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**A GRADUATION QUALIFICATION PAPER**

**ON THE THEME**

**Linguistic Analysis of Metaphor**

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... In view of entire enhancement of the system of teaching youths the foreign languages and training of specialists able to communicate in foreign languages fluently, by introducing progressive teaching methods using modern teaching and information-communication technologies thus enabling them to access the achievements of the world civilization and globally available information resources, ensuring international collaboration and communication.

I. Karimov

Tashkent, December 10, 2012, № IIII-1875.

### **Introduction**

Over the period of Independence, we have had over 51,7 thousand of teachers of the foreign languages trained, multimedia textbooks in the English, German and French languages for pupils of 5-9<sup>th</sup> forms of general secondary schools and electronic resource materials for teaching English at primary schools designed, and over 5 thousand language laboratories at general secondary schools, vocational colleges and academic lyceums - equipped. However the review of the current foreign languages teaching system proves that educational standards, curricula and textbooks do not fully meet the up-to-date requirements in terms of application of the advanced information and media technologies. Teaching is being conducted using traditional methodologies. Both consistent learning of the foreign languages at all levels of the education system and teachers' professional upgrading and equipping them with modern educational literature require further enhancement. In view of entire enhancement of the system of teaching youths the foreign languages and training of specialists able to communicate in foreign languages fluently, by introducing progressive teaching methods using modern teaching and information-communication technologies thus enabling them to access the achievements of the world civilization and globally available information resources, ensuring international collaboration and communication.

Teaching of foreign languages, mostly English, gradually throughout the territory of the republic, shall be started in the first grade of the primary school in the format of games and oral speech lessons, starting from the second form of the primary school – teaching alphabet, reading and grammar; Classes at higher educational institutions in major subjects of technical and international specialties shall be conducted in the foreign languages; Provision of students and teachers of the general secondary, senior secondary specialized vocational schools with textbooks and instructional materials for teaching foreign languages shall be accomplished on the free of charge basis using the current assets of the National target book fund at the Ministry of Finance of the Republic of Uzbekistan, however observing republishing terms established for textbooks and teaching materials<sup>1</sup>.

Higher Education in Uzbekistan is initiating a major reform by implementing use of the Common European Framework of Reference for languages – learning, teaching and assessment (CEFR) - and the National Qualifications Framework (NQF) in the country.

To improve the quality of language teaching in the Republic of Uzbekistan, the use of the CEFR for General English, Medical English, English for Agriculture and other instances of English for Specific Purposes are being implemented in a wide range.

However, this innovation brings a new way of learning, teaching and assessment in compulsory education for children from 7-19 years old and higher education for older youth, who are the intellectual potential of the country.

Therefore the Government of Uzbekistan has been instructed by the Presidential Decree 1875 of December 2012 to analyze the situation and realise an important project on this issue, together with international organizations and partners.

Uzbekistan is planning to align the educational system with the new internationally-recognized framework described by the CEFR in learning,

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<sup>1</sup> President of the Republic of Uzbekistan I. Karimov, Tashkent, December 10, 2012, № IIII-1875.

teaching, assessment, with a national content. This will be aligned to international standards in the following divisions by level:

A1 - Elementary Schools, General English, Part I;

A2 - Secondary Educations, General English, Part II;

B1 - Vocational In 2012 Uzbekistan accepted the CEFR as a nation-wide educational standard of reference for learning, teaching and assessment of foreign languages. As English is the key language in economy, society, education, and industry, the Ministry of Higher and Secondary Education of Uzbekistan has undertaken an initiative to align English Language programs nationwide with the CEFR.

Schools and High Schools, English for Specific Purposes, including language programs:

B2 - Higher Education non-language programs and High School language programs;

C1 - Language programs, Masters, Doctorate.

Thus the Ministry of Higher Education and its partners seeks a partnership in order to establish an enhanced system of education in foreign languages which may serve Uzbekistan without losing the national characteristics of Uzbekistan education and society so that we will continue bring to the world, through our young people, our unique culture and tradition to contribute to world education, science, economics and all other fields of enterprise in today's internationalized society<sup>2</sup>.

Along the way of above mentioned contributions, I also would like to share my following graduation qualification paper and devote it to the renovation and development of teaching English in higher educational institutions in the Republic of Uzbekistan as a lecture material on the English lexicology. I also would be delighted and honored to take the advantage to show my warm gratitude to the professors and teachers of Sam SIFL who shared their useful knowledge and

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<sup>2</sup> From the blog letter on online forum (*adopted extract*): info@litsey2.uz info@uztea.uz Dr. Feruza M. Rashidova Independent Researcher, Director of Academic Lyceum N2 under the USUWL

cordial help or instructions during my study years. I shall always keep on my mind the morality and skills handed by skilled teachers that shaped my spiritual world. And I will never forget the sincerity and integrity of the teachers who taught me and showed me the right way in linguistics and language learning as well. I do will use them as a powerful tool in my future teaching and ensure handing all what I gained to the next generation.

***The following qualification paper is devoted*** to linguistic analysis of the metaphor, directly the types and the role of the metaphor in political stylistics.

***The theme of the qualification paper*** is “Linguistic analysis of the metaphor”

***The subject matter of the qualification paper*** is definitions of “metaphor” and advice for identifying metaphors tend to be associated with theories about how metaphors are used and understood.

***The actuality of the qualification paper*** is the role and interpretation of the metaphor in political contexts such as speeches, newspaper articles, the internet blogs and in mass media forums.

***The main aim of this qualification paper sets the following tasks:***

- to define the exact definition of metaphor;
- to identify metaphors and other forms of figurative language in contexts;
- to clarify the usage of metaphors in political contexts;
- to compare the categorization and relevance theories of the metaphor.

***The methods of the qualification paper*** are to present the descriptive and comprehensive analysis of metaphor in different context types, mostly in political linguistics.

***The novelty of this qualification paper is*** the linguistic analysis of the metaphor as a stylistic key device in various context types.

***The main material of the qualification paper*** is illustrated with examples in the English language which are gathered from political articles and from the speeches of famous statesmen and politicians.

*The theoretical significance of the qualification paper* is that it can be used in delivering lectures on stylistics in higher education institutions where analytical linguistics is taught in an advanced level.

*The practical value of the qualification paper* is that the practical results and conclusion can be used in translating or interpreting different speech types. They also can be used as examples or tasks, mini texts in seminars on translation practice and stylistics.

*The structure of the qualification paper is as follows:*

Introduction, three chapters, conclusion to each chapter, the final conclusion and the bibliography.

Introduction deals with current language policy in the Republic of Uzbekistan and the description of the structure of the qualification paper.

**The first chapter** defines the stylistic matter of metaphor as well as identifying them in different context types, the varieties and other figurative language matters.

**The second chapter** deals with the categorization and relevance of the metaphor and its semantic characteristics.

**The third chapter** explains the relevance theory, decoding language and comparison of relevance and metaphor.

**The total conclusion** deals with the theoretical result of the work and we have summarized the work.

**Bibliography** introduces the list of literature and dictionaries used in writing the qualification paper.

## Chapter 1.

### What is a metaphor?

Before taking up questions about how metaphors work and how they are used, it is important to establish what we are talking about – what is a metaphor? How is a metaphor related to other uses of language? It is impossible to understand the results of metaphor research, compare different studies, or even think systematically about metaphors without having a clear understanding of what a metaphor is, and knowing how each researcher defines and identifies metaphors.

The question “what is a metaphor?” is not easy to answer. At one extreme are the eloquent and colorful literary metaphors, such as the oft-quoted lines, “All the world’s *a stage*, and all the men and women merely *players*” (William Shakespeare, *As You Like It*, Act 2, Scene 7, lines 139–140) [66;24]. Virtually everyone would recognize these words, “*stage*” and “*players*” as metaphors, especially in the context of the scene, which takes place between the exiled Duke and Jaques, a member of his retinue.

In the following lines Jaques develops and expands the metaphor, describing the “seven ages of man” as “*acts*,” beginning with “the infant / Mewling and puking in the nurse’s arms,” proceeding through “the lover / Sighing like furnace, with a woeful ballad.

Invented examples will be placed within single quotation marks (‘*rising prices*’) to contrast them with attested examples from actual discourse (“*stained by*”), which will appear in double quotation marks. Following Ringmar [64;57] I will refer to the concept that is described or expressed by the metaphor (in the case of “*stained by*,” the moral feelings aroused by treating human beings as property) as the *topic* of the metaphor, and the metaphorical words or phrase (in this case, “*stain*”) as the “*vehicle*.”

I will introduce other notational conventions as they are needed. To his mistress’ eyebrow” and ending with the “Last scene of all, / That ends this strange eventful history, / ... second childishness and mere oblivion, / Sans teeth, sans eyes, sans taste, sans everything.”

Many other familiar phrases are based on the “*stage*” metaphor. We speak of ‘the journalist’s *role* in a democracy.’ A person known for frequent emotional outbursts is a ‘*drama queen*.’ A person who exaggerates his own contribution to a project is ‘*hogging the spotlight*.’ (Notice that this phrase combines the “*stage*” metaphor with a common animal metaphor, ‘being greedy is *being a pig*.’) In a song written by Paul Anka [3;24], Frank Sinatra and others sing about “When I *face the final curtain*.” Goffman (1959) analyzed social interactions in terms of ‘*front-stage performance*’ and ‘*back-stage preparations*’ and Meyrowitz (1985) developed the ‘*front-stage/back-stage*’ metaphor into a critique of television content.

At the other extreme are familiar idioms such as ‘*rising prices*,’ ‘*icy greeting*,’ ‘*close relationship*,’ and ‘*dead-end job*’. These phrases are certainly not *literal*, since prices are not objects located in or capable of moving through space, and a greeting is not an object or substance that can have a temperature. But they are so commonly used and so readily understood that they may not seem metaphorical at all. Even more problematic are words like ‘*salary*,’ with a metaphorical origin that would be recognized only by a specialist. (‘*Salary*’ comes from Latin *sal*, salt; at one time Roman soldiers were paid with a monthly allotment of salt, which at that time served as a medium of exchange.

The idiom ‘*not worth his salt*’ probably derives from the same vehicle.) In between these extremes are phrases like Obama’s “*brought the convention to a stalemate*” (this phrase also combines two distinct metaphors) and Blair’s “*end in the same place*.”

“Metaphor” has been variously defined in terms of substituting one word for another word with an apparently different meaning, comparing one idea to another, or creating an implicit analogy or simile. For example, the *Oxford English Dictionary* (unabridged) defines metaphor as both transfer and analogy: “the figure of speech in which a name or descriptive term is transferred to some object different from, but analogous to, that to which it is properly applicable.” Aristotle regarded a metaphor as an implicit comparison, based on rules of analogy.

According to this definition, Obama's phrase, "the *original sin* of slavery," implicitly compares slavery to Adam and Eve's sin of disobedience to God, and Tony Blair's "some of you *throw a bit of crockery*" implicitly compares accusing the prime minister of betraying party principles in a political dispute to throwing dishes in a marital dispute. Kuvecses gives a similar definition: "metaphor is a figure of speech in which one thing is compared to another by saying that one is the other" (2002, p. vii). In this definition, metaphor can be thought of as a simile with the comparison term (e.g. *like*) dropped. To use Kuvecses' example, which appears frequently in the philosophy and linguistics literature, 'Achilles is *like* a lion' becomes 'Achilles *is* a lion.' Achilles, or more precisely Achilles' character (the topic) is compared to a lion (the vehicle) with respect to specific qualities they have in common, such as fierceness and courage. (The qualities that provide a basis for comparison are often referred to as the '*ground*' or '*grounds*' of the metaphor.) As Kuvecses points out, in this traditional view, metaphor is a figure of speech, based on qualities common to the two entities that can be identified and compared, and used primarily for aesthetic or rhetorical purposes.

A definition in terms of comparing topic to vehicle would seem to apply readily to metaphors composed of two nouns linked by *to be* or a similar verb. In 'Achilles is *a lion*,' Achilles exhibits moral or personality characteristics such as *bravery* that are commonly attributed to lions. Thus, 'Achilles is *a lion*' seems to be merely a fancy way of saying 'Achilles is *brave like a lion*,' and that explanation seems to capture most of what is meant by the metaphor. Some metaphors that do not include *to be* can be changed to this form without loss of meaning; for example the idiom, '*beanpole*,' is often used in a phrase like "that child is a *beanpole*," in which the qualities of being tall and thin are attributed to a fast-growing child, and the comparison definition seems to capture most or all of the intended meaning.

