UNIVERSIDAD DE LA RIOJA

TRABAJO FIN DE ESTUDIOS

Título

Operaciones de semejanza en las figuras del habla: una exploración inicial

Autor/es

MARÍA CONCEPCIÓN PEÑARANDA DÍAZ

Director/es

FRANCISCO JOSÉ RUIZ DE MENDOZA IBÁÑEZ

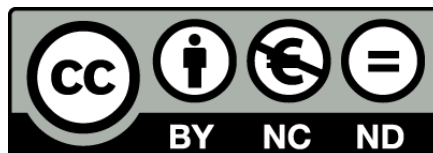Facultad

Facultad de Letras y de la Educación

Titulación

Grado en Estudios Ingleses

Departamento

FILOLOGÍAS MODERNAS

Curso académico

2019-20

TRABAJO FIN DE GRADO

Título

Resemblance operations across figures of speech: an initial exploration
(Operaciones de semejanza en las figuras del habla: una exploración inicial)

Autor

María Concepción Peñaranda Díaz

Tutor/es

Francisco J. Ruiz de Mendoza Ibáñez

Grado

en Estudios Ingleses [601G]

Facultad de Letras y de la Educación

Año académico

2019/20

UNIVERSIDAD
DE LA RIOJA

Abstract

Cognitive operations are the heart of the creation of figures of speech. A common such operation is resemblance. The aim of this work is to explore how resemblance contributes to the elaboration of similes and metaphors, and to analyze the linguistic manifestation of these figures in the English language. The latest research in this field questions the full convertibility between metaphor and simile, unlike what many theorists claimed before. We aim to back this hypothesis up by exploring what cognitive processes hold when tackling non-correlational metaphors and similes. An overview of the main assumptions of Cognitive Linguistics on metaphor and simile from the beginnings of this framework to the present is first provided. Then, the qualitative analytical procedure is described. This procedure is based on three different corpora, which enables an exhaustive exploration. The result shows that there are more differences between both figures of speech than believed formerly. Besides, this work reveals that syntactic formulation is important when analyzing resemblance phenomena. This represents an interesting finding for Cognitive Linguistics that suggests further research along these lines.

Keywords: resemblance metaphor, simile, cognitive operations

Resumen

Las operaciones cognitivas son la clave de la creación de figuras retóricas, de las que una muy común es la semejanza. El objetivo de este trabajo es explorar cómo la semejanza contribuye a la elaboración de símiles y metáforas, y analizar su manifestación lingüística en el idioma inglés. Las últimas investigaciones cuestionan la convertibilidad plena entre metáfora y símil, a diferencia de lo que muchos teóricos han afirmado previamente. Nuestro objetivo es respaldar esta hipótesis explorando qué procesos cognitivos se mantienen al abordar metáforas no-correlacionales y símiles. Se expone una visión general de las ideas principales de Lingüística Cognitiva sobre la metáfora y el símil, desde los inicios de este paradigma hasta nuestros días. El procedimiento analítico cualitativo

subsiguiente se basa en tres corpus diferentes, lo que permite una exploración exhaustiva. El resultado muestra que hay más diferencias entre ambas figuras de dicción de lo que se creía anteriormente. Además, este trabajo revela que la formulación sintáctica es importante al analizar fenómenos de semejanza. Esto representa un hallazgo interesante para la lingüística cognitiva lo que sugiere futuras investigaciones en este sentido.

Palabras clave: metáfora por parecido, símil, operaciones cognitivas

Table of contents

1. Introduction

Language is a complex phenomenon. Its study encompasses more than formal aspects (i.e., structured strings of symbols that can be manipulated) because of its insertion in a socio-cultural environment and its embodiment. Our understanding of reality is directly related to the way in which we construe perceptions and how we store knowledge of states, situations, and events in connection with their contexts. It is widely known that our brains make "perspectivized" connections between entities and their relations. How is this done in the absence of pre-determined connections between what is said and its intended range of meanings? The manner we understand the world depends on how we interact with it or how it affects us. Thus, we think of the world in terms of time sequences, and such relations as cause-effect, condition-consequence, evidence-conclusion, and many other relational abstractions.

Cognitive Linguistics is the domain of linguistic enquiry in which this dissertation is developed. Traditionally rhetorical figures have been studied in terms of a mostly descriptive paradigm (Leech, 1969). For instance, in *Your eyes are the ocean*, why or how features associated with *oceans* (in terms of colour, depth, transparency, etc.) could be transferred to the description of a person's eyes were not considered. Scholars like Lakoff and Johnson (1980) demonstrated the importance of an explanatory paradigm rather than a descriptive one, in the field of figurative language. They questioned the distinction between formal (literal) language and figurative (non-literal) language in our daily communication, since both were part of ordinary conversation and a clear difference between them was not possible.

The present dissertation starts off from Lakoff & Johnson's (1980, 1999) work on metaphor. But it goes beyond their postulates by reconsidering the role of simile in cognition. This is a topic that has been largely neglected by cognitive linguists, with just a few exceptions, like Romano (2017) and some insights in Ruiz de Mendoza and Galera (2014) and Ruiz de Mendoza (2020).

Resemblance operations, initially postulated as cognitive operations by Ruiz de Mendoza and Pérez (2003), are at the heart of the creation of similes, and of so-called resemblance metaphors (Grady 1999). These are cases of idealized cognitive models (Lakoff 1987). But resemblance also underlies iconicity, which is the conceived similarity between the form of a sign and its meaning (cf. Ruiz de Mendoza and Galera, 2014, p. 166) as is the case of onomatopoeia, where form imitates sound.

Our purpose in this work is to study the way in which resemblance operations contribute to the production of similes and metaphors, and to explore their linguistic manifestation in the English language. In the case of metaphor, our focus will be non-structural resemblance metaphors, which, far from their general appearance of incongruity, scholars have proved to follow a coherent pattern. Very often, resemblance metaphors are convertible into simile without much change in meaning, e.g. *My surgeon is (like) a butcher* (Ruiz de Mendoza 2017, p. 154). But because similarity can work differently in some of them, we will draw the reader's attention to situations where full convertibility is questionable.

We will study a selection of representative examples of each category –resemblance metaphor and simile-, from several corpora. Our analytical procedures will be grounded in the account of cognitive operations in terms of the principles of Cognitive Modeling as laid out in Ruiz de Mendoza & Galera (2014). Different patterns will emerge with their peculiarities, and convergences or divergences between them.

This dissertation is structured as follows: Section 2 explains the methodology applied and the sources used to collect, classify, and analyse examples. Section 3 outlines the theoretical framework. It provides an overview of the main assumption of Cognitive Linguistics and its treatment of resemblance metaphors and simile. This section also examines the role of cognitive operations in conceptualization and explores their connection with metaphor. Additionally, some introductory notions on the most important figures of speech are provided, together with an account of their traditional views, and the differences with present-day research. Section 4 presents a description and analysis of a sample of examples that exploit resemblance metaphors and similes. Section 5 offers a summary of conclusions and a discussion of possible lines of research for the future.

