Meanings and readings

3

In dealing with different aspects of meaning in the previous two chapters, expressions were treated as though they had only one meaning (though possibly composed of different parts). This is, of course, not the case. Many words have more than one meaning and even complete sentences may allow for several readings. The technical term for this phenomenon is **ambiguity**: an expression or an utterance is ambiguous if it can be interpreted in more than one way. The notion of ambiguity can be applied to all levels of meaning: to expression meaning, utterance meaning and communicative meaning. This chapter has two parts. In the first, we will consider lexical ambiguity, i.e. the ambiguity of words at the level of expression meaning. The notion *word* will be replaced by the scientific term *lexeme* (3.1). We will then learn to distinguish between two forms of ambiguity: homonymy and polysemy (3.2). In 3.3 the notion of synonymy is defined. The second part of the chapter is concerned with different readings of sentences and words at the level of utterance meaning that result from meaning shifts (as briefly mentioned in 1.2.2). Several types of shifts, including metaphor and metonymy will be illustrated (3.4) and ascribed to the fact that the interpretation of words and sentences in their context obeys a 'Principle of Consistent Interpretation' (3.5). The chapter concludes with a brief reflection of the role which the meaning shifts mentioned play for polysemy.

3.1 Lexemes

As mentioned in 1.2, it is not only single words that carry lexical meaning, although single words represent the prototypical case. There are also composite expressions with a special meaning one has to learn, e.g. so-called **idioms** like *throw in the towel* meaning ›give up‹ or fixed combina-

composite, carries a lexical meaning if this meaning cannot be compositionally derived but must be known, i.e. permanently stored in the mind. Expressions with a lexical meaning are called **lexemes** or **lexical items**. Composite lexemes need not be idioms[1] like the ones mentioned. Less spectacular cases are particle verbs such as *give up, fill in, look forward to, put on, figure out*, etc.

Lexemes constitute the **lexicon** of the language, a huge complex structure in the minds of the language users. Lexical meaning is not to be confused with the meaning you may find in a dictionary. Dictionaries describe the meanings of their entries by means of paraphrases. For example, you may find the meaning of *bird* described as 'feathered animal with two wings and two legs, usually able to fly' (*The New Oxford Dictionary of English*). In order to understand the description, you have to know what these other words, *feathered, animal*, etc. mean. If you look these up in turn, you will find yet other words used for their description. Dictionaries are in this sense circular. No matter how carefully they are compiled, they will always contain an irreducible set of words the meaning of which is not, in fact cannot be, explained in this way. By contrast, the lexical meanings we have in our mental lexicons are *not* just paraphrases. They are concepts. Whatever these are (this is a question for cognitive psychology), they are not words.

We have so far been considering expressions and their lexical meanings. But there is more to a lexeme than these two aspects. Above all, a lexeme is a linguistic entity within the language system; it can be built into phrases and sentences according to the grammatical rules of the language. Lexemes differ in their grammatical behaviour and are accordingly assigned to different **grammatical categories** such as verbs, nouns, adjectives, etc. Occasionally the informal term **word class** will be used instead of *grammatical category*. The grammatical category determines the way in which a lexeme can be used within a sentence. For example, a noun can be combined with an adjective, and the whole with an article to form an NP. The NP in turn can be combined as object with a verb to form a VP, and so on (cf. the discussion of (2) in 1.2.2).

In English, many expressions can be used as members of more than one category: for instance, *light* is used as a transitive verb (*light the candle*), a noun (*a bright light*) and an adjective (*a light colour*); *walk* may be a noun (*take a walk*), an intransitive verb (*walk in the park*) or a transitive verb (*walk the dog*); *too* may be a particle (›also‹) or an adverb (*too much*), and so on. Although these expressions may be very similar in meaning, they are considered different lexemes. There are (at least) three different lexemes *light*, three lexemes *walk* and two lexemes *too*. In general the same expression in different grammatical categories constitutes as many different lexemes.

The members of certain grammatical categories in a language may exhibit **inherent grammatical properties** such as gender. In German, Latin and Russian, any noun belongs to one of three gender classes: masculine, feminine or neuter. The gender of a noun is not a grammatical form it may

take freely, but an inherent property of the lexeme which determines the form of the article and preceding adjectives (cf. German *der Computer* (masc.), *die Homepage* (fem.), *das Motherboard* (neut.)).

