SEQUENCING AND INTEGRATION IN
METAPHOR-METONYMY INTERACTION

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ABSTRACT: *The present paper elaborates on some of the ideas in Ruiz de Mendoza & Díez (2002), where it is argued that conceptual interaction is fully regulated and constrained by a limited set of interactional patterns. This paper attempts to provide further evidence in support of this thesis, with the addition of one more interactional pattern which has escaped Ruiz de Mendoza & Díez's notice. We also posit and analyse in detail the question of the sequential arrangement (or* sequencing*) of interaction operations, with the purpose of shedding additional light upon the definitional relationship between metaphor and metonymy.*

KEYWORDS: conceptual interaction, interactional patterns, sequential arrangement, interaction operations, metaphor, metonymy.

RESUMEN: *Este artículo desarrolla algunas de las ideas clave recogidas en Ruiz de Mendoza & Díez (2002), donde se muestra cómo la interacción conceptual está regulada y constreñida por un limitado número de patrones de interacción. El presente artículo asimismo trata de ofrecer nuevas evidencias para cimentar esta tesis, con la propuesta de un patrón de interacción nuevo, no contemplado en Ruiz de Mendoza y Díez. También se propone y se analiza en detalle la cuestión del orden secuencial de las operaciones de interacción entre metáfora y metonimia, con el firme propósito de aclarar la relación entre ambos fenómenos.*

PALABRAS CLAVE: interacción conceptual, patrones de interacción, orden secuencial, operaciones de interacción, metáfora, metonimia.

0. INTRODUCTION

Standard accounts of cognitive semantics show how our knowledge is structured in the form of *idealised cognitive models* or ICMs (i.e. cognitive structures which are idealised in order to understand and reason, and with the basic function of depicting reality from a certain angle. Lakoff 1987:68). There are four types of different ICMs:

propositional (i.e. sets of predicate-argument relationships or "frames"; cf. Fillmore 1985), metaphoric (i.e. mappings or sets of correspondences across conceptual domains; cf. Lakoff & Johnson 1980), metonymic (mappings within a single domain; cf. Lakoff & Johnson 1980), and image-schematic (pre-conceptual topological representations; cf. Lakoff & Johnson 1980).

ICMs may interact in several different ways, which has been a deeply investigated area of study. Although most recent proposals on this issue include the existence of four different patterns of conceptual interaction (more specifically, interaction based on image-schemas, interaction between propositional cognitive models in metaphoric settings, interaction involving metonymic models –double metonymy, interaction between metaphor and metonymy-; cf. Ruiz de Mendoza & Díez 2002), there are some constructions that have traditionally fallen into neglect (may it be because of their uncomplicated appearance, or because of any other reason) and that, nevertheless, originate interesting patterns of interaction between metaphor and metonymy, as I shall present in the final section of this paper. Since I will devote most of this study to both the interaction between metaphor and metonymy, and to its immediate consequences, a preliminary section follows this introduction.

1. DEFINING METAPHOR: METAPHOR VS. METONYMY

Cognitive linguists have carried out a large quantity of studies on metaphor, an idealised cognitive model (or ICM) which is the consequence of a conceptual mapping across different domains. So far, many authors have contributed to a formal distinction between metaphor and metonymy. For instance, Lakoff & Johnson (1980: 35-40) and Lakoff & Turner (1989: 103-104) distinguish between metaphor and metonymy, which can be confused because both represent connections between different things[1]. Nonetheless, the connections can be very different:

(1) In metaphor there are two conceptual domains involved, one being understood in terms of the other, while metonymy only involves one conceptual domain, i.e. the mapping occurs within a single domain and not across domains.

(2) In metaphor, the source domain is mapped onto the target domain, and thus it is mainly used for understanding, e.g. *I have control **over** him* (having control or force is up). On the contrary, metonymy is mainly used for reference, as we can refer to an entity in a schema by referring to another entity in the same schema, e.g. ***Wall Street** is in crisis* (the street stands for the institution).

(3) Thus, the relationship between the source and target domains in metaphor is of the "IS A" kind; in metonymy there is a "STANDS FOR" relationship, since one entity in a schema is taken as standing for another entity in the same schema or for the schema as a whole.

However, as Ruiz de Mendoza (1997, 1999) has noticed, the only essential difference between metaphor and metonymy is related to the domain-internal and domain-external nature of the metonymic and metaphoric mappings respectively, since both metaphor and metonymy can be used either referentially or non-referentially (i.e. predicatively):

METAPHOR:

- Used referentially: *The pig is waiting for his bill* (the pig is the customer).
- Used non-referentially: *I have control over him* (having control or force is up).

