specifically, the F is conceptualized as a moveable entity which receives attention while the G tends to be the stationary entity or serves as a kind of background (Talmų, 2000). Forces in this study are analyzed in the relation between the F and G, including the gravity, agonist and

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2 Agustín and Ingrid (2017) summarize that there are three main mechanisms of making novel senses namely coercion, modulation or ad hoc concept construction.

3 https://www.oxfordlearnersdictionaries.com/definition/english/run_1?q=run

4 https://dictionary.cambridge.org/vi/dictionary/english/run

5 https://www.ldoceonline.com/dictionary/run

6 The motion verb “run”: Old English, “move swiftly by using the legs, go on legs more rapidly than walking”, also “make haste, hurry; be active, pursue or follow a course” and, of inanimate things, “to move over a course”.

antagonist forces, direction of the F and G denoted from the contexts of use of *run*. Last but not least, meaning transference in this study is conceptualized as a phenomenon whereby the prototypical meaning of *run* is derived to different meanings found in different domains.

### 2.2. Human Construal Process and Meaning Transference Underlying the Process

Generally, human construal process would normally undergo four steps which is represented in the following figure:

**Figure 1**

*Linguistic Construal Operation Processes (Adapted from Croft and Cruse, 2004, p. 46)*

In respect to the salient aspect of motion events associated with *run* and the aforementioned hypothesis, it is seen that the spatial usage of *run* would be exploited to account for the word’s derived meanings. Analyzing the structures of sentences (1) to (4), image-schema transformations would be the mechanism of the word’s meaning transference. In other words, the image-schema in each sentence remains the same whilst the differences are in the salient aspects of each F and G in each context of use.

Concerning the non-spatial scenes in which *run* emerges, it is supposed that functional and visual information of *run*’s prototypical meaning would be used to account for the word’s non-spatial uses. Moreover, those non-spatial uses of *run* are parts of scenarios/ mental spaces which activate the frames/ domains. Domains activate image-schemas and image-schemas activate metaphors when *run* is metaphorically used. All in all, the schematicity or levels of construals can be represented in the following figure:
In one notable work to account for the semantic development of “chạy” (Vietnamese equivalent of English run), Dong (2017) analyses three mechanisms namely foreground, perceptual resemblance, and interpersonal experiential to account for the words’ meanings. Our study also makes references to those mechanisms and other complementary properties in our proposed conceptual framework to show that the hypothesis that the internal concept structures associated with run could account for the word’s derived meanings.

3. Conceptual Framework and Data Analysis


My previous study made use of the combined framework of Multimodal Image Theory (MIT) and Extended Conceptual Metaphor Theory (Extended CMT), a development of the standard version of Lakoff and Johnson (1980), to account for the meaning transference of “over, above, under, below” and once again, in this study I exploit the frameworks to account for the meaning transference of run from SPACE domain to other domains, which is represented via the following figure:

Figure 3
The Combined Conceptual Framework to Account for Run’s Meaning Transference
In respect to the motion events associated with *run*, I see that the first space, *Visual space* images, treats spatial relationships of the F and G in reference to moments as a continuum; as a result, in this space, I focus on the *Preference Rule Principle* which calculates the visually salient aspect of the F and G. The *Maneuver space* images presuppose the rotation of the F and G with their salient aspects. This space is in fact a frame to complement to the Visual space to reaffirm the distinctiveness of the visual and functional information of the word “*run*”. The last space, *Kinetic space* images, calculates the force-dynamic interaction (Talmy, 2000) such as the conceptual paths which define direction (and potential) for movement, agonist and antagonist force. Kinetic space images presuppose a dynamic frame of reference treating the spatial scenes from different dimensions, taking into account the orientation and potential movement of the speaker or a viewpoint character (Deane, 2005). The fourth space is the *Mental space* which contains derived meanings of *run* in other domains. The meanings of *run* in this space are associated with a range of conceptual metaphors which contain links as a continuum from mental spaces to frames, domains and finally the image-schemas. Specifically, a metaphor that is used in a specific communicative situation as part of a mental space, or scene, will activate the frame structure to which it is linked, which will, in turn, activate the domain of which the frame is a part, and the activation will reach the image-schema that conceptually supports the frame. This proposal is consonant with a number of others in the cognitive linguistic study of metaphor, such as Lakoff’s “invariance principle” (1991) and Ruiz de Mendoza’s “extended invariance principle” (1998).