At first glance, the implicit comparison explanation seems to fit "*the world is a stage*," but when we read the entire passage in which Jaques elaborates on this metaphor, it appears that Shakespeare meant something more than simply

comparing social performance to theatrical performance [7;19-41]. Even greater difficulties arise when we attempt to apply this definition to metaphors like Blair's "some of you *throw a bit of crockery*" and adjective-based metaphors like "*incendiary* language," from Obama's speech. In order to analyze these metaphors in terms of implied simile it would be necessary to change the syntax of each statement in ways that would, arguably, also change their meanings in context. Each of these metaphors has a complex relationship with its context that defies translation into a simple "A is B" statement. "Some of you *throw a bit of crockery*" does not merely compare a political quarrel to a comically violent quarrel between spouses; among other things it implies something about the respective roles of Mr. Blair and the party dissidents, and about the intellectual weight of their disagreements. Ordinarily "*incendiary* language" might be taken as a simple description of the emotional intensity of Reverend Wright's language, but in the context of race relations in the United States, where language ("burn baby burn") actually has led to urban riots and arson-caused fires, the metaphor takes on a resonance that extends well beyond a simple comparison.

Going beyond the more traditional definitions, Kenneth Burke (1945) defined metaphor as "a device for seeing something in terms of something else." Yanow (2008) defines metaphor as "the juxtaposition of two superficially unlike elements in a single context, where the separately understood meanings of both interact to create a new perception of each and especially of the focus of the metaphor." Along slightly different lines, Semino (2008, p. 1) defines metaphor as "the phenomenon whereby we talk and, potentially, think about something in terms of something else." Applying Semino's definition, "*incendiary* language" would be considered a metaphor because the vehicle, "*fire*" is used to talk and think about an abstract quality of certain very emotional language. "*Throw a bit of crockery*" would be considered a metaphor because the vehicle is used to talk and think about the way certain Labour Party members and other citizens had recently criticized Mr. Blair.

Although these definitions mark an improvement over the more traditional idea of a simile with the word *like* omitted, they remain rather vague – what does it mean to *see* words used in a sermon in terms of *fire*? And what is it that we do when we talk or think about *words from a sermon* in terms of *fire*? What do we do when we talk or think about an intra-party quarrel in terms of *throwing crockery*? These remarks are not intended to criticize these definitions (I don't think I can offer anything better) so much as to underscore the difficulty of formulating a satisfactory definition of this complex phenomenon. One might be tempted to follow the example of US Supreme Court Justice Potter Stewart's definition of pornography: "I know it when I see it."

Note that we find ourselves relying on metaphors even as we attempt to define metaphors. 'Metaphor *vehicle*' is itself a metaphor, expressing the idea that a metaphorical word or phrase '*carries*' some meaning associated with the topic. '*Detachment*' and '*disengagement*' also seem to be metaphorical: they express *practical affairs* as an object of some sort to which more practical-minded people are '*attached*' or not. So the attempt to explain how "*incendiary*" or "*throw a bit of crockery*" qualifies as a metaphor leads to use of other metaphorical language.

In Burke's definition of metaphor as "a *device* for *seeing* something in terms of something else," "*device*" refers literally to a *machine* or *tool* of some sort, and carries an implication of passivity – the activity is performed by the *user* of the device. "*Seeing*" refers literally to one mode of perception, vision, but here it may also be understood as a *metonym* (using a term designating one concept to refer to related concepts). A reader *sees* a metaphor but a listener *hears* it. If we change Burke's phrase to "*perceiving* something in terms of something else" it will become apparent that *perceiving* can itself be understood as referring to the sequence of processes through which language is perceived and comprehended. '*See*' and '*hear*' are both often used as metaphors for *understand*, although they usually express different aspects of understanding. At this point, it seems evident that Semino's definition has much in common with Burke's – but the differences are worth noticing because they are theoretically important. Burke refers to *seeing*,

which implies an emphasis on the audience rather than the speaker or writer; Kuvecses and Semino refer to *talking*, which implies an emphasis on the originator, the speaker or writer. Burke refers to a “*device*,” and Semino refers to a “phenomenon.” *Device* places emphasis on the agency of the perceiver, and *phenomenon* places more emphasis on the metaphor itself as a locus of activity independent of either the speaker or the listener. Both Burke’s and Semino’s definitions differ from Kuvecses’ definition, which simply refers to a figure of speech and the comparison it makes.

Semino’s stipulation that we “potentially think about something in terms of something else” extends the definition in a way that suggests a cognitive aspect to metaphor: it suggests that metaphor may be an attribute of thought. Conceptual metaphor theory introduces a way of thinking about metaphor that extends this implication even further [2;50]. Lakoff and Johnson define metaphor as not merely *thinking* about something in terms of something else, but actually *experiencing* something *as* something else. When we speak of a ‘*warm* relationship,’ according to Lakoff and Johnson we experience the emotion of affection as actual physical temperature (emotion is temperature). When we understand Obama’s description of Wright’s language as “*incendiary*,” we experience the emotional intensity of the language as if we were experiencing sensations associated with physical *fire* (passion is heat ). When we hear Blair’s characterization of the intra-party policy disputes, we experience them as an actual dish-throwing squabble between spouses. Semino’s claim is somewhat less extreme than that of Lakoff and Johnson (and somewhat less precise as well). She does not claim that “*incendiary* language” is experienced *as* fire, but merely that it is experienced *in terms of* fire – by which she seems to mean that we experience some of the emotional, intellectual, and perhaps perceptual responses associated with fire as we process the metaphor.

In the next several chapters it will become apparent that definitions of “metaphor” and advice for identifying metaphors tend to be associated with theories about how metaphors are used and understood. This is why it is important to be clear about what a researcher or theorist means by *metaphor*: the definition

itself may imply assumptions about metaphors that will constrain the kind of theory that can be expressed. A second reason why definitions are important is that, if two writers use different definitions, they are likely to be discussing different things. When this happens, what appears to be a theoretical difference may actually be the result of looking at different phenomena. For the present, I will continue to follow the definitions proposed by Burke and Semino, and understand metaphor as seeing, experiencing, or talking about something in terms of something else. However, Yanow's qualification is also important: to qualify as a metaphor, the topic and the vehicle must be "superficially unlike." In the most straightforward instances, the topic and the vehicle will be from entirely different realms of experience.

Thus, "*incendiary language*" is a metaphor because *language*, a system of regularized sounds used to express meanings, is presented to be understood in terms of *fire*, a physically hot and destructive process of combustion. "Grief is a *journey*" (Obst, 2003) can be classified as a metaphor because grief, a variety of emotional response, is described as a *journey*, a form of extended motion through space.

In other commonplace examples, however, topic and vehicle appear to belong to closely related realms of experience, for example, "white is *the new black*" and "he's *another Jackie Chan*." *White* and *black* are two (opposite) shades, so "white is *the new black*" would seem merely to state a falsehood. However, the trope shifts attention from the realm of color to the realm of fashion, thus implicitly invoking an entirely different realm of experience. In "he's *another Jackie Chan*," the shift is between two aspects of identity, requiring something like Yanow's criterion of "superficially unlike." Even with Yanow's qualification, this simple definition is not as straightforward as it might seem. In the first place, this definition suggests that expressions are either metaphorical or not, and there are many examples for which a clear and simple classification is not easy to determine. A frequently discussed example is a group of metaphors such as 'win' or 'lose an argument,' 'attack an opponent's argument,' 'defend a position in an argument and

so on, all of which Lakoff and Johnson cite as evidence for an underlying metaphor, argument is war. As their critics have pointed out and Lakoff and Johnson acknowledge, both *argument* and *war* are associated with a more general concept, *conflict*, and hence might reasonably be considered to belong to the same broader realm of experience. If words and phrases such as ‘*win*,’ ‘*defend*,’ and ‘*attack*’ pertain to the more general concept, *conflict*, then applying them to *argument* would be an example of metonymy, not metaphor.

A different sort of problem arises from ambiguous phrases that appear to be intended metaphorically even though they are literally applicable, and phrases that can be understood either literally or metaphorically, or both at once. In the United States, a person may refer to a friend who behaves in a crude or unmannerly way as “an *animal*,” a characterization that is literally true in a biological sense but is used metaphorically to express an attitude toward the friend’s behavior. In “Stopping by Woods on a Snowy Evening,” Frost (1923) ends with the line, “And miles to go before I sleep,” repeated for emphasis. Closing a poem about riding home on horseback, the line is literally true, but coming after “I have promises to keep,” it is also a metaphor for Frost’s life, drawing on the commonplace metaphors life is a journey and death is sleep; understanding the poem requires that the closing lines be understood as simultaneously literal and metaphorical.

In spite of these difficulties, at least for the present the definitions proposed by Burke and Semino provide a basis for classifying many of the phrases from Tony Blair’s speech to the Gateshead Conference as metaphorical. For example, “*steady hard slog*” expresses the *process* of decision-making in terms of *motion through space* and “*end in the same place*” describes the election process as *motion through space*, which appears to draw on the same journey vehicle used to describe the grieving process, and frequently used to express many abstract experiences. We often speak of the ‘*beginning*’ of life, ‘*goals* in life,’ and ‘*direction*’ in life; ‘*beginning*’ a project and ‘*making progress*’ or ‘*coming to a dead-end*.’

Metaphor might also be defined in terms of what it is not, and metaphorical language contrasted with literal language. However, the concept of *literal* poses its

own difficulties [56;161]. Moreover, '*literal*' is itself frequently used in a clearly metaphorical sense, as in 'My mother will *literally* kill me if I'm not home by midnight,' in which '*literally*' serves to intensify '*kill*,' which itself might be understood as either metaphor or hyperbole (exaggeration used for emphasis or humor).

*Literal* ordinarily implies a code-like one-to-one *mapping* of words with meanings. Very few words afford such a direct mapping; the precise meanings '*conveyed by*' words are usually strongly influenced by context [56;163]. Accordingly, it may be more accurate to think of a continuum that ranges from what we think of as literal language (*feather-pillow*) through hyperbole (*feather-weight*) to what would be universally recognized as metaphor (*feather-brain*). This issue is itself of some theoretical importance, and it will be discussed throughout the book.

## 1.1. Identifying metaphors

It is probably apparent that procedures for identifying metaphors will themselves depend on how “metaphor” is defined, which in turn depends on the underlying theoretical perspective. The definition of metaphor as an implicit comparison between two different sorts of event or object, consistent with Aristotle and Kuvacs, would lead the analyst to look for words and phrases that imply just such a comparison.

A definition of metaphor as perceiving, talking, thinking about, or experiencing something in terms of something else, consistent with Semino and Burke, would require the analyst to adopt some other strategy.

The Metaphor Analysis Project’s website (Cameron, 2006) provides a relatively flexible identification procedure [22;149]. A metaphor vehicle is identified as “a word or phrase that somehow contrasts with (is incongruous or anomalous with) the topic of the ongoing text or talk,” but can be connected with the topic. A word or phrase is classified as a metaphor if it can be interpreted in context, but its apparent contextual meaning is incongruous with the basic or customary meaning. (For a more precise – and more complicated – procedure see Pragglejaz, 2007.) Thus, in a common idiom, “justice is *blind*” applies a concept, “*blind*” for which the basic or usual meaning (severely visually impaired) is clearly different from its meaning in context: *justice*, an abstract concept, is not the sort of entity that can be visually impaired. Tony Blair’s “*throw a bit of crockery*” describes an action that might possibly have occurred at a Labour Party conference, but is clearly different from what actually happened, and thus from the meaning of the phrase in context. (If objects of any sort were thrown at the Labour Party conference the news media were uncharacteristically silent about it.) In “Stopping by woods on a snowy evening,” *distance traveled* (“*miles to go*”) is used to describe *time yet to live*, and “*sleep*” is used to describe *death*. In both cases, the metaphorical meaning is expressed by violating the basic, customary meaning: *miles to go* basically refers to physical distance, and *sleep* basically refers to a condition from which one expects to awaken. These examples also illustrate

another important point: it is not enough to look for anomalous usage; it is also necessary to look for potential meanings that are inconsistent with the primary or basic meaning of a word or phrase, even if the primary or basic meaning makes sense in context.

Finally, it is also necessary to consider whether a sensible interpretation is possible. Noam Chomsky's famous example, "Colorless green ideas sleep furiously" [33;15] fits the criterion of using words in a way that violates the basic, customary meaning, but it would be difficult to arrive at a meaningful interpretation in any reasonable context. Nonsense verse often has a similar quality. Thus, it is useful to add the criterion that, for a word or phrase to be identified as a metaphor, it must be possible to arrive at some sensible interpretation independent of the basic, customary meaning.

This approach obviously allows for greater individual discretion in interpretation, but it still permits a research team to specify precise coding rules and compute a measure of how closely two or more members of a research team agree about the identification of metaphors in a passage (this is called *inter-coder reliability*). The reliability or consistency in metaphor identification and interpretation can also be checked by consulting people who participated in a communication event or other members of the same speech community about the coding, and by comparing the metaphor coding with the way other researchers have coded other samples. By comparing how different researchers define and identify metaphors, it is often possible to explain why they come to different conclusions about them. Metaphors such as 'warm relationship' and 'rising inflation' are often identified as *lexicalized*, because the metaphorical meaning has come to be regarded as one of the word's basic definitions, and thus part of the *lexicon* or dictionary.

