The man, the key, or the car: Who or what is parked out back?

Morana Alač & Seana Coulson

Department of Cognitive Science University of California San Diego 9500 Gilman Drive La Jolla, CA 92093-0515

malac|coulson@cogsci.ucsd.edu

Abstract

Nunberg (1995) has identified two types of metonymic constructions with different linguistic properties: predicate transfer and deferred indexical reference. In this paper, we describe these types of metonymies within the context of cognitive grammar (Langacker, 1999), mental space theory (Fauconnier, 1994), and blending theory (Fauconnier & Turner, 2002). Using concepts from cognitive grammar, we show how principles of cognitive salience and mental access explain the different types of metonymic relations. We argue that different types of mental access produce different types of integration in blended spaces.

1 Introduction

It is quite common in everyday language to hear sentences like (1) "I am parked out back" or (2)"He has a Picasso in his den". We can also easily imagine a situation where a waitress, speaking about a customer, says: (3) "The ham sandwich is at table 7" or a situation where a customer hands his key to an attendant at a parking lot and says: (4) "This is parked out back". All these expressions, (1)-(4), employ the mechanism of metonymy.

Below we briefly review the treatment of metonymy in cognitive linguistics, contrasting it with the more referential treatment given by Nunberg (1995). Adapting conceptual integration or conceptual blending theory (Fauconnier and Turner: 1996, 1998, 2002; Turner and Fauconnier, 1999), we suggest that metonymy involves conceptual blending between the concept evoked by the trigger term (such as "Picasso" in (2)), and that evoked by the intended target (the particular piece of art referred to in the den in (2)). Following Langacker (1999), we suggest that metonymy is a reference point construction and note that certain kinds of metonymies rely more heavily on context for their efficacy, and that this context-dependence is marked by definitive linguistic properties, and may affect the extent of trigger-target blending that occurs in a given metonymic expression.

2 Metonymy as a Referential Phenomenon

Though recognized as an important phenomenon, metonymy has typically taken a back seat, so to speak, to her big sister metaphor. While the cognitive import of metaphor has long been appreciated (Lakoff & Johnson, 1980), metonymy has typically been viewed chiefly as a referential phenomenon in which one entity is used in order to refer to another entity. Lakoff & Turner (1989), for example, underline that in metaphor a whole schematic structure – the source domain – is mapped onto another, the target domain. Metonymy, on the other hand, involves only one conceptual domain (mapping occurs within a single domain, not across domains) and is used primarily for reference. "Via metonymy, one can refer to one entity in a schema by referring to another entity in the same schema" (Lakoff & Turner, 1989: 103).

This point can be illustrated by Lakoff & Johnson's (1980) examples repeated here in (5) and (6).

- (5) Inflation robbed me of my savings.
- (6) The ham sandwich is waiting for his check.

Although the metaphoric use of *inflation* in (5) involves the attribution of human qualities to an abstract entity, it does not involve reference to a person. In contrast, Lakoff & Johnson suggest that *ham sandwich* in (6) actually refers to the person who ordered the ham sandwich, but does not involve the attribution of human qualities to the sandwich. For Lakoff & Johnson, then, the defining characteristic of metonymy is referential, as metonymy fundamentally involves the use of one entity to refer to another, related entity.

Even though Lakoff & Johnson conceive of metaphor as having primarily a function of understanding (a way of conceiving of one thing in terms of another) and metonymy as having primarily a referential function (it allows us to use one entity to stand for another), they also point out that metonymy is not merely a referential device, but provides understanding (Lakoff & Johnson, 1980: 36). To explain their position, they provide a very insightful analysis of some examples of metonymy:

Metonymic concepts allow us to conceptualize one thing by means of its relation to something else. When we think of a Picasso, we are not just thinking of a work of art alone, in and of itself. We think of it in terms of its relation to the artist, that is, his conception of art, his technique, his role in art history, etc. We act with reverence toward a Picasso, even a sketch he made as a teen-ager, because of its relation to the artist. This is a way in which the PRODUCER FOR PRODUCT metonymy affects both our thought and our action. Similarly, when a waitress says "The ham sandwich wants his check," she is not interested in the person as a person but only as a customer, which is why the use of such a sentence is dehumanizing. Nixon himself may not have dropped the bombs on Hanoi, but via the CONTROLLER FOR CONTROLLED metonymy we not only say "Nixon bombed Hanoi" but also think of him as doing the bombing and hold him responsible for it. Again this is possible because of the nature of the metonymic relationship in the CONTROLLER FOR CONTROLLED metonymy, where responsibility is what is focused on (Lakoff & Johnson, 1980: 39).