2. Methodology and Sources

A sample for study has been selected based on its analytical productivity instead of its frequency in the corpus (around 300 instances). These examples have been examined, following the cultural model defined by Lakoff and Turner (1989) in connection to their proposal of The Great Chain of Being. This is a cultural model that impinges on conceptualization and language. According to this model -which arranges entities into humans, animals, plants, natural objects, and artefacts-, people use properties typical of one level in the chain and applies them to other levels in terms of moral sense and rational capacity (see section 3.2). Resemblance metaphor and simile exploit this cultural model. We have referred to it in postulating convergences and divergences between these two figures of speech.

The analysis explores exhaustively why and how resemblance metaphor and simile behave in different scenarios from the perspective of cognitive models defined by Ruiz de Mendoza & Galera (2014, pp. 60-84). A classification of metaphors according to the nature of the source domain (Ruiz de Mendoza & Pérez 2011) is also considered, and finally, Romano's (2017) investigation on similes and metaphor.

The selection of examples has been taken from the following corpora:

1. The Free Dictionary. It compiles multiple dictionaries and it includes idioms, a thesaurus, and etymologies.
2. Urban Dictionary. It is specialised in colloquialisms and buzzwords.
3. Corpus of Contemporary American English (COCA). It allows for the exploration of examples in real-life contexts.

The analytical section of this dissertation discusses one example of each pattern found in the initial corpus. Also, note that in the analysis, an asterisk (*) is used to indicate an erroneous or impossible utterance, while a hashtag (#) indicates an infelicitous (but not strictly erroneous or impossible) use of language.

3. Theoretical Framework

Ruiz de Mendoza & Galera (2014, p. 85) define cognitive operations as "mechanisms that our minds use to store and retrieve information, also to make mental representations". Mental representations are formed by sensorimotor operations, concept-building operations, and representational operations. The present work will mainly focus on the last set, particularly on combinations of such cognitive operations.

3.1. Inferential operations

They are divided into formal cognitive operations and content cognitive operations. According to Ruiz de Mendoza and Santibañez (2003), content cognitive operations are "those that license processes of inferential activity based on the initial conceptual representations supplied by the activity of formal cognitive operations." They are used when analysing metaphor and simile. For example, in the simile *Her eyes are blue as the ocean* there is a comparison based on the resemblance between the blueness of the ocean and her eyes. Regarding this simile, the metaphor *Her eyes are the ocean* and the simile *Her eyes are like the ocean*, refer not only to the colour, but also to other properties of the ocean (e.g., we can think of her eyes as been deep, watery, etc.). This type of figures of speech will be the object of study in this essay.

**Figure 1**: *Cognitive operations (Ruiz de Mendoza, 2017)*
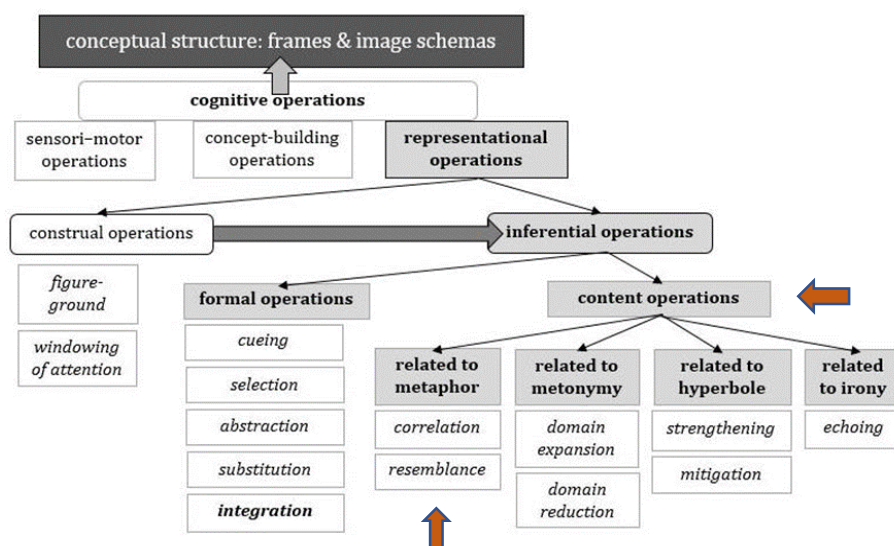
3.2. Patterns of combinations of cognitive operations

There are four main patterns of combination: metaphoric complexes (metaphoric amalgams and metaphoric chains), metaphtonymy, metonymic complexes and other patterns of metaphor-metonymy combinations.

Resemblance metaphors are generally conceptually self-standing. This is the case of metaphors based on Lakoff and Turner's (1989) Great Chain of Being. As noted previously, this cultural model distinguishes attributes typically ascribed to humans, animals, plants, natural object, and artefacts. Humans are rational, animals display instinctual behaviour, plants are no-sentient but alive, and objects and artefacts have physical properties.

Figure 2. *The Great Chain of Being*
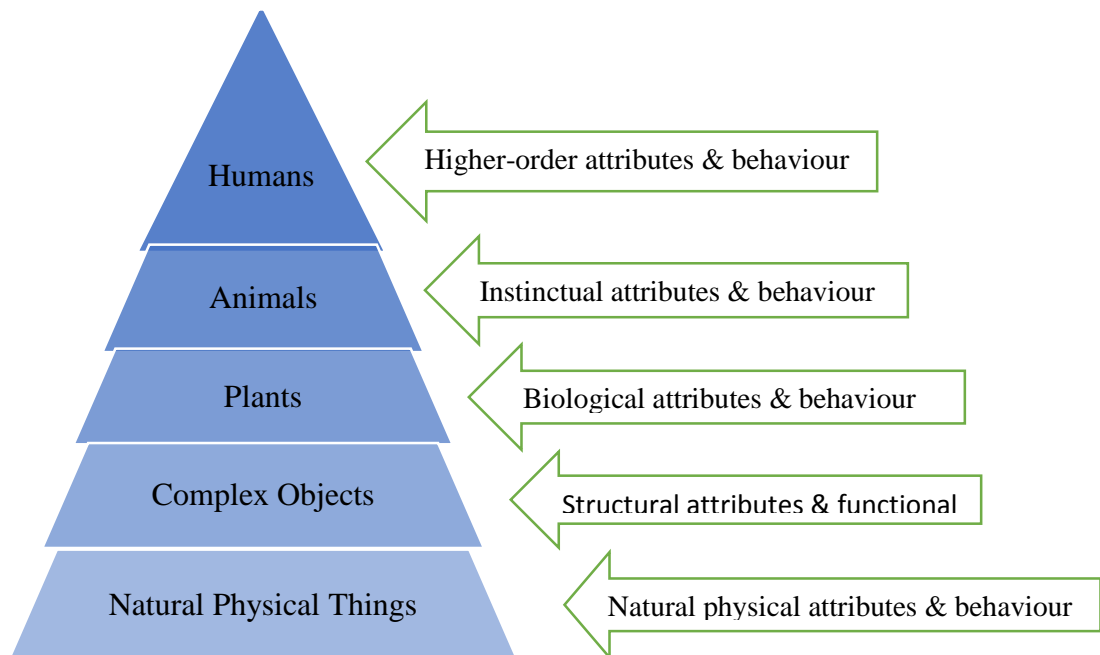
Note: Drawing created from the account in Lakoff and Turner (1989, p. 170-172)

These metaphors map typical features of entities belonging to one of the levels in the chain onto other levels (e.g., *A child "blossoms" into beauty*). However, resemblance metaphors, although generally working in conceptual isolation from other metaphors, can

still take part in metaphoric amalgams if supported by a correlation metaphor (Ruiz de Mendoza, 2017): Consider the metaphor *My boss is a pig*, where by *pig* is meant 'immoral' or 'abusive'. As noted in Ruiz de Mendoza (2017) and discussed in Miró (2018), pigs are not abusive or immoral. But a pig's stench can be revolting in the same way as an immoral or abusive person can produce feelings of disgust. This aspect of our experience allows us to combine IMMORALITY IS FILTH with A PERSON IS A PIG (which is a specification of PEOPLE ARE ANIMALS).

