

Conceptual Categories and Linguistic Categories I: Introduction

1 Introduction

- Our experience of the world is to quote Whorf “a kaleidoscopic flux of impressions” (1956: 213).
- Linguistic expressions helps us to pick out the events and states we want to talk about from this continuous and complex stream of happenings.
- These events and states do not necessarily come cognitively or perceptually individuated; rather, words from the major lexical categories give us the tools to talk about the happenings in the world:
Simplifying, verbs help us pick out events and nouns help us to pick out entities, typically the participants in these events.
- Identifying the meanings of verbs and nouns requires distinguishing their MEANINGS from the happenings and entities in the world that they describe in a particular use.

1.1 An example of what is at issue: The verb *hurtle*

- (1) There, a scant two hundred yards ahead of the stopped train, he found a washed-out bridge. The whole thing had toppled into a ravine. If it had not been for the mysterious flagman, the train would have **hurtled** across the ravine into the opposite embankment, killing passengers and crew. (Adapted from Nagy & Gentner 1990:170)

Nagy & Gentner note that a reader of this passage might construct a scenario which includes some of the properties in the table:

motion	not intentional
with relatively low friction	undesirable consequences
unregulated	disruption of schedule
forward	environmental damage
swift	property of value in excess of \$2000
against air resistance	impact
above water	contact between unlike substances
across ravine	increase in entropy
parallel to long axis of figure moving	non-reversible change of state
ballistic trajectory	abrupt change of shape
through the air	generation of heat
non-volitional motion of animate beings	noise

motion of contained objects relative to container	fear
great-momentum	surprise
reduction in velocity	pain
of an artefact	injury
of a vehicle	loss of life
wheeled vehicle	large objects
departure from planned route	multiple objects
disengagement of propelling mechanism	long objects
event outside of populated area	rigid objects
in the dark	sausage-like string of objects
without warning	metal

(Nagy & Gentner 1990:171, Table 1)

1.2 Lessons from *hurtle*

- The train scenario has many properties, but they do not all have the same status.
- Only some of the properties of the train scenario may carry over to other uses of *hurtle*.

For instance, the scene evoked in (2) shares only a few properties with the *hurtle* sentence in the train scenario.

- (2) School-bus sized asteroid to hurtle past Earth Monday morning
<http://www.csmonitor.com/Science/2011/0624/School-bus-sized-asteroid-to-hurtle-past-Earth-Monday-morning>

As in the train sentence, the asteroid sentence involves ‘motion’ and ‘ballistic trajectory’, but unlike it, it does not involve a ‘wheeled vehicle’ or ‘impact’.

- Thus, a single verb can be used to describe scenes which do not have exactly the same properties.
- The properties that are shared across all uses of a verb are those that constitute its meaning: they are LEXICALIZED by the verb.

LEXICALIZED MEANING: Those components of a verb’s meaning that are specified and entailed in all uses of the verb, regardless of context.

- As shown in the *hurtle* sentences, a verb’s lexicalized meaning must be distinguished from what can be inferred from a use of that verb in context, that is, the properties of the happening in the world referred to by the predication consisting of the verb and its arguments.
- This example illustrates that the happening out there in the world must be distinguished from the linguistic expression which is a description of this happening, including the verb used to name it.
- The same holds of nouns: An entity in the world must be distinguished from the noun naming it.

AN EXAMPLE: The noun *home*

What is called a home differs across regions and cultures:
 compare cottages, ranch houses, castles, adobes.
 Also free-standing units vs. apartments, condos, and townhouses.

- (3) “A dwelling-place, house, abode; the fixed residence of a family or household; the seat of domestic life and interests; one’s own house; the dwelling in which one habitually lives, or which one regards as one’s proper abode.” (OED)

According to the OED, in current American English, *home* is often used for just the building.

- The meaning of a verb or noun can be viewed as a collection of attributes, and these attributes must be shared by those happenings or entities which the verb or noun, respectively, can refer to.

It is in this sense that a verb is a predicate of events, and so may be used to select a chunk of a chain of happenings, according to the status of an EVENT (or state) referenced by the verb.

2 A verb’s meaning lexicalizes a specific construal of an event

When we choose a verb to describe an event, we are making a comment on certain attributes present in the chain of happenings in the world being referred to by that verb.

Since a verb lexicalizes only a small number of the attributes of the happening it is used to describe, a verb could be said to provide a particular CONSTRUAL of that happening as an event.