The grammatical category determines the range of **grammatical forms** a lexeme can take. Some categories do not exhibit different forms, e.g. certain adverbs (*here, soon*), particles (*already, too, only*) or prepositions (*on, after, without*), while the forms of expressions belonging to other categories may vary. English nouns have a singular and a plural form (*fridge, fridges*) as well as genitive forms of the singular and the plural (*fridge's, fridges'*). Adjectives have a positive, comparative and superlative form (*light, lighter, lightest* or *precise, more precise, most precise*) and an adverbial form (*lightly, precisely*). Verbs exhibit a fairly wide variety of forms which mark (among other things) grammatical **person** and **number** (*sings* vs *sing*), **tense** (*sings* vs *sang*) and **aspect** (*sings* vs *is singing*). Composite forms such as *have been singing* are also considered forms of the main verb *sing*. For each grammatical category, there are morphological rules for building the forms in the regular cases. But certain lexemes may be exceptional. Irregular verbs have special past tense and past participle forms (*sang, sung* instead of *singed*); some adjectives have special comparative, superlative and/or adverbial forms (*better, best, well* instead of *gooder, goodest, goodly*). A few nouns have non-standard plural forms (*child – children, mouse – mice, foot – feet, leaf – leaves, sheep – sheep*). Exceptional forms are also part of the definition of a lexeme. If a lexeme has different forms, one of them will be used as its **citation form** or **dictionary form**, i.e. the form in which it will be listed in a dictionary or cited when it is spoken about. For example, the non-genitive singular form of a noun is used as its citation form. Usually the citation form will be the morphologically simplest form of the lexeme.

Each grammatical form of a lexeme has a spoken form and an orthographic form (if there is a written standard for the language). Let us use the terms **sound form** and **spelling**, respectively. The sound form of the three grammatical forms *fridges, fridge's* and *fridges'* is the same, while their respective spellings differ. (With irregular nouns, these three forms may not coincide in their sound forms: cf. *children, child's, children's*).

To sum up, a lexeme is a linguistic item defined by the following specifications, which make up what is called the **lexical entry** for this item:

- its sound form and its spelling (for languages with a written standard);
- the grammatical category of the lexeme (noun, intransitive verb, adjective, etc.);
- its inherent grammatical properties (for some languages, e.g. gender);
- the set of grammatical forms it may take, in particular irregular forms;
- its lexical meaning.

These specifications apply to both simple and composite lexemes. Composite lexemes too, such as *throw in the towel* or *red light*, have a fixed

sound form, spelling and lexical meaning. They belong to a grammatical category (intransitive verb for *throw in the towel* and noun for *red light*), they have inherent grammatical properties and the usual range of grammatical forms. For example, the grammatical forms of *throw in the towel* are those obtained by inserting the grammatical forms of the verb *throw*: *throws in the towel, threw in the towel*, etc.

In principle, each of the specifications of a lexeme is essential: if two linguistic items differ in one of these points, they are considered different lexemes. There are, however, exceptions. Some lexemes have orthographic variants, e.g. *rhyme/rime*, others may have different sound forms, e.g. *laboratory* may be stressed on either the first or the second syllable. The American and the British variants of English differ in spelling and sound form for many lexemes. As long as all the other properties of two orthographic or phonetic variants of a lexeme are identical, in particular their meanings, they will not be considered different lexemes but lexemes with a certain limited degree of variation.

That does not mean that minor differences do not count. They count in any event if they are connected with a difference in meaning. In German, the noun *Bank* has two meanings, ›bank‹ as connected to money, and ›bench‹. In the first case, its plural is *Banken*, in the second *Bänke*. Therefore, these are two lexemes. The word *Zeh* occurs in two gender variants, masculine *der Zeh* and feminine *die Zehe*. The first means ›toe‹ as the part of the foot, the second one has a broader meaning, covering both ›toe‹ and ›clove‹ (of garlic). Since the two meanings are so closely related, one would hesitate to talk of two different lexemes here, but it would be possible. In general, one will assume two different lexemes if there is a difference in meaning accompanied by a difference in some other respect. If a form exhibits *minor* variation in only one point, we will be ready to assume only one lexeme. Since these criteria are all a matter of degree, there will be borderline cases hard to decide.

3.2 Homonymy, polysemy and vagueness

If one consults a more comprehensive monolingual dictionary one will hardly find a word with just one meaning given. If the definition of a lexeme is to reflect our intuitions about words and lexical meanings, this has to be taken into account. If one lexeme strictly had only one meaning, any variation in meaning would result in two different lexemes. In some cases, this is in accordance with our intuition. For example, *bank* as in *The Bank of England* and *bank* as in *the river bank* would be regarded as two different words which just happen to have the same sound form and spelling. But *body* when used to denote the whole physical structure of a human being or an animal, or just the trunk, or a corpse, or a group of people working or acting as a unit, would rather be considered one word

with several meanings because we feel that, unlike with *bank*, the meanings of *body* are interrelated. In order to distinguish the two phenomena, the first is called homonymy, the second polysemy. Roughly, homonymy means lexemes with different meanings that happen to have the same sound form or spelling. Ideally, homonyms agree in all points that make up a lexeme except in meaning. In contrast, polysemy is a matter of one lexeme having several interrelated meanings, i.e. an instance of what was meant by 'minor variation' of lexical meaning. Hinging on the criterion as to whether or not different meanings are interrelated, the distinction between homonymy and polysemy is vague. It is best taken as characterizing two extremes on a scale. Both phenomena constitute **lexical ambiguity**: the same lexical *form* has different lexical *meanings*$_e$.