Ontological metaphors are studied by analysing the cluster of attributes perceived in the source domain that can come across to the target domain. Lakoff & Turner (1989) stated that a "quintessential" attribute of the source characterises this kind of metaphors. This is defined as one remarkable attribute from the source that is used to refer to a specific feature of the target: e.g., in *Achilles is a lion*, the quintessential attribute of the source is the courage depicted in the figure of the lion which is assigned to Achilles as a warrior. As Ruiz de Mendoza & Pérez (2011) explain, courage is a human feature assigned to an animal, bypassing any other descriptions related to physical attributes or behaviour. 'Lion' is the equivalent of 'courage' in a specific context. Besides, these scholars demonstrate that other criteria are available: according to their level of genericity in the domains involved or the nature of the correspondences.

Resemblance metaphors and simile involve perceptual connections, i.e., implicit perception-based features in metaphors, and explicit/implicit features in the case of simile.

3.3. Metaphor and Simile. General definitions

Metaphor is defined as "a cognitive mapping -a set of correspondences, between two discrete conceptual domains- where one of the domains (called the source) allows us to think, talk and reason about the other domain (called the target)" (Ruiz de Mendoza & Galera 2014, p.38). Ruiz de Mendoza (2020, pp. 16-38) distinguishes between low-level and high-level attributes, depending on the kind of perceptions that give rise to similarities. The former are at the basis of resemblance metaphor, while the latter underlie correlation metaphor. Correlation metaphors are based on co-occurring experiences (Grady 1999,

Lakoff and Johnson 1980, 1989). For example, our experience of seeing levels rise and fall as substances accumulate are at the basis of the metaphors MORE IS UP/LESS IS DOWN. That is why we can say that prices *go* up and down to mean that they increase or decrease, Ruiz de Mendoza (2020) has recently observed that correlation metaphors exploit high-level rather than low-level similarity. Thus, underlying MORE IS UP is the similar experience of increase when seeing objects accumulate and when seeing an object reach a higher position. The metaphor IMMORALITY IS FILTH is also based on high-level resemblance, which in this case is the shared feelings of disgust that immorality and filth produce. Nevertheless, this type of metaphors is not the aim of this dissertation as they are not based on a relation of low-level similarity like simile and resemblance metaphor.

Simile is a "grammatical structure, marked by either *as* or *like*, which is used to pin down similarities between concepts (X is <u>as</u> Y <u>as</u> Z, or X is <u>like</u> Y)" (Ruiz de Mendoza and Galera 2014, p. 169). For example, in *After getting some sleep, I was as fresh as a daisy,* there is a comparison based on the resemblance between the daisy on the countryside – fresh, alive- and its image projected on a person's feelings. A different example is *Those kids have the same wacky sense of humor, they're truly like two peas in a pod*. There is a comparison based on the resemblance between "two peas in a pod" and the kids' likeness. This example is convertible into a metaphor: *[…] they are truly two peas in a pod*. Another example is the simile based on the *as if* construction; for instance, *Mary has no idea about how to act in polite society, always behaving as if she just fell off the cabbage truck*. This situational simile is grounded on a hypothetical comparison between a real situation and an unreal situation. Following the *like* construction, it can be rephrased as *Mary has no idea about how to act in polite society, always behaving <u>like someone that</u> has just fell off the cabbage truck*. This example is also convertible into a metaphor by mentioning only the source (i.e., *Mary just fell off the cabbage truck)*, in a context in which the hearer already knows that this remark applies to Mary's naivety as the target.

It has been traditionally postulated that similes can be converted into metaphors and the other way around. However, there are exceptions. E.g., *She ran down the street like a bat*

out of hell/*She was a bat out of hell as she ran down the street. This simile invokes a hyperbolic image in the source domain obtained through humorous counterfactual creation.

This grammatical description will be broadened later in terms of cognitive modelling, following the purpose of this dissertation.

3.3.1. From general metaphor to a specific 'non-structural' metaphor

As detailed in figure 1, there are two different groups of metaphors: *correlation* metaphors and *resemblance* metaphors. Correlation metaphors are those in which the source domain is based on sensory-motor experience, while the target domain is not; as noted above, these metaphors are grounded in the frequent co-occurrence of discrete experiences that become associated in our minds. Ruiz de Mendoza (2017) has argued that correlating experiences and their associated concepts are cognitive activities with an impact in how we construe reality. This means that they enjoy the status of what he terms a cognitive operation. A correlation operation (e.g. motion in space and elapsed time) gives as a result a primary metaphor (e.g., SPACE IS TIME; *My house is thirty minutes from here*), which is a metaphor directly rooted in sensorimotor experience (Grady 1997, 1999, Lakoff & Johnson 1999). However, resemblance metaphors originate in physical perception. They arise from the observation of shared physical or behavioural attributes between entities belonging to the Great Chain of Being, which lead to the association of concepts (e.g., *He's a rock of strength).*

Two types of resemblance metaphors are differentiated: structural and non-structural (Ruiz de Mendoza & Galera 2014, p. 166). Structural resemblance gives rise to analogy (e.g., *His nose is an elephant's trunk*, where the nose is to a person's face what a trunk is to an elephant's face). Non-structural resemblance is grounded in non-topological characteristics, i.e., the established relation corresponds to a non-topological attribute cluster, e.g., *His teeth are pearls in double row close press* (Ruiz de Mendoza & Galera 2014, p. 166).

3.3.2. A path to resemblance operations

A resemblance-identification operation consists in "detecting similarities across conceptual domains" (Ruiz de Mendoza 2017). But similarity effects can be of different types thus giving rise to different kinds of simile and metaphor. We will discuss these in the following sections.

3.3.3. From general simile to specific types of similes. Close-ended to open-ended low-level similarity

Traditionally, two types of simile are recognised from a formal viewpoint, both based on comparison: one makes use of the *like* configuration (e.g., *He fights like a lion*) and the other of the *X as Y as Z* form (e.g., *She is as fast as an arrow*).

From a resemblance perspective, a distinction has been proposed between closed-ended and open-ended low-level similarities (Ruiz de Mendoza 2020, n.71 p.18):

- The idea of close-ended similarity refers to the limited number of features attributed in its interpretation. It is the case of explicit comparisons, following the *X as Y as Z* form, e.g., *Kyle looked at the test with a stare as blank as his notebook.*
- 'Open-ended' is applied to the non-limitation in attributes, and it corresponds to the structure with *like*; e.g., *Then like a cold wave on a shore, comes silence and she sings no more*.

Simile consists in the attribution of characteristics of an entity to another entity. In this, no apparent difference is found with metaphor. However, Ruiz de Mendoza and Galera (2014, p. 169) point out two different ways in which simile and resemblance metaphor differ: (i) by making explicit the grounds for the comparison (*X as Y as Z* form); (ii) by opening up the number of attributes that bear upon interpretation (*like* simile). These differences are discussed in the following section.