### 3.2. Data and Data Analysis

The corpus for this research study was extracted from the Corpus of Contemporary American English, Genre Spoken 2017 with 4,404,291 words. The software AntConc (version 3.5.7) developed by Anthony\(^7\) extracts 958 concordance utterances with *run*; however, after cleaning the data, i.e. deleting repeated sentences, eliminating cases in which *run* is not a verb, I collected 368 instances in which 267 instances denote non-spatial meanings of *run* and the rest, 101 instances, denotes spatial meanings of *run*.

The data were processed following the procedure:

**Stage 1**: Identifying a metaphorical and non-metaphorical usage

This stage concerns the classification of instances in which *run* is metaphorically used or not. The identification process is termed “Metaphorical Identification Procedure”\(^8\) introduced by Pragglejaz Group (2007). Additionally, I also labelled the instances when the scene is spatial or non-spatial. I applied MIP as follows (adapted from Pragglejaz Group, 2007, p. 3)

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metaphorical Identification Procedure (Adapted From Pragglejaz Group, 2007)</strong></td>
</tr>
<tr>
<td><strong>Step 1.</strong></td>
</tr>
<tr>
<td><strong>Step 2.</strong></td>
</tr>
<tr>
<td><strong>Step 3.</strong></td>
</tr>
</tbody>
</table>

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\(^7\) [https://www.laurenceAnthony.net/software/antconc/](https://www.laurenceAnthony.net/software/antconc/)

\(^8\) Hereafter MIP.
to an entity, relation, or attribute in the situation evoked by the text (contextual meaning). Take into account what comes before and after the lexical unit.

(b) For each lexical unit, determine if it has a more basic contemporary meaning in other contexts than the one in the given context. For our purposes, basic meanings tend to be:

More concrete; what they evoke is easier to imagine, see, hear, feel, smell, and taste.

Related to bodily action.

More precise (as opposed to vague)

Historically older.

Basic meanings are not necessarily the most frequent meanings of the lexical unit.

(c) If the lexical unit has a more basic current–contemporary meaning in other contexts than the given context, decide whether the contextual meaning contrasts with the basic meaning but can be understood in comparison with it.

Step 4. If yes, mark the lexical unit as metaphorical. If no, mark the lexical unit as non-metaphorical.

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**Stage 2:** All spatial usages of *run* were analyzed in the light of MIT and its metaphorical usages were analyzed in respect to Extended CMT. I put each of them into one of the following groups: spatial configurations (static or dynamic) and non-spatial configurations. The visual and functional information of *run* in such group are categorized, basing on which I nominally termed the meanings.

**Stage 3:** The image-schemas of *run* from MIT and Extended CMT were compared to show the metaphors emerged from each of the word’s three spatial spaces, basing on which I found the mappings from domain SPACE to other domains.

Here is an example:

(5) He’s going to run into some problems with Republicans [Cor17.249]

**Stage 1:** Identifying a metaphorical and non-metaphorical usage

Step 1

In this utterance, the speaker anticipates some issues that he (Bill - the third person) encounters with Republicans. The F is He (Bill) while the G is some problems. There is no physical contact between the F and G; therefore, run in this sentence is metaphorically used.

Step 2

/He/ /'s/ /going/ /to/ /run/ /into/ /some/ /problems/ /with/ /Republicans/.

Step 3 & 4

The meanings of each word, the current context of sentence (5) and their basic meanings are the same. As the phrase “some problems” denotes a non-animate thing, there is an image-schema transformation from spatial configuration to non-spatial one.