## 1.2. Varieties of metaphor

It has probably already become apparent that metaphors differ from each other in many ways. One set of differences is in how familiar they are to a “typical” listener or reader, how conventional they are and the extent to which the metaphorical meaning has become *lexicalized*, and as a consequence how readily they are recognized as metaphorical. As noted in the preceding discussion, words and phrases that might potentially be classified as metaphorical range from phrases such as *salary* or *pedigree* that are no longer recognized as metaphorical through phrases like ‘*warm relationship*’ that are commonly regarded as literal but have a recognizable metaphorical origin, to phrases everyone would recognize as metaphorical, such as “All the world’s *a stage*.” Words like ‘*salary*’ and ‘*pedigree*’ are often referred to as ‘*dead metaphors*.’ More commonplace expressions like ‘*warm reception*’ or ‘*distant relative*’ are sometimes called ‘*tired*’ or ‘*sleeping metaphors*.’ *Affectionate* is usually regarded as simply a secondary literal meaning of *warm* and *close*, and *unfriendly* as a secondary literal meaning of *cold* and *distant*. Chapter 2 will describe the “*career of metaphor*” theory, which holds that metaphors progress from fully metaphorical through partially lexicalized to fully lexicalized metaphors as they are encountered with increasing frequency and become increasingly familiar. However, Lakoff and Johnson (1980; 1999, discussed in Chapter 2) treat even almost completely lexicalized metaphors as fully metaphorical, and there is evidence that these words and phrases are, at least under some circumstances, processed as metaphors.

Another way of classifying metaphors is in terms of the part of speech. Examples that have already been discussed include several parts of speech that are used metaphorically:

noun: “The world is *a stage*”

adjective: “*incendiary* language”

verb: “*brought* the convention,” “*ends in*”

narrative: “*Some of you throw a bit of crockery*”

Lakoff and Johnson argue that prepositions are also often metaphorical. In “It all ends in the same place,” “in” is used in a way that suggests a physical location, consistent with the noun “place,” and thus according to Lakoff and Johnson would also be classified as a metaphor.

According to this analysis, ‘in love’ and ‘in despair’ would also be metaphorical.

In Cameron’s (2003) data from conversation in an elementary school classroom, 63 percent of the metaphors are verbs or verb phrases, and only 22 percent are “nominative metaphors” – nouns or noun phrases. Cameron reports that prepositions, adverbs, and adjectives are also frequently used as metaphors. Often parts of speech are combined, as in “go back to your memory” in which the verb “go” combines with the adverb “back” and preposition “to,” all used metaphorically to express “think about it again.” [22;200] Cameron (2008) also notes that metaphors can be classified in terms of whether they are used deliberately or automatically, and whether they are novel or conventional.

### 1.3. Metaphors and other forms of figurative language

The word *metaphor* is sometimes used as a general term for figurative, or non-literal, language; Miller (1982, cited in Schneider, 2008) identifies seven kinds of metaphor: analogy, translation, exchange, contradiction, synecdoche, metonymy, metaphor proper. Often it is difficult to determine whether a word or phrase should be understood metaphorically or not. In this section I will discuss some other forms of figurative language that may be used in combination with metaphor, or may be used metaphorically.

#### *Metonymy*

Metonymy refers generally to the use of a word to reference another closely related concept. Metonyms include part for whole (‘could you *lend me a hand*,’ where ‘*hand*’ is a metonymic reference to the addressee’s entire body; this is also referred to as *synecdoche*, from the Greek for *receiving together*). Another form of metonymy is whole for part, as in ‘the *White House* issued a statement on the controversy,’ in which the statement was actually uttered by the Press Secretary or some other designated official. But this could also be understood as an ‘institution for process’ metonymy, if ‘*White House*’ is intended to stand for the discussion among the President and his advisers from which the statement originated. ‘*President Nixon bombed Cambodia*’ can be understood as a “participant or leader for process” metonymy.

#### *Overstatement and understatement*

Overstatement (hyperbole) is sometimes used for emphasis (‘I have a *million* things to do today’) and sometimes for ironic effect as, from a conversation among a group of scientists about communicating with non-scientists, “If we were better communicators we’d be *swimming in money*.” This also illustrates the combination of overstatement with metaphor. Similarly, ‘I have a *ton* of chores to finish up’ combines overstatement with metaphor, in this case number is weight. An example of overstatement combined with metonymy is ‘I have a *ton* of papers to grade,’ where the weight of the papers is associated with the number of them.

Understatement is often used ironically, as in ‘we have a *little* problem here,’ where understatement is combined with the metaphor, importance is size.

### *Idioms*

Idioms, expressions that are commonly used within a speech community to express a consistent idea or experience, represent a special case. Some of these, like ‘*kick the bucket*’ and ‘*take with a grain of salt*’ have become thoroughly lexicalized, and even if they think of them as metaphorical, very few people could explain the ‘metaphorical *mapping*,’ why they have the meaning they do. Other idioms, however, have an easily recovered metaphorical origin. “*Ivory tower*,” at least among academicians, is readily understood in terms of the idealistic purity of “*ivory*” and the isolation from worldly cares implied by “*tower*.” “The *blood* of slaves and slave-owners,” from Obama’s speech, is based on an archaic understanding of reproductive biology, in which sperm was thought actually to convey some of the father’s blood to the fetus. The origin of “*blood*” as a metaphor for ancestry is probably known only to a small share of those who heard Obama’s speech (mainly people who have studied the history of science), but most hearers would recognize “*blood*” as a metaphor in this context, as well as in related metaphorical expressions such as ‘*full-blooded*’ and ‘*blood relatives*.’

In some cases, like ‘*put through a wringer*,’ even when the cultural practice (washing machines with rollers to squeeze out the water) on which an idiom is based has passed out of common experience, the underlying metaphor is still likely to be widely understood. In other cases, like ‘*warm his britches*,’ research has shown that the underlying metaphor may be understood in a variety of ways. This expression most likely originated as a metonymic reference to the feeling of warmth caused by the flow of blood to the skin when a child was spanked, but Keysar and Bly (1999) report a range of interpretations, including “give him praise,” which is quite the opposite of the original metonymic reference. This ambiguity may be a result of cultural and legal changes: the practice of spanking with an object such as a wooden paddle, which was common as recently as the 1960s, is now illegal in many localities, and spanking in any form is much less

widely practiced than it was even a few decades ago [8;295]. Consequently, many people under the age of fifty are unlikely to have personal experience of the metaphor vehicle.

### *Non-linguistic metaphors*

Many theorists include *language* in their definition of metaphor, in which case describing a picture, gesture, or melody as a *metaphor* would be understood as a metaphor in itself, with *visual representation* or *musical passage* as the topic and *language* as the vehicle. However, some theories, conceptual metaphor theory in particular, permit any communicative actions, including pictures, gestures, sounds, and so on, to be analyzed as being metaphorical.

In the agricultural community, when a speaker was telling an obviously exaggerated story, listeners would often mime using a pitchfork as if to throw manure-laden straw out of a cattle shed (many cultures have some version of the equivalent verbal metaphor). Listeners would also often respond by holding their hands up as if demonstrating the length of an improbably long fish; a related idiomatic verbal metaphor refers to ‘a *fish tale*’ or merely ‘*fishy*.’ Sometimes when one person is complaining about something, a listener will mime playing a slow tune on a violin, metaphorically associating the complaint with sad music (Ritchie, 2009c). Pointing a finger toward one’s open mouth can be understood as a metonymic expression of disgust if it is used in response to a food item, based on its connection with an action sometimes used to induce vomiting; if it is used in response to mention of a disliked person or idea it can be understood as a metaphor, similar to the verbal expression, ‘don’t *make me puke*.’ Making a spiral gesture near one’s temple is often interpreted as a comment on another person’s sanity. This may be an example of a gestural expression for ‘*dizzy*,’ based on the sensation of spinning associated with vertigo and disorientation or of a verbal metaphor, ‘he has a *screw loose*,’ based on the ‘*machine*’ metaphor for the brain.

Visual metaphors are a staple of editorial cartoons. Every so often an editorial cartoon depicts the earth with an icepack on top and a cartoonish sad face. At the height of the Watergate scandal, cartoonist John Pierotti (1973) drew a cartoon

image of Richard Nixon as Pinocchio, with a long nose labeled “Watergate”; the same metaphor was also developed in a comedy monologue by satirist David Frye (Grofman, 1989). Advertising photography is filled with visual metaphors and metonyms (Muller, 2008; Cienki and Muller, 2008).

An example from several years ago was a whiskey ad featuring a woman wearing a black velvet evening gown, which visually echoed the brand name of the whiskey and emphasized the metaphorical association of tactile *smoothness* with ‘*smooth*’ flavor as well as metonymically associating the brand with sophisticated nightlife.

### *Literary versus conventional and commonplace metaphors*

Traditional approaches to metaphor theory (e.g. Black, 1993) have often taken creative, novel metaphors as prime exemplars, and literary metaphors deserve close attention in their own right [7;36]. An example of a creative and novel literary metaphor appears in Stephen Spender’s (1955) poem, “Seascape”: “There are some days the happy ocean lies / Like an unfingered harp, below the land.” “The ocean is like *a harp*” is introduced as a simile, but in subsequent lines it is developed more fully as a metaphor. The vehicle, “*harp*,” is familiar, but its use as a simile and then as a metaphor for the ocean is novel and creative.

Toward the end of the poem, Spender introduces a “*sacrifice*” metaphor and then a metaphorical allusion to classical epic and myths: “What voyagers, oh what heroes, flamed like pyres / With helmets plumed”.

We usually think of literary metaphors in terms of a novel pairing of vehicle and topic like *ocean* with *harp*, or metaphors in which the vehicle is drawn from classical epics or myths, but writers and speakers often achieve striking effects with common and familiar metaphor vehicles. “All the world’s *a stage*” was a common metaphor before Shakespeare gave it new meaning by developing and elaborating it. Emily Dickinson frequently used commonplace personification and journey metaphors, for example in “Because I could not *stop* for Death – / *He* kindly *stopped for me*” ([1890] 1960). Dylan Thomas combined common day /night and light /dark metaphors for life and death in “Do not *go gentle into that*

*good night / rage, rage against the dying of the light*" [66;24]. Shakespeare's "When forty winters shall *besiege thy brow / And dig deep trenches in thy beauty's field*" combines commonplace metaphors of war and plowing in a novel commentary on aging. Each of these poets develops common metaphors in original ways to express ideas and feelings that resonate powerfully with readers' experience. Similarly, most of the metaphors in the speeches by Obama and Blair draw on familiar metaphor vehicles and use them in ways that resonate powerfully with ordinary experience.

On the other hand, as Muller (2008) points out, ordinary speakers also use conventional metaphors in ways that make them seem fresh, original, and very much '*alive*.' An example appears in a conversation among scientists discussed by Ritchie and Schell (2009). The scientists had been discussing the need to be continually concerned about how to fund their research when one participant commented that "there is no more *ivory tower*." A few lines later another participant referred to the metaphor with the remark that "I've never really *seen the ivory tower*," another participant asked "Is that what you *dream about, in the night, Jim?*" The brief exchange of quips led to a relatively long exchange in which the group developed the "*ivory tower*" metaphor into a story about the contemporary plight of theoretical science.

### *Complexities*

Metaphors are often used in a way that can be understood as either literal or metaphorical, or both at once. The Robert Frost (1960) poem "The road not taken" starts with a literal journey through the woods, then this literal journey is transformed into a metaphor for the poet's life, so the lines "*Two roads diverged in a wood, and I, / I took the one less traveled by*" can be read simultaneously as a literal description of a particular journey and a metaphorical description of the poet's life (like "*miles to go before I sleep*"). In the passage from the conversation among scientists (Ritchie and Schell, 2009) discussed in the previous section, one participant made a joke about never having "*seen the ivory tower*" and another participant asked "Is that what you *dream about, in the night, Jim?*" Here, "*dream*

*about in the night*” can be understood simultaneously as asking about the nature of Jim’s literal dream life and as a metaphor for his unrealized yearnings. In the Reconciliation Dialogues, analyzed by Lynne Cameron (2007), Jo Berry refers to her “*journey of understanding*,” which can be understood both literally as a reference to her travels throughout England and Ireland and metaphorically as her process of cognitive and emotional development – which was facilitated by her literal journey.

#### *Assumptions about language*

Muller (2008) argues that theories about metaphors are strongly influenced by underlying assumptions about language, and that current controversies about metaphors can be traced to contrasting views about language. Classic approaches to metaphor are based on the view that language primarily serves to represent objective facts about the world, and to report these facts to other persons. According to Searle (1993), a meaningful utterance makes an assertion about the world based on a set of assumptions or conditions such that the utterance is true only if all of the conditions are true; conversely, to understand an utterance is to understand its truth conditions and to believe an utterance is to accept the truth of its conditions. “I got a good haircut” implies something like the following truth conditions:

- There is a type of action, *haircut*, with a certain list of features.
- A *good* haircut is characterized by a certain list of qualities.
- The action I experienced had the features associated with a *haircut*.
- The haircut I received had the qualities associated with a *good* haircut.