We quoted this passage at length *because* it highlights the emergence of new meaning that metonymical expressions produce. However, even though Lakoff & Johnson, by looking at specific examples, acknowledge that the function of metonymy is not only referential, their model, which is based on mappings between two domains, cannot adequately explain this phenomenon. We believe that the conceptual dimensions of metonymy *are* best captured by conceptual integration or blending theory.

3 Picasso, Nixon, and Emergent Meaning

Conceptual integration operates over mental spaces as inputs and makes use of a four-space model. These spaces include two input spaces plus a generic space, representing conceptual structure that is shared by both inputs, and the blended space, where material from the inputs combines and interacts. The blend inherits partial structure from the input spaces, and has emergent structure of its own through processes of pattern completion and elaboration, a form of mental simulation. Blending is an online, real-time process that creates new meaning through the juxtaposition of familiar material. Inferences, arguments, and ideas developed in the blend can lead us to modify the initial inputs and to change our view of the corresponding situations.

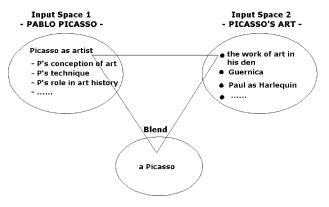
Blending theory suggests metonymy is more than a referential phenomenon, but rather a creative mechanism for meaning construction that can provide novel insights into the discourse situation. Consider the three metonymic expressions (7)-(9) from the previous quote (Lakoff & Johnson, 1980).

- (7) The ham sandwich wants his check.
- (8) He's got a Picasso in his den.
- (9) Nixon bombed Hanoi.

The conceptual integration network to represent (8) involves two input spaces: a Pablo Picasso space, and a Picasso's art space. In each mental space there are elements that represent each of the discourse entities. In the Pablo Picasso space, an element is set up to represent "Picasso as artist". Furthermore, this element can be connected to various sub-elements in background knowledge, like Picasso's conception of art, his technique, his role in art history, etc. In the Picasso's art space, there is an element that represents the particular work of art referred to in (8). The network is further built by the establishment of particular mappings between cognitive models in different spaces: there is a mapping between Picasso as artist from the mental space of Pablo Picasso and the element that represents the work of art in the mental space of Picasso's art. This particular mapping produces the metonymic relationship whereby the producer is connected with his product and licenses the metonymic reference through the producer to the product.

However, in order to explain the complete meaning of the expression in (8), we have to refer to the third mental space, the blended space, in which elements from the inputs are combined to yield emergent structure (Figure 1). The elements from both spaces are selectively projected to the blended space. Even though there might be other elements in the input spaces, such as Picasso as member of Communist party in the Pablo Picasso's mental space or *Guernica* in the Picasso's art space, those elements are not projected to the blended space. The emergent meaning, built through the amalgam of Picasso's conception of art, his technique, his role in art history

(derived from the element Picasso as artist in the input space 1) and the work of art (projected from the input space 2), produces the idea of importance of this particular work of art through its relationship to the artist. So the meaning of "a Picasso" in (8) is not just its referent – the work of art in and of itself as in the second input – but the conception of the work of art in terms of the artist. The cause (the artist) and the effect (the work of art) have been compressed in the blend so that our reaction to the piece is intimately intertwined with our reverence for the artist.



"He has a Picasso in his den"

Figure 1

The metonymy in (9) can be analyzed in very similar fashion. In this expression, we have Nixon as input space 1 and US Air Force as input space 2. Nixon as US president from input space 1 is connected with the US Air Force in input space 2. The blended space allows us to say that not only did the US Air Force bomb Hanoi, but that Nixon was personally responsible for it. At the same time, because this is a metonymy, we are not fooled into inferring that Nixon himself dropped the bombs on Hanoi – even though we are dealing with a compressed item, we can decompress it and retrieve the initial inputs to the blend. In this case, the metonymy provides us with a compression at human scale: while we have a hard time understanding how to attribute responsibility to a corporate entity such as the U.S. Air Force, responsibility frames attach readily to individuals. To account for this amalgam of meaning, constructed with selected elements from two mental spaces, we necessarily need a model with an additional mental space that contains emergent structure of its own.