METONYMY:

- Used referentially: *Wall Street is in crisis* (the street stands for the institution).
- Used non-referentially: *He is a brain* (he is very intelligent).

The "STANDS FOR" relationship is simply a result of the domain-internal nature of metonymic mappings; that is, the false impression that metonymies obligatorily require a "STANDS FOR" relationship derives from the fact that metonymies are constructed upon a single conceptual domain, so it becomes difficult to map the relationship between source and target because one of the domains is already part of the other. To solve this, Ruiz de Mendoza (1997) claims for the existence of two types of metaphor from the point of view of the nature of the mapping process. Hence, we may find one-correspondence metaphors (there is just one correspondence between the source and target domains; e.g. PEOPLE ARE ANIMALS, in which animal behaviour is mapped onto human behaviour) and many-correspondence metaphors (there are several correspondences between the source and target domains; e.g. LOVE IS A JOURNEY, in which the lovers are the travellers, the couple's shared goal is the destination, etc.).
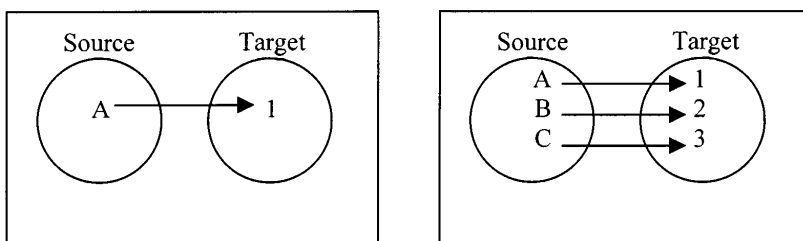

Figure 1. *One-correspondence and many-correspondence metaphors*

On the other hand, metonymies, being instances of one-correspondence mappings, have been divided (Ruiz de Mendoza 2000; Ruiz de Mendoza & Pérez 2001) into (a)

target-in-source (the source domain stands for a target sub-domain) and (b) source-in-target (a source sub-domain stands for a target domain).

Figure 2. *Target-in-source and source-in-target metonymies*

METONYMY:
- Domain (source) stands for a subdomain (target): *Wall Street is in crisis*.
- Subdomain (source) stands for a domain (target): *The ham sandwich is waiting for his bill*.
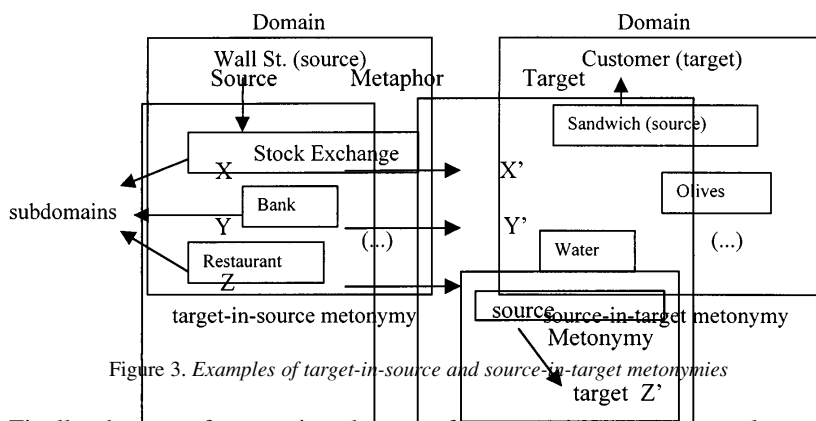

Figure 3. *Examples of target-in-source and source-in-target metonymies*

Finally, the two aforementioned types of metonymic mapping correlate with the two basic functions of referential metonymy: first, source-in-target metonymies involve domain expansion (i.e. they provide full access to the reference domain, called by Ruiz de Mendoza (2000) *matrix domain,* by means of one of its subdomains); second, target-in-source metonymies involve domain reduction, which leads to the highlighting of a relevant part of a domain.

2. CONCEPTUAL INTERACTION BETWEEN METAPHOR AND METONYMY

Conceptual projection is a phenomenon regulated by several principles which results in the interaction and combination of relevant conceptual structure derived from

ICMs or, in Turner & Fauconnier's (1995) terminology, mental spaces[2]. Following these constraints, Ruiz de Mendoza & Díez (2002) have posited four different patterns of conceptual interaction: the interaction based on image-schemas, the interaction between propositional cognitive models in metaphoric settings, cases of double metonymy, and the interplay between metaphor and metonymy (probably the interaction pattern which has received wider treatment in the literature; see e.g. Goossens 1995; Turner & Fauconnier 2002). In what follows only this latter pattern is dealt with.