3.2.1 Homonymy

The adjective *light* can be used with two meanings. Let us talk of *light*$_{A1}$ if the adjective is taken as the opposite of *dark*, and of *light*$_{A2}$ if it is the opposite of *heavy* or *difficult*. However, *light*$_{A1}$ and *light*$_{A2}$ have not always had the same form; *light*$_{A1}$ derives from a historical source which in German developed into the present-day adjective *licht* (meaning, in one of its meaning variants, approximately the same as *light*$_{A1}$). Words with the same historical origin are called **cognates**. *Light*$_{A2}$ is a cognate of a different German word, the adjective *leicht* (›light, easy‹). Due to their different origins, *light*$_{A1}$ and *light*$_{A2}$ are considered two different lexemes by most linguists. In general, different meanings are assigned to different lexemes if they have different historical sources. The idea is that, as long as their meanings remain distinct, different words do not develop into one, even if their sound forms and/or spellings happen to coincide for independent reasons.[2] In addition to *light*$_{A1}$ and *light*$_{A2}$ there is a noun *light*$_N$ which is related to *light*$_{A1}$ and means the kind of visible radiation as well as certain sorts of objects that emit light. A verb *light*$_V$ is also related to *light*$_N$ and *light*$_{A1}$.

The two adjectives *light*$_{A1}$ and *light*$_{A2}$ are an instance of what is called **total homonymy**: two lexemes that share all distinctive properties (grammatical category and grammatical properties, the set of grammatical forms, sound form and spelling) yet have unrelated different meanings. One would talk of **partial homonymy** if two lexemes with different unrelated meanings coincide in some but not all of their grammatical forms, e.g. the verbs *lie*$_1$ (*lay, lain*) and *lie*$_2$ (*lied, lied*). Partial homonyms can give rise to ambiguity in some contexts (*don't lie in bed!*) but can be distinguished in others (*he lay/lied in bed*).

Finally, homonymy can be related either to the sound forms of the lexemes or to their spellings: homonymy with respect to the written form is **homography**; if two lexemes with unrelated meanings have the same sound form, they constitute a case of **homophony**. The nouns *bow*$_1$ (rhyming with *low*; cf. *bow and arrow*; German cognate *Bogen*), *bow*$_2$ (rhyming

with *how*; ›front of a ship‹, German cognate *Bug*), bow_3 (like *how*; ›bending‹; German cognate Ver-*beug*-ung) are all homographs, but only bow_2 and bow_3 are also homophones. Examples for words that are total homophones but not homographs would be the noun pairs *tail/tale*, *story/storey* or *cue/queue*. Partial homophones are numerous: *threw/through*, *write/right*, *there/their*, *whole/hole*, *to/two/too* and so on.

3.2.2 Polysemy

While homonymy is a rare and accidental phenomenon, polysemy is abundant. It is rather the rule than the exception. A lexeme constitutes a case of **polysemy** if it has two or more interrelated meanings, or better: **meaning variants**. Each of these meaning variants has to be learnt separately in order to be understood. The phenomenon of polysemy is independent of homonymy: of two homonyms, each can be polysemous (cf. $light_{A1}$ and $light_{A2}$). It results from a natural economic tendency of language. Rather than inventing new expressions for new objects, activities, experiences, etc. to be denoted, language communities usually opt for applying existing terms to new objects, terms hitherto used for similar things. Scientific terminology is one source contributing to polysemy on a greater scale. Some scientific terms are newly coined, but most of them will be derived from ordinary language use. Among the terms introduced here, *lexeme*, *homonymy*, *polysemy* are original scientific terms, while others, such as *meaning*, *reference* or *composition*, are ordinary expressions for which an additional technical meaning variant was introduced.

As an example let us consider the noun *light*: it means a certain sort of visible radiation, but also electric lamps, traffic lights or illuminated areas (cf. *light and shadow*). Clearly, these meanings are interrelated. Likewise, the different readings of $light_{A2}$ which correspond to the opposites *heavy* and *difficult*, are somehow interrelated although the relation is harder to define. Note that *heavy* itself, and with it its opposite *light*, is again polysemous (cf. *a heavy stone*, *heavy rain*, *a heavy meal*).

In principle, polysemy is a matter of single lexemes in single languages. To see the point, consider the colour adjectives in English. Many of them are polysemous, with meaning variants not primarily relating to colour properties. For instance, *green* may mean ›unripe‹. This is motivated by the fact that the green colour of many fruits indicates that they are not yet ripe (the underlying process is called metonymy: green colour *stands for* something else, the degree of ripeness; see 3.4.4). From this, in turn, derives the meaning variant ›immature‹ due to a metaphor that establishes a parallel between the development of personality and the process of ripening of fruits. This meaning variation is an accidental matter of English *green*. Due to the same motivations, it might, but need not, occur in other languages provided they have a word for the colour green. But there is no parallel for exactly this kind of variation in the case of the other colour words.