Analysis of metonymy in blending theory thus echoes recent research in metonymy that suggests the inadequacy of viewing metonymy strictly as a referential phenomenon (Panther & Radden, 1999; Barcelona, 2000). Metonymy cannot be explained only in terms of referential function, since its mechanism allows us to do more than just use on entity to stand for another. The question that we face now is one pertaining to the generalizability of the model. Do all metonymies function according to the same principles? (What about the expressions in our initial examples (3) and (4) – do they follow the principles that govern examples (1) and (2)?) And, if not, is the blending model applicable to all types of metonymies? In order to start answering those questions, we will first briefly review Geoffrey Nunberg's distinction between different types of metonymies.

4 Deferred Indexical Reference vs. Predicate Transfer (and Occurrent Metonymy)

Nunberg (1995) describes metonymy as a "transfer of meaning," defined as an "ensemble of productive linguistic processes that enable us to use the same expression to refer to what are intuitively distinct sorts or categories of things" (Nunberg, 1995:1). In his opinion, transfer cannot be adequately explained in terms of the conceptual relationship that metonymy exploits: transfers are linguistic processes. In order to stress the difference between rhetorical figures (such as metonymy) and the linguistic mechanisms (such as transfer of meaning), Nunberg distinguishes between two different kinds of transfer: *deferred ostension* or *deferred indexical reference* and *predicate transfer*. To comprehend the difference between these two kinds of transfers, consider again the situation in which a customer hands his key to an attendant at a parking lot and says either (1) or (4).

- (1) I am parked out back.
- (4) This is parked out back.

According to Nunberg, (1) and (4) exploit the same metonymic conceptual relations, but are governed by two different linguistic mechanisms. Nunberg suggests that (1) is a case of *predicate transfer*, while (4) is a phenomenon he calls *deferred indexical reference*. The chief difference between these two sorts of metonymies is that in predicate transfer, the subject of the sentence refers to the stated NP, or *trigger*, ("I" in (1)); while in deferred indexical reference, the subject of the sentence refers to the *target*, or intended referent (the car). As evidence for his claim, Nunberg notes that the two sorts of metonymies also differ with respect to other linguistic properties in a way that suggests a closer (linguistic) alignment of predicate transfer metonymies with the metonymic trigger term, and deferred indexical reference with the intended target. Referential differences are thus manifested by a number of grammatical differences, including the gender marking of the metonymic term's modifiers, the sorts of predicates that can be conjoined, and the possibility of replacing the metonymic term with a definite description.

For example, in languages that mark words for grammatical gender, gender marking is appropriate for the trigger in predicate transfer metonymies, and for the target in deferred indexical reference. Thus in an Italian translation of (1), a male speaker can say "Io sono parcheggiato dietro." In this sentence the word parcheggiato, (parked), is a masculine adjective appropriate for the subject of the sentence (male speaker), even though the Italian word for car (la macchina) is feminine. In contrast, with deferred indexical reference, the gender marking on the predicate is appropriate for the target referent. In Italian, a customer holding up a key and referring to his truck can say: "Questo è parcheggiato in dietro". Even though, the Italian word for key (la chiave) is feminine, the adjective is masculine (parcheggiato vs. *parcheggiata) because it is appropriate for the word truck (il camion), which is masculine.

Similarly, with predicate transfer, we can conjoin another predicate that describes the trigger, as in (11), but not always one that describes the target, as in (12).

- (11) I am parked out back and have been waiting for 15 minutes.
- (12) *I am parked out back and may not start.

By contrast, in deferred indexical reference, we can conjoin another predicate that describes the car, as in (13), but not the key, as in (14).

- (13) This is parked out back and may not start.
- (14) ??This fits only the left front door and is parked out back.