CONSEQUENCES:

- A single verb can be applied to quite different happenings, as in the *hurtle* example.
- Two verbs may lexicalize distinct, but at best partially overlapping sets of attributes, yet be able to refer to the same happening out in the world, as elaborated below.

That is, the relation of the verb to the world is never straightforward. Understanding it is important to avoid pitfalls in linguistic analysis.

2.1 Pairs of verbs that contrast in how they relate to the world

Verbs pick out a chunk of the chain of happenings thereby individuating it as an event. Because any such event is constituted of many attributes of which a verb lexicalizes only some, it is possible for two different verbs to refer to the same chunk of the chain of happenings, but by lexicalizing different facets of it, they may construe it as an event in different ways.

- There are several different ways in which this can happen:
 - There are verb pairs where one member lexicalizes more attributes of the same chunk of a stream of happenings in the world than the other.

EXAMPLE: The scenario in which Brutus brings about Julius Caesar’s death can be described by *kill* or by *murder*; however, the description with *murder* necessarily conveys that Brutus intended to kill Caesar.

- (4) a. Brutus killed Julius Caesar.
b. Brutus murdered Julius Caesar.

- (5) a. Smith killed a deer that ran across his car's path.
 b. # Smith murdered a deer that ran across his car's path.
- (6) This time, it's Joan Blondell, who was accidentally **murdered** while vacationing at the home of her wealthy friend, Ann Carrington (Landis), the intended victim.
 (www.dipity.com/timeline/Topper>Returns/)

The more attributes a verb lexicalizes, the smaller the range of events that the verb can be applied to: that is, not every instance of killing is an instance of murdering.

EXAMPLE: English not only has the verb *walk*, but also verbs describing specific types of walking.

- (7) amble, limp, lope, mince, parade, plod, prance, saunter, stroll, tiptoe, trudge, ...
- (8) Sam walked onto the stage.
- (9) a. Sam pranced onto the stage.
 b. Sam plodded onto the stage.
 c. Sam sauntered onto the stage.

This is an area where considerable crosslinguistic variation is found in lexical inventories.

— There are verb pairs where one member lexicalizes a different perspective on the same chunk of the stream of happenings in the world than the other.

EXAMPLE: Commercial transactions are taken to be happenings that involve two typically animate participants, the buyer and the seller. Either could be salient in the transaction, most likely accounting for the existence of the verb pair *buy* and *sell*.

- (10) a. The salesman sold a used car to Jones.
 b. Jones bought a used car from the salesman.

— There are verb pairs where one member lexicalizes a larger chunk of a stream of happenings in the world than the other.

EXAMPLE: *step* vs. *walk*, which is constituted of multiple steps.

EXAMPLE: English *die* which can name the whole process of dying and Hebrew *met* which simply names the transition from life to death (cf. English *perish*; Macfarland 1995).

- (11) a. During the months that my grandmother was dying, I lived with her.
 b. My grandmother died in 1994.
- (12) a. #bemešex otam xodašim, safta šeli **meta**.
 during those months grandmother mine died
 'My grandmother was dying during those months.'

- b. ka'avor kama xodašim safta šeli **meta**.
 when passed few months grandmother mine died
 'My grandmother died after a few months.'

— There are verb pairs where one member lexicalizes an earlier chunk of the consecutive stages of a happening in the world than the other.

EXAMPLE: The two verbs for *die* in Hebrew: *gasas* which names the process of dying and *met* which names the transition from life to death.

- (13) ha-'iš **gasas** bemešex šloša šavu'ot u- ve-yom šiši **met**.
 the-man dies during weeks three and on-Friday died
 'The man was dying for three weeks and on Friday he died.'

See Botne (2003) for a crosslinguistic study which shows that verbs of dying fall into four major types that can be differentiated according to which stages of the dying process they lexicalize:

- The Acute type, which lexicalizes the point of death alone.
- The Inceptive type, which lexicalize the onset and the point of death.
- The Resultative type, which lexicalize the point of death and the ensuing state of being dead.
- The Transitional type, which lexicalize the onset, the point of death, and the result.

— There are verb pairs where each member lexicalizes distinct sets of attributes in the same stream of happenings.

EXAMPLE: Consider a scenario involving a wet table that needs drying; a speaker could describe what happens in this scenario using the verb *wipe* or the verb *dry*.

- (14) a. Kelly wiped the table with a tea towel.
 b. Kelly dried the table with a tea towel.

(14a) says nothing about whether the table has actually been dried, though most hearers would assume that it has been.