Although the colour of very many fruits is red when they are ripe, *red* cannot mean ›ripe‹ or ›mature‹. Likewise in German, *blau* (›blue‹) also means ›drunken‹, but English *blue* does not, nor does any other colour adjective in German or English mean ›sober‹. Sometimes, words given as translation equivalents in different languages may have parallel meaning variants, but usually their variation will not match.

That polysemy is a matter of single lexemes does not mean that it is not governed by general principles. As we will see later, the relations between the interrelated meaning variants of polysemous lexemes exhibit clear patterns. The *kinds* of relations are, to a certain extent, predictable. But whether or not a certain lexeme in a certain language at a certain time will have a certain range of meanings is *not* predictable. Polysemy plays a major role in the historical development of word meanings because lexemes continually shift their meanings and develop new meaning variants.

3.2.3 Vagueness

Polysemy is not to be confused with flexibility of use. For very many lexemes, their proper application to a given case is a matter of degree. For example, whether or not we will refer to a child as a 'baby', depends on criteria such as the age of the child and its developmental stage. Both criteria are gradual. What one person considers a baby need not be considered so by another person. As a consequence, the denotation (2.2.2) of the word *baby* has flexible boundaries. This does not mean that the word *baby* has infinitely many meanings that differ in how the borderline is fixed between babies and ex-babies, as it were. Rather, the concept ›baby‹ is in itself **vague**: it allows for adaptation to the given CoU. Vagueness can be observed with all concepts that depend on properties varying on a continuous scale. Colour terms like *red* have a vague meaning, because we conceive the range of colours as a continuum with fuzzy transitions. Whether something is 'big' or not, or 'good' or not is a matter of degree. In general, all gradable adjectives (i.e. adjectives with a comparative and superlative form) are vague.

Widespread vagueness in the lexicon should be considered another economic trait of language. For example, with the pair *tall/short*, language provides us with a rough distinction on the scale of body height. This is much more efficient for everyday communicative purposes than expressions with a more precise meaning, say, ›between 6 and 7 feet tall‹. The issue of vagueness and the important role it plays will be taken up again in 9.5.

Vagueness may occur in combination with polysemy. For example, the meaning variants of $light_{A2}$ are a matter of different underlying scales (of weight, difficulty, etc.). These scales can be distinguished quite clearly. But for each scale, the meaning of *light* describes just a low degree on this scale, whence each meaning variant in itself is vague.

3.3 Synonymy

With the given background, the notion of **synonymy** can now be defined: two lexemes are synonymous if they have the same meaning. Synonymy in the strict sense, also called *total synonymy*, includes all meaning variants for two polysemous lexemes and it includes all meaning parts, i.e. descriptive, social and expressive meaning. While this condition is almost never fulfilled, there are many cases of *partial synonymy*. Two lexemes may have one meaning variant in common. For example, *spectacles* and *glasses* may both denote the same sort of objects that people wear on their noses to look through, but *glasses* may also just be the plural of *glass* in one of its other meanings. Similarly, *The United States* and *America* are used synonymously, but the latter may also be used for the whole continent consisting of North, Central and South America. Words with the same descriptive meaning but different social or expressive meanings (2.3, 2.4) may also be regarded partial synonyms.

More interesting, and more challenging than the question of synonymy, is the problem of semantic equivalence between expressions from different languages. This will be addressed in Chapter 8.

3.4 Sentence readings and meaning shifts

As stated in 1.2, the meaning of a sentence is derived in the process of composition and is thereby determined by its lexical components and its syntactic structure. Both can give rise to ambiguity of the sentence. If a sentence contains an ambiguous lexeme, the process of composition will yield as many meanings of the sentence as the ambiguous item has. If the sentence contains more than one ambiguous lexical item, the meanings will multiply. As we will see below, not all these meanings will reach the level of utterance meaning. But strictly speaking, all these are possible meanings$_e$.

3.4.1 Syntactic ambiguity

Independently of lexical ambiguities, the syntactic structure of a sentence may be ambiguous. Consider the following examples:

(1) a. *She watched the man with the binoculars.*
b. *Flying planes can be dangerous.* (Chomsky)
c. *John and Mary are married.*

In (1a) the PP *with the binoculars* can be related to the verb *watched* (meaning roughly the same as ›she watched the man *through* the binoculars‹), or it can be taken as an attribute of the NP *the man* (›the man who had the binoculars‹). In (1b), the phrase *flying planes* can be read as ›flying in planes‹

and as ›planes that are flying‹. (1c) can mean that John and Mary are married to each other or that they are both married, possibly to other people. Such sentences are syntactically ambiguous. Syntactic ambiguity usually results in semantic ambiguity, i.e. in different readings.