2.1. *Integrated interaction between metaphor and metonymy*

To begin with, let us consider the following expression: *to throw up one's hands in horror.* Although some scholars may argue that this is a clear instance of a metaphor derived from a metonymy, we are really facing here a complex matter. Hence, the metaphoric source portrays the scene of a person raising his hands in order to show horror, whereas its target presents a scared-to-death or horrified person (without actually raising his hands). Thus, the metonymy constitutes the basis for the metaphoric mapping, depicting a situation in which a person throws up his hands to one in which a person becomes horrified, as shown below:
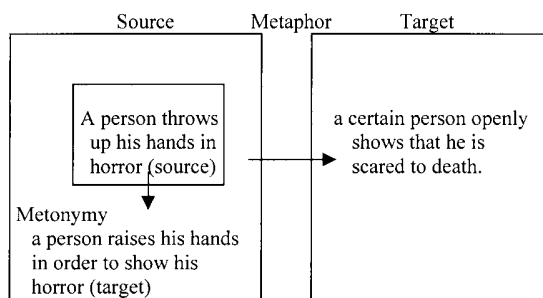

Figure 4. *To throw up one´s hands in horror*

In this case, the source of the metonymy is a subdomain of the target, which provides us with the main elements in order to build the metaphoric mapping while focusing on only one of the correspondences (i.e. that a person openly shows his horror); this is not possible with metonymies where the source is not a subdomain of the target, as Ruiz de Mendoza & Díez (2002) have noticed. This example can be labelled a "metonymic expansion of a metaphoric source"[3], which abides by the following pattern:
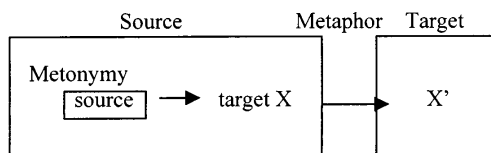

Figure 5. *Metonymic expansion of a metaphoric source*

Now we turn our attention to the expression *to thread one's way,* in which the metonymy is built within the target of the metaphor. This helps the reader to determine the interpretation of the metaphoric mapping (i.e. threading one's way as part of a situation in which a person opens his way) and allows the construction of a generic space.

Source   Metaphor   Target

a person threads a strand through the eye of the needle → a person opens his way through impediments   (source) Metonymy

↓ situation in which a person threads/opens his way through the crowd/between the tables (target)
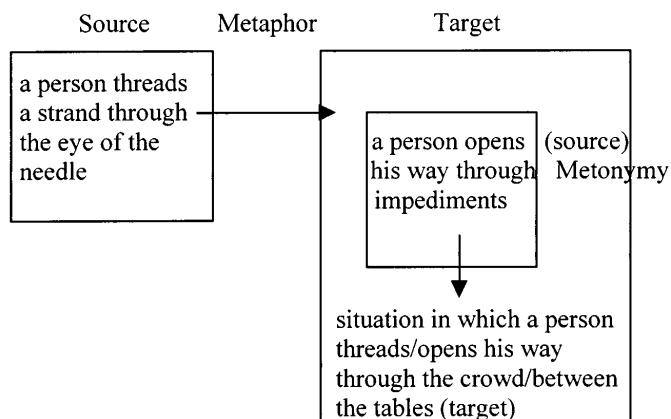
Figure 6. *To thread one's way*

Here, the metonymy within the target of the metaphor is the output of the metaphor, which in turn becomes the source of the metonymy. This pattern, which has been labelled "metonymic expansion of a metaphoric target," is diagrammed as follows:

Source   Metaphor   Target

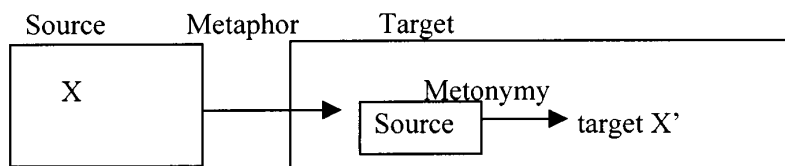X →   Metonymy   Source → target X'

Figure 7. *Metonymic expansion of a metaphoric target*

We can also hear expressions such as *he broke my heart*, in which the source contains a person or breaker who has carried out the action of breaking something; all this is mapped onto a lover who has probably ended up his relationship, thus destroying the heart which metonymically stands for the feelings it contains. Interestingly enough, it is the metonymy and not the metaphor that works on the "thing broken" – "heart" correspondence (which moreover becomes the central one, in terms of relevance), thus allowing readers to interpret it (i.e. the feelings are the destroyed ones, not the heart).