(14b) says nothing about how the drying came about, though the use of a tea towel is one possibility.

Thus, in choosing a verb, a speaker is making a choice about which attributes of the scene to present, and may, in fact, assume that a hearer might fill in some unexpressed attributes, as might be natural in (14a).

EXAMPLE: Consider what happens when a person blushes: this emotional and physiological reaction is manifested in a change in the color of a person's face.

Dutch names this happening with the verb *blozen* 'blush', which lexicalizes the emotional and physiological reaction.

Italian names this happening with the morphologically complex verb *arrossire*, which lexicalizes the accompanying change of state.

- (15) *arrossire* 'blush' = *a* + *rosso* 'red' + *ire*, literally 'become red'

Here languages are taking different perspectives on a particular happening that play off the multiple cooccurring facets of this happening.

When these sets of attributes cooccur naturally and repeatedly, the verbs naming them might be taken to be (near-)synonyms.

2.2 An aside: Possible verb meanings and inventories

- These types of verb pairs raise a larger issue: what sets of attributes can be lexicalized by verbs; that is, the question of possible verb meanings.
- Some chunks of the stream of happenings seem to have properties that lend themselves to being construed as an event and named by a verb; others seem open to being named in different ways.
- Most likely, this arises because there are cognitive, perceptual, and cultural factors that make particular chunks of the stream of happenings salient.

AN EXAMPLE: Manner of motion verbs.

Malt et al. (2008) show that English, Dutch, Japanese, and Spanish make a lexical distinction between ‘walk’ and ‘run’ which aligns with a perceptual discontinuity between the two gaits, so that the existence of these two lexical items reflects the structure of the world.

Beyond that, languages differ in which and how many manner of motion verbs they lexicalize (Slobin 2000, Wienold 1995). As Slobin notes (2000: 116), these differences involve finer specifics of the motion, such as speed, intent, state of the figure, step size. Such distinctions, unlike the basic ‘walk’/‘run’ distinction, are not given by the world.

Even languages with comparable number of verbs may lexicalize distinct manners, as Snell-Hornby’s (1983) comparison of the English and German manner of motion verb inventories shows. Summarizing one facet of Snell-Hornby’s study, Slobin notes:

- (16) “German has no close equivalents in the field that English divides up as *scuttle*, *scurry*, *scamper*, *scramble*, and *clamber*, while German is more elaborated than English with regard to firm, heavy walking: *sapfen*, *stiefeln*, *trampeln*, *stampfen*.” (Slobin 2000: 122)

3 The notion of grammatically relevant meaning component

- A verb meaning CONSISTS of a set of attributes and may be used in the description of a happening out in the world—construing it as some type of event—when it has the same attributes.
- Some of these attributes may be shared across verbs, giving rise to categories of events: e.g., motion events, sound emission events, change of state events (and verbs, i.e., verb classes).
- Verbs lexicalize many and multifarious attributes: e.g., the attributes needed to differentiate between walking, jogging, running, skipping, and hopping.
- While any one of these attributes could in principle give rise to a set of events (or a class of verbs), not all of them have the same grammatical status.

- Some attributes lexicalized by words— verbs and nouns too—are privileged by grammar: Those attributes that help constrain morphosyntactic behavior.

A foundational assumption:

There are attributes lexicalized by words which constrain their morphosyntactic behavior.

- Relevant facets of morphosyntactic behavior:
 FOR VERBS: Argument realization options.
 FOR NOUNS: Determiner use and choice, number morphology and countability.

3.1 An example from the verb domain: Nonce denominal verbs

Nonce verbs derived from names of instruments used for removing:

- (17) a. The mockingbird pounces, **tweezers** it [=the cricket] **from** the grass with a sharp and deadly accurate bill . . . (M. Maron, *Southern Discomfort*, The Mysterious Press, New York, 1993, p. 1)
- b. Carefully he **razored** the heads **off** the matches . . . (B. Thoene, *Warsaw Requiem*, Bethany, Minneapolis, 1991, p. 187)

These verbs pattern with established verbs of removing, whether denominal or not:

- (18) a. He hosed/raked/shovelled/vacuumed the debris **off** the sidewalk.
 b. He scrubbed/swept/washed the debris **off** the sidewalk.

They contrast with denominal verbs based on names of devices for attaching:

- (19) He nailed/thumbtacked/stapled/pinned/glued the notice **to** the wall.