To believe the statement is to accept the truth of each of these statements. Extending this approach to a beauty salon named ‘*A Cut Above*,’ the literal meaning of the phrase establishes the following truth conditions:

- The purpose of the establishment is to cut something.
- The cutting happens above something.

The metaphorical meaning must establish a separate set of truth conditions, which may be taken from the colloquial meaning of the phrase, producing something like the following:

- Quality is like dividing or ‘*cutting*’ a list of items that has been sorted by value.
- Better quality is like dividing the items higher in the list and thus separating the higher-ranking from the lower-ranking items.

These truth conditions entail a third truth condition asserted by the use of the phrase as a slogan or name:

- The establishment offers better quality services (‘*above*’ similar services available from other establishments).

To believe the literal meaning of the phrase is to believe that something is cut (e.g. hair) and that the cutting happens above something (e.g. the patron’s face). To believe the metaphorical meaning of the phrase is, first, to accept the truth of the comparison of quality to ‘*cutting*’ a list of items and, second, to accept as true the claim that the establishment offers better quality services.

According to the information transfer model, the purpose of language is to maintain and improve our representation of the world, where “representation” refers to the set of truth conditions we understand and know to be either true or false. This describes a “task-based” view of language, where language use is meaningful only if and to the extent that it serves the accomplishment of some informational task, such as inquiring, informing, persuading, commanding, and so on. To explain metaphors is to explain how they establish truth conditions and contribute to accomplishing informational tasks.

Perceptual simulation theory focuses on the ability of language to activate simulations of actions and perceptions. Robin Dunbar (1996) has argued that language may have originally evolved, not in the service of informational tasks but rather in response to the social pressures of living in large complex social hierarchies. According to this view, language serves social needs, including

building and maintaining coalitions (relationships) as well as negotiating the language user's position in social hierarchies.

In this model language also serves an informational purpose, but much of the information exchanged in a typical conversation is about social structure, and in particular about other people's relationships.

By implication, information about the environment external to the primary group is a secondary function of language. In support of this view, Dunbar cites evidence that, across a wide range of conversations, 65 percent of talk is about other people and their relationships.

This view of language suggests that theories about the use and comprehension of metaphors and other figurative language must also account for their social and relational functions.

### **Conclusion to Chapter 1**

Defining metaphor is not easy, and definitions vary according to theoretical perspectives. I have proposed a provisional definition of metaphor as "thinking, talking about, or experiencing one kind of thing in terms of another"; this definition and the underlying theoretical assumptions will be discussed again in later chapters. Identifying metaphors is similarly difficult and theory-dependent. At the extremes, most people will probably agree about the identification of indisputably literal words on the one hand, and the identification of original and creative metaphors on the other. Between these extremes, even experts often disagree about whether a word or phrase is metaphorical.

This reflects the fact that some people may understand a phrase as metaphorical while others do not. What is crucial when reading essays about metaphor, both for the beginner and for the seasoned expert, is to be clear about what is meant by the term, *metaphor* and how the examples discussed are identified and classified. Failure to understand the definitions used by a researcher is likely to lead to confusion. It is also useful to be aware of the ways in which metaphors can differ from one another. Many types of metaphor will be discussed

in this book, ranging from “*sleeping*” or “*dead*” metaphors, which may not be recognized by many researchers as metaphorical at all, to the original and creative phrases recognized as metaphors by almost everyone.

As explained earlier in this chapter, I refer to the concept that is described or expressed by the metaphor as the *topic* of the metaphor, and the metaphorical word or phrase as the ‘*vehicle*.’ In Tony Blair’s “*steady hard slog* of decision-making,” the task of making decisions or, more precisely, Blair’s feelings about the task, is the topic, and “*steady hard slog*” or, more generally, ‘*marching*,’ is the vehicle. To look at a more complicated example, ‘*put your thoughts into words*’ implies ‘thoughts are *objects*,’ ‘words are *containers*,’ and ‘speaking or writing is *putting objects into containers*.’ *Expressing one’s thoughts* is the implicit topic of the overall statement and ‘*putting objects into (something)*’ is the vehicle. *Words* is the topic of a related metaphor that is implied by the phrase, with ‘*container*’ as the implied vehicle.

Many other terms have been used to describe the parts of a metaphor. What I call the *topic* is sometimes called the *tenor* and sometimes the ‘*target*’ (a metaphor that implies perhaps that the meaning is ‘*aimed at*’ what is being discussed). What I call the ‘*vehicle*’ is also sometimes called the *basis*. I like ‘*vehicle*’ because it specifies that the metaphorical word or phrase ‘*carries*’ the meaning. I like *topic* because it seems clear and intuitive. But, like *target*, *topic* is not free of problems.

In particular, in many instances it is not at all easy to identify a specific meaning that is the *topic* of a metaphor and can be expressed without simply paraphrasing the metaphor. Even in “All the world’s *a stage*,” it is not easy to specify the topic – the form of the sentence suggests the topic is *world*, but that is clearly not what is intended.

*World* itself seems to serve as a metaphor (or perhaps a metonym) for *society*, but even that clarification is not fully satisfactory. The attributes that provide a basis for comparing vehicle to topic are sometimes referred to as the ‘*ground*’ of the metaphor. In “All the world’s *a stage*,” the ‘*ground*’ would appear to be something like *theatrical conventions*. In “*steady hard slog* of decision-making,”

the 'ground' is *marching* or, more generally, *a journey*. Note that 'ground' itself is metaphorical and could be taken to imply something 'solid' or 'fundamental,' attributes that we might not wish to associate with metaphorical interpretations. It is unlikely that any set of terms is entirely free of problems and hidden assumptions.

## Chapter 2.

### Categorization and relevance

‘An apple is a fruit’ tells us that *apple* belongs to the category, fruit. ‘Sally is a sophomore’ tells us that *Sally* belongs to the category, sophomores. Both sentences are examples of what may be called *category inclusion statements*. Glucksberg and his colleagues (Glucksberg, Keysar, and McGlone, 1992) and Wilson and Sperber (2004; Sperber and Wilson, 2008) have proposed that a metaphor is another kind of category inclusion statement, which assigns the topic to a category specified by the vehicle. Thus, ‘Achilles is *a lion*’ tells us that *Achilles* belongs to a category specified by *lions*, something like entities that are brave. Since Glucksberg’s version of category-assignment theory is the most closely related to theories discussed in Chapter 2, I will begin with it.

The theories discussed in Chapter 2 emphasize the transfer of attributes, such as *brave* and *fierce* from the vehicle, *lion*, to the topic, *Achilles*. In contrast to these theories, Glucksberg and his colleagues argue that the vehicle, *lion*, refers to a more abstract category (entities that are brave and fierce ) rather than to the more basic level category (large predatory felines), and the metaphor assigns *Achilles* to the more abstract category. With respect to a metaphor such as ‘my lawyer is *a shark*,’ for which a suitable pre-existing category is not readily identifiable, Glucksberg and Keysar (1990) claim that the metaphor creates what they call an ad hoc category, in this case something like predatory entities\*, with *sharks* as a prime example. In nominal metaphors like ‘my lawyer is *a shark*,’ they argue that the vehicle (‘*shark*’) refers to this more abstract ad hoc category, predatory creatures, rather than to the more basic levelcategory, a cartilaginous fish.

In another example from Glucksberg and Keysar (1990), ‘cigarettes are *time bombs*’ creates an ad hoc category of objects that seem harmless at first but are eventually deadly, with *time bomb* as a salient example, and places *cigarettes* into this category. In a third example, ‘jobs are *jails*’ places ‘jobs’ into “the category of things that the metaphor vehicle *jail* typifies – situations that are unpleasant,

confining, difficult to escape from, unrewarding, and so on” (Glucksberg, Keysar, and McGlone, 1992, p. 578).

A superordinate category may be established on the basis of qualities ordinarily associated with the vehicle in a straightforward and unproblematic way. ‘*Willow-waisted*’ establishes a category of things that are thin and supple. ‘Cigarettes are *time bombs*’ establishes a category of things that cause death at an unpredictable time.

Often, however, a superordinate category can only be established on the basis of highly abstract qualities.

In Tony Blair’s phrase, “*steady hard slog* of decision-making,” the topic entails sitting at a desk in a clean, air-conditioned room, wearing a shirt and tie, reading and making decisions on the basis of briefing papers. The vehicle entails marching a long distance down a muddy road or through deep snow, physical weariness, and misery with little or no conscious mental activity. There is no immediately apparent basis on which the vehicle might define a superordinate category that would include the topic.

In ‘*Sally is a block of ice,*’ there is no apparent attribute that could be transferred from *a block of ice* to *Sally*; there is no apparent basis on which a meaningful category could be established by *a block of ice* that would include a living, breathing mammal with soft flesh and a body temperature of 98 degrees Fahrenheit. Even *sharks* and *lawyers* (Keysar and Glucksberg, 1992) pose difficulties. Both are vertebrates, which is not very interesting. As with “men are *wolves*”, it is not apparent that lawyers are necessarily *predators* (some lawyers hunt and eat birds and game animals, but some lawyers are vegetarians).

Glucksberg (2008) proposes a “dual reference” model to address these problems and explain how superordinate categories can be identified. In this model, ‘*shark*’ refers both to a basic category (a certain species of fish) and to the more abstract category of predators. *Predators* itself must be reinterpreted as referring both to creatures that survive by killing and eating other creatures, and to a more abstract category of creatures commonly believed to exhibit viciousness

and lack of mercy. According to this argument, the metaphor, ‘my lawyer is *a shark*’ establishes a superordinate category, based on the associated qualities (viciousness, lack of mercy, etc.), rather than the primary quality. How the same words (i.e. *vicious* and *merciless*) came to be associated with both *sharks* and *lawyers* is not addressed by the theory.

In order to test the dual reference model, Glucksberg, McGlone, and Manfredi (1997) asked people to read a sentence that primed an irrelevant property of the topic (*some lawyers are married*), a sentence that primed an irrelevant property of the vehicle (*sharks swim in the ocean*), or a neutral control sentence (*some tables are made out of wood*). Then participants were asked to read metaphors such as ‘my lawyer is *a shark*.’ Participants took significantly longer to process the metaphor when it was preceded by the irrelevant property of the vehicle (*sharks swim*) than when it was preceded by either a neutral sentence or a sentence mentioning an irrelevant attribute of the topic. Apparently priming an attribute of the fish category interferes with access to the superordinate predator category.

In related research, Glucksberg, Newsome, and Goldvarg (2001) asked people first to read a metaphor (‘my lawyer is *a shark*’) and then to verify literal statements about the vehicle. They found that the metaphor priming actively inhibits access to information associated with the literal meaning of the vehicle (*sharks are good swimmers*). This leads to a significantly longer response time than when they are primed with a literal statement (‘hammerhead is a species of shark’).

In order to test whether a similar process can be applied to verb metaphors, Torreano, Cacciari, and Glucksberg (2005) selected a set of verb pairs such that each verb came from the same semantic domain (*fly* and *travel*), but one was more abstract than the other. They then combined each verb with three nouns, selected so that one noun would allow the verb to be interpreted at the basic level of abstraction (‘the bird *flew*’), but the other two would require that the verb be interpreted at a higher level of abstraction (‘the boy *flew* home on his bicycle’).

Participants were asked to evaluate the resulting phrases for comprehensibility, degree to which it is metaphorical, and aptness.

The results support the conclusions that verb metaphors are comprehended in much the same way as nominal metaphors, and that the degree of abstraction provides a cue for recognizing verb metaphors as well as nominal metaphors. It should also be possible to extend category-assignment theory to adjectives and stories. In Blair's speech, the metaphorical phrase "*hard slog*" might place *performing the duties of Prime Minister* into a category that consists of activities that are boring and take a long time.

Similarly, the phrase "Some of you *throw a bit of crockery*" might place categorization and relevance *political disagreement* into a category of disputes that involve comic elements of low-level violence, which would help to account for the ironic understatement.

As mentioned previously, applying the categorization approach to novel metaphors requires a concept of *ad hoc categories*, which are formed on the spot for a particular situation. Unlike conventional categories these metaphor-generated categories are situation-bound and do not possess a conventional label. In Gary Snyder's lines from "Rain in Alleghany" (1969, p. 60), "it's a skinny awkward land / like a workt-out miner's hand," "*workt-out miner's hand*" might establish a category of something like things that once had substance and strength but no longer do, with *miner's hand* as a prototypical member, but it seems unlikely that the category thus established would ever be used again. It is also unlikely that such a category could capture the full meaning of the metaphor in the context of the poem.