3.4.2 Interpretation in context

The process of composition yields one or more meanings$_e$ of the sentence. When it comes to interpreting words and sentences in their context, i.e. when one proceeds from the level of expression meaning to the level of utterance meaning (1.1), the meanings$_e$ of words and sentences may be modified. A sentence actually uttered in a CoU must fulfil certain requirements in order to qualify as a reasonable message. First, as a minimal requirement, it must not be self-contradictory, i.e. false in all possible CoUs, because in this case, it cannot be applied to any concrete situation whatsoever.[3] Second, it must in some way be relevant in the given CoU. (Both conditions can be captured in what will be called the Principle of Consistent Interpretation in 3.5.) Utterance meanings of a word or a sentence that pass these conditions are called possible **readings**.

Due to these additional constraints, the set of compositional meanings$_e$ of the sentence may undergo considerable changes. Three things can happen to a particular compositional meaning$_e$:

1 The meaning$_e$ may be taken over as it is and enriched with contextual information, e.g. the fixation of concrete referents.
2 The meaning$_e$ may be refuted and eliminated if it is contradictory or does not fit the CoU.
3 The meaning$_e$ may be modified by some kind of meaning shift in order to fit the CoU and subsequently be enriched with contextual information.

Option 2 may lead to a disambiguation of the sentence at utterance level, i.e. to a reduction of the number of possible readings. The meaning shifts involved in option 3 create new expression meanings and, out of them, utterance meanings. For example, when the sentence *I don't need your bicycle* in 1.1.2 was interpreted in the second scenario, *bicycle* was taken to refer to a playing card that carries the picture of a bicycle. This interpretation rests on a meaning shift of the word *bicycle*, by which its lexical meaning is replaced with a closely related new meaning$_e$. Thus for lexical items, the application of meaning shifts is another source of ambiguity, though one that only originates from interpretation in context.

3.4.3 Disambiguation and elimination

Let us first consider the case of disambiguation in context. The following sentences contain the ambiguous lexeme *letter* (›alphabetic character‹ vs ›written message‹):

(2) a. *Johnny wrote a letter.*
b. *Johnny wrote a letter to Patty.*
c. *Gamma is the third letter of the Greek alphabet.*

(2a) has two readings because the rest of the sentence, *Johnny wrote a* ____, allows for both meanings of *letter*. (2b), however, has only one reading. The addition of *to Patty* requires the message meaning of the word. Likewise in (2c), the rest of the sentence would not make sense unless *letter* is understood as ›character‹. Thus the immediate sentential environment of a word may call for particular meaning variants and exclude others.

A sentence may also have no possible reading at all if its parts do not fit together. Example (3) is self-contradictory and therefore disqualified at utterance level. Due to its lexical meaning, the verb *shiver* requires a subject referent that is animate and has a body. However, the lexical meaning of *age* does not allow for this sort of referent:

(3) *Johnny's age shivered.*

3.4.4. Metonymical shift

The following example is borrowed from Bierwisch (1983):

(4) *James Joyce is difficult to understand.*

The sentence has at least four readings. If you relate the sentence to James Joyce the writer, you may first of all take it as meaning that (i) the writings of James Joyce are difficult to understand. But if you imagine a context where the author is still alive, the sentence might as well mean that (ii) the way he talks; (iii) the way he expresses himself; or (iv) the way he acts is difficult to understand. In the first reading, the name *James Joyce* refers to Joyce's work. In the other readings, it refers to the writer himself. Yet the proper name *James Joyce* is not polysemous: we do not have to *learn* this about the lexical meaning of this particular name. In principle, all names of persons can be used for referring to their published work. The interpretation in context is due to a meaning shift generally available for all names of people.

Similar shifts are very common. Consider the readings of *university* in the following examples:

(5) a. *The university lies in the eastern part of the town.*
b. *The university has closed down the faculty of agriculture.*
c. *The university starts again on 15 April.*

The subject *the university* refers to the campus in (5a), to the institutional body in (5b), and to the courses at the university in (5c). Again, this is not a

case of polysemy. The word *university* lends itself naturally to the meaning shifts that create these readings. We do not have to *know* each of them. Many other words with similar meanings exhibit the same kind of variation: *school, theatre, opera, parliament,* and so on. Also, the same kind of variation is paralleled in other languages. This kind of variation is not rooted in lexical ambiguity. Its source is more general.

If we take a closer look at the meaning shifts involved, we see that in each case the term *the university* refers to something that somehow *belongs* to a university. Let us assume that the word lexically denotes a certain kind of educational institution. Such an institution (unless it is a virtual university on the web) must be located somewhere, it must have an administration, and it must offer courses. It is in this sense that its campus, its committees and administration, and the courses offered belong to the university. Apparently, a term that denotes objects of a certain kind can also be used to refer to certain things that usually belong to such objects. The term, then, is felt to 'stand for' those things which belong to its referents proper: in (5), *the university* in this sense 'stands for' the campus, its administration and the courses. In (4), *James Joyce* stands for his work.[4] This use of terms is called **metonymy**: a term that primarily refers to objects of a certain kind is used to refer instead to things that belong to objects of this kind. The corresponding type of meaning shift will be referred to as **metonymical shift**.