Thus, the argument realization options of new denominal verbs provide support for the assumption that verb meaning determines verb behavior.

3.2 An example from the noun domain: Liquids vs. artifacts

- (20) a. vinegar, *a vinegar, *vinegars, *two vinegars (except on the kind reading)
 b. a bottle, bottles, two bottles, *bottle

3.3 What types of attributes might be relevant to morphosyntactic behavior?

While such attributes must be determined through empirical investigations, a question arises: What types of attributes might be expected to determine morphosyntactic behavior?

- The attributes should be relevant to a wide range of verbs

EXAMPLE: ‘change of state’ might be an appropriate attribute since it is applicable to many verbs, but ‘involves speed’ is not since it is applicable to relatively few verbs.

- (21) a. bolt, dart, dash, gallop, hie, hurry, hurtle, nip, race, rush, scoot, scam, scurry, scuttle, speed, tear, whiz, whoosh, zoom
- b. acidify, bake, bend, blacken, break, brighten, brown, clean, clear, close, cook, cool, crack, crystalize, darken, deepen, dim, dirty, drain, dry, empty, evaporate, fill, flatten, free, freeze, gasify, harden, humidify, liquefy, loosen, melt, moisten, narrow, open, pulverize, ripen, sharpen, shatter, shut, soften, solidify, splinter, split, sweeten, thaw, thicken, tighten, toughen, weaken, whiten, widen, yellow, ...

Further, the class of change of state verbs continues to grow through the formation of new verbs using the affixes *-ify* and *-ize*.

While many verbs involving speed appear to be manner of motion verbs, *dash*, *hurry*, *race*, and *rush* simply mean something like ‘perform an action quickly’ and can describe happenings that need not involve motion.

- (22) a. She raced through her homework/housework/lunch, so she could get to the movie.
- b. She was so shy that she raced through her speech.

In fact, verbs involving speed do exhibit diverse grammatical properties:

- (23) a. She dashed/hurried/raced/rushed to write the letter before the deadline.
- b. * She darted/galloped/scuttled/zoomed to write the letter before the deadline.

ANOTHER EXAMPLE: Verbs describing things you can do to a book

- (24) abridge, abstract, annotate, appreciate, autograph, ban, borrow, bowdlerize, castigate, catalogue, censor, classify, collate, commission, compile, consult, cross-index, excoriate, expurgate, dramatize, footnote, entitle, page, pirate (Boguraev 1991:251)

- The attributes should be cognitively salient, since the morphosyntactic properties of words can help in the acquisition of words (Gleitman 1994, Grimshaw 1994, Pinker 1994).

3.4 Challenges in identifying grammatically relevant meaning components

QUESTION: How can we evaluate whether we have isolated the right attributes—that is, the (GRAMMATICALLY RELEVANT) COMPONENTS OF MEANING?

ANSWER: The right meaning components are those that make the right cuts in the data: i.e. line up with grammatical behavioral patterns in the data.

How can these meaning components be identified?

ONE STRATEGY: Exploit the link between verb meaning and argument realization:

- Look for verbs with recurring shared or overlapping patterns of behavior
- Ask what meaning components they have in common.

It is critical to bear in mind the cautions implicit in section 2.1 to avoid drawing incorrect conclusions about the identity of the grammatically relevant meaning components.

The relevant meaning components may not always be readily identifiable:

several overlapping semantic characterizations may be applicable to the patterns, obscuring the correct characterization.

3.4.1 An example: Italian bodily process verbs

Consider the Italian translation equivalent for *blush*, *arrossire*.

Rosen (1984) takes *arrossire* to be a member of a class of bodily process verbs, but then notes that *arrossire* patterns differently from other bodily process verbs in terms of auxiliary selection:

- (25) *russare* ‘snore’ and other bodily process verbs take the auxiliary *avere* ‘have’.
arrossire ‘blush’ takes the auxiliary *essere* ‘be’.

This fact is important because it has been suggested that auxiliary selection in Italian is at least partly semantically determined (e.g., Perlmutter 1978, Rosen 1984, Van Valin 1990)

However, rather than rejecting a semantic basis for auxiliary selection, there are other possibilities: the notion ‘bodily process’ may not be a grammatically relevant meaning component.

In section 2.1, *arrossire* was claimed to lexicalize a notion of change of state, but in doing so it differs fundamentally from other Italian bodily process verbs, which are activities.

This revised perspective suggests a semantic basis for auxiliary selection:

- (26) AUXILIARY SELECTION:
Activity/process verbs take the auxiliary *avere* ‘have’.
State and change of state verbs take the auxiliary *essere* ‘be’.