All in all, it is possible to conclude that the sentence (5) is metaphorical.

**Stage 2:** MIT and Extended CMT to sentence (5)

As sentence (5) is a metaphorical instance, Extended CMT is used to analyze. From the mental spaces level, the conceptual metaphor is “ACTING IN THAT WAY CAN MAKE BILL ENCOUNTER PROBLEMS LIKE HE RUNS INTO A HARD WALL/ FLAT.” The domain in (5) is apparently non-space, VIRTUAL CONTAINER, while the frame is CONFLICT. The image-schema denotes a motion event in which the G is conceptualized as a target. In respect to Lakoff’s list of metaphors, at the image-schema level, the metaphor AN ACTIVITY IS A PATH is activated.
Stage 3: Image-schema comparison

As mentioned earlier, sentence (5) is metaphorically used to denote a state-of-affair that the F would collide with the G. What remains is the forces caused by the collision between the F and G. The meaning of run is purely schematic.

4. Findings and Discussion

4.1. Spatial Meanings of Run

Of the 101 instances collected in which run denotes spatial configurations, fifteen prepositions\(^9\) are collocated with run to make a verb-preposition phrase. Representing the image-schema of the motion verb “run”, the following figure can be deduced:

**Figure 4**
The Basic Image-Schema Associated With the Motion Verb Run

![Image](image.png)

In the above figure, the white and dark sphere represent the F in its continuum from the departure position to the destination within a frame or the vision of the speaker/construer while the white rectangular represents the path that the F is on until it completes the action of running\(^10\). Referring to the human encyclopedic knowledge about the world, especially forces such as gravity, friction, the following figure represents a more comprehensive picture:

**Figure 5**
Forces in the Basic Image-Schema Associated With the Motion Verb “Run”

\(^9\) The details are as follows: run across (2); run after (4); run around (14); run away (3) run back (3); run for (2); run from … to … (4); run into (17); run off (2); run on (1); run out (8); run outside (1); run over (3); run to (3); run through (3).

\(^10\) The white and dark sphere are source – goal respectively in Talmy’s topology while the white rectangular is the path.
(a) is the gravity and friction that the $F$ exerts on the path while (b) is the internal force or moving force that the $F$ has. Apparently in order to move from the initial position to the destination, (b) is much bigger than (a)$^{11}$, or in other word, the $F$ should control its path in a short period of time. Moreover, the path is not necessarily a flat on a hard surface because the action of run depends on the speed of the $F$ moving on the path.

The following figure represents the image-schema and direction of the $F$ and $G$ associated with run in four phrasal verbs “run across”, “run after”, “run around”, and “run for”:

**Figure 6**

*Image-schemas associated with “run around”, “run for”, “run across”, “run after”*

In the case of run across, the $F_1$ and $F_2$ should be ideally on two ends of the path and it is a specific case of the typical $F$ and $G$ associated with run. The image-schemas denoted by run for and run after are seemingly the same; however, the differences are found in the dynamic forces of the $G$. Here are two examples:

(6) You have to run for a judge, right? [Cor17.30]

(7) He’s going to jump up and run after me. [Cor17.4]

The $G$, a judge, in sentence (6) is unknown due to the use of the indefinite article “a” while the $G$, me, in sentence (7) tends to move and definite in this context of use.

The following figure represents the directions of the $F$ and $G$ encoded by the use of run in “run back”, “run away”, “run into”, and “run through”.

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$^{11}$ It is impossible to calculate exactly how big (b) should be; however, human background knowledge tells that the motion should be quick so that it is called “run”, not “walk”.