The crucial condition of 'belonging to an object of this kind' can be made more precise if we use the notion of a concept. The word *university* is linked to a concept for universities as its lexical meaning. The concept specifies that a university is an educational institution with a location, teaching, teachers, students, an administration, and so on. A metonymical shift shifts the reference of the word from a standard referent, a university, to an essential element of the underlying concept.

3.4.5 Metaphorical shift

The four sentences in (6) are the opening lines of an article in an American news magazine (*Newsweek*, 19 October 1998, p. 30):

(6) a. *They were China's cowboys.*
b. *The swaggering, fast-talking dealmakers threw around grand projects and big figures as if the money would never stop flowing.*
c. *Then the sheriff came to town.*
d. *Last week Beijing said it was shutting down one of the flashiest investment institutions* [name of the institution].

The sentences are about Chinese investment institutions and they are full of metaphorical language. Although there is a literal reading for the first sentence, it will not be taken in that sense. Rather, the next sentence tells us

that (6a) refers to certain 'dealmakers'. We will therefore take the expression *China's cowboys* in a metaphorical sense: the persons referred to are not claimed to be cowboys, but to be in some way *like* cowboys. In this case, according to (6b), they resemble cowboys in that they are swaggering, fast-talking and throwing things around. The metaphor is further developed in (6c) with the appearance of the sheriff, another typical ingredient of a Wild West setting. Sentence (6d) explains who the 'sheriff' is: Beijing (the name of the Chinese capital metonymically stands for the Chinese government). This sentence takes us back from the metaphor to literal interpretations.

Let us define more explicitly what a metaphor is: concepts, notions, models, pictures from one domain, the source domain, are borrowed for the description of things in another domain, the target domain. In (6) the source domain is the Wild West and the target domain is the international investment scene of China at the time when the article was published. To the majority of the magazine's readers, the source domain is better known than the target domain. Hence, concepts taken from the Wild West domain may help to describe to this particular readership what's going on in China. (A Wild West metaphor would probably be of less help to Chinese readers.) Every metaphor is the construction of a parallel: the dealmakers are likened to cowboys in certain respects, mainly their public behaviour, and the Chinese government takes the role of the sheriff in exerting its authority. In general, metaphorical language can be characterized as talking about things in the target domain in terms of corresponding things in the source domain.

A metaphor yields a new concept in the target domain, a concept that is similar to the original concept of the source domain in that it contains certain elements, although not all, of the source concept. Metonymy is quite different from metaphor. When we talk metonymically, we remain within the same domain. We borrow an element from the original concept, but the links to the other elements remain. *University* in the ›campus‹ meaning remains immediately related to *university* in its ›institution‹ meaning, James Joyce's work remains related to the person James Joyce. The relations between the general objects and the things, or aspects, belonging to it are only possible *within* one domain.

As with metonymical shifts, the meaning variation caused by metaphorical use is not a matter of lexical ambiguity. We would not say that, due to utterances like (6), the word *cowboy* is lexically ambiguous between ›cowboy‹ and ›someone who is not a cowboy but in certain respects like a cowboy‹. There are tens of thousands of words that can undergo **metaphorical shifts**. In addition, the metaphorical shifts occur in other languages in the same way.

3.4.6 Differentiation

The James Joyce example (4) is relevant in one more respect. The four readings mentioned differ in the way the verb *understand* is interpreted in context: it may relate to the author's work, to his articulation, his way of

expressing himself and the way he behaves. Although in each case the 'understanding' is directed to different kinds of objects, it is reasonable to assume that the verb *understand* in all these cases just means ›understand‹. If we attributed the different readings of *understand* to polysemy, we would end up in countless distinctions of lexical meaning variants of the majority of words. Note, for example, that understanding a sentence may relate to its articulation when uttered, its syntactic structure, its descriptive meaning or its utterance meaning. The different readings can be better explained if one assumes that *to understand* means to understand someone or something *in a certain respect* that is determined by the context.

The following examples (taken from Bierwisch, 1982: 11) can be explained in the same way:

(7) a. *John lost his friend in the overcrowded subway station.*
b. *John lost his friend in a tragic car accident.*
c. *John lost his friend, as he could never suppress making bad jokes about him.*

The common part *John lost his friend* has three different readings due to the respective sentence context/s. In (7a) *lose* means a loss of contact, in (7b) John's friend stops being his friend because the friend no longer exists, and in (7c) the friend is supposed to live on but stops entertaining a friendly relationship to John. In each case, the verb *lose* can be taken to mean something like ›stop having, due to some event‹. What the context contributes to this is the meaning in which the ›having‹ component is interpreted and the kind of event that causes the loss.