Similarly, the metonymic NP can be replaced with a description of the trigger in predicate transfer in (15), but not in the deferred indexical reference in (16).

- (15) The man with the cigar is parked out back.
- (16) *The key I'm holding is parked out back.

Nunberg also discusses occurrent metonymies, as in (3) and the very similar case in (7), in which metonymic reference is possible only in a restricted range of situations. For example, ham sandwich is a useful identifier in the context of the restaurant, but not outside of it. Although he notes that occurrent metonymy depends on the availability of specialized context, Nunberg includes occurrent metonymy in the category of predicate transfer.

However, linguistically, occurrent metonymies behave more like deferred indexical reference than predicate transfer. As in indexical reference, in occurrent metonymies gender is appropriate for the target referent, not the trigger. For example, if the client who ordered a ham sandwich is a woman, we can say in Italian:

(17) Il panino al prosciutto se ne andata/*andato senza pagare.

In this example, even though the word for sandwich is masculine, *il panino*, the predicate is feminine, agreeing with the target. Further, as in deferred indexical reference, occurrent metonymies conjoin with other predicates that apply to the target (as in (18)), but not the trigger (as in (19)).

- (18) The ham sandwich wants his check and is really getting annoyed.
- (19) *The ham sandwich wants his check and has too much mustard on it.

But, like predicate transfer, the metonym in an occurrent metonymy can be replaced with an alternative description of the trigger. For example, if the ham sandwich is referred to on the menu as *The Porky Special*, one could substitute "*The Porky Special*" for "The ham sandwich" in (3) and (7). Occurrent metonymies can thus be seen as differing somewhat from both cases of deferred indexical reference and from predicate transfer.

In summary, Nunberg's analysis highlights three different types of metonymies: deferred indexical reference, predicate transfer, and occurrent metonymies. However, Nunberg argues that the description of the mechanisms of transfers of meaning is fundamentally a *linguistic* problem and that the difference between these examples does not depend on the kind of relations these examples exploit. In all the cases there are correspondences between the things in one domain (cars, trucks, sandwiches, etc.) and the things in another domain (keys, drivers, restaurant customers, etc.). According to Nunberg, conceptual analysis cannot provide any adequate explanation of these phenomena.

... unlike rhetorical classifications like metaphor and metonymy, the various mechanisms of transfer can't be distinguished simply by

pointing at the types of correspondences they exploit. And, for this reason, the description of these mechanisms is fundamentally a linguistic problem, rather than a problem of conceptual analysis. That is, there is nothing we can learn about keys, drivers, or cars that will help us to explain the differences between examples like (1) ["This is parked out back,"] and (2) ["I am parked out back,"] (Nunberg, 1995: 3).

Below we consider whether the linguistic differences Nunberg illustrates mark conceptual differences in meaning evoked by various sorts of metonymic expressions.

5 Cognitive Reference Points

We believe that one difference between Nunberg's different cases of metonymy is motivated by cognitive principles of *relative salience*. Cognitively salient items can be defined as *cognitive reference points* (Langacker, 1991). The basic idea is that central highly prominent items act as cognitive reference points to evoke other less salient ones. A conceptualizer (the speaker or addressees) enters into mental contact with an entity against the background provided by other elements in the conception. A reference point is an element that is prominent in the discourse and consequently sets up the contexts within which the conceptualizer can enter in the contact with other less prominent entities in the discourse. These entities can be said to be in the dominion of the reference point and their construal depends on their association with the reference point.

Moreover, Langacker argues that metonymy is basically a reference point phenomenon (1999). The entity that is normally designated by a metonymic expression serves as a reference point affording mental access to the desired target (i.e. the entity actually being referred to), and directing the addressee's attention to it. For example, in the predicate transfer metonymy in (1), the owner of the car plays the role of the reference point, while in the deferred reference metonymy (4), the keys are the reference point. In both examples, the target of attention is the car. We mentally access the car through either the owner in (1), or the key in (4). The owner and the key, by being sufficiently salient, can direct our attention towards the intended target and hence play the role of cognitive reference points.

Among the factors that can make an entity suitable to serve as a metonymic reference point are certain *principles of cognitive salience*. For example, human entities are more salient than nonhuman (20), wholes are more salient than parts (21), concrete entities are more salient than abstract ones (22), and visible entities are more salient than invisible ones (23) (Langacker, 1999: 199).