In another example, discussed by Chiappe and Kennedy [30;266], the metaphor, 'rumors are *weeds*,' based on a conventional category of undesirable plants, creates a new ad hoc category of things that are undesirable, spread fast, and are difficult to eliminate, a category that includes plants as one subcategory and rumors as another. Because members of the familiar category weeds are good

examples of such things, *weeds* can stimulate us to think of the category, hence provide a naming example of the new ad hoc category.

The ad hoc category created by a metaphor refers to some but not all of the properties associated with the conventional category. “For instance, we can use the expression ‘rumors are *weeds*’ to convey that rumors spread very quickly and uncontrollably and are hard to get rid of, without committing ourselves to the claim that rumors are plants [30;252].

Similarly, the category created by Sandburg’s poem “Fog,” that includes both *fog* and *cats* does not include attributes of cats such as *warm-blooded* and *kills and eats small animals and birds*. The opening line, “fog comes in on little cat feet,” creates a superordinate category defined by a subset of properties such as *quiet* and *soft*, and allows the restrictions on the use of the category name (e.g. *cats*) to be relaxed, so that the category name can be extended to a new superordinate category that includes *fog*.

According to Glucksberg and McGlone, for a metaphor to be accepted, the vehicle must “epitomize or symbolize” the category to the hearers or readers. In Chiappe and Kennedy’s example, *weeds* epitomize the idea of *spreading fast*; in “Fog,” *cat feet* epitomize the qualities of *soft* and *quiet* [60; 256].

However, even this qualification is challenged by the original metaphorical expressions that appear in poetry and, occasionally, in everyday speech. For example, consider again the opening lines of Stephen Spender’s (1955) poem, “Seascape”: “There are some days the happy ocean lies / Like an unfingered harp, below the land.” Both “*happy ocean*” and “*unfingered harp*” establish metaphorical relationships that are not immediately obvious to the reader. “*Happy ocean*” may in some sense epitomize a certain quality of calmness that contrasts with the sense of somber reflection that the poem develops, but “*unfingered harp*” does not epitomize any obvious qualities until the poem itself develops those qualities. “*Swimming in money*” seems less problematic at first – if one has a great abundance of some liquid, as in the case of a high tide or a filled reservoir, one might be *swimming* in it. But money, even ‘*liquid funds*,’ is either solid metal,

solid paper, or wholly immaterial *information* – a pattern of magnetized molecules in a computer data bank. None of these qualities suggests an obvious basis for establishing a superordinate category. In Obama’s speech, “*blood*” cannot be connected directly with *ancestors* but must first be connected with *biological descent* in a superordinate category, which can then be connected with *ancestors* in yet another superordinate category. The crucial basis for the metaphor is not the biological connections or similarities but rather the erroneous belief that offspring are infused with their parents’ (especially their father’s) blood. This same belief also provides the basis for other familiar metaphors such as ‘*bloodlines*’ and ‘*blue blood.*’

Glucksberg and McGlone argue that “in each context, the properties of an attributive category are realized in a different way” [60;256]. On the surface, this would seem to provide a potential way to account for “*blood,*” but it raises other problems. The implication is that a reader or hearer must form a new superordinate category for each context in which a metaphor is used and for each possible interpretation of an evocative metaphor, and that this is accomplished by considering certain properties of the vehicle. Chiappe and Kennedy argue that it is to a large extent irrelevant whether we classify the metaphor as part of a superordinate category, or merely transfer some property from vehicle to topic [60;254]. Referring to Keysar and Gluckberg’s example, ‘*Jobs are jails,*’ Chiappe and Kennedy claim that the interpretative realization “is not what the ad hoc category is

Rather, the work of comprehension is done by determining properties that make up the ad hoc category ... people would likely infer that the relevant properties include the predicates, ‘constraining,’ categorization and relevance ‘confining,’ and ‘where people are held against their will.’” In brief, if the reader or hearer must form a new category in a unique way for each metaphor, based on properties of the vehicle, it is difficult to see what categorization theory adds to simple property attribution models. However, the comparison approach to property attribution is

challenged by research on the comprehension process itself, as reviewed in the next section.

### **2.1. Comparison assignment versus category assignment**

According to the standard model of language comprehension underlying the comparison models, nominal metaphors, such as ‘my lawyer is *a shark*,’ are literally false. Because they are false, they are defective.

According to Glucksberg (2008) the comparison model implies three stages in metaphor comprehension. First, the literal meaning of a metaphor must be derived (my lawyer is a predatory fish with a cartilaginous skeleton). Then the literal meaning is evaluated to see if it makes sense. If the literal meaning does not make sense (my lawyer is clearly a mammal, not a fish), the interpreter must search for a non-literal meaning that does make sense. This requirement for sequential cognitive activity implies three assumptions that can be tested: literal meanings are always processed first, comparisons are always easy to understand, and metaphors are readily exchanged with similes, so that ‘my lawyer is *a shark*’ is equivalent to ‘my lawyer is like a shark.’

The first implication is contradicted by evidence showing that novel metaphors are processed as rapidly as literal equivalents whenever the metaphors are apt (Blasko and Connine, 1993) [8;295]. Further evidence comes from brain-imaging studies of metaphor comprehension using functional Magnetic Resonance Imaging (fMRI), a technique for discerning which areas in the brain are most actively engaged at a given time. These experiments have found little difference in the brain areas activated while processing metaphorical and literal language.

Glucksberg, Gildea, and Bookin (1982) asked participants to read sentences of three types: obviously true (‘some birds are robins’); obviously false (‘some birds are tables’); and metaphorically true but literally false (‘some birds are *flutes*’). Asked to indicate whether each sentence was literally true or false, participants took significantly longer to respond correctly (“false”) to the metaphorically true sentences than to respond correctly to either of the other types of sentence. Contrary to the assumption that people are able to ignore metaphorical

meanings of language, participants required extra processing time to consider and reject the metaphorical meaning.

## 2.2. Career of metaphor theory

The third assumption, that metaphors and similes are interchangeable, has been tested by Gentner and Bowdle [51;155]. Gentner and Bowdle combine comparison- and category-assignment approaches in the ‘*career of metaphor*’ theory, an extension of the structure-mapping theory discussed in Chapter 2. They argue that familiar metaphors like ‘my lawyer is *a shark*’ began as novel metaphors that compared topics to vehicles according to certain attributes, in this example something like *ruthless* and *lacking scruples*. As the metaphor was re-used and applied to other topics (such as professional card players and pawnbrokers), the metaphor became lexicalized. In this example, *unscrupulous and ruthless person* eventually became a lexicalized subordinate meaning of *shark*. Thus, metaphoric categories begin as a by-product of the comparison process. As a metaphor vehicle is repeatedly encountered in ways that create similar interpretations, the metaphor category becomes more stable and the vehicle term becomes polysemous – the word *shark* ends up with a primary meaning of *a predatory fish* and a secondary meaning of *any unscrupulous and ruthless person*.

In order to test the implications of this theory, Bowdle and Gentner (2005) produced a list of conventional and novel metaphors and converted them to similes by adding *like* [52;223]. ‘My lawyer is *a shark*’ would be converted to ‘my lawyer is like *a shark*.’ They measured how long it took research participants to comprehend each statement, and asked research participants to assess the quality of the statements.

Participants preferred the novel metaphors when presented in simile form and understood them more quickly when presented in simile form, but with conventional metaphors, participants preferred them and understood them more quickly when they were presented in metaphor form (without *like*).

However, Glucksberg (2008) argues that many of Bowdle and Gentner’s examples, such as ‘a fisherman is (like) *a spider*,’ were not good metaphors in the

first place. In order to test this, Haught and Glucksberg (2004, described in Glucksberg, 2008) developed a set of metaphors by modifying conventional metaphors in a way that they would still be comprehensible, and would seem apt. For example, ‘my lawyer was *a shark*’ was transformed into ‘my lawyer was *a well-paid* categorization and relevance *shark*,’ and the simile form, ‘my lawyer was *like a well-paid shark*.’ They then had one group of research participants rate the aptness of the transformed metaphors and similes and another group evaluate the ease of comprehension. The transformed metaphors proved to be as easily understood as the originals, and were rated as no less apt, but the transformed similes were more difficult to understand and rated as less apt than either the transformed metaphors or the original similes. However, these findings may be partly owing to the way the similes were transformed – “well-paid” applies literally to lawyers but not to sharks, and would be difficult even to apply metaphorically to sharks [60; 189].

In an extension of this research, Glucksberg and Haught (2006) created another set of metaphor/simile pairs, transformed by adding a modifier that would give the literal and metaphorical vehicle very different properties; for example, ‘my lawyer was/was like *an old shark*.’

Here, the metaphor version implies experience, but the simile version implies decrepitude and weakness. They asked participants to provide interpretations of one or the other version, and found that the metaphor and simile versions of the phrase generated consistently different interpretations.

### **2.3. Reversibility**

An implication of earlier versions of categorization theory is that metaphors work in only one direction. If ‘that lawyer is *a shark*’ is reversed, the result, ‘that shark is *a lawyer*’ does not appear to be interpretable (Glucksberg, McGlone, and Manfredi, 1997). Even if the result can be interpreted, the relevant qualities would seem likely to differ radically. An example discussed by Keysar and Glucksberg (1992; see also Ritchie, 2003a), ‘This encyclopedia is *a jungle*’ can be reversed to

get ‘This jungle is *an encyclopedia*.’ The first version is grounded in qualities such as difficult and complex; the second version is grounded in qualities such as interesting and informative.

The reversed version is an entirely different metaphor. On the other hand, if the statement attributed to von Clausewitz that “War is *the continuation of diplomacy by other means*” is reversed, producing ‘diplomacy is *the continuation of war by other means*,’ the two versions of the metaphor would appear to draw on the same ground and would lead to very similar interpretations. More generally, there is an entire field of conflict metaphors in which topics and vehicles are readily exchangeable (Ritchie, 2003b), for example business is war (‘*invade* the competition’s territory’) and war is business (‘an *unprofitable* campaign’).

Campbell and Katz (2006) argue that the findings reported by Glucksberg, McGlone, and Manfredi, 1997) in support of their contention are in large part an artifact of the use of invented metaphor with no discursive context [24;22]. To test this claim they prepared a set of twenty-four passages in which metaphors used by the Glucksberg group were presented either in the canonical order or in reversed order. In one condition these were presented with no context (similar to the Glucksberg group) and in another condition they were presented within a context that encouraged use of the same ground for interpretation. For example in one story a police chief reflected on his failed attempt to stop repeat offenders and concluded that “*Chronic crime is a disease*” (canonical version). In the reversed version, the police chief thought about his losing battle against lung cancer and concluded that ‘*The disease is chronic crime*.’

In one experiment Campbell and Katz (2006) asked participants to rate how understandable the target (metaphorical) sentence is, then write down their own interpretation. In another experiment Campbell and Katz measured participants’ comprehension time. Although participants rated the canonical metaphors as somewhat more comprehensible, when Campbell and Katz presented the metaphor within a context reading times were significantly reduced and comprehensibility was significantly increased for both canonical and reversed metaphors. Campbell

and Katz conclude that topic and vehicle can be reversed to yield interpretable metaphors and, if the metaphors are presented in an appropriate context, the reversed metaphor is likely to be interpreted according to the same ground as the canonical metaphor.

### **Conclusion to Chapter 2**

Glucksberg (2008) sums up the accumulating evidence by rejecting some claims of both categorization and comparison approaches, as well as the career of metaphor theory. He rejects career of metaphor theory because “apt metaphors are not privileged in simile form over metaphor form” and because changing a metaphor to a simile often leads to a radically different interpretation [60;80]. Glucksberg suggests an alternative hypothesis, the “quality-of-metaphor hypothesis.”

The choice of comparison versus category-assignment is based not on whether the form is simile or metaphor, or whether it is novel or familiar. Rather, “Comparison and categorization are complementary strategies for understanding metaphors, with the choice of strategy dependent on the quality and aptness of the metaphor. Comparisons are resorted to when a categorization doesn’t make much sense; categorization and relevance categorizations are used when a metaphor is apt, even when it is a novel metaphor” (2008, p. 80).

An alternative version of category-assignment theory has been proposed in recent work based on relevance theory (Sperber and Wilson, [1986] 1995; Wilson and Sperber, 2004). Although Wilson and Sperber’s approach resembles Glucksberg’s approach in several ways, it is based on quite different underlying assumptions. In the next section I will begin with an overview of relevance theory, and then discuss Wilson and Sperber’s approach to metaphor.

## Chapter 3

### Relevance theory

How is it that a simple gesture of this sort will not only be accepted as an answer to the invitation, but will also often be accepted as a *polite* answer? Sperber and Wilson ([1986] 1995; 2008) argue that the answer lies in Sara's ability to draw inferences, based on the assumption that her room-mate offers the gesture with the *intention* that it will provide all the evidence Sara needs to infer the meaning.