Types of shift	Lexical meaning	Shifted meaning	Process
metonymy	*the university starts in April*		building a new concept out of an element of the original concept
	›educational institution‹	➜ ›courses at the university‹	
metaphor	*they were China's cowboys*		building a new concept in the target domain by borrowing parts of the concept in the source domain
	›man who herds cattle‹	➜ ›person behaving like a cowboy‹	
differentiation	*James Joyce is hard to understand*		adding conditions to the original concept
	›perceive the meaning‹	➜ ›interpret the text meaning‹	

Table 3.1 Kinds of meaning shifts

The examples illustrate a third common kind of meaning shift. Bierwisch calls it conceptual differentiation. In this book, the simple term **differentiation** is preferred. It can be defined in general as a meaning shift which results in a special case of what the expression denotes in its lexical meaning. There are several more types of meaning shifts, but we will not go further into the matter. Table 3.1 displays the three types of shifts treated here.

3.5 The Principle of Consistent Interpretation

The driving force of the meaning modifications[5] due to interpretation in context is a principle according to which we try to make the parts of a sentence fit together and the whole sentence fit its context.

> **Principle of Consistent Interpretation**
> A complex expression is always interpreted in such a way that its parts fit together and that the whole fits the context.

This principle, if appropriately generalized, probably governs all interpretation whatsoever, because interpretation usually concerns a complex input and is always interpretation in some relevant context. As we have seen, its application to sentence interpretation at utterance level may lead to the elimination of meanings$_e$ as well as to the creation of new ones. The principle generally rules out self-contradictory readings: they are always due to parts within a sentence that do not fit together (recall (3)). It also rules out irrelevant readings: these do not fit the context of the whole.

We will now consider the examples discussed above once more, in a more systematic approach to the crucial notion of 'context'. As we will see, it is not identical with the notion of CoU (context of utterance) introduced in 1.1.2. More generally, it applies at several levels that are relevant for composition and the interpretation of the sentence as a whole.

The immediate context of a lexical item is first of all the syntactic phrase of which it is a part. For example, the NP *an old university* is the context of both the adjective *old* and the noun *university*. In order to make sense in a CoU, the noun *university* in this NP must refer to something that has age such that *old* can apply to it. This admits the ›institution‹ reading and probably the ›campus‹ reading of the word. To take the noun *university* in one of these readings means to fit it with the context provided by the whole NP.

The next important level of context of a lexical item is the **sentential context**, i.e. the rest of the sentence. In (2b), (2c) and (3), the sentential context eliminates certain meaning$_e$ variants. In other cases, the sentential context triggers meaning shifts in order to make all parts of the sentence fit together (and thereby fit their sentential context); see (5a, b, c) for metonymical shifts, (6b) for metaphorical shifts and (4) for differentiation.

Finally, the context of the whole sentence, the CoU, influences the interpretation of the sentence as an utterance. It partly determines which readings are possible. For example, it will hinge on the actual CoU of the James Joyce sentence whether we take it in one reading or the other. And it is due to the CoU (which includes the surrounding text) that (6a) and (6c) undergo their metaphorical shifts.

In 1.2.3 the process of composition was characterized as a bottom-up process, in which the meaning$_e$ of the whole is derived step by step from the meanings$_e$ of the elements (lexical items, grammatical forms and syntactic structure). In other words, the output of the process, the sentence meaning(s)$_e$, is determined by the input. When a sentence is interpreted in context, i.e. when its possible utterance meanings are determined, meaning shifts and meaning eliminations interfere with the process of composition. The interference constitutes a **top-down** element of the interpretation: the input may be re-interpreted in terms of appropriate outputs. Thus, to a certain extent the output determines the input. Consider, for example, the case of (5a), *The university lies in the eastern part of the town*: the interpretation of *the university* in its given context requires an output consistent with the context. In order to achieve this, the input *the university* is subjected to re-interpretation (institution → campus shift).

As we have seen, one effect of interpretation in context is the elimination of self-contradictory readings. It is important to realize that such readings are not eliminated by the process of semantic composition. They *must* not be, because otherwise self-contradictory sentences would not receive a meaning at all. Of course, they have a meaning: if they had not, we would not be able to qualify them as self-contradictory. Hence, semantic composition itself is blind to context requirements such as consistency.

3.6 Meaning shifts and polysemy

The kinds of meaning shifts to be observed during interpretation in context are also involved in polysemy. In very many cases of polysemy, meaning variants are interrelated by way of metonymy, metaphor or differentiation.

