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Syntagmatic lexical relations: a lexicographical perspective

ABSTRACT: In this paper I will contrast syntagmatic lexical relations (e.g. the relationship holding between "blond" and "hair") with their paradigmatic counterparts (synonymy, antonymy, hyponymy, etc.), draw attention to different types of syntagmatic relations and show what relevance this phenomenon has for lexicography. I will deal with different mechanisms available to the lexicographer to account for this very important type of lexical relation and show that these mechanisms can become, if they have not already done so, lexicographical conventions with some theoretical import.

1. Introduction

Since the work by Porzig (1934) it has come to be accepted that syntagmatic lexical relations (a type of lexical relation that holds between two lexical items on a syntagmatic level, such as the relationship between *dog* and *bark*, *thief* and *steal* and *swim* and *water*) have to be incorporated in a theory of lexical structure. Although quite a number of scholars have dealt with the phenomenon over the years one has to agree that it suffers from a tradition of some neglect, especially in the field of lexicography. In many instances the phenomenon is relegated to a few remarks without any serious discussion (Lyons 1977 provides one noteable exception). This stands in marked contrast to the work that has been done on collocations (see Cop 1988 for some of the references).

In this paper I will contrast syntagmatic lexical relations with their paradigmatic counterparts, draw attention to different types of syntagmatic relations and show what relevance this phenomenon has for lexicography.

2. Syntagmatic lexical relations

There are many different kinds of syntagmatic relations that the linguist has to deal with. Among these one should distinguish at least the following types:

a. Those relations traditionally called selectional restrictions, that is restrictions that take the semantic features of lexical items into consideration and not so much the lexical item as a whole (they form an integral part of a Katz-Fodor type of semantics; a typical case would be the verb *talk*, which typically combines with a human agent);

b. collocations, that is syntagmatic relations between lexical items that have acquired such a high degree of idiomaticity that the relationship does not follow from the meanings of the said items (a typical case being the relationship between the noun *fish* and the mass noun *school* in a *school of fish*); and

c. syntagmatic lexical relations, that is, those relations that hold between two lexical

items on a syntagmatic level with cognisance of their lexical meanings, a typical case being the syntagmatic lexical relation that holds between *dog* and *bark*. What one in fact finds in these cases, is "the creation of a single more specific lexeme to do the work, as it were, of a syntagm." (Lyons 1977, 262) In the *bark*-example it would be the syntagm "sound that a dog makes".

Although I acknowledge the fact that the boundaries of these types are not discreet, I will focus attention on the more typical examples in category c.

Syntagmatic lexical relations should first of all be seen in contrast to their paradigmatic counterparts, meaning relations such as synonymy, antonymy and hyponymy. Both types of lexical relation have their place in a theory of lexical semantics, reflecting different kinds of relationships within a lexical field. For that very reason they also have a very definite importance for lexicographers, for they have to draw on his knowledge of these relations when defining a lexical item. As a matter of fact, lexicographers quite often incorporate these relations in the definition of a lexical item, for instance when using a synonym definition or when referring to a hyponomous relation. The same holds true for syntagmatic lexical relations: lexicographers quite often incorporate these relations in their definitions, for example, the definition of *thief* in THE CONCISE OXFORD DICTIONARY OF CURRENT ENGLISH (Concise Oxford) (in this paper, for the sake of brevity, only relevant parts of dictionary articles are cited):

(1)   **thief** a person who steals, esp. secretly and without violence

Secondly, these relations are characterised by some degree of prototypicality. The word *bark*, even though it could apply to a number of different animal types, is prototypically associated with *dog*. This prototypicality in the relationship reaches a degree where it becomes part of the meaning of the verb *bark*. In a sense then one could say that a dog is the **prototypical** barker and that an **essential meaning relation** develops between the two lexical items. Eventually it boils down to the fact that the meaning of one lexical item is **encapsulated** in the meaning of another (Lyons 1977:262). In this case the meaning of *dog* becomes encapsulated in the meaning of *bark*. Note, however, that in the case of a polysemous lexical item such as *dog* it would be more precise to say that only one of the polysemous values of the lexical item becomes encapsulated in the meaning of *bark*.

It is quite possible of course to have a difference of opinion on the degree of prototypicality, and these differences of opinion are often reflected in the definitions of different dictionaries, for instance the difference between WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY (Webster's) (2) and THE HERITAGE ILLUSTRATED DICTIONARY OF THE ENGLISH LANGUAGE (Heritage) (3) concerning the definition of bark:

(2)   **bark** 1a the short loud explosive sound made by a dog;
        also: a similar sound made by some other animals
(3)   **bark** To utter the harsh, abrupt cry of a dog ...

During semantic change the specific syntagmatic lexical relation can become generalized. The definition given in Webster's indicates this (ongoing) generalization process. The COLLINS COBUILD ENGLISH LANGUAGE DICTIONARY (Collins Cobuild) is of the opinion that we have already reached a next step in this generalization process:

(4)   **bark** 1 When a dog, fox, or other animal **barks**, it makes a sudden, loud, rough noise ...

This encapsulation of meaning has a very definite relevance within a cognitive frame-work, for within such a syntagmatic lexical relation one lexical item calls a domain into being that acts as the background against which the other item's meaning should be understood. It should be seen as a case of conventionalising contextual meaning, something that Langacker (1987: 156) explains in the following way: "From the encyclopedic nature of contextual meaning, that of conventional meaning follows fairly directly. The latter is simply contextual meaning that is schematized to some degree and established as conventional through repeated occurrence." This would seem to be the case with the generalized syntagmatic lexical relation dealt with in the Collins Cobuild definition above: repeated occurence of *bark* with other agents than dog leads to a new schematization and the establishment of a new (conventional) meaning. It is important that lexicographers account for these changes in schematization when formulating a definition.

Within this view it then becomes clear why one also has to deal with the concept of prototypicality of lexical meaning, for a syntagmatic lexical relation between two lexical items more often than not reflects a prototypical meaning relation, as can be seen from the example *dog* x *bark* mentioned above.

In most cases the encapsulation of meaning is unilateral. This would be the case in an example such as *fish* x *water*: the meaning of *water* is encapsulated in the meaning of *fish* but not vice versa, that is one would not define the lexical meaning of *water* in terms of the meaning of *fish*, because there is no essential meaning relation.

In some cases the relation is bilateral, i.e. in the case of *hear* x *ear*, a bilaterality clearly reflected in the definitions given in Collins Cobuild