Moreover, they argue, *all* intentional communication is accomplished through much the same processes of inference. "Whether or not it involves the use of a language or some other code, human communication is inferential communication. The communicator provides some evidence of her meaning, and the addressee infers this meaning on the basis of this evidence and the context. The evidence may or may not be coded, and if it is coded, it may or may not be linguistic, but in each case, it provides input to an inferential process whose goal is to interpret the communicator's meaning." (Sperber and Wilson, 2008, p. 87).

The explanation begins with what Sperber and Wilson call the "Cognitive principle of relevance: *Human cognition tends to be geared to the maximization of relevance*" (2008, p. 89, emphasis in original). In order to understand the implications of this principle for communication, it is useful to step back a bit and consider the broader function of perception in maintaining one's representation of the physical and social environment. For example, while I am hiking in the woods, if I see small hoof-prints on the trail, my representation of my environment is changed to include the recent presence of deer. If I see clouds growing rapidly above a nearby ridge, my representation of my environment is changed to include the increased probability of a thunderstorm.

A core insight of relevance theory is that communication, like perception, is accomplished by altering the reader's or hearer's representation of the world, including both the physical and the social environment, in a particular way. To extend the example of hiking in the woods, if I hear my companion say 'that looks like a thunderhead building up over the ridge,' the utterance will change my

representation of the environment in much the same way that seeing the thunderhead for myself would. The utterance, like the direct perception, will add *thunderheads* to my representation of the local atmospheric conditions and increase my expectation of a storm. By extension, if my companion points to the sky above the ridge, I conclude that his most likely motive for the gesture is to draw my attention to the clouds that are beginning to pile up in that direction, and conclude that he intends me to understand that he expects a thunderstorm.

Relevance theory assumes that each person's representation of the world is organized in *cognitive contexts*. *Cognitive contexts* include current knowledge about the environment, including the physical and social environment, the nature of the conversation, and previous utterances. Thus, in the hiking example, my *cognitive context* includes my perception-based awareness of the atmospheric conditions, wind, air temperature, relevant characteristics of my companion, and the risks associated with being caught in the open during a thunderstorm.

*Cognitive contexts* also include stored knowledge about the world, for example my understanding of how thunderheads arise and produce lightning and rain, and how the lightning sometimes starts fires, and knowledge about other participants in the interaction, including in this example what they know about weather as well as what they are likely to believe I know.

The *mutual cognitive environment* consists of those cognitive contexts – currently perceivable information plus stored knowledge – that participants believe to be known and readily accessible to all participants in the conversation. When two experienced hikers see small pointed hoof-prints, both participants are likely to assume that they share some knowledge of local animals and their prints. When they discuss the atmospheric conditions, both participants are likely to assume that they share extensive knowledge about thunderstorms, but if they lack information about each other's level of experience, they might not make that assumption. In the conversation about communicating science to non-scientists, participants could reasonably assume that they are mutually aware of how scientific research categorization and relevance is funded. They could also reasonably assume that

they were mutually aware of the common meaning of words and phrases like “*ivory tower*” and “*swimming in money*.”

Sperber and Wilson argue that all intentional communication, including literal language as well as hyperbole, metaphor, and gesture, is accomplished through inferences based on assumptions of relevance.

An input is defined as *relevant* “when processing it in the context of previously available information yields new cognitive effects” (Sperber and Wilson, 2008, p. 88). Relevance is understood in terms of cognitive effects, changes to the mutual cognitive environment, and the effort required to achieve those effects. “Other things being equal, the greater the cognitive effects, and the smaller the mental effort required to derive them (by representing the input, accessing a context and deriving any contextual implications), the greater the relevance of the input to the individual at that time” (Wilson and Carston, 2006, p. 407). Sperber and Wilson give the example of a caterer inquiring about the invited guests: “In general, it is more informative to learn that someone is a Buddhist than to learn that he is a vegetarian, but if the context is such that only his food preferences are consequential, then the less informative input is more relevant” because it requires less processing effort (Sperber and Wilson, 2008, p. 80).

In the example of a brief conversation between two room-mates, the academic routine of writing term papers and studying for exams is part of the mutual cognitive context. Sara’s room-mate may reasonably assume that pointing toward the stack of books will provide the information Sara needs to infer the answer to her invitation and at the same time infer a reason for the refusal. Thus, the gesture may be more informative than giving the encoded reply, “no thanks,” which would not by itself provide an explanation for the refusal.

### 3.1. Decoding language

Sperber and Wilson (2008) argue that human languages cannot be understood as purely code-like: “The sentences of a natural language are typically multiply ambiguous; they contain referential expressions whose values cannot be assigned by decoding alone ... and there are still other ways in which the encoded meaning of a sentence falls short of determining what it may be used to communicate” (p. 85). As an example, ‘Holland is flat’ would ordinarily be understood in a way that incorporates the curvature of the earth, and allows for the ordinary slight unevenness of terrain. A literal statement that is more technically accurate seems quite odd: ‘If Holland were flat, water would flow from the borders toward the center.’

This example illustrates that even a relatively precise word such as *flat* requires inference with respect to the context. To understand ‘Holland is flat,’ we must broaden the usual meaning of *flat* to include expanses of land that conform to the curvature of the earth, and that are crossed by elevated roadbeds and dikes, dotted with ponds, and so on. To use another example from Sperber and Wilson, if Mary says ‘I have a temperature,’ the ordinary meaning of *temperature* (every physical object has a temperature) is narrowed to include only temperatures that are higher than the normal human body temperature. This broadening and narrowing is done automatically, as needed to achieve relevance in the present context.

In Sperber and Wilson’s view, comprehension must always involve *narrowing* (excluding properties that are irrelevant in the present context), *broadening* (extending the ordinary range of associated properties), or both. Wilson and Carston (2006) provide additional examples of both processes. In ‘all politicians *drink*,’ the ordinary reference of *drink* is narrowed to include only consumption of alcoholic beverages.

In ‘buying a house is easy if you’ve got *money*,’ *money* is broadened to include ready credit and narrowed to include only large sums. In ‘it’s *boiling hot* today,’ *boiling* is broadened to include any exceptionally high temperature, and

narrowed to exclude temperatures that would actually boil water. In ‘be sure to recycle your *empty bottles*,’ *empty* is broadened to include bottles that may have a few drops of liquid remaining in the bottom and narrowed to exclude the requirement that the bottle contain a perfect vacuum.

### 3.2. Relevance and metaphor

Sperber and Wilson (2008) insist that metaphor does not require any special treatment. All forms of language use, including metaphor, rely on the same basic processes of inference, employing both broadening and narrowing in the search for optimal relevance. “We see metaphors as simply a range of cases at one end of a continuum that includes literal, loose, and hyperbolic interpretations. In our view, metaphorical interpretations are arrived at in exactly the same way as these other interpretations. There is no mechanism specific to metaphor, no interesting generalization that applies only to them” (Sperber and Wilson, 2008, p. 84).

Wilson and Carston offer as an example ‘Caroline is *a princess*,’ spoken in reply to a question, ‘Will Caroline help with the packing?’ According to Wilson and Carston, here ‘*princess*’ is broadened to form an ad hoc concept, princess, that includes “spoiled, indulged, and self-centered” (and narrowed to exclude “person born to a royal categorization and relevance family”). Another example provided by Wilson and Carston, ‘Robert is *a bulldozer*,’ when spoken about an overbearing boss, is broadened to form an ad hoc concept, bulldozer, that includes “disrespectful,” “obstinate,” “undermines people’s feelings,” “runs over people,” and so on. The ad hoc concept is also narrowed to exclude “a type of heavy construction equipment.”

Applying Wilson and Carston’s account to the previously discussed example from Keysar and Glucksberg (1992), ‘jobs are *jails*,’ ‘*jail*’ is broadened to form an ad hoc concept, jail \*, that includes “frustrating, confining, and unpleasant,” and narrowed to exclude barred windows and locked doors. Blair’s “*throwing crockery*” story can similarly be broadened to form an ad hoc concept, martial arts pat,

to include “any dispute between people who are engaged in an ongoing relationship.”

“*Hard, steady slog*” can be broadened to form an ad hoc concept, hard slog, that includes “any tedious activity.”

Relevance theory assumes that human cognition has evolved to maximize relevance and accordingly that every utterance or gesture carries two presumptions. (1) It is sufficiently relevant to justify the effort required to make sense of it. (2) It is the most relevant communicative action that the communicator is able and willing to produce in the current situation. These assumptions lead to a comprehension procedure in which the audience follows a path of least effort that includes both broadening and narrowing the stimulus until either the resulting interpretation meets expectations of relevance or the attempt to accomplish relevance is abandoned.

In the scientists’ conversation, when Jim says “I’ve never really *seen the ivory tower*,” his comment might seem irrelevant in two respects.

*Ivory tower* identifies a kind of structure that is at best improbable, and it has no apparent relation to the current topic of conversation, the difficulty of securing funding for research. But if the phrase is broadened to include situations that are in some sense similar to working in an ivory tower, then it can be understood as applying to a situation in which one need not be concerned with such practicalities.

Thus, it has the potential to affect listeners’ representations of the status of science. However, thus broadened, *ivory tower* no longer refers to an actual physical structure that can be *seen*, so *ivory tower* must be narrowed to exclude actual physical structures. According to relevance theory, the listeners will undertake the cognitive effort required to accomplish this broadening and narrowing of meanings only if the expected cognitive effects are sufficient to justify the effort. Additionally, according to the “Communicative principle of relevance,” there is an expectation that the speaker could not have accomplished these effects in any way that would require less effort: “*Every act of inferential*

*communication conveys a presumption of its own optimal relevance*” (Sperber and Wilson, 2008, p. 89).

The following example appears at the beginning of the scientists’ conversation about communicating science with members of the general public (Ritchie and Schell, 2009). The facilitators of the event assigned the name “professional group” to the group that included six scientists plus one science lab administrator.

Facilitator: I guess, we’re calling ourselves “the professional group.” We’re all scientists. Ya right.

Jan: That’s right.

Facilitator: Or “*thereabouts*”

Jan: “*Thereabouts*”

Jim: “*Pretty much.*”

Larry: Can we, can we change our names if we want?

Facilitator: Sure

Larry: As first order of business, nerds and geeks

Jan: Ya

Facilitator: So. We’re changing our names to what?

Larry: Geeks and nerds.

Jim: I’ve been *called a lot of things* but never *professional*. (laughter all around).

*Nerds* and *Geeks*, the labels evidently preferred over *professionals* by the scientists in the group, ordinarily refer to adolescents who have a low level of social skills and who are preoccupied with activities such as playing computer games. The use of these ordinarily insulting terms in preference to the ordinarily complimentary term, *professional*, is itself ostensive and requires a search for contexts in which it will be non-contradictory and relevant. The terms, *Nerds* and *Geeks*, are often broadened to include anyone who is strongly interested in science and technology, regardless of their level of social skill; the knowledge of this

broader usage provides part of the context in which the apparently contradictory usage of these terms can be relevant.

On the other hand, *professional* is often broadened to include anyone who *applies* knowledge and narrowed to exclude those who *generate new* knowledge; hence it can be used to distinguish *applied* scientific research from *basic* research, which is far more prestigious within academic and scientific circles. This knowledge supplies the context in which both the preference for *nerds and geeks* over *professionals* and the subsequent comment, “I’ve been *called a lot of things*, but never *professional*,” are relevant (Ritchie and Schell, 2009).

In all these examples, the broadening and narrowing are driven by the search for relevance. Thus, the search for relevance involves not only selecting or activating cognitive contexts in which the utterance will be relevant; it also involves modifying the schemas activated by an utterance as needed to accomplish relevance.

Carston gives several examples of how broadening can explain the interpretation of metaphorical phrases [26; 328]. In one (apparently invented) example the speaker remarks, ‘Here’s my new *flatmate*,’ referring to a newly acquired cat. Although ordinarily understood as a human being (who usually contributes to rent and other expenses), *flatmate* (*roommate* in the United States) is also ordinarily understood as providing companionship, which a pet cat is also expected to do. *Human being* is a subcategory of *living animal*, which includes *cats*, along with other non-human animals that are known to provide companionship. Thus, broadening *flatmate* to include other members of the inclusive category, *living animal*, seems at most odd rather than contradictory.

A second example, ‘Jim’s bedroom is a *rubbish dump*,’ affords a similar analysis. Although *rubbish dump* includes attributes (large trucks backing up and emptying their contents) that do not apply to a *bedroom*, it also includes qualities such as physical disorder, unsightliness, and uncleanness that *can* literally apply to a *bedroom*, and thus provide a straightforward basis for broadening *rubbish dump*

to include other members of the inclusive category, disorderly, unsightly, and uncle an spaces.

In each of these cases, the broadening process that renders the phrase relevant in its context invites multiple weak implicatures<sup>3</sup>, including those based on the incongruity of the ad hoc category (Raskin, 1985; Raskin and Attardo, 1994). These implicatures often, as in this example, provide a basis for humor. The potential for extensive implicatures justifies the use of the metaphorical phrase instead of a more literal alternative (e.g. *companion* or *unsightly mess*, respectively).