These notions are broad-based as is desirable for grammatically relevant meaning components.

However, Dutch conceptualizes blushing as an activity.

Evidence: like activity verbs, Dutch *blozen* ‘blush’ selects the auxiliary *hebben* ‘have’.

- (27) a. J heeft een uur lang gebloosd
‘J has one hour long blushed’
b. *J heeft in een uur gebloosd
‘J has in one hour blushed’ (McClure 1990: 314, Table 4)

This particular physiological process is open to alternative construals as an event, so that languages may lexicalize it in different ways, giving rise to translation equivalents with distinctive behavior.

3.4.2 Another example: Differences in the behavior of certain near-synonyms

As near-synonyms, *shake* and *shudder* should lexicalize the same meaning components.

Concomitantly, they should show the same pattern of behavior; however, *shake* shows the causative alternation, but *shudder* does not.

- (28) a. She shook./I shook her.
b. She shuddered./*I shuddered her.

This difference should not necessarily be surprising: Near-synonyms are precisely **not** synonyms: they differ in some facets of their meanings.

Further, this difference in meaning must involve a grammatically relevant meaning component.

A CLUE TO THIS MEANING COMPONENT: The different ranges of subjects possible with each verb.

- (29) a. Things that *shudder*: people, animals, earth, machines/engines
→ i.e. have “self-controlled bodies”
b. Things that *shake*: the above and leaves, furniture, dishes, ...

The subject options suggest that these verbs differ with respect to the notions of internal and external causation, shown to be critical to the causative alternation (L&RH 1995):

- *shake* describes an event that can be ‘externally caused’
- *shudder* describes an event that is ‘internally caused’

More generally, it is likely that the verbs constituting other near-synonym or converse pairs that show differences in behavior can be shown to lexicalize different perspectives on an event, different construals of an event, or simply different events. These include:

buy/sell, please/like, fear/frighten, ask/inquire.

4 A case study in the verbal domain: Possession and the dative alternation

- Initial hypotheses about the meaning components that are the basis for the grammatical behavior of verbs can be established through the examination of wide sets of verbs.
- However, once a meaning component is isolated, the full range of events that fall under its purview may not be obvious.
- Thus, determining the set of verbs lexicalizing a particular meaning component may require iterative investigations of verb meaning and verb behavior.

AN EXAMPLE: Possession, an apparently grammatically relevant meaning component.

- A priori it is difficult to tell precisely which types of events involve a notion of possession.
- The grammatical behavior of English verbs proves to be a guide.

4.1 The initial distribution of possession across the verb inventory

- Possession is a relation between a possessor and a possessum—an entity over which the possessor exerts some form of control (e.g., Tham 2004).

- In real life, there are different ways to possess things.

For instance, it can be very important whether a person legally possesses something; this can come about via a commercial transaction, a legal ruling, etc.

- Language also cares about possession: there is a grammatically relevant notion of possession, which groups many different relations between a possessor and a possessum together in terms of shared grammatical behavior.

— No language cares about legal possession, i.e. gives it special grammatical treatment.

— Languages do care about alienable vs. inalienable possession.

— The grammatically relevant notion of possession is quite broad: it encompasses instances of both alienable and inalienable possession and both abstract and concrete possessums (e.g., Heine 1997, Tham 2004).

- In English, what qualifies as possession as a grammatically relevant meaning component can be determined from examining the behavior of various verbs to see if they show the dative alternation.

- The alternation is a hallmark of verbs that clearly lexicalize a notion of possession, such as *give*.

- (30) a. Terry gave Kelly a plant. (double object variant)
 b. Terry gave a plant to Kelly. (*to*-variant)

- The two pairs of sentences below could be used to describe the same happening in the world, but only the pair with the verb *hand*, but not the one with the verb *put*, shows the dative alternation.

- (31) a. Kim handed a book to Jill.
 b. Kim handed Jill a book.

- (32) a. Kim put a book in Jill's hands.
 b. * Kim put Jill's hands a book.

hand necessarily involves transfer of possession, whereas *put* does not:
 there is no relation of possession between the book and the table in (33).

- (33) Kim put the book on the table.

- The same point can be made using a single verb:

- (34) a. We sent the package to the boarder/border.
 b. We sent the boarder/#border the package.
 (From Gropen et al. 1989: 207, who attribute it to Joan Bresnan)

As a location, a *border* does not qualify as a potential possessor, explaining its oddity in (34b).