Traditionally, scholars like Geoffrey Leech (1969) established an equivalence between simile and metaphor based on rhetoric, and consequently limiting its scope of possibilities: simile was considered as an overt comparison while metaphor was covert. Leech recognized relevant differences between them; however, he focused on the set of

correspondences just by means of an indicator: *like*. For example, the metaphor *The ship ploughs the waves*, which is easily transformed into the simile *The ship goes through the waves like a plough ploughing the ground* (1969, p. 156). Their relationship could be defined in this way:

Figure 3. *Relationship between Metaphor and Simile*

Metaphor		Simile
Conventional Metaphor* A is B *My boss is a fox*	Similar or close to	X is as Y as Z *My boss is as astute as a fox*
*Conventional Metaphor can be highly specific, much like this type of similes.		
Non-conventional metaphor (more open to interpretations) *Your eyes are the ocean*	Similar or close to	X is like Y *Your eyes are like the ocean*

Note: Information based on Ruiz de Mendoza (2020)

So, this classification suggests that non-conventional metaphor should be similar to *like* similes.

Other theorists differentiate them in the literary field, between an implicit comparison in the case of metaphor, and an explicit one in simile (cf. Tversky 1977; Fogelin 1988). Romano (2017) delves into their implementations, and the different cognitive models involved from a grammatical perspective (conceptual-semantic and formal-syntactic factors). This scholar corroborates a premise asserted by cognitive linguistics who state the existence of the two figures due to the different functions they accomplish. They both respond to a non-equivalence approach. In Romano's words (2017, p. 1): "A metaphor is an assertion while simile is an assertion of similitude among other differences."

Romano (2017, p. 15) shows a different classification between metaphor and simile and names two main approaches widely studied by other scholars: the *equivalence view* (or

classical/ comparative approach, by the elliptic *like*), and the *non-equivalence* view (also known as categorization approach). Ruiz de Mendoza and Galera (2014, pp. 166-172) go beyond these views and focus their research on the way similarity applies in similes, resemblance metaphors, and iconicity. This work will not consider iconicity since it is not a figure of speech, but a meaning constraint on form, as was noted above.

Besides, Ruiz de Mendoza (2019) has noted that resemblance is only one among several other factors in determining the choice between metaphor and simile. For example, a tight similarity relationship between source and target call for a metaphor rather than a simile. There is empirical evidence that points in this direction (e.g. Glucksberg 2001; Glucksberg and Haught 2006), but this is a psycholinguistic issue that goes beyond the scope of the present research, which directly arises from linguistic data.

4. Introduction to the analysis

As introduced above, there is research on resemblance metaphor that argues for its convertibility into simile and/or the other way around. This conversion entails variations in meaning that lead us to use one figure of speech or the other, depending on what the speaker intends to communicate (Ruiz de Mendoza 2017). Thus, Romano (2017, p. 7) affirms that "similes are preferred to metaphors when the vehicle or source of the comparison is novel or creative."

The following schema demonstrates that there is variation between resemblance metaphors and similes in terms of a closed/open-interpretation (i.e., its degree of restriction). So that, it is not correct to assert that a specific figure is systematically more open or closed than the other:

Figure 4. *Similes and metaphors in terms of narrow/broad-scope*

Figure of Speech	Type	Explanation	Example
Narrow-scope simile	X is as Y as Z	It is more "closed" than metaphor	*Your teeth are as bright as pearls*
Metaphor	X is Z	It is less "closed" than simile	*Your teeth are pearls*
Broad-scope simile	X is like Z	It is even less "closed" than metaphor	*Your teeth are like pearls*

Note: Information based on Ruiz de Mendoza (2020)

The terms *broad-scope* and *narrow-scope* simile have been studied in Moder (2008, p. 312). In English, broad-scope similes make use of a construction with *like*, while the *as-as* construction is used for narrow-scope similes. As shown previously, a *like* construction in similes opens up the number of features of the source domain (traditionally called the *vehicle*) that can be associated with the target domain (traditionally termed the *tenor*) even

more than resemblance metaphor, which is generally more open that narrow-scope simile using the *as-as* configuration.

However, not all metaphors and similes are convertible into each other. This analysis intends to investigate what cognitive processes hold when tackling this kind of figures of speech. We aim to gather:

a) An account of those features that characterize them most.

b) An exhaustive analysis of these types of metaphors which do not seem to be convertible into similes and, an analysis of similes that do not seem to be convertible into non-structural resemblance metaphors.

c) An explanation of the kind of convergences and divergences between these figures of speech.

What kind of resemblance metaphors cannot be part of this analysis? Those whose conceptual configuration is not transparent and is probably opaque to linguistically and culturally naïve speakers:

- Those whose origin is uncertain. Consequently, it is virtually impossible to trace back the mental processes originally involved in their meaning: e.g., *pushing up the daisies* ('buried'). This idiom seems to allude to daisies growing over the deceased's burial plot. The image of the deceased "pushing up" the flowers from below is ludicrous and open to possible alternative interpretations; e.g., is the dead person struggling to get out of his or her grave, or does the dead person provide nutrients to feed the daisies and make them grow?

- Non-transparent idioms that are used as if they were just a single conceptual unit; e.g., *pull someone's leg* ('tease someone'). The origin of this idiom is also unknown, although there are several theories: the saying alludes to tripping someone by pulling back his or her leg with a stick; another theory postulates its origin in the context of executions by hanging in late 18th century England, where people were hired to pull the victims' legs to give them a quick end.

- Metaphors based on alliteration; e.g., *You are the bee's knees*. Formerly *bee's knees* meant 'something inconsequential', which, beyond the playful alliteration, was

conceptually based on the insignificance of the tiny size of a bee's segmented legs. Nowadays this metaphor is used with the opposite meaning ('something enjoyable and impressive'). It is not known why, although there could be a correlation with the common experience of people finding small objects controllable and thus more likeable than sizeable objects (see in this respect Ruiz de Mendoza 2008, p. 137).

The combination of resemblance operations offers numerous patterns. The samples displayed below are a small evidence of a vast spectrum that could be studied in future research. For our analysis, we will take as reference the categorization proposed by Ruiz de Mendoza (2020, pp. 148-159). It is grounded in six different types of combinations of content cognitive operations: (i) metaphtonymy, (ii) metonymic chains, (iii) metaphoric chains, (iv) metaphoric amalgams (v) hyperbole through metaphor or simile, and (vi) strengthened irony through hyperbole.

We will also draw on Romano's classification (2017, pp. 13-14) that distinguishes metaphors and similes in terms of structure, cognitive function, mapping process, number of properties mapped, aptness/degree of similarity, domains, discursive function, rhetorical force, and complexity.

4.1. Ontological resemblance metaphors

Ruiz de Mendoza & Galera (2014, p. 85) note that resemblance operations do more than supply a similarity-based mental representation, they encompass interpreting and reasoning about the world. Thus, saying *Her teeth are pearls* involves more than attributing high-level whiteness and brightness to teeth. A succession of mental associations with the value that we ascribe to pearls, their attractiveness, and how their beauty impresses us is used to reason about teeth. Furthermore, identifying the combinations of cognitive operations in the source domain turns particularly relevant when tackling this kind of metaphor. Let us deal with them:

1) *Metaphtonymy:* metaphor and metonymy are intertwined in the same utterance (Goossens 1990), as in the following examples:

(1) I'm sick to the back teeth of it all.