Source   Metaphor   Target

Breaker   lover

Breaking   courtship

Thing broken   heart (source)
Metonymy
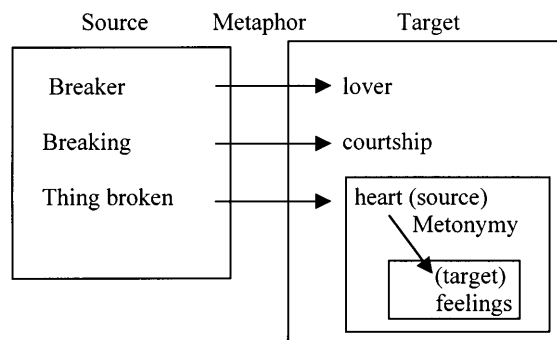
(target)
feelings

Figure 8. *He broke my heart*

This sort of patterns contains, as shown above, target-in-source metonymies within the metaphoric target, the metonymies thus having the function of highlighting that part of its source domain (the feelings) which is essential for the understanding of the metaphoric correspondence on which it works ("thing broken" – "heart"). This pattern, which is labelled "metonymic reduction of one of the correspondences of the target domain of a metaphor," can be represented as follows:

Source   Metaphor   Target

X   X'

Y   Y'

Z   source
Metonymy
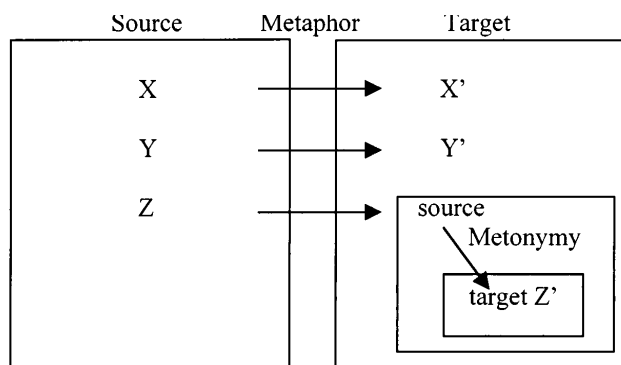
target Z'

Figure 9. *Metonymic reduction of one of the correspondences of the*
target domain of a metaphor

A different pattern, rather similar to the previous one (the only difference lying in the type of metonymic mapping), can be found in instances such as *to have hawk eyes,* in which the metonymy is of the source-in-target type (i.e. "hawk eyes" stand for "a good sight," since hawks are characterised by having extraordinary sight). This leads to the pattern labelled "metonymic expansion of one of the correspondences of the target domain of a metaphor," which is characterised by two properties: firstly, the fact that the correspondence where the metonymic mapping takes place is given more prominence than the others, thus becoming the most central in the metaphor; and, secondly, the fact

that the metonymic expansion originates a focus on a specific subdomain of the reference domain[4]. Hence, these patterns show a double process of highlighting (one referred to the role of the correspondence in the metaphoric mapping and another related to highlighting a relevant feature of the matrix domain of the metonymy).
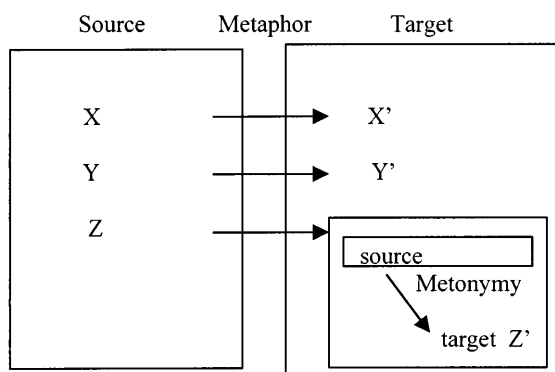
Figure 10. *To have hawk eyes*

Figure 11. *Metonymic expansion of one of the correspondences of the target domain of a metaphor*

In order to finish this section, the last interactional pattern can be exemplified by the expression *The hand that rocks the cradle is the hand that rules the world*, in which one of the correspondences within the metaphoric source is developed metonymically ("hand" for "ruler/controller"), the metonymy highlighting the possibility of *hand* to become the instrument with which the action is carried out. So, the source of the metonymy (i.e. hand) becomes the one with the highest degree of prominence since the metonymy itself puts into focus one of the correspondences in the activation of the