However, the metaphorical versions do not necessarily require more processing efforts than a literal equivalent, and the contextual effects achieved are not necessarily proportional to the processing effort (Gibbs and Tendahl, 2006). On the other hand, Ritchie and Dyhouse (2008) argue that the humor and playfulness of metaphorical language may supply some of the cognitive effects, independently of any changes to the hearer's understanding of the topic.

Wilson and Carston (2006) discuss two other examples that pose slightly more difficulty. 'Caroline is *a princess*' is spoken in reply to a question, 'Will Caroline help with the packing?' According to Wilson and Carston, here *princess* is broadened to form an ad hoc concept, princess, that includes "spoiled, indulged, and self-centered" (and narrowed to exclude "person born to a royal family"). But this metaphor is ambiguous: '*princess*' is also widely used as an endearment, suggesting qualities like "person who behaves nobly; person who is adored." (The masculine equivalent, *prince*, is virtually never used in a negative sense.) In order to disambiguate these alternative ad hoc concepts, the hearer may need to rely on extralinguistic cues including vocal inflections as well as background knowledge about Caroline and her relationship with the speaker.

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<sup>3</sup> **Implicatures:** An implicature is an idea or concept that can be inferred from or is implied by a word or phrase. Implicatures may range from quite weak to very strong. A *weak* implicature of '*flatmate*' is that the cat demands the sort of consideration that a human flatmate would demand, including claims to private space, and so on. *Strong* implicatures of '*rubbish dump*' are that Jim's bedroom is disorganized and that it contains many objects that are of dubious worth.

The princess example also illustrates the possibility that the cognitive effects from processing a phrase may include not only effects on the topic (packing for a move) but may also include changes to the hearer's understanding about the social and relational context. In this example, processing the '*princess*' remark may affect the hearer's ideas about Caroline's personality and the speaker's feelings about Caroline. The humorous remarks identifying a new pet as a '*flatmate*' and Jim's bedroom as a '*rubbish dump*' also seem likely to achieve cognitive effects on relational and social contexts as well as on the mental representations of the new pet and the physical environment of Jim's bedroom, respectively. In many instances, the effects on the hearer's understanding of the relational and social context may be more important than the effects on the hearer's ideas about the conversational topic itself.

### **3.3. Comparing the two theories**

Although the two theories differ in some important respects, there are many similarities between relevance theory and Glucksberg's approach. Both versions emphasize the creation of ad hoc categories.

Glucksberg emphasizes abstraction; relevance theory emphasizes broadening and narrowing of categories. Relevance theory connects ad hoc categories to a general theory of inferential interpretation that applies to all intentional communication, not just to metaphors.

Relevance theory incorporates both the proximate context of the utterance and the broader context of the interaction and surrounding events, and thereby provides a more solid basis for applying the theory to metaphor usage in actual conversation. Relevance theory presents metaphor comprehension as simply one form of language comprehension, dispensing with the difficult problem of classifying language as metaphorical or literal. (For a detailed discussion of the similarities and differences, see Wilson and Carston 2006, pp. 414–415.)

However, like the other theories discussed in Chapters 2 and 3, relevance theory is incomplete. Relevance theory does not provide an adequate solution to what I have previously called the "*circularity*" problem. In order to transfer any

relevant quality from ‘*a block of ice*’ to *Sally*, or to construct a useful ad hoc category that includes both topic and vehicle, either “*ice*” or some of the qualities associated with ice (notably, “*cold*”) must already have been given a metaphorical interpretation. If *Sally* is physically *cold*, she needs a warmer sweater, and ‘*Sally is a block of ice*’ is simply hyperbole. ‘*Sally is a block of ice*’ can be said to characterize *Sally* as *emotionally unresponsive* only on the basis of an underlying metaphor, ‘*emotions are warm*’ and by implication ‘*lack of emotions is cold.*’ Before an ad hoc category can be formed that includes both *ice* and *unemotional*, the underlying metaphor, ‘*lack of emotions is cold,*’ must already have been interpreted.

By the same token, in order to transfer any meaningful quality from “*ivory tower*” to *a well-funded research laboratory*, or to construct a meaningful category that includes both “*ivory tower*” and *a well-funded research laboratory*, “*ivory tower*” must already have been given a metaphorical interpretation. Thus, categorization and attribute transfer theories can help to explain some of what we do with metaphors, but they do not provide a satisfactory explanation of how metaphors are interpreted (Ritchie, 2003a) [65;85].

The mechanisms of broadening and narrowing proposed by relevance theory go part of the way toward resolving the circularity problem, but only for certain kinds of metaphors. These mechanisms appear to be adequate for metaphors in which vehicle and topic perform similar sorts of actions or otherwise have similar sorts of qualities, such as *slenderness* in ‘*beanpole*’ or *presenting a fictionalized or exaggerated character* in “*all the world’s a stage.*” But they do not by themselves seem capable of explaining examples in which vehicle and topic are of radically different sorts, as in ‘*Robert is a bulldozer,*’ ‘*incendiary language*’ or ‘*Sally is a princess.*’

#### *The problem of circularity*

Wilson and Carston acknowledge what they call the “metaphor within a metaphor” problem and I have called the “*circularity*” problem.

How is it that the category, bulldozer, a heavy piece of construction equipment, can come to include qualities associated with thinking, emotional, social entities? In effect, in order to construct an ad hoc category, bulldozer, that includes social behavior and emotional responses, either bulldozer or other concepts associated with it (such as push a round or run over) must already have been given a metaphorical interpretation. Categorization theory cannot fully explain metaphorical interpretation because the explanation assumes that some degree of metaphorical interpretation has already happened.

A closer examination of the theories discussed in Chapters 2 and 3 suggests that *all* these accounts are fundamentally circular, at least in the sense that the attributes that are transferred and on which categories are based, must in many cases be interpreted *before* the stipulated cognitive processing can occur. The explanation for the metaphors make sense only if one begins by assuming a metaphorical mapping of the vehicle that is to be explained (*'ice'* or *'bulldozer'*; *'cold'* or *'push around'*). Cigarettes and time bombs share the literal quality of leading eventually to death, but *fog* and *cats* do not share any interesting literal qualities. Frequently fog does not even *arrive*, rather it *forms* as the temperature of supersaturated air drops. "*Slogging through the mud*" has little in common with *making decisions*. Slogging is a physical activity that requires no mental concentration, and soldiers have been known to sleep while slogging. Making decisions is a mental activity that does require mental alertness, but requires no physical exertion beyond moving a pen over paper or moving one's fingers over a keyboard. A *lawyer* or *loan officer* may be a vegan and animal rights advocate and still practice law in a way that could be metaphorically described as *'predatory.'* If so, this metaphorical mapping would be required *before* they could be included in an ad hoc category of predators.

To return to the previously discussed example from Glucksberg (2008), *jobs* and *jails* both entail presence, often in an indoor space, but there ends the sharing of qualities. What makes a jail a jail is the locked doors, enforced periods of complete idleness, unappetizing food, and Spartan accommodation, such as a toilet

consisting of a hole in the floor. In contrast, salaried workers are ordinarily neither categorisation and relevance physically confined nor idle, receive two weeks or more of paid holiday, and may have rather luxurious bathrooms and break rooms.

A person who whines, '*this job is a jail*' is not complaining about *any* of the actual qualities that define jails. Rather, the complaint is about some aspect of the experience that is associated with an imagined experience of being in jail. For many of the most interesting metaphors, both *superordinate categories* and *common properties* rely on qualities that pertain literally to the vehicle but only metaphorically to the topic. These qualities cannot be considered either common or category-defining until *after* the work of metaphor interpretation has already been accomplished.

What certain *jobs* have in common with *being in jail* is not the fact of physical confinement, but an emotional response to the necessities of the job that resembles what the speaker imagines it would feel like to be in jail. In both cases, the metaphorical interpretation has to be accomplished *before* any attribute transfer or metaphorical mapping can be considered. Even in a metaphor like '*willow-waisted*,' the metaphor may evoke a response that goes beyond the mere perceptual association of slenderness with willows; that is certainly the case with '*cigarettes are time bombs*.' And when Blair tells the British people they can choose to "*go off with Mr. Kennedy*" he does not imply anything like an entire nation marching off across the Yorkshire moors behind a new Prime Minister. What is transferred from "*go off with*" to *vote for in an election* is a set of emotional and cognitive responses that can only be uncovered by a prior act of metaphor interpretation. The entire phrase, of course, belittled the opposition by activating entailments that trivialized their concerns.

The same argument applies to Gentner and Bowdle's (2001) example, "men are *wolves*." '*Men prey on women*,' makes sense only after the phrase '*prey on*' has been metaphorically interpreted. For the most part, men do not '*prey on*' women in any sense that bears any resemblance to the relationship of wolves and deer. Wolves stalk, kill, and eat deer; men seduce, have sexual intercourse with,

impregnate, and abandon women. The latter sequence of events constitutes ‘preying on’ only in a sense that is already metaphorical, and the structure mapping cannot proceed until this basic metaphor has been interpreted. Men do, of course, *prey on* deer, as well as on elk, moose, and other ungulates – and, like wolves, they usually eat the deer, elk, or other prey (Ritchie, 2003a) [65;85].

‘That man is a *wolf*’ is a particularly interesting example, because the qualities that the metaphor invokes – unbridled lust and insatiable carnal appetites – are not associated with the biological species, *lupus*.

The qualities of viciousness and remorseless pursuit are associated with wolves in folklore only, not in biology (and usually not on *The Nature Channel*). The work of metaphorical reinterpretation is often accomplished at both ends of the metaphor, and may reshape the way we understand the vehicle as well as the topic (Campbell and Katz, 2006) [24;22].

Men seducing and abandoning women is metaphorically mapped onto wolves killing and eating deer because the wolf’s success as a predator arouses feelings (visceral and emotional) that are easily associated with some women’s feelings of helplessness and objectification in the face of unwanted sexual attentions. These feelings are already ‘*mapped onto*’ our culturally transmitted image of a soft-eyed deer or lamb, helpless and objectified while attempting to hide from the wolf pack’s single-minded and relentless stalking. These pre-existing linkages may create the respective categories of feeling helpless or objectified in the face of single-minded and relentless sexual seduction, and feeling oppressed by a commitment to an unpleasant situation, to which new experiences can readily be assigned (‘a singles bar is a *meat market*,’ ‘That guy is a real *woman chaser*’). Similarly, an unrewarding job can be compared to jail because the emotional and social meaning associated with an unpleasant situation is already mapped onto our cultural ideas about jails and prisons.

According to Sperber and Wilson, in Sandburg’s poem, “fog comes in *on little cat feet*,” the vehicle, on- little-cat-feet has as its “explicit content” “the concept of a property that is difficult or impossible to define.” The specific ad hoc

category is arrived at “by taking the poet to be attributing to the coming of the fog that property which contextually implies the very ideas suggested by the phrase ‘little cat feet’” (2008, p. 102). This passage itself seems circular, and highlights the problem. How is it that “*little cat feet*” can express something about the experience of *fog* that seems elegant and true? What is that “property that is difficult or impossible to define” and how does “*little cat feet*” manage to suggest it?

*Relevance theory: two (incomplete) solutions*

Wilson and Carston suggest two possible solutions to the “*circularity*” or “metaphor within metaphor” problem [26; 1002], neither of which really solves the problem. One possible solution is that “these metaphorically extended senses have arisen through broadening of the basic physical senses ... to create superordinate concepts ... which are not purely psychological but have both physical and psychological instances.” How this can be accomplished, and how a single superordinate concept can apply to both physical and psychological experience, are left unexplained. The second solution is that words and phrases like *hard* and *cold*, *push around*, and *remove obstacles* are polysemous, having distinct and independent physical and psychological meanings. Wilson and Carston acknowledge that these senses “might have arisen, in the history of the language or the individual, via narrowing of such broader superordinate senses,” but they do not provide any mechanism by which such an extension might have come about in the first place. Both explanations push the question down a level (or back in history) without really explaining anything.

As noted in an earlier section, the proposed mechanisms of broadening and narrowing might be adequate for metaphors in which vehicle and topic perform similar sorts of actions or otherwise have similar sorts of qualities. To continue with the ‘*bulldozer*’ example, if Robert happens to be an offensive lineman (in American Football) who is especially good at clearing a path for the ball-carrier, or a celebrity’s body-guard who is good at clearing a path through a crowded street, then extending the concept of *obstacles* to embrace *opposing tacklers* or *other*

*pedestrians* might be accomplished through a kind of ‘broadening’ of semantic reference; ‘*obstacles*’ might easily be broadened to include people who impede movement (of the ball-carrier or of the celebrity). By the same token, *bulldozer* is easily broadened to include a person who is especially effective at physically removing these obstacles, and the opposing tacklers or obstructing pedestrians, like boulders on a construction site, are literally *pushed around* and may even be literally *run over*.