The source domain 'sick to the back teeth of it all', is built on the experience of having too much food in our stomach, which involves a long and difficult digestion to the point of getting sick. This is mapped onto the person who is annoyed or saturated with someone's behaviour or with a prolonged situation.

This metaphor is formed by a metonymic development of its source domain (PART-FOR-WHOLE), where 'being sick to the back teeth' stands for a person being sick because of an indigestion. There is a hyperbolic element since it is biologically impossible to experiment such a situation (see Peña and Ruiz de Mendoza 2017).

This is an example of non-conversion into simile due to reasons based on form and meaning. This metaphor is composed of a complex predicative clause governed by an adjectival clause whose literal transformation into simile results incomprehensible: *I'm like sick to the back teeth of it all*. Regarding semantics, this expression involves specific conceptual connotations that hinder its transformation into a *like* simile even by changing its verb (e.g., *I feel like being sick to the back teeth of it all).*

(2) She is usually tolerant, but she will bite back if pressed.

'Biting back' means confronting anyone when feeling attacked or in a stressing situation. This expression involves an implicit meaning. The verb plus the preposition (*bite back*) invoke a scenario in which a dog bites when being attacked to defend itself (source domain). It mentions a quotidian situation.

This whole situation is mapped onto the target domain, i.e., the way a woman reacts if she feels attacked to protect herself. This is an economic pattern for the speaker. It conveys an implicit meaning that the hearer has to rebuild in his mind.

Its conversion into simile is not plausible. Formally, the verbal expression *bite back* governs this metaphor. This verbal expression is not directly sensitive to a *like* construction (*She will like bite back*), since this construction compares entities. An indirect conversion would need the explicitation of the entities to be compared, e.g., *She will do like a dog and*

bite back (if pressed). In terms of its meaning, the biting scenario is the conceptual grounds for the person-dog comparison; therefore, it is not compared to anything, which rules out the use of like.

(3) If you have to eat a frog, don't look at it for too long.

It is a piece of advice to not procrastinate a duty that one finds difficult, harsh, or unpleasant to tackle. This is a cultural metaphor based on Western eating habits, in which frogs are disgusting animals (it does not function in China where frogs are part of their gastronomic traditions).

The source domain has this rather artificial (but not implausible) scenario. It maps onto any harsh or unpleasant duty in the target.

There is a situational metonymy in the metaphoric source domain. The linguistic expression 'eat frogs' only depicts part of the metaphoric source. Through metonymy the metonymic source is expanded into the more complete scenario described above, where the disgusting experience calls for quick action.

This metaphor is difficult to convert into simile due to its syntactic complexity. It is possible to capture some of its meaning implications, e.g., *Doing an unpleasant duty is like eating a frog: better be quick at it.* The simile reveals the target of the comparison but, if restricted to X IS LIKE Y, it leaves the interpretation open. That is why the grounds for the comparison (*be quick at it*) have to be made explicit too.

2) *Metonymic Chains:* They are based on two or more metonymies. Regarding the source domain, this type of pattern implies an optimization of information in a few words, i.e., it is an economic model based mostly on implicatures.

(4) My dad was born with green fingers.

This is about a person's talent to grow plants. This metaphor incorporates two metonymies in its source domain: Fingers for a person that has a skill on a specific activity,

and green, as the colour of someone's fingers after working with plants, for the work itself. In both cases there is a PART-FOR-WHOLE metonymy which combine in this way: GREEN FINGERS FOR PERSON THAT HAS GREEN FINGERS AS A RESULT OF GARDENING (BODY PART FOR PERSON FOR ACTION). The fingers are part of the person that is part of the action. The resulting conceptual complex maps metaphorically onto the speaker's father, i.e., the person with specific horticultural skills without necessarily having "green fingers". The similarity between the figurative "green-fingered" worker and the speaker's gifted dad is to be found in the EFFECT-FOR-CAUSE connection between having green fingers as a sign of being dedicated to working with plants and whatever aspects of the target indicate the speaker's father's devotion to plants (e.g., the father spending long hours in the garden carefully pruning each plant).

The metaphor cannot be transformed into a *like*-simile (e.g., **My dad was born like with green fingers*) because of the high-level nature of the comparison, which requires the support of the EFFECT FOR CAUSE metonymy. *Like*-similes work at the low level of meaning representation.

(5) Home is where the heart is.

This metaphor is an elaboration of STATES ARE LOCATIONS. It is not a resemblance metaphor, but a correlation metaphor. However, in the elaboration, the state of feeling good at home is treated as being similar to the state of loving someone. A complex metonymic chain is built into its target domain: the heart stands for its feeling, which stands for the people (and/or things) for whom one has feelings. The source is also metonymic: 'home' stands for the feelings of being at home. These connotations are mapped onto the target domain, i.e., being at home means more than a physical place, feeling well when being surrounded by all those emotional circumstances that imply personal balance. It is a situational metaphor.

This metaphor is governed by the content of its subordinate clause (*where the heart is*) which does not seem to be convertible into simile (**Home is like where the heart is*), since the comparison works at a different level from the one directly arising from the

metaphorical expression, which is correlational. A possible option that requires the modification of the source domain could be *I'm feeling like at home*.

3) *Metaphoric Amalgams:* Ruiz de Mendoza and Galera (2014) define them as 'non-chained combinations of primary metaphors that are integrated into a single conceptual package'.

> (6) Tommy has bats in his belfry if he thinks he can convince our mother to let him   get a tattoo for his birthday.

It means to be crazy; to act, think or behave in a foolish or nonsensical manner. 'Bats in his belfry' is analyzed as if belfry were a person's head which is seen as a container of ideas or thoughts. The way bats behave is seen as Tommy's mind in a state of agitated thinking, i.e., moving messily.

Regarding cognitive operations, there is a metonymy -a metonymic reduction- of the target of the metaphor where a belfry maps onto the person's head. The head stands for a container into and out of which ideas can get. There is a mixture of correlation and resemblance metaphors: IDEAS ARE MOVING OBJECTS (correlation metaphor) is built into A PERSON'S HEAD IS A BELFRY (a resemblance metaphor). To activate the resemblance operation involved in this latter metaphor, the correlation metaphor is a pre-requisite.

This metaphor is not directly convertible into simile because of its syntactic layout, which far exceeds the simple X IS LIKE Y form. However, it is indirectly convertible if the syntactic formulation brings the resemblance metaphor to the foreground: *Tommy's head is like a belfry with bats*. This reformulation loses part of the impact supplied by the superimposition of the belfry image onto the image of the person's head.

4) *Hyperbole through metaphor.*

(7) No one has carved this one approach in stone; we have several options.

The origin of this metaphor seems to be related to the Rosetta Stone and its importance as an invaluable treasure from Egypt (196 B.C.). In those times, carving text in stone was the way to write significant information in a lasting way.