metaphoric source. This pattern is labelled "metonymic expansion of one of the correspondences of the source domain of a metaphor."
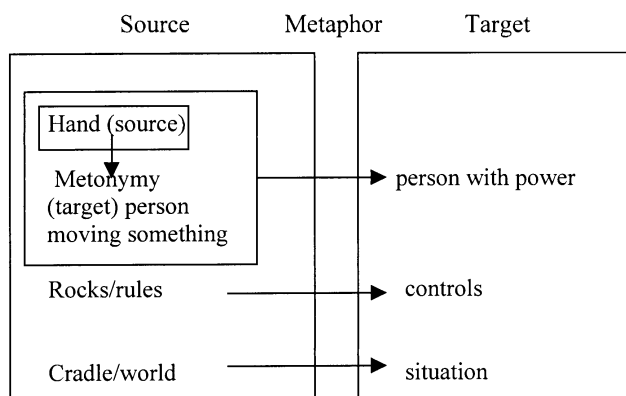
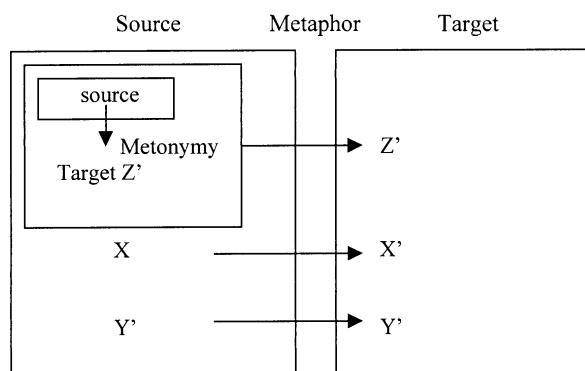Figure 12. *The hand that rocks the cradle is the hand that rules the world.*

Figure 13. *Metonymic expansion of one of the correspondences of the source domain of a metaphor*

The list of patterns is not exhaustive. In fact, in previous work by Ruiz de Mendoza (1999) we find one more pattern, illustrated by the expression *He's the life and soul of the party,* not discussed in the more exhaustive account in Ruiz de Mendoza & Díez (2002). In this metaphor a party is seen metaphorically as a person whose life and soul stand for the person's lively behaviour and ability to entertain other people. The combined notions of life and soul thus stand for the person who is capable of cheering everybody else up as a result of his lively behaviour. This maps onto one of the stereotyped roles of some party goers. Figure 14 below is an adaptation of the one found in Ruiz de Mendoza (1999). Figure 15 schematises the essentials of this pattern.
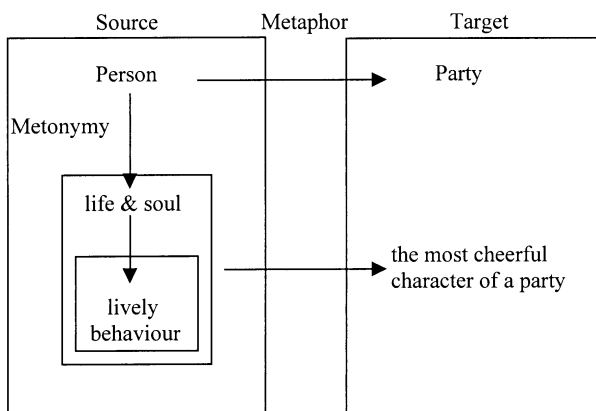
Figure 14. *He's the life and soul of the party.*
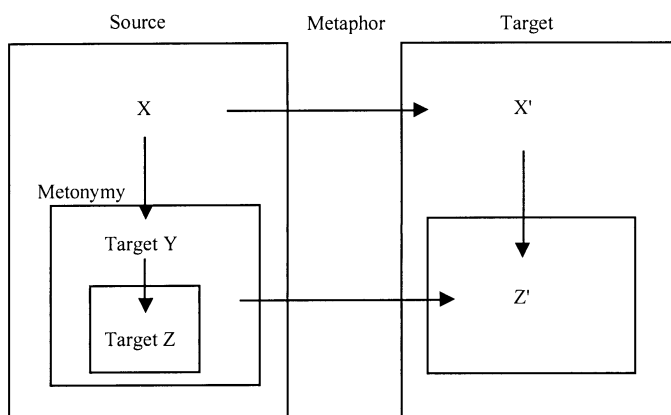
Figure 15. *Metonymic reduction of a metaphoric source*

As we have seen, the interaction between non-generic models shows that, if there is a metaphoric mapping, the mapping regulates the projection from the input spaces. Furthermore, the information from other cognitive models determines the nature of the source and target domains, thus giving access to the main inference or derived contextual effects. To end this section with, it may be argued that the interaction patterns above suggested restrict the choices of conceptual projection, which provides the conceptual system with a specific use potential.