- (20) Schwarzkopf defeated Iraq.
- (21) The car needs washing.
- (22) Having one's hands on something (for controlling something)
- (23) Save one's skin (for save one's life).

(Radden & Kovecses, 1999)

Consequently, we suggest that the difference between examples (1) and (4), can be better understood by adapting Langacker's proposal of the reference point phenomenon. While in the case of predicate transfer we are following principles of cognitive salience where the reference point is a human being, (the owner) who is more salient than non-human entities (the car). On the other hand, the cases of deferred indexical reference, and occurrent metonymy, involve what Langacker calls a skewed salience relationship, in which specific circumstances induce the skewing of salience relationships. In cases of deferred indexical reference, the salience of items in the immediate context can override the default hierarchy that obtains under neutral conditions. In (1), for example, we might consider the car to be more salient than its key outside of a particular context. However, in this specific circumstance, the key, because of its immediate presence, assumes a more salient role that enables it to serve as the reference point for the metonymic expression. Similarly, occurrent metonymies are effective precisely because of the particularized salience relationships in the context. For example, in a restaurant setting, waiters usually know almost nothing about the restaurant clients, except for the food they ordered. Consequently, when they have to mention a particular client, the food ordered suggests itself as an obvious reference point.

The principles of cognitive salience point to the fact that the way in which we build metonymical expression is not arbitrary but linked to the way in which we perceive and conceptualize the world¹. While examples of predicate transfer follow the principles of cognitive salience, occurrent metonymies and indexical reference do not. However, they are constrained by specific circumstances. For, example, the metonymy in (4) is constrained by the fact that we cannot just arbitrarily substitute keys from this example with any other part of the car, such as the carburetor. But, in different circumstances, such as with a mechanic in the garage, we might be able to point to the carburetor in order to refer to the car it belongs to.

This is linked to the further point that, semantically, in the context of the example (1), the function of the key isn't simply a referential one. Consider (4) in the sense of its paraphrase:

(24) The car is parked out back.

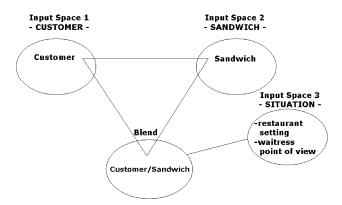
Both (4 and 24) describe the same type of situation and have the same truth conditions. Yet their interpretations are not quite the same. In (4) what is conveyed is not only that the car is in some location, but that the key is of particular importance for the action of the parking lot attendant (for similar discussion of the sentence "I am bugged" vs. "The place I am staying is bugged" see Warren, 1999). In addition to serving as a pointer to the car, the key is brought to the attention of the parking attendant in order to highlight the action that the parking lot attendant needs to perform: unlock the car, start it, and drive it to the entrance. Hence the owner is speaking neither only about the car, nor only about the key, but about both of those entities as relevant for that particular situation and for the actions that need to be performed.

¹ The other point that highlights the fact that the metonymical expressions are not arbitrary is the systematicity of such concepts. Metonymies should not be conceived as isolated instances. The idea that the specific examples of metonymies are instances of certain general metonymic concepts in terms of which we organize our thoughts and action has been pointed out by Lakoff and Johnson, 1980 and Radden & Kovecses, 1999, among others.

This difference in meaning between sentence (4) and (24), where (24) is characterized by additional emergent meaning, indicates that an adequate analysis of deferred indexical reference metonymies requires a conceptual integration network that contains a blended space. As already stated, we believe that the existence of this emergent meaning is pivotal for the explanation of the way in which metonymy functions and should be analyzed by referring to the theory of conceptual integration.