The relevant cognitive operations in this expression mainly relate to its hyperbolic structure through metonymic elaboration. 'Carving in stone' involves fixity (persistence over time), a notion which is accessed through metonymic elaboration. The metonymy is thus incorporated into the metaphoric source, which then uses it negatively to indicate that the situation described does not hold true. It is this negated situation that is mapped onto the target domain, in which nothing has been already decided and consequently different options are possible. 'Carve something in stone' conveys exaggeration as it would be an unusual method of noting down ideas that have to be discussed by other people.

(8) Her eyes were fireflies.

Its meaning refers to the figurative luminescence of the eyes and the feelings it provokes in the speaker. Eyes don't glow or shine, only real luminescent objects, but there is an unexplained sensation in the hearer when watching them that lead him to think of them as glowing. As if they gave out light.

It is an experiential metaphor because fireflies emit light during the night. The quintessential attribute –luminescence- is mapped onto the brightness of the woman's eyes, which results from reflecting (but not emitting) light. The target domain is metonymic, as her eyes stands for the effect that a woman has on the speaker. It is a small hyperbolic ingredient resulting from carrying over the connotations that are implicit in the source domain in terms of luminescence onto human eyes. Human eyes do not emit light.

Both hyperbolic examples are convertible into similes. In example (8) just by changing the subject (*This approach is not like carving into stone)* while in example (9) its structure remains invariable, (*Her eyes were like fireflies; Her eyes were as bright as fireflies*). Both examples are close to full convertibility.

5) *Hyperbole through metonymy.*

      (9) Bike-to-work plans are a great way of hitting two birds with one stone.

It means to achieve two goals with just one action. This expression is built on an artificial scenario grounded in an everyday situation of throwing stones at birds. Hitting two birds with a stone would be considered quite a feat because of the great skill involved. Evidently, achieving two goals with just one action makes us think of the action as an effective one.

Regarding cognitive operations, this is a fictional-situational scenario but not counterfactual because it is possible to recreate it in our minds. 'To hit two birds with one stone' encompasses a series of conceptual implications, among others, economize, make something easy or have a specific skill. Its exact interpretation will depend on the context. Once the part-for-the whole metonymy has been activated in the source domain, these metonymic derivations are mapped onto the target. It is not a counterfactual metaphor but an unlikely situation, consequently there is hyperbole because of the exaggeration implicit in its artificial scenario.

It is almost fully-convertible into simile because of its syntax based on the verb 'to be' (e.g., *Bike-to-work plans are like hitting two birds with one stone*).

6) *Strengthened Irony through Metaphor and Hyperbole.*

      (10) If Clinton were the Titanic the iceberg would sink.

Its meaning requires a previous social knowledge of an incident related to the former president of the United States, Bill Clinton, who was involved in a scandal. The continued political attacks did not affect his popularity. Clinton was capable of surviving the scandal without any harm, and even those trying to condemn him were more severely affected than Clinton himself.

This metaphor depicts a counterfactual scenario where, contrary to logic, the Titanic sinks the iceberg. Note that icebergs are unsinkable, which provides this metaphoric source with a hyperbolic element.

The source domain of the metaphor inverts the CAUSE-EFFECT relations in the scenario described above. To everyone's surprise, the Titanic in the counterfactual does not sink when hitting an iceberg, but sinks the iceberg, which is really unsinkable. This maps onto the situation in which Clinton not only survives the scandal, but, even turns the situation around to its advantage. There is a metonymy: the linguistic expression only describes the Titanic sinking the iceberg. The rest of the conceptual implications are a metonymic derivation which elaborates the metaphoric source. The strength of these implications is enhanced through the hyperbolic nature of the counterfactual.

Finally, since the target situation is a shocking one based on a scandal, an ironic clash between what the metaphor conveys (a rather disturbing real-life situation) and what one would expect the world to be like (with the resignation of a person that has abused his position as president of the United States) express an intentionality based on thoughts or beliefs (Wilson & Sperber 2012).

This metaphor is not easily convertible into simile, since doing so would destroy its counterfactual base: *If Clinton were like the Titanic, the iceberg would* sink. The use of *like* affects the hypothetical nature of the if-clause, thus preventing cause-effect inversion from taking place. It is only the inverted cause-effect relationship that can map onto the absurd real-life situation where Clinton survives scandal, contrary to all expectations.

4.2. Similes

As explained in section 3, simile is understood as a grammatical structure, marked by either *as-as* or *like*, which is used to pin down similarities between concepts (see table 4). Simile works through resemblance, i.e., we talk about an entity and its attributes in terms of another entity and its attributes. Romano (2017) delves into this figure of speech paying particular attention to its possible conversion into metaphor. This scholar, as well as Ruiz de Mendoza (2020), demonstrate that metaphors and similes, although often treated as

equivalent, are significantly different. They are a clear example of Bolinger's (1977) well-known claim, that any change in form entails a change of meaning. This means that each one accomplish different discursive functions.

As seen above, similes and metaphors are not always convertible into each other. Different factors play a role in convertibility, like syntax, semantics, or pragmatics among others. For example, the simile *John is as silent as a mouse* (X is as Y as Z), or *John is silent like a mouse* (X is like Y) has a more specific meaning than its corresponding metaphor (*John is a mouse*), which is open-ended. By contrast, an open-ended simile like *John is like a mouse*, which does not specify the grounds for the comparison, has a potentially broader range of interpretations than the metaphor itself. This may be a consequence of the greater syntactic dissociation between the two terms of comparison in the open-ended *like* simile, whereas the metaphor makes a tighter connection between them.

The following examples pursue to question the convertibility of similes into non-structural resemblance metaphors, as explained in the introduction of this section 4.

In our research, we found abundant examples of *as-as* similes which are more closed than resemblance metaphors (e.g., *He is as light as a feather; You are as sweet as sugar*). Nevertheless, this is not a categorical assertion since examples like *Achilles was as brave as a lion* can be virtually interchangeable with the resemblance metaphor *Achilles was a lion*. The difference in meaning is subtle. In the case of the metaphor, there is a syntactically closer connection between the lion and the warrior. This makes us see the warrior's courage in connection with related properties of lions when they fight other animals: they are powerful, instinctually fierce, unrelenting, and bloodthirsty. The simile, by contrast, isolates the feature of "bravery" through the correlated adverbials *as-as*. The warrior's bravery is thus seen in greater dissociation from the other related features that characterize a lion's behaviour.

Additionally, complex structures seem to offer wider and more interesting analytical developments. For instance, *Janie's boyfriend appreciated her as an ape might appreciate an algebra book*, the *as* structure allows the speaker to make a close-ended comparison

even though *as* is the functional equivalent of *like* for cases in which the second term of the comparison takes clausal form. That is, X IS LIKE Y and X IS AS Y would seem to be similar, but in fact they are not because the Y variable in the latter construction is not a noun but a whole clause. Compare the example above with *Janie's boyfriend appreciated her like an ape*. This simile takes the form X IS LIKE Y. Its interpretation is difficult, because it does not specify in what way the ape would show its appreciation for Janie's boyfriend. However, the form X IS AS Y, where Y is a clause, allows the speaker to fill in the details of the comparison. In the example above, it is a question of usefulness: an algebra book is as useful to a monkey as the girlfriend is to her boyfriend. This extravagant or absurd situation is built on an imaginary scenario which adds a hyperbolic effect. Its interpretation is understood through analogy. Let us take this other example, *That's as useful as rearranging deck chairs on the Titanic*. It means that the effort implied in a task will not be worthwhile, as it will make no difference in the end. To be fully understood, this simile requires us to be aware of extra-information based on socio-cultural events, the story of the Titanic.