- But what **is** the grammatically relevant notion of possession?

It includes various relations between possessors and possesseees which might not necessarily be grouped together a priori.

- (35) a. We gave the house a fresh coat of paint.
b. The music lent the party a festive air.
c. The loud noise gave me a headache.
d. The parents gave the baby a beautiful name.
e. The judge awarded the grandmother custody of her grandchild.

- How do we know that possession is really the relevant notion here?

All of the examples with verbs showing the double object construction can be paraphrased using the verbs *have* or *get*:

- (36) a. The house has/got a fresh coat of paint.
b. The party has a festive air.
c. I have/got a headache.
d. The baby has/got a beautiful name.
e. The grandmother has/got custody of her grandchild.

- (37) The boarder/#border has/got the package.

4.2 The distribution expanded: Information transfer as transfer of possession

- Another, possibly surprising, notion which falls under possession: Information transfer.

- (38) a. I told you the answer
b. I wrote you the amount we need.
c. He quoted them a new price.
d. The politician read his constituents an apology.

- (39) a. I have [i.e. know] the answer.
b. We got/have the amount we need.
c. I got/have a new price.
d. His constituents got an apology.

In these examples, types of information are treated as a possessum.

- The presence of this meaning component can be used to predict the grammatical behavior of new English denominal verbs, supporting its grammatical relevance.

- (40) a. He texted/Blackberried the answer.
b. The librarian wanded the barcode.

- (41) Double object construction:
- a. He texted/Blackberried me the answer
 - b. * The librarian wanded me the barcode.
- (42) a. I have the answer.
b. # I have the barcode.
- (43) a. *text* and *Blackberry* are verbs of information transfer
b. *wand* is not a verb of information transfer
- (44) He mailed/radioed/cabled/telexed/faxed/e-mailed me the answer.

(See De Clerck et al. 2011 for more on verbs of instrument of communication.)

- More generally, transfer of information verbs fall under the dative alternation verbs of other languages or, if the language lacks a dative alternation, they show the argument realization options available to *give*.

For instance, Anagnostopoulou (2003:12) notes that verbs of transfer of message and instrument of communication, like core ‘give’ verbs, are found in the ‘accusative NP–genitive NP’ construction—the Greek counterpart of the English double object construction.

- (45) a. Verbs that inherently signify acts of giving: *dhino* ‘give’, *dhanizo* ‘lend/loan’, *pernao* ‘pass’, *plirono* ‘pay’, *kseplirono* ‘repay’, *nikiazo* ‘rent’, *pulao* ‘sell’, *serviro* ‘serve’, *charizo* ‘give as a present, award’, *epistrefo* ‘return’, *sistino* ‘recommend, introduce’
- b. Verbs of transfer of message/communicated message: *zitao* ‘ask’, *dhichno* ‘show’, *leo* ‘tell’, *grafo* ‘write’, *dhidhasko* ‘teach’, *metafero* ‘transfer (a message)’, *protino* ‘suggest, propose’, *epanalamvano* ‘repeat’, *omologo* ‘confess’, *dhilono* ‘declare’, *dhiighume* ‘narrate’, *ipaghorevo* ‘dictate’, *dhiavazo* ‘read’
- c. Verbs of instrument of communication: *tilegrafo* ‘telegraph’, *?tilefono* ‘phone’
- (Anagnostopoulou 2003:12)

4.3 Lessons from the case study

- Although there is not a uniform semantic notion of possession, happenings that get construed as involving possession can be expressed with *have* and a verb lexicalizing this facet of such happenings shows the dative alternation.
- Possession is a grammatically relevant meaning component since languages have dedicated morphosyntactic realizations for possessors.
- Morphosyntactic behavior, in turn, provides a window into the types of events that belong to the same semantic category in a language.
- Languages tend to agree on the types of events which involve the notion of possession.

5 The nominal domain

The points made with respect to the verbal domain about the relation of lexicalized meaning to the world carry across to the nominal domain.

- The notion of lexicalized meaning applies equally to nouns.

LEXICALIZED MEANING: Those components of a noun's meaning that are specified and entailed in all uses of the noun, regardless of context.