6 Blending and Predicate Transfer

In the initial parts of the text, we analyzed Lakoff & Johnson's examples (8) and (9) in terms of conceptual blending. The emergent meaning that these examples present can be accounted for in terms of blending theory. After the illustration of Langacker's proposal of conceiving metonymy as a reference point phenomenon, we see that the metonymies from (8) and (9) both follow Langacker's principle of cognitive salience - human entities are more salient than nonhuman. A conceptualizer enters mentally into contact with Picasso/Nixon against the background provided by other elements in the conception - Picasso's art/US Air Force space. Picasso as artist/Nixon as US president are prominent within the discourse and so serve to set up the contexts within which the conceptualizer can enter in the contact with other entities less prominent in the discourse - a particular piece of Picasso's art work/specific members of US Air Force directly involved in bombing Hanoi. The construal of the entities referred to depends on their association with the reference point entity (Picasso as artist/Nixon as US president). This construal of new meaning is relative to the conceptual processing in the blended space.



"The ham sandwich is at table 7" Figure 2

Because these metonymies (8 and 9) follow the principle of cognitive salience - human entities are more salient than nonhuman - they belong to Nunberg's category of predicate transfer. Thus, their conceptual integration networks are very similar to the conceptual integration network built for sentence (1) (Figure 2). The blended space for example (1) contains selected aspects of structure from each input space: a man (say Mr. McDowell) as the owner of the car from the input space 1 and a car (say a black Mercedes) from input space 2. The emergent meaning in the blended space

provides the construal of the black Mercedes as the car that Mr. McDowell owns and the construal of Mr. McDowell as the owner of the car.

The new structure present in the blended space can influence the original inputs in many interesting ways. For example, our culture does not lack stereotypes where owners of cars are conceived with respect to their cars; and the properties of the car, such as being powerful or sporty, are often attributed to its owner. It is also quite common to speak of cars as animate beings, as when we speak of two cars as "racing," or refer to a car on the highway as being "aggressive."

Because the blended space provides such a strong compression between the owner and the car, we are able to produce many fantastic conceptualizations whose entrenchment renders them virtually invisible. For example, an owner of a car involved in an accident can say:

(25) I was hit in the fender.

In fact, he can assert the same utterance in a situation where he wasn't the one driving his car or he wasn't even present at the time of accident. In this case the conceptualizing is not in terms of mappings between the owner's body and the car; what we are dealing here with is something quite strange like one distributed entity which blends together the owner and the car. This new entity lives only in the blend and has properties which can occasionally contradict the initial input spaces.

Similarly, we can imagine somebody saying:

(26) I need to walk to where I am parked.

In this case we are dealing with an entity present in two different spatial locations at the same time. This is possible because the first and the second "I" in the sentence are not identical: the same lexical item is used to refer to different mental spaces. The first "I" is the "I" from the input space, while the second "I" is the "I" from the blended space that contains emergent structure on its own (the "carman"). This second "I" does not refer only to the speaker, as its standard definition states, but acquires new emergent meaning and has no well defined entity in the world to which it refers.

In the "carman" blend, the blended space can draw more heavily from the car input space (input 2), like in (25), or from the human input space (input 1,) like in (26), where one can say, when observing two cars chasing each other on the highway:

(27) That red Mercedes seems to be angry with that old Toyota.

Again, in this case we are not necessarily attributing human entities to a car as we were not attributing car's properties to a man in (26), but we are speaking about a hybrid carman entity. In a similar way we can also imagine a situation where we in just one sentence switch from the conceptualization where the blended space draws more heavily from the human input to a conceptualization that draws predominantly from the car input, as in (28a):

(28a) Look, that red Mercedes is so aggressive -- that's probably why its fender is dented.

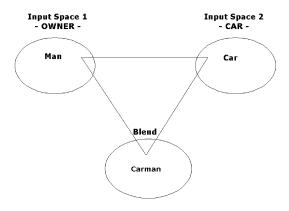
A variation of this sentence is exemplified in (28b), where by substituting the pronoun "its" with the pronoun "his" the switch from drawing heavily from the input space 1 (human) to drawing heavily from the input space 2 (car) is no longer present:

(28b) Look, that red Mercedes is so aggressive -- that's probably why his fender is dented.

The fact that the blended space includes partial structure from each of the inputs as well as emergent structure of its own is well illustrated in the Coulson & Oakley "Coke" metonymy example (2003). Coulson & Oakley have provided a blending analysis of the expression "Coke flows past forecasts: soft drink company posts gains", where the predication "flows past forecasts" is an appropriate metaphoric predication for the Coca Cola corporation's profit and, at the same time, an appropriate literal predication for the signature product of that corporation. Hence, the metonymy produces an emergent meaning in the blended space where "Coke" is construed simultaneously as a corporation and as the soft drink that corporation produces. All this and similar cognitive acrobatics are possible because of the structure built in the blended space.