2.2. *Sequencing in interaction between metaphor and metonymy*

The classification of metaphor-metonymy interaction patterns provided by Ruiz de Mendoza & Díez (2002) is a fairly systematic one. From our point of view, it has

two main advantages. One is that it offers a principled account of the role of metonymy in contributing to metaphor comprehension. It must be borne in mind that, when involved in interaction, metonymy is subsidiary to metaphor, i.e. it either expands or reduces part or all of a metaphoric source or target. This is probably due to the fact that while metaphoric mappings work on the basis of either similarity or correlation, which most of the times calls for the creation of complex systems of correspondences (what Ruiz de Mendoza (2000) has called *many-correspondence mappings*), metonymic operations are much simpler: one conceptual item gives access to another. The second advantage is related to the strong explanatory power of the classification itself, since it provides us with a set of constraints on conceptual integration operations. This point may be more readily appreciated if we consider Ruiz de Mendoza & Diez's model in connection with Turner & Fauconnier's blending theory, where analyses are carried out on an *ad hoc* basis. Thus, blending theory postulates that relevant structure from multiple metaphoric sources and targets is partially correlated and projected into a blend where, if needed, emergent structure is also created. This is not the place to discuss blending theory in detail (for a critical overview and discussion of some of its weakest points, see Ruiz de Mendoza 1998). Suffice it to say that there is nothing in Turner & Fauconnier's account which constrains and/or organises the conceptual integration process before actual projection takes place. Obviously, the existence of a limited set of organisational patterns simplifies the interpreter's task in reconstructing the meaning of a complex expression where conceptual interaction between metaphor and metonymy has taken place.

There are some concomitant issues that Ruiz de Mendoza & Díez have not discussed in their proposal. We have identified the following two:

- The question of the sequential arrangement of interaction operations.
- What looking into interaction patterns reveals about the definitional relationship between metaphor and metonymy.

In order to address the first of these two issues, we will have in mind the following patterns as discussed in section 3.1 above:

(1) Metonymic expansion of a metaphoric source.
(2) Metonymic expansion of a metaphoric target.
(3 Metonymic reduction of one of the correspondences of the target domain of a metaphor.
(4) Metonymic expansion of one of the correspondences of the target domain of a metaphor
(5) Metonymic expansion of one of the correspondences of the source domain of a metaphor.
(6) Metonymic reduction of the metaphoric source.

Since metonymy is subsidiary to metaphor in all these patterns, i.e. it modulates the kind of access we have to either the source or the target, it would be tempting to

dismiss the problem by thinking that the metonymic mapping simply takes place after the metaphoric framework has been invoked. But this is not exactly right. For example, patterns (1) and (5) require not so much the activation of the metonymy in the metaphoric source as the activation of the metonymy in order to create the metaphoric source. So, in this pattern metonymic activation both precedes and is a prerequisite for metaphor. However, it is also true that metonymy is part of –and in this sense ancillary to- metaphor. In contrast to what is the case with (1) and (5), in patterns (2), (3) and (4) the metonymic activity within the metaphoric target is the last stage of the interpretation process. In fact, metonymy is necessary in order for all relevant correspondences with the source to be fully worked out. Finally, pattern (6) shares with (1) and (5) the function of preparing the metaphoric source for the mapping operation to be possible, but in this case the metaphoric source is activated before any metonymic activity takes place. As observed by Ruiz de Mendoza & Díez themselves, the metonymy here has the function of highlighting the central correspondence of the metaphoric mapping while the structural relationship between the highlighted subdomain and its corresponding matrix domain is additionally brought to bear upon the meaning derivation process.

The issue of sequencing does not end here. We believe that in order to understand all its intricacies it is necessary to take into account both the ontological status of the domains involved in the interaction and the level of genericity of the mappings. This takes us to our second proposed question about the definitional relationship between metaphor and metonymy. Consider first the sentence *Peter foxed me*, which can be roughly paraphrased as 'Peter was able to deceive me by acting in a cunning way'. This paraphrase reveals two stages of interpretation. One, where –through the metaphor PEOPLE ARE ANIMALS- attributed animal behaviour is mapped onto human behaviour: Peter is as clever and deceitful as foxes are thought to be. Another, in which Peter is seen as acting according to the behavioural traits ascribed to him. This second stage is the result of the application of the high-level metonymy[5] AGENT FOR ACTION which has the effect of converting an ontological[6] metaphor into the equivalent of a situational metaphor[7]. Thus, the interaction process in *Peter foxed me* is carried out along the lines of pattern (2) above, although with one crucial difference. Here the metonymic development of the target has consequences in terms of the ontological status of the resulting metaphor where we have more than one correspondence at issue: we think of Peter acting in such a way that his actions result in the speaker being tricked. This goes beyond saying that Peter is astute, as in *Peter is a fox*, where there is only one correspondence.