- A particular noun meaning can be viewed as a collection of attributes, and these attributes must be shared by those entities in the world which the noun can refer to.
- When we choose a noun to describe an entity in the world, we are making a comment on certain attributes of the entity being referred to by this noun: that this entity has the attributes lexicalized by the noun, though it may also have other attributes.
- A noun presents a construal of the entity in the world it is referring to by attributing certain properties to this entity.
- Since any entity in the world is constituted of many attributes of which a noun lexicalizes only some, two nouns may refer to the same entity, but in lexicalizing different attributes, they may construe it as an entity in different ways.
- A pair of nouns can present distinct construals of the same entity in the world in various ways:

— In some pairs, one noun lexicalizes more attributes of the referent in the world than the other.

EXAMPLE: Any instance of a subordinate-level category and the related basic-level category in the Roschian sense: e.g., *spaniel* vs. *dog* or *oak* vs. *tree*.

— In some pairs, one noun lexicalizes a larger chunk of an entity in the world than the other: that is, these nouns are in a meronymic—i.e. part-whole—relation.

EXAMPLE: *hand* vs. *arm* or *foot* vs. *leg*

This naming distinction is not necessary: there are many languages that use the same word for *hand* and *arm* or for *foot* and *leg* (Witkowski and Brown 1985).

— In some pairs, each noun lexicalizes a distinct set of attributes, though each may be used in the description of the same real world referent.

EXAMPLE: *trees* and *forest* as in *They hiked through the trees/forest*.

Although the two nouns have the same extension here, each lexicalizes a distinct set of attributes.

A forest is necessarily composed of many trees; a single tree is not a forest.

The trees composing a forest must be contiguous to each other; however, the noun *trees* itself can be applied to any collection of trees, whether or not they are near each other.

(46) The arborist discovered that six trees in the town were beetle-infested.

EXAMPLE: On a certain day, someone could describe their mailbox as holding either *mail* or *letters*.

However, not every pile of mail may be described as *letters*: mail can include many other things:
e.g., bills, CDs, flyers, magazines, newsletters, packages, postcards.

The choice between using the words *letters* and *mail* cannot simply be made on perceptual grounds.

Mail must go through the postal system, while a letter need not:

a letter can be hand-delivered, and only becomes mail, if it goes through the postal system.

6 A case study in the nominal domain: Mass/count (not covered in class)

- Though the distinction between count and mass nouns is hard to characterize precisely, it largely separates entities that are construed as individuable from those that are not (e.g., Wierzbicka 1988).
- The notion of individuation matters since individuation is a prerequisite for countability.
- Individuation also matters to language: the morphosyntax of nouns reflects individuation, which in turn allows for countability.

Count nouns (*dog, chair, tree*):

- (47)
- permit plural marking (*dogs, chairs*)
 - permit modification by cardinal quantifiers (*one dog/chair*)
 - may allow modification by determiners implicating plurality (*many dogs, several chairs*)

Mass nouns (*sand, tar, water*):

- (48)
- do not permit plural marking (**tars, *sands*)
 - do not permit cardinal quantifiers or determiners implicating plurality except on kind interpretations (**one tar, *several sands*)
 - may allow modification by *much* (*much tar/sand*)

- The mass/count distinction reflects a grammatically relevant notion of individuation, grouping together many entities in terms of shared grammatical behavior.

AN ILLUSTRATION FROM ENGLISH: An exploration of the entities which qualify as individuated by examining whether the nouns that name them are mass or count in terms of their morphosyntax.

6.1 The basic distribution of mass/count across the English noun inventory

- Liquids and substances, which are homogeneous and do not come in individuated units, are invariably mass, and pattern morphosyntactically as mass.

- (49) LIQUIDS: dye, gas, glue, honey, lemonade, lotion, milk, oil, shampoo, soup, tar, vinegar, water, wine, ...

- (50) vinegar, *a vinegar, *vinegars, *two vinegars (except on the kind reading)
- (51) SUBSTANCES: basalt, coal, copper, corian, granite, iron, plastic, quartz, slate, wood, ...
- (52) granite, *a granite, *granites, *two granites (except on the kind reading)

- Physical objects, which have clear physical boundaries and consist of a variety of distinct, but connected parts that stay together as the object is moved, are clearly individuatable, and invariably count; further, they pattern morphosyntactically as count.

- (53) ARTIFACTS: bottle, chair, flute, hammer, mug, pen, pencil, plate, violin, table, ...
- (54) a bottle, bottles, two bottles, *bottle
- (55) NATURAL KINDS: dog, cat, horse, lion, snake, spider, tiger, ...; eagle, parrot, robin, sparrow, swan, ...; beech, elm, maple, oak, pine, ...; apple, banana, mango, orange, peach, pear, tangerine, ...
- (56) a spider, spiders, two spiders, *spider

- But the classification of a noun as mass or count is not always a priori evident beyond these types of entities. It is necessary to see how languages treat such instances.