However, as the ‘*bulldozer*’ example is presented by Wilson and Carston [26;973], Robert is the speaker’s boss (or colleague) who ‘*pushes* his own ideas *energetically*’ and ‘*runs over*’ other people’s objections (thereby conveying a sense of disrespect and obstinacy and ‘*hurting*’ listeners’ feelings). But an objection to a proposed plan of action that someone raises in a staff meeting is an ‘*obstacle*,’ and insisting on a particular idea is ‘*pushing*’ that idea only *after* a metaphorical mapping has already been accomplished, and preventing further discussion of the objection constitutes ‘*removing*’ it only in a sense that is also already metaphorical. Neither version of categorization theory provides an adequate explanation of how this prior metaphorical mapping might be accomplished (or, in the *polysemy* account, might have been accomplished in some linguistic pre-history). Both versions also fail to explain how the process of broadening and narrowing might be limited, so that bulldozers can be broadened and narrowed to express these meanings but *other* potential metaphor vehicles cannot.

### *Context*

A shortcoming of all these approaches to metaphor is their reliance on artificial examples, invented to demonstrate a particular point, and in general on metaphors removed from any actual discursive context (Campbell and Katz, 2006; Edwards, 1997). In spite of the central emphasis in relevance theory on context, Wilson and Sperber and their colleagues also rely almost exclusively on examples that are either invented or abstracted from any actual conversational context. This shortcoming may be part of the reason they have not thus far managed to move the discussion beyond an implicit information-transfer model to incorporate the richer

emotional and relational dimensions of language use (e.g. see Edwards, 1997). It is disappointing to see *context*, which in principle involves everything mutually known to the participants in a conversation, *including their relationship*, defined so narrowly. Wilson and Carston acknowledge the potential importance of aspects of the communicative interaction such as vocal inflection and gesture, but they do not incorporate any of this into their theory of metaphor. They entirely disregard the relational context, both as a resource in understanding utterances and as part of what may be changed by the effects of processing. Consider the ‘*princess*’ example from Wilson and Carston (2006). ‘Will Caroline help with the packing?’ Reply: ‘Caroline is *a princess*.’ This could, as Wilson and Carston suggest, lead to implicatures that Caroline is spoiled, self-indulgent, and so on, consequently that she cannot be expected to do her share. But it might also lead to the opposite conclusion, based on an entirely different set of implicatures.

Which way it goes might depend on the accompanying vocal tone and gestures (rising vs. falling inflection, smile vs. grimace, etc.). It might also hinge on the hearer’s assumptions about the speaker’s relationship with Caroline. *Princess* is a complex concept, both in its literal usage and in its common figurative usage. It is unrealistic and simplistic to offer a single interpretation for a metaphorical use of ‘*princess*’ without a much more detailed consideration of these broader contextual factors.

‘*Bulldozer*’ is also a complex concept. As with the ‘*princess*’ example, ‘Robert is a *bulldozer*’ is easily used in praise (“Will Robert get the contract for our company?” “Do you think the meeting will end by the scheduled time?” “Who should we appoint as our chief negotiator?”) Also like the ‘*princess*’ example, ‘Robert is a *bulldozer*’ is easily used in blame (“Did Robert consider your objections to the proposal?”

“How did Robert convince you to attend this pointless meeting?”). Relevance theory, with its emphasis on contextual effects, provides a basis for explaining how listeners might select from among the available positive, negative, and neutral ideas associated with the vehicle to achieve optimal relevance, and relevance

theory is easily extended to include relational and emotional effects. But these potentialities have thus far been underexploited by relevance theorists. More to the point, it is difficult to see how relevance theory, by itself, could possibly explain how these apparently unrelated ideas come to be associated with the vehicle in the first place (see Ritchie, 2003a and 2009a for a more extensive and detailed development of these arguments).

Wilson and Carston claim that no really good solution to this problem has been offered. The next few chapters will present approaches that help solve the circularity problem and, in doing so, extend our kit of tools for analyzing and understanding metaphors.

### **Conclusion to Chapter 3**

As discussed in Chapter 3, comparison and attribution theories seem to provide a good explanation for the most simple metaphors, and the structure-mapping approach provides a useful way of analyzing extended metaphors such as “All the world’s *a stage*” and Tony Blair’s metaphorical story about “*throwing crockery*.” However, the research described in detail by Glucksberg (2008) and summarized earlier in this chapter raises serious doubts about whether any of these approaches on their own can be developed into a comprehensive account of metaphor use and understanding. The categorization approach introduced by Glucksberg and the category broadening and narrowing approach advocated by Wilson and Sperber are promising, and both explain certain simple metaphors quite well, conventional metaphors in particular. However, these approaches have difficulty with abstract metaphors, for which some previous act of metaphor interpretation is required prior to the formation of an ad hoc category that could explain how the metaphor is interpreted.

The research initially reported by Glucksberg in support of category assignment and dual reference is all based on nominal metaphors.

More recently Torreano, Cacciari, and Glucksberg (2005) extended the research to verb metaphors. How might replications be designed for other

metaphor forms such as metaphorical stories and phrases in which the metaphor vehicle is not explicit?

How many metaphor vehicles have the capacity to be interpreted in more than one way? Can the categorization models be modified so as to deal more effectively with these?

Students have informed me that ‘*wolf*’ is no longer used as a metaphor for a sexually exploitative male. Can you think of a basis for this change in metaphor usage in broader cultural and political contexts?

### ***The total conclusion to the qualification paper***

Metaphor theorists and researchers have typically regarded metaphors as a matter of how language is used. In a traditional approach to metaphor, a sentence links one word or phrase to another word or phrase from a different domain, and the problem is to explain how these interconnected words are comprehended and how they create meaning. ‘Sally is *a block of ice*’ connects *Sally* with *a block of ice*, and the problem is to explain how that connection is able to express something about Sally that hearers will accept as meaningful and at least potentially true.

Lakoff and Johnson (1980) reversed this order, arguing that metaphors connect underlying concepts, and that the metaphorical words and phrases encountered in language are but surface expressions of these underlying conceptual relationships.

According to Lakoff and Johnson (1980), ‘Sally is *a block of ice*’ expresses an underlying relationship between the concepts of *emotion* and *physical temperature* that can be summarized as *emotion is warmth* or *passion is heat*. Since *ice* is characterized by a relative lack of warmth or heat, the metaphor ‘Sally is *a block of ice*’ leads the hearer to experience Sally as *lacking emotional expression or passion*. These conceptual metaphors also provide the basis for many other familiar metaphorical phrases, such as ‘a *hot* affair,’ ‘a *chilly* reception,’ ‘a *warm* relationship,’ and ‘*hot under the collar*,’ as well as Reverend Wright’s “*incendiary* language,” as described in Obama’s speech. It is important to remember that the

phrase *emotion is warmth* is intended to designate an underlying relationship between the two concepts, *emotion* and *warmth*, and is not intended to be read as a relationship between the words that express these concepts.

Lakoff and Johnson (1980) claim that these conceptual metaphors are “embodied,” by which they mean that conceptual metaphors originate when an abstract concept (*emotion* or *passion*) is repeatedly experienced in conjunction with a physical sensation (*warmth* or *heat*). To continue with the same example, beginning in infancy we experience *affection* in conjunction with the physical presence of the mother or other caregiver, including direct physical contact, and come to associate *affection* with *physical proximity* and *physical warmth*. In later life, passions such as *anger* and *sexual desire* are often associated with the flow of blood to the skin and an increase in body temperature. As the child comes to understand abstract concepts such as *affection* and *passion*, these concepts are already linked in experience with physical feelings of *proximity* and *warmth*. These associations supply a conceptual basis or ‘*grounding*’ for the language we use to talk about these abstract concepts, and the underlying conceptual metaphor is reinforced through cultural experience as the child hears others use related metaphorical phrases. It feels so natural to think and speak in terms of ‘a *warm*’ relationship, ‘a *hot* love affair,’ or ‘*burning up* with anger’ that people often find it difficult to think of these phrases as metaphorical. Because the concept of *affection* is partially understood in terms of the conceptual metaphors *affection is proximity* and *emotion is warmth*, the same neural circuits activated by the physical experience of *closeness* and *warmth* become partially or weakly activated by the emotional experience of *affection*. Conversely, the neural circuits activated by the physical experience of *distance* or *cold* become partially activated by the emotional experience of a *lack of affection*. As a result, we actually experience *affection* as *proximity* and *warmth*, and *lack of affection* as *distance* and *coldness*. ‘A *close* relationship’ and ‘a *warm* greeting’ express the experience of *affection* as *physical proximity* and *warmth*, respectively. Conversely, ‘a *block of ice*’ and other metaphorical expressions such as ‘*icy* greeting’ and ‘*frosty* glance’ exaggerate and

emphasize the underlying experience of a lack of emotion as an extreme ‘lack of warmth,’ that is, as ‘*being very cold.*’ According to CMT, relatively few concepts are based on direct physical experience. These would include *hunger, temperature, pain, physical orientation*, and so on. Most of our abstract concepts are based on conceptual metaphors that originate in experienced correlations with these direct physical experiences and the “embodied” concepts associated with them. The most basic embodied concepts begin in early infancy; these include *heat and cold, absence and presence* of the mother or other caregiver, *hunger and thirst, pain and pleasure, eating and drinking, light and sound, physical orientation (up/down, front/back)*, and *manipulating objects*. These sensory experiences provide the basis for conceptual metaphors that express more abstract concepts like *love, caring, and need or desire* in terms of fundamental physiological experiences including physical needs and their satisfaction. In addition to love is physical proximity (and warmth), there is also need or desire is hunger, as in ‘*starved for attention*’ and ‘*hungry for affection.*’

As the child interacts with objects in the world, other primary concepts are developed and generalized as metaphors for associated abstract concepts. From playing with blocks and observing other stacks of objects the child acquires conceptual metaphors like more is up, the basis for expressions like ‘*a high temperature,*’ ‘*rising prices,*’ and ‘*lowered expectations.*’ From the experience of getting sick and lying down, then recovering and arising from the sickbed, we have healthy is up / unhealthy is down, the basis for linguistic expressions like ‘*high spirits*’ and ‘*feeling low.*’ Many experiences at this stage contribute to an association of *importance* and *power* with *size* and *height*, and provide the basis for conceptual metaphors like powerful is high, powerful is big, and important is big.

These conceptual metaphors in turn provide the basis for linguistic expressions like ‘*higher authorities,*’ ‘*the big boss,*’ ‘*a big problem,*’ and ‘*a big fuss.*’ Experiences with objects and textures also give us unyielding is hard (‘*hard-hearted*’ and ‘*a hard problem*’ – and the opposite, ‘*a soft job,*’ ‘*a soft heart*’). Experiences with food give us unpleasant is bitter or sour (‘*bitter memories,*’

'*bitter* about his divorce,' 'a *sour* mood'), pleasant is sweet ('a *sweet* disposition,' 'sweet dreams'). Food also gives us exciting is spicy ('a *spicy* novel,' 'a *bland* disposition'). Association between high temperature and the pain caused by capsicum on lips and tongue gives us peppery is hot ('*hot* chili sauce'). Other expressions using hot as a vehicle may be experienced as physical temperature, spiciness, or both: 'a *hot* romance,' 'a *spicy* novel.' Both senses are combined in the lyrics from the country-western song *Jackson* (Lieber and Wheeler, 1963), "We got married *in a fever, hotter than a pepper sprout.*"

As we mature and begin to interact with machinery, weapons and tools, these embodied physical and social interactions provide the basis of more complex conceptual metaphors. We may describe someone as having a '*sharp* tongue' (emotional distress is physical pain; humiliation is a wound) or '*sharp* cheese' (intense taste is intense tactile experience). We may worry that a relationship is '*on a shaky foundation*' (a relationship is a building). Drawing on social and cultural institutions and customs, we routinely discuss business and political relationships in terms of family relationships: a corporate acquisition may be 'a *forced marriage*' or 'a *marriage of convenience*' and if a venture is unprofitable or bosses' egos conflict, it may '*lead to a divorce.*'

The primary importance of social interaction in our lives leads to many *personification* metaphors, in which an abstract concept or process is represented as a person. Thus we complain that 'inflation is *killing us*' and we might consider 'a *seductive* opportunity.' Emily Dickinson's "Because I could not stop for Death / He *kindly stopped for me*" expresses death is a person, which also gives us phrases like '*the grim reaper*' (in combination with death is harvest) . The association of motion with various social and intellectual processes provides the basis for many metaphors that take the form x is a journey. Thus we have 'this relationship is *going nowhere*' and its opposite, 'a *whirlwind* romance'; a '*dead-end job*' and its opposite, 'the *fast track* to success.' 'A *whirlwind* romance' also draws on one of many conceptual metaphors based on our experience with weather, that is, fast and unpredictable is a windstorm.

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