Additionally, it may be observed that the sequencing process we have described for this metaphor has much in common with a case of what Ruiz de Mendoza & Díez (2002: 515) have called "double metonymy", as in the use of the 'head' in *He headed the alliance*. In this example, 'head' stands for 'leader' which is the agent of the action of 'leading' for which it stands. The two metonymies combine in a double process of domain expansion, as diagrammed below in figure (16).
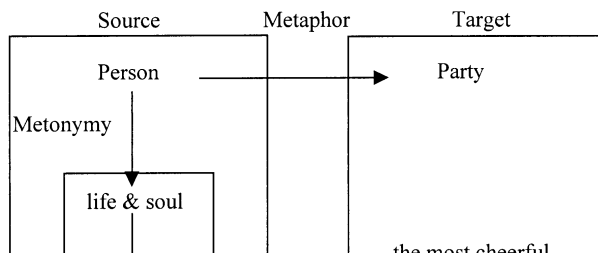
Figure 16. *Head for leader for action of leading*

Metonymies are by definition one-correspondence mappings. However, when a metonymic model is further developed into a high-level action scenario, as exemplified in figure 16, the result is very similar to pattern (2) of metaphor-metonymy interaction. We postulate that this is possible because this pattern is initially created on the basis of a one-correspondence metaphor. Indirectly, this shared property of both interaction patterns is evidence in favour of Ruiz de Mendoza's distinction between one-correspondence and many-correspondence metaphors and the existence of a metaphor-metonymy continuum where the former are closer to metonymy than the latter both in terms of their structure and their functionality. In this connection, Ruiz de Mendoza has observed that one-correspondence metaphors may be used referentially, like metonymies (e.g. *There's the nasty rat who betrayed me*). We additionally note that this kind of metaphor enters into the same interactional patterns as metonymy.

This pattern of interaction, where an ontological metaphor acquires properties typically ascribed to situational metaphors, is very productive, as evidenced by the following examples:

(a) Bad luck seems to have dogged me throughout my whole life.
(b) I called out to him but he hared off in the opposite direction, at top speed.
(c) She was beetled about doing the housework when I arrived.
(d) Stop monkeying about, be serious for a minute!!! There's no time for playing the fool.
(e) You've been hogging that book all morning. I'd like to read it too.
(f) Jack's beavering away at his homework and he has almost finished.
(g) Since he joined the company he has wormed his way into the boss's favour.
(h) I'd like to have the time and money to swan off to France for a weekend.
(i) He must have been starving. He wolfed a huge plate of stew and then asked for a second helping.
(j) He parroted the exact words I had been saying in the previous meeting.
(k) He is being hounded by the press.
(l) He pigged himself on apple pies. He's now in hospital with indigestion.
(m) She's been ferreting around among my things.
(n) He's larking about all day long. He's such a fool.

A different but related sequencing process is found in the case of other ontological metaphors which do not enter into situational patterns. Contrast the sentence *His book is a mirror of 19ᵗʰ century England* with *His book mirrors public opinion well*. In the former we have only one interpretation stage where 'mirror' maps onto 'book', in such a way that we think of the book as a faithful description of events in 19ᵗʰ Century England. In the latter the metaphoric source 'mirror' maps onto the expanded notion of 'may be used as a (figurative) mirror, i.e. a faithful description of'. This expansion is the result of high-level metonymic activity whereby and object involved in an action may stand for the action. This interaction pattern resembles pattern (1) above and results in a change from an ontological to a situational metaphor where the instrumental character of the book is highlighted. The two stages of this interactional process are diagrammed in figure (17) below.

First stage: Ontological metaphor.
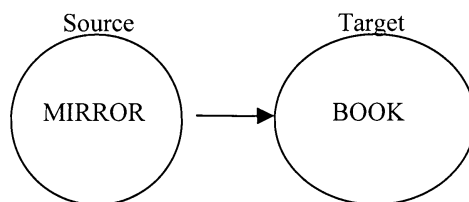
Second stage: High-level metonymy: OBJECT INVOLVED IN AN ACTION FOR THE ACTION.
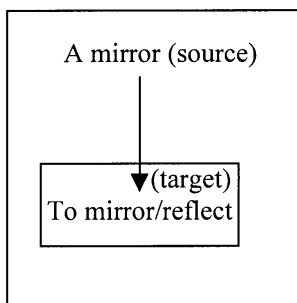

Figure 17. *Sequential interaction metaphor > metonymy: To mirror public opinion.*

Further examples of these verbs can be found in instances such as *to portray a book, to sponge off someone, to devour a book,* etc. Note that we have to distinguish these constructions from similar ones which are intrinsically metonymic in origin (e.g. *to chair a meeting, to table an amendment, to knife someone, to axe expending, to*

blanket a bed, etc.). We may find even more complex instances of these interactional patterns in sentences like *Your tears mirror your heart* (*heart* standing in turn for the feelings and emotions it contains).