- Grains and other granular aggregates are usually encountered in multiple, tiny—sometimes even imperceptibly small—units. Thus the individual ‘grains’ are not easily perceivable or even useful.

The nouns that refer to such entities are typically morphosyntactically mass: that is, in these instances, nouns lexicalize the aggregate rather than the unit.

- (57) GRANULAR AGGREGATES: barley, corn, flour, gravel, rice, rye, salt, sand, sugar, sawdust, soap powder, wheat, ...
- (58) sawdust, *a sawdust, *sawdusts, *two sawdusts (except on the kind reading)

- But certain entities that may be encountered as aggregates are treated morphosyntactically as count, as in (59).

- (59) beads, beans, grapes, peas, pearls, pebble, sequins, ...
- (60) a bead, beads, two beads, *bead

— Wierzbicka (1988) and others have suggested that in such instances, the individual units are larger and more easily perceptible; further, in some instances, they are interacted with as individuals: e.g., every sequin is sewn on clothing individually.

— Still there is some arbitrariness in where the line is drawn.

Even in English, there are words that have crossed the mass/count divide: what was once the mass noun *pease* (as in *pease porridge*, roughly thick pea soup) has become the count noun *pea*, as cooking methods have changed.

6.2 The distribution expanded: Berry names

- In English nouns naming berries and other small fruits are treated as count.

- (61) bilberry, blackberry, blueberry, cherry, cloudberry, cranberry, currant, gooseberry, grape, huckleberry, olallaberry, raspberry, strawberry, . . .
- (62) a cranberry, cranberries, two cranberries, *cranberry

- Yet, in some languages such as Russian and Welsh (Wierzbicka 1988, Stolz 2001), berry names behave morphosyntactically as mass.

- (63) čeresnja ‘sweet cherries’, černika ‘blueberries’, eževika ‘blackberries’, klubnika ‘strawberries’, malina ‘raspberries’, smrodina ‘currants’, višnja ‘sour cherries’, vinograd ‘grapes’, zemljanika ‘wild strawberries’

Apparently, they are assimilated to granular aggregates, which is not surprising as they tend to be eaten in multiple units, and the units are not distinguishable.

- Particularly interesting is Welsh, where some berry names have been borrowed from English, with what is an English plural being treated as the unmarked, uncountable form in Welsh—a mass noun.

- (64) a. ceirios ‘cherries’; cf. ceirios-en ‘one cherry’
b. gwsberys ‘gooseberries’; cf. gwsberys-en ‘one gooseberry’
(Stolz 2001: 68, (13))

6.3 Mass and count nouns with the same extension: *leaves* vs. *foliage*

- While both *leaves* and *foliage* might be used in reference to the greenery on a particular tree, the two nouns lexicalize distinct construals of this referent.

- Only *foliage* refers directly to the ensemble of leaves on the tree, treating them as a collection of interconnected and indistinguishable entities.

- Concomitantly, the two nouns need not always be coextensive in reference.

- (65) Kerry raked the leaves/*foliage.

6.4 Lessons from the case study

- A noun’s classification as mass or count reflects the construal it lexicalizes of an entity in the world; it is not directly determined by the entity itself.

- In instances where objects in the world do not come clearly individuated perceptually, crosslinguistic variation in mass/count classification is not unexpected, as in the case of berry names, nor is the availability of multiple names, as with *leaves* and *foliage*.

7 Event conceptualization and lexical semantic representation

- Two dimensions of variation in lexical semantic representations:
 - the nature of the representation, e.g., semantic roles, predicate decompositions
 - the model of event conceptualization, i.e., the organizing hypothesis
- Why is a model of event conceptualization important?
 - Such a model embodies a hypothesis about the way in which events are organized in language.
- Some of the most successful theories of lexical semantic representation are organized around such hypotheses, which help to choose among various meaning components.

THREE COMPETING PROPOSALS FOR THE MODEL OF EVENT CONCEPTUALIZATION:

- in terms of location of the participants in the event: a localist approach
- in terms of the causal structure of the event: a causal approach
- in terms of the time course of an event: an aspectual approach

There is an ongoing debate as to whether an aspectual, causal, localist, or hybrid model of event conceptualization is preferable.

8 Overview of the lectures

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