The examples below follow a pattern similar to the one used in the resemblance metaphors, i.e., each analysis is centered on the analytical processes involved in the source domains. We will see how simile interacts with metonymy, hyperbole, and irony.

(1) I felt like hell all day because, I was up till 4:00 binge-watching season 2 of "Dexter".

Its structure is grounded in imaginary locations which follow the container logic. In *I feel like hell*, the notion of "hell" stands for the conditions inside the hell, which are mapped onto the speaker's feelings. The logic applied to "hell" is extensive to other (real or imaginary) locations in such a way that the place stands for the conditions that people typically associate to it. So, "feeling great" can be treated in terms of a "holy place" where one can have a "holy experience".

This simile could be convertible into metaphor with its corresponding variations in meaning, by changing its syntax slightly (e.g., *I was in hell all the day*). The metaphor does

not use the LOCATION FOR STATE metonymy. Instead, it uses the logic of the "container" image schema to imply the conditions affecting the speaker. The interior of hell is highly negative. It is connected to intense torture and suffering. Both the simile and the metaphor achieve intensity but through different mechanisms: the metaphor by means of the image schema logic; the simile through a metonymy that is built into its source domain. The simile highlights the speaker's feelings; the metaphor highlights the state that the speaker is in.

(2) Janet was like a bear with a sore head when she found out she had missed her connecting flight.

A bear is considered a dangerous animal; so, in this simile being like *a bear with a sore head* means to be very angry or behave in a very bad-tempered, even irrational way. This is a simile based on a fictional scenario. Our experience with bears is limited, but imagine that a wild bear with a headache might behave with uncontrolled ferocity. This is not irritation, which is a human attribute, but the behaviour is similar to that of an extremely irritated person. So, we assign a human attribute to a wild animal and then map this behaviour onto the person. Consequently, we think of the person with a headache to be "irritated" as a bear. Lakoff and Turner (1989, p. 198) give a similar analysis of other examples of metaphorical thought in PEOPLE ARE ANIMALS.

This simile is convertible into metaphor in terms of syntax: *Jane was a bear with a sore head when she found out she had missed her connecting flight*. The difference between the metaphor and the simile is that the simile is less impacting with respect to the attribution of animal behaviour to the person.

(3) The flowers were as soft as thoughts of budding love.

It is an *as-as* simile. This example is characterized by the use of an abstract source domain ("thoughts of budding love"), which is seen as a physical attribute ('soft'): (PROPERTIES OF) IDEAS (OR THOUGHTS) ARE (PROPERTIES OF) OBJECTS. This

allows us to see affectionate thoughts (target) as if they were soft objects (source). This whole concept is mapped onto the target domain, the flowers. It is interesting to note that simile allows for a mapping were a concrete object (flowers) is seen as an abstract entity (thoughts), a situation which is not possible in metaphor. Metaphor maps concrete experience onto abstract concepts rather than abstract concepts to concrete ones.

This simile is hardly convertible into metaphor because of the difficulty to find out the grounds for the comparison and probably also because of the abstract nature of the source domain. The result of conversion is odd: #*The flowers were thoughts of budding love.*

(4) Last night, I slept like a log.

The origin of this expression is found in the lumberjacks and their exhausting work, in the early pioneer days in North America. Lumberjacks cut the trees into big logs, which was a backbreaking work. At the end of the day they were exhausted.

The log is metonymic for the scenario of the fatigued lumberjacks, who sleep tight after strenuous work. In the simile, this scenario, which is the target of the previous metaphtonymy, becomes a source domain that maps onto another target situation, one where someone is in deep sleep. The activation of the metonymy is not cued by the comparison construction. The metonymy is cued by socio-cultural knowledge.

This simile is unlikely convertible to metaphor (*He is a log). It would be necessary to set up the grounds for the comparison: for example, *He is a log when he sleeps*. Even so, it would be a rather infelicitous conversion. The need to elaborate the source metonymically in the simile takes away from the ability to find the grounds for the comparison or for resemblance easily.

(5) I'm so thirsty that my throat is as dry as a bone.

This simile contains an EFFECT FOR CAUSE metonymy in the source domain. This is an example of non-convertibility into metaphor due to syntactic reasons. There is an excessive distance between the source domain and the target. The source domain requires a

lot of elaboration through a metonymy which is cued by the comparison construction. Metaphors entail a tighter relationship between the source and target than similes.

(6) The fatal letter wings its way across the sea, like a bird of prey.

It means someone is going to receive a terrible news. This is an interesting case. It starts with a metaphor where a letter is depicted as having wings (a feature of birds) that it uses to fly across the sea. Then, it provides a specification of the kind of bird (a bird of prey). We can think of the bird of prey flying across the sea to reach its destination. "A bird of prey" is the source domain while "a fatal letter" is the target. This scenario maps onto the scenario of the letter traveling to its destination across the sea.

A meaningful connotation is that birds of prey hunt other animals, so the receiver of the letter is seen as a victim. Besides, the verb "wing" is a metonymic creation from the noun "wing" (OBJECT FOR ACTION).

There is an initial metaphor (the letter flying across the sea), which is complemented by a simile (the letter seen as a prey bird).

This simile is convertible into metaphor because it was devised as a mere specification of an easily recoverable metaphorical element associated with the description of a letter flying across the sea: *The fatal letter is a bird of prey winging its way across the sea*.

(7) She ran down the street like a bat out of hell.

This is a *like*-simile. It invokes a hyperbolic image in the source domain obtained through humorous counterfactual creation. Regarding its cognitive function, this is a clear example of assertions of similitude by means of specific attributes that, not only add a defined image, but also a funny and exaggerated hint.

It's not convertible into metaphor because both domains, target and source, are too complex to be transformed metaphorically.

(8) The paparazzi circled like vultures above a tottering camel.

This is a simile based on a metaphor in its source domain, which is composed of explicit information: vultures flying in circles around a tottering camel anxious to prey on the dying animal. The target domain is identified by a metonymic development of "the paparazzi circled" into "the paparazzi circled around the celebrity anxious to take pictures of him/her."

This simile is fully convertible into metaphor. The two figures have the same source and target domains: *The paparazzi were vultures circling above a tottering camel.* This is a good example of conversion when dealing with different cognitive operations in the figure of speech.

> (9)   The pen is mightier than the sword.

This is a simile taking the form of a superiority comparison: X is more Y than Z, where X is the target domain and Z is the source. It means that being eloquent or good at writing is more powerful or more effective that making use of violence or any kind of force. There are two metonymies in this simile. One is built into the target domain and the other into the source domain. There is a PART-FOR-WHOLE metonymy in 'pen', which stands for an eloquent person when writing or making and speech; and there is another PART-FOR-WHOLE metonymy in 'sword', which stands for a person with an aggressive attitude, as in military aggression. The simile is based on a comparison by means of the contrast of the metonymies. Here the connection between the two metonymies is external to them, since it is based on the cross-domain mapping used to create the simile.

In relation to its formal aspect, example (9) is not convertible into metaphor because the syntax of metaphor is not designed to convey the superiority of the target over the source: #*A pen is a mighty sword.* This has consequences in terms of meaning, since, although the metaphor is conceptually possible, the equivalence expressed by the metaphor lacks the rhetorical force of the simile.