We end this section by looking into the metaphorical expression *Hyde Park is the lung of London*, which may be compared to *John is the life and soul of the party*, already discussed above in connection to interaction pattern (6), where 'life and soul' are subdomains of 'John'. In the first expression we have a mapping from "body" and "lungs" to "London" and "Hyde Park". However, unlike what happens in the second expression with the relationship between 'John' and 'life and soul' the mapping is metaphoric and not metonymic. The situation takes the form set out in figure (18):
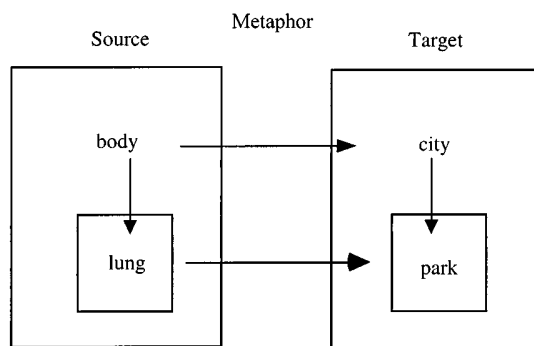

Figure 18. *Hyde Park is the lung of London.*

In the mapping, a park is seen as a place which gives oxygen (and therefore life) to a city. Note that although in the diagram both the metaphoric source and target show two elements, the metaphor is based on just one correspondence (a city's park is like a person's lungs). Other possible connections between bodies and cities (e.g. arms and influence) are not brought to bear upon the interpretation. And again, as with the examples for pattern (2) above, the structural closeness between the 'life & soul' and the 'lung' examples evidences the narrow relationship which holds between ontological one-correspondence metaphors and metonymy.

3. CONCLUSION

Ruiz de Mendoza & Díez (2002) contend that conceptual interaction is fully regulated and constrained by a limited set of interactional patterns. The present paper has provided additional evidence in support of this thesis in the domain of metaphor-metonymy interaction. We have identified one more interactional pattern, which has escaped Ruiz de Mendoza & Díez's notice, and have been able to examine in detail the question of the sequential arrangement (or *sequencing*) of interaction operations. We

have used this analysis in order to cast light upon the definitional relationship between metaphor and metonymy. We conclude that the form sequential arrangement takes in an interactional pattern is related to the ontological status of the result of an integration process.

NOTES

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1 Other similarities can be identified (Lakoff & Turner 1989: 103-104): both metaphor and metonymy are conceptual in nature; both are mappings; both can be conventionalised and unconsciously used since they are part of our daily conceptual system; and both are means of extending the linguistic resources of a language (because of that, metaphor and metonymy have traditionally been regarded as literary elements).

2 According to Turner & Fauconnier (1995: 184), mental spaces are relatively small conceptual packets built up for local understanding and reason. In their approach, which is a refinement of Lakoff's two-domain model, metaphor is the result of a blending process in which at least four different mental spaces are activated: two input spaces (a source and a target) and two middle spaces (a generic space and the blend). Some of the structure of the input spaces is projected onto the blend, where conceptual integration takes place. The generic space, which contains the shared structure of the input domains involved, licenses the projection. Nevertheless, this model presents some deficiencies (see: Ruiz de Mendoza 1998; Pérez, in press).

3 In Turner & Fauconnier's terms, we have two input spaces (one created by the metonymy and another one that results from the situation depicted by the metonymic expression), a generic space (which permits the conceptual projection of the input spaces into the blend but taking into account that some of its constituents become central because of the source of the metonymy, i.e. the action of throwing up one's hands pinpoints the idea of an open expression of horror), and a blended space that allows inferences to be created in consistency with the data from the input spaces (also including the highlighting in its constituents).

4 According to Ruiz de Mendoza, the *matrix domain* (see Ruiz de Mendoza & Pérez 2001; Ruiz de Mendoza & Díez 2002).

5 By *high-level metonymy,* we understand a metonymy in which both the source and target domains are generic cognitive models. For recent findings on high-level metonymy, see RM & Pérez (2001: 321).

6 In which abstract entities are dealt with as if they were physical objects or substances: e.g. TIME IS SOMETHING MOVING (Lakoff & Johnson 1980).

7 Which work on the basis of deriving generalisations from a conventional situation, and which usually appear in combination with a metonymic mapping; this metonymic connection has the function of projecting a concrete picture onto a wider situation; e.g. *To get up on one's hind legs* (Ruiz de Mendoza 1999a). For recent findings on metaphor classification, see Otal & Ruiz de Mendoza (2002).

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