As to metonymy, recall the case of *green* with its secondary meaning ›unripe‹. Here green colour is taken as metonymically standing for a certain stage of biological development. Other cases of lexicalized metonymy are the following:

(8) a.	*The asshole did not even apologize.*	part for the whole, 'pars pro toto'
b.	*He talked to celebrities.*	property for a person with the property
c.	*His last date was in a bad temper.*	event for person involved
d.	*I wrote a paper.*	carrier for content
e.	*the Green Berets*	clothing for wearer

To parts of the body (8a) belong a person or animal. A property belongs to the one who has the property (8b): celebrities are persons who have the property of celebrity. To a date belongs the person one dates (8c). To a piece of paper with something written on it belongs what is written on it (8d). Pieces of clothing have their wearers; they are associated with the people wearing them (8e).

In (6b) the metaphorical use of the verb *flow* for money is so common that it can be considered a lexicalized meaning variant, in addition to the literal meaning of the flow of liquids. Other examples of lexemes with metaphorical meaning variants are terms like *mouse* for a computer mouse, *light*$_{A2}$ in *a light meal*, or the majority of idiomatic expressions like *throw in the towel*, *kick the bucket* or *make a mountain out of a molehill*. Most proverbs are metaphorical, e.g. *Birds of a feather flock together* or *A rolling stone gathers no moss*.

Differentiation too is a common source of polysemy: a lexeme may have a meaning variant that applies to a special case of what the basic meaning of the lexeme applies to. *Car* denotes some sort of vehicle in general, but nowadays preferably an automobile; *disc* may mean ›flat, thin, round object‹ in general as well as ›magnetic disc‹, ›compact disc‹ or ›record‹ in its differentiated meanings.

Checklist

lexeme
lexical meaning
grammatical category
grammatical forms
grammatical properties
sound form
spelling
citation form
idioms
ambiguity
homonymy
homography
homophony
polysemy
meaning variant
vagueness
synonymy
interpretation in context
readings
disambiguation
elimination of meanings
modification of meaning
meaning shift
metonymy
metaphor
source domain
target domain
differentiation
Principle of Consistent Interpretation
top-down
context

Exercises

1 Which properties determine a lexeme?
2 Find three composite lexemes (idioms) of each of the categories noun, intransitive verb and transitive verb.

3 What is the difference between homonymy and polysemy?
4 Discuss the ambiguity of the following words with the meanings indicated: do they constitute a case of polysemy or homonymy? Try to determine the historical sources.
   (a) *fraud* ›act of deceiving‹ vs ›person who deceives‹.
   (b) *calf* ›young of cattle‹ vs ›fleshy back part of the leg below the knee‹.
   (c) *sole* ›bottom surface of the foot‹ vs ›flat fish‹.
   (d) *point* ›sharp end of something (e.g. a knife)‹ vs ›dot used in writing‹.
   (e) *character* ›mental or moral qualities of a person‹ vs ›letter‹ (e.g. Chinese character).
   (f) *palm* ›inner surface of the hand‹ vs ›palm tree‹.
   (g) *ring* ›circular band of metal‹ vs ›telephone call‹.
5 What is the relation between the meaning of a word in its lexical meaning and the word in a metaphorical meaning? What is the relation between a word in its lexical meaning and in a metonymical meaning?
6 Identify the instances of metaphor and metonymy in the following passage (from the *Newsweek* article cited above):

   Sound like Asian contagion? So far, China has escaped economic disaster. But even in China, the mighty can fall. . . . Can China reform its financial system, but avoid the social unrest that has crippled the rest of Asia?

7 Find examples where two meanings of a polysemous lexeme are related by metaphor, metonymy or differentiation (three of each kind).
8 Discuss the meaning shifts underlying the use of *bean* for the head, *paw* for the hand, *snotnose* for a child.
9 Does the polysemy of so many words constitute an advantage or a disadvantage for communication?
10 Discuss the difference between polysemy and the variation of meaning due to metaphorical shift, metonymical shift or differentiation.
11 Discuss the ways in which the Principle of Consistent Interpretation affects the interpretation of a sentence in context.

Further reading

Tallerman (1998, Chapter 2) on lexemes, grammatical categories and their connection with syntax. Cruse (1986, Chapter 2 and Chapter 3) on lexemes and 'lexical units'. Lyons (1995, Chapter 2) and Lyons (1977, Chapter 1) on ambiguity.

Notes

[1] Only such complex lexical items are called idioms here that also can be taken in a non-idiomatic compositional meaning, e.g. *literally* ›throw in the towel‹.

[2] It has often been questioned if this historical criterion is really relevant. Average speakers do not know where the words they use come from. All that matters for them is some 'feeling' as to whether or not the two meanings have anything to do with each other. For instance, to many speakers of English the words *ear* for the body part and in *an ear of corn* appear to be the same word, although historically they are of different origins.

[3] In 4.2 the term *self-contradictory* will be replaced by the technical term *logically false*.

[4] Likewise, in the 'bicycle' example from Chapter 1, *the bicycle* stands for the card carrying the picture of a bicycle.

[5] In recent semantic discussions, the term **coercion** has become familiar for the modification of meaning during the process of interpretation.