Figure 7
The Image-Schema Associated With “Run Back”, “Run Away”, “Run Into”, and “Run Through”

From the above analysis of the image-schemas together with forces and directions of the F and G associated with run, the following functional and visual information can be withdrawn:

Table 2
The Spatial Image Complexes of “Run”

| Prototypical scene | The F and G must be within a frame or vision of the speaker/construer.  
The F moves on a path on the G.  
The movement of the F must be quick in a short period of time. |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Visual space</td>
<td>Besides the information in the prototypical scene, in the Visual space, the F and G must bear the following information, the F must quickly move in a particular direction in respect to the G in a continuum.</td>
</tr>
<tr>
<td>Maneuver space</td>
<td>Rotating the F and G in the spatial scene associated with run, construers still identify the speedy movement of the F.</td>
</tr>
</tbody>
</table>
| Kinetic space      | Depending on the prepositions collocated with run, there are three sequences:  
                     Sequence 1  
                     The F moves quickly on the G from the initial position to the destination, construed as a continuum.  
                     Sequence 2 |
The F moves quickly and gets out of the G’s proximal zone.
Sequence 3
The F moves quickly to and through the G. There are potential contacts between the F and G.

If substituting the motion verb “run” by other motion verbs, the basic image-schemas can be the same; however, the distinctiveness of the image-schemas associated with run is the speed in the relations of F, G, and path.

4.2. Non-Spatial Meanings of Run and Its Meaning Transference From Spatial to Non-Spatial Meanings

Before analyzing the non-spatial meanings of run, it is necessary to explain the meanings of two collocations of “run out of”, “run on” because the meanings of the phrasal verbs are not merely the combination of the verb and prepositions. Representing the basic image-schemas associated with “run out of” and “run on”, the following figure can be drawn:

**Figure 8**
Representing the Source-Path-Goal of “Run On” and “Run Out”

![Diagram](run_on.png)  ![Diagram](run_out.png)

In the case of “run on”, the initial F is the blue sphere\(^{12}\) which “runs” continuously on the path. The salient aspect of the configuration is the contact between the F and the path or the G in this particular case. Perhaps, “run on” means “to continue” or “about” this salient aspect thanks to the mechanism of pragmatic strengthening discussed by Tyler and Evans (2003). Similarly, the image-schema associated with the prepositional marker “out” cognitively denotes a movement of the F(s) from a container to another place, and the F(s) is conceptualized as a mass. If state is construed in the sense of this configuration (from this state to another state), that “run out of” means pass into or out of a state is understandable, which is also confirmed by Etymology Dictionary\(^{13}\).

Of the 267 instances in which run denotes non-spatial configurations, the salient aspects of image-schemas associated with run are summarized in the following table:

**Table 3**
Salient Aspects of Image-Schemas Associated With Run in Non-Spatial Configurations

<table>
<thead>
<tr>
<th>Number of instances</th>
<th>Salient aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>Length/duration of the image-schema</td>
</tr>
</tbody>
</table>

\(^{12}\) In order to make the path clearer, I colour the Fs on the path.

\(^{13}\) https://www.etymonline.com/search?q=run
The data analysis shows that four conceptual metaphors are found when run is metaphorically used: MANAGING A COMPANY OR ORGANIZATION IS LIKE RUNNING A VEHICLE; AN ACTIVITY IS A PATH; NON-PHYSICAL COMPETITION IS A RACE; TIME IS A PATH AND ENTITIES MOVE ON IT.

MANAGING A COMPANY OR ORGANIZATION IS LIKE RUNNING A VEHICLE

The use of this metaphor implies a control or force of the F over the G. The domain related to the metaphor is POWER while the frame is an organization/company or institution in which the F is usually the person in charge. Here is an example:

(8) He picked regulatory lawyer, Jay Clayton to run the Securities and Exchange Commission [Cor17.228]

(9) You simply can't run a credible investigation that way. [Cor17.4]

A Source-Path-Goal image-schema cannot completely describe the meaning of run denoted in sentence (8) which has shifted to organizing/managing. However, the salient aspect in this metaphor can be understood as follows: the G (a company, an organization) is conceptualized as a vehicle, and the F is seen as the driver who controls the vehicle. The mapping from SPACE domain to the target domain remains the Source-Path-Goal schema in which the F is on the G. In respect to the functional information, I suppose that the non-spatial meaning of run associated with this conceptual metaphor is “Organize/Manage”.