4.   Conclusions

The role of resemblance in cognition has been analyzed by means of cognitive operations. As a result, this research evidences the following ideas:

There are more differences between metaphor and simile than have so far been assumed by theorists. An account in terms of cognitive processes is able to reveal those differences through such analytical tools as perspectivization, reconstrual, iconic distance, and other relating to the impact of the combination of cognitive processes.

Simile constrains the activity of resemblance cognitive operations through its constructional form (i.e. its syntactic formulation). This is an interesting finding for Cognitive Linguistics, which has placed much more emphasis on meaning than form in the analysis of resemblance phenomena, like non-correlation metaphor and simile.

The convertibility of simile into metaphor depends on how we can handle, from a formal perspective, the relations between the two terms of comparison and the grounds of comparison. If the simile makes explicit the grounds of the comparison (e.g. *She's blind like a bat, She's as blind as a bat*), the conversion to metaphor is generally not possible (#*She's a bat)*. An exception to this happens when the metaphor has already conventionalized its meaning and that includes the grounds, as in *Achilles is (like) a lion*; *Achilles is as brave as a lion; Achilles is brave like a lion*. On the other hand, the convertibility of metaphor into simile is possible when the source and target of the metaphor can be explicitly expressed as the two terms of the comparison: *My lawyer is (like) a shark; My lawyer is as cruel and deceitful as a shark*. It is not possible when the metaphorical source invokes a scenario that is not easily captured by a nominal expression (e.g. *No one carved the idea into stone,* where carving something into stone maps onto making the idea durable).

To conclude, more exhaustive investigations on resemblance operations across figures of speech backed by quantitative data are recommended.

References

Bolinger, D. (1977). *Meaning and form.* London: Longman.

Fogelin, R.J. (1988). *Figuratively speaking.* New Haven: Yale University Press

Gluckberg, S. & Haught, C. (2006). On the relation between metaphor and simile: when comparison fails. *Mind & Language*, 21(3), 360-378.
DOI: https://doi.org/10.1111/j.1468-0017.2006.00282.x

Gluckberg, S. (2001). *Understanding Figurative Language: from Metaphor to Idioms.* Oxford: Oxford University Press.

Goossens, L. (1990). Metaphtonymy: the interaction of metaphor and metonymy in expressions for linguistic action. *Cognitive Linguistics*, 1(3), 323-342.
DOI: https://doi.org/10.1515/cogl.1990.1.3.323

Grady, J. (1997). Theories are buildings revisited. *Cognitive Linguistics*. Amsterdam/Philadelphia: John Benjamins, 8(4), 267-290.
DOI: https://doi.org/10.1515/cogl.1997.8.4.267

Grady, J. (1999). A typology of motivation for conceptual metaphor: correlation vs. resemblance. In R. W. Gibbs, & G. Steen (Eds.), *Metaphor in Cognitive Linguistics*. Amsterdam/Philadelphia: John Benjamins, 79-100.

Israel, M., Riddle Harding, J., Tobin, V. (2004). On simile. In M. Achard & S. Kemmer (Eds.), *Language culture, and mind*. Standford: CSLI Publications, 123-135.

Lakoff, G. (1987). Image Metaphors. *Metaphor and Symbolic Activity*, 2(3), 219-222.
DOI: https://doi.org/10.1207/s15327868ms0203_4

Lakoff, G. and Johnson, M. (1980). *Metaphors we live by*. Chicago, IL: University of Chicago Press.

Lakoff, G. and Johnson, M. (1999). Philosophy in the flesh: The embodied mind and its challenge to Western Thought. *Computational Linguistics*. New York: Basic Books. 25(4).

Lakoff, G. and Turner, M. (1989). *More than Cool Reason. A field guide to poetic metaphor.* Chicago: The University of Chicago.

Leech, G. (1969) *A linguistic Guide to English Poetry*. New York: Routledge.

Miró, I. (2018). Combining Metaphors: From Metaphoric Amalgams to Binary Systems. *Australian Journal of Linguistics*. London: Taylor & Francis Online, 38(1), 81-104.

Moder, C.L. (2008). It's like making a soup: metaphors and similes in spoken news discourse. In: Tyler, A., Kim, Y., Takada, M. (Eds.), *Language in the Context of Use. Discourse and Cognitive Approaches to Language.* Berlin & New York: Mouton de Gruyter, Oxford: Oxford University Press, 301–320.

Peña, S., & Ruiz de Mendoza, F. J. (2017). Construing and constructing hyperbole. In A. Athanasiadou (Ed.), *Studies in figurative thought and language.* Amsterdam & Philadelphia: John Benjamins, 41–73.

Romano, M. (2017). Are similes and metaphors interchangeable? *Review of Cognitive Linguistics.* Amsterdam/Philadelphia: John Benjamins, (5), 1.
DOI: 10.10757rcl.15.1.01rom.

Ruiz de Mendoza, F.J. (2008). Cross-linguistic analysis, second language teaching and cognitive semantics: The case of Spanish diminutives and reflexive constructions. In S. De Knop, & T. De Rycker (Eds.), *Cognitive approaches to Pedagogical Grammar. Volume in honor of Réné Dirven.* Berlin & New York: Mouton de Gruyter, 121-152.

Ruiz de Mendoza, F.J. (2017). Metaphor and other cognitive operations in interaction. From basicity to complexity. In B. Hampe (Ed.), *Metaphor: Embodied cognition, and discourse*. Cambridge: Cambridge University Press, 138-159.

Ruiz de Mendoza, F.J. (2020). Understanding figures of speech: Dependency relations and organizational patterns. *Language & Communication*. Elsevier, n. 71.
DOI: https://doi.org/10.1016/j.langcom.2019.12.002

Ruiz de Mendoza, F.J., & Galera, A. (2014). *Cognitive Modeling. A linguistic perspective*. Amsterdam/Philadelphia: John Benjamins, vol. 45.

Ruiz de Mendoza, F.J., & Pérez, L. (2003). Cognitive operations and pragmatics implications. *Metonymy and Pragmatic Inferencing.* Panther & Thornburg (Ed.). Amsterdam/Philadelphia: John Benjamins.

Ruiz de Mendoza, F.J. & Pérez, L. (2011). The Contemporary Theory of Metaphor: Myths, Developments and Challenges. *Psychology Press.*. London: Taylor & Francis Group, 26, 161-185. DOI: http://dx.doi.org/10.1080/10926488.2011.583189

Ruiz de Mendoza, F.J., & Santibáñez, F. (2003). Content and formal cognitive operations in construing meaning. *Italian Journal of Linguistics,* 2(15), 293-320.

Tversky, A. (1977). Features of similarity. *Psychological Review,* 84, 327-352.

Wilson, D. & Sperberg, D. (2012). Explaining irony. In D. Wilson, & D. Sperberg (Eds.), *Meaning and Relevance*. Cambridge: Cambridge University Press, 123-145.

Lexicographical resources:

Corpus of Contemporary American English (2020). https://www.english-corpora.org/coca/

The Free Dictionary (2020). Farlex Dictionary, Inc. Pennsylvania. www.thefreedictionary.com

Urban Dictionary (2020). Urban Dictionary LLC. San Francisco. www.urbandictionary.com