7 Disposable Blends

What about example (3&7)? Lakoff & Johnson (1980) point out its similarity with other examples of metonymy: this metonymy, by accessing the person through the ham sandwich, construes that person as a customer who ordered the ham sandwich. The conceptual integration network contains a person input space and the ham sandwich input space; the blended space contains the restaurant customer who ordered a ham sandwich. However, as examples (17)-(19) show, this expression of occurrent metonymy behaves a lot like indexical reference (although they are not completely identical). Occurrent metonymy and indexical reference work by skewing principles of cognitive salience: in both (4) and (3&7) a conceptualizer is mentally accessing cognitively less salient elements through cognitively more salient elements. This condition is reflected at the linguistic level where language marks the fact that the predicate does not agree with the trigger NP, but rather its intended target. How can a conceptual integration network account for this phenomenon?



"I am parked out back"

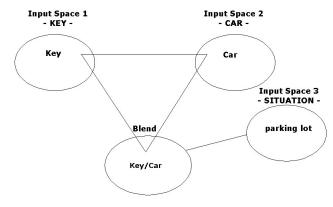
Figure 3

It might be tempting to propose that in the case of occurrent metonymies and indexical reference there is no need to postulate a third blended space: the explanation

for these metonymies can be given in terms of mappings between input spaces. In (3&7) the expression "ham sandwich" is used to refer to the restaurant customer who ordered a ham sandwich, and in (2) the expression "keys" is used to direct our attention towards the car. This proposal is consistent with the fact that the occurrent metonymy and deferred indexical reference tend not to get entrenched in the language. It seems as if they do not build a mental space that can then be extended to other circumstances.

However, as previously discussed, in (4) the trigger NP (the key) not only points to the car, but also alerts the parking attendant to the action he needs to perform. Similarly, the trigger NP of (17) (the ham sandwich) is not only used to refer to a particular person, but for the restaurant waiter, it construes that person as a customer who ordered the ham sandwich. It is this additional construal that suggests the need for a blended space in which such emergent structure might arise. Then how are these cases distinct from predicate transfer?

One thing that distinguishes indexical reference and occurrent metonymies from predicate transfer is the fact that they are very dependent on the particular situation of utterance. In order to understand these kinds of expression we either have to participate in the particular situation in which they arise, or be able to mentally conceptualize the scenario and assume the point of view of the speaker. Occurrent metonymies reflect the fact that situational factors affect the focus of our attention, as well as our ability to modify our linguistic expressions accordingly. For example, a waitress will usually refer to somebody in terms of what they ordered while in the restaurant setting (Figure 3), but will not refer in those terms to the person in some other setting (as agreed by Nunberg). Similarly, other clients in the restaurant will not speak of people in terms of what they ordered since those properties result as salient to them. For example, two women will probably not refer to the man who is sitting at the next table as "ham sandwich", but rather as "pink shirt" or "pony tail."



"This is parked out back"

Figure 4

Similarly, the deictic nature of deferred indexical reference metonymies relies heavily on the representation of the immediate context (Figure 4) (referred to as "Base Space" by Per Aage Brandt). Thus the same context-dependence that allows the principles of

cognitive salience to be overruled in deferred indexical reference and occurrent metonymies is what makes linguistic entrenchment unlikely. Hence, we can refer to them as "disposable": very effective for the ongoing situation and action, but not usable out of that particular context.

8 Conclusions

In sum, we have argued against the referential view of metonymy, suggesting instead that metonymic language requires conceptual integration networks for meaning construction to unfold. Following Langacker, we claim that rather than using one term to *refer* to another, metonymy is a reference point construction that involves the use of one term to make mental contact with another. Moreover, we suggest that the three sorts of metonymies catalogued by Nunberg can be arrayed on a continuum of context-dependence that affects both the generalizability of the metonymic trigger term as an effective reference point for the target, as well as the degree of blending between the trigger and the target. Predicate transfer metonymies obey Langacker's salience principles, and thus can be extended beyond the immediate context. In contrast, because indexicals and occurrent metonymies both rely on contextual factors for their salience, they are not as generalizable.