AN ACTIVITY IS A PATH

The second metaphor denoted by the emergence of “run” is “An activity is a path” which seems to have the source-path-goal image-scheme. However, the salient aspect is not merely the path which is conceptualized in a timeline. Specifically, the virtual path like the road in the world out there may have obstacles. Here are some examples:

(10) The first team to ever run through the playoffs without a loss. [Cor17.35]

(11) And you could run into issues with motorists that are trying to get out of Florida and Georgia and the Carolinas because Colonial still has slowed to a trickle. [Cor17.50]

In sentence (10), the sense of run is to denote a virtual running activity of a sport team while the same sense can be seen in sentence (11). The Grounds in (10) and (11) are the playoffs and motorists respectively seen as a virtual landmark. Though the image-schemas associated with run in (10) and (11) are different, what listeners construe is the image-schema with paths. Another very abstract example is:

(12) Having said that, they do run the risk of sounding like obstructionist and nobody sounds good whether it is Democrats or Republicans when they sound like obstructionist. [Cor17.59]

The sense of run in (12) is “to face/encounter” which is construed in this context. In sentence (13), run means “to become”:
In fact, some of the latest numbers from GasBuddy showing that almost a quarter, in fact, probably more now than a quarter of gas stations in Southern Florida have run dry as motorists seek refuge and get away from that area. [Cor17.22]

Concerning the functional information of run associated with the conceptual metaphor “AN ACTIVITY IS A PATH”, it is supposed that there are two distinct meanings of run: “to face/ encounter” and “to become”.

**NON-PHYSICAL COMPETITION IS A RACE**

This conceptual metaphor is easy to trace the mapping. Normally in a race, there are several competitors among whom the fastest is the winner. An example is:

(14) He announced he’s going to run for re-election, clearly. [Cor17.125]

The emergence of “run” in utterances denoting the conceptual metaphor is construed non-spatially without any distinct functional information in comparison with priorly discussed metaphors.

**TIME IS A PATH AND ENTITIES MOVE ON IT**

This is the last conceptual metaphor associated with the emergence of run in the corpus. Lakoff (1987) advocates the metaphor “TIME IS A PATH AND WE MOVE ON IT”; however, our analysis shows that the Figures/Grounds are not just humans but also other entities. Thus, the term “entities” are suggested in this case.

Additionally, the Ground denoted in the image-schema are conceptualized in terms of time length. The mapping from SPACE domain to the TIME domain is clear: the path image-schema is remained while the salient aspect is the duration of time.

(11) Let’s run a clip here quickly. [Cor17.3]

(12) The exhibit, Art from Guantanamo, will run through January. [Cor17.31]

In sentence (12), the sense denoted by run is to “manage/open” and in (13), it denotes a time length. The visual and functional information is not distinct from that was discussed.

All in all, concerning the distinct visual and functional information from those above-discussed metaphors, it is supposed that there are three non-spatial meanings of run: “to manage/organize”, “to become”, and “to face/encounter”.

5. **Conclusion**

My study has adopted a polysemous combined framework to account for the meaning transference of the motion verb “run”. The research results can be summarized as follows:

1. **Run** is a polysemous word which denotes a speedy movement of the F in comparison with the G on a certain path. Its spatial meanings cognitively generate among three spaces: Visual space, Maneuver space, and Kinetic space.

2. **Run**’s meanings are transferred to different domains in association with a range of conceptual metaphors, making its meanings “to become”, “to organize/manage”, and “to encounter” in respect to the word’s distinct visual and functional meanings in its contexts of use.

3. The meaning transference mechanisms are mapping together with image-schema transformations. This reaffirms the hypothesis that the internal concept structures decoded by the word “run” can be exploited to account for its non-spatial usages.
CHUYỄN DI NGHĨA CỦA ĐỘNG TỪ RUN: KIẾN GIẢI DỰA VÀO MÔ HÌNH TRÍ NHỊN HÌNH ẢNH - LƯỢC ĐỘ

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