Finally, we propose that the different linguistic properties of predicate transfer, deferred indexical reference, and occurrent metonymies mark varying degrees of fusion in the blend. Deferred indexical reference involves almost no blending of the trigger and the target, and is reflected in the fact that the linguistic properties of these terms are appropriate for the target term. Predicate transfer involves extensive blending of the trigger and the target such that linguistic properties of the trigger term dominate. Occurrent metonymies, whose context-dependence is intermediate between predicate transfer and deferred indexical reference metonymies, involve an intermediate amount of trigger-target blending whose presence is manifested by linguistic properties somewhat intermediate between the trigger-heavy predicate transfer and the target-heavy deferred indexical reference.

Acknowledgments

We are grateful to Gilles Fauconnier for comments and suggestions.

References

- Barcelona, A. (2000). *Metaphor and Metonymy at the Crossroads: A Cognitive Perspective*. Berlin: Mounton de Gruyer.
- Bowdle, B.F. & Medin, D.L. (in press). Reference-point reasoning and comparison asymmetries, *Journal of Experimental Psychology: General*.
- Coulson, S. & Oakley, T. (2003). Metonymy and conceptual blending. In Klaus-Uwe Panther & Linda L. Thornberg (Eds.), *Metonymy and Pragmatic Inferencing* (pp. 59-88). Amsterdam: John L. Benjamins.
- Croft, W. (1993). The role of domain in the interpretation of metaphors and metonymies, *Cognitive Linguistics*, 4, 335-370.

- Fauconnier, G. (1994). Mental Spaces. New York: Cambridge University Press.
- Fauconnier, G. & Turner, M. (1996). Blending as a central process of grammar. In A. Goldberg (ed.), *Conceptual Structure, Discourse, and Language* (pp 113-130). Stanford University: Center for the Study of Language and Information (CSLI).
- Fauconnier, G. & Turner, M. (1998). Conceptual integration networks, *Cognitive Science*, 22, 133-187.
- Fauconnier, G. & Turner, M. (1999). Metonymy and conceptual integration. In Panther & Radden (eds.), *Metonymy in Language and Thought* (pp. 77-90). Amsterdam and Philadelphia: John Benjamins.
- Fauconnier, G. & Turner, M. (2002). *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities*. New York: Basic Books.
- Gibbs, R.W. (1999). Speaking and thinking with metonymy. In Panther & Radden (eds.), *Metonymy in Language and Thought* (pp. 61-76). Amsterdam and Philadelphia: John Benjamins.
- Grady, J., Oakley, T. & Coulson, S. (1999). Conceptual blending and metaphor. In G. Steene & R. Gibbs (eds.), *Metaphor in Cognitive Linguistics* (pp. 101-124). Amsterdam and Philadelphia: John Benjamins.
- Lakoff, G. & Johnson, M. (1980). Metaphors We Live By. Chicago: University of Chicago Press.
- Langacker, R. (1991). Foundations of Cognitive Grammar. Palo Alto: Stanford University Press.
- Langacker, R. (1999). Grammar and Conceptualization. Berlin: Walter de Gruyter.
- Nunberg, G. (1995). Transfer of meaning, *Journal of Semantics*, 1, 109-132.
- Rosch, E. (1975). Cognitive reference points, Cognitive Psychology, 7, 532-547.
- Panther, K.U. & Radden, G. (1999). Towards a theory of metonymy. In Panther & Radden (eds.), *Metonymy in Language and Thought* (pp. 17-59). Amsterdam and Philadelphia: John Benjamins.
- Panther, K.U. & Radden, G. (1999). *Metonymy in Language and Thought*. Amsterdam and Philadelphia: John Benjamins.
- Turner, M., & Fauconnier, G. (1999). A mechanism of creativity, *Poetics Today*, 20, 397-418.
- Warren, B. (1999). Aspects of referential metonymy. In Panther & Radden (eds.), *Metonymy in Language and Thought* (pp. 121-135). Amsterdam and Philadelphia: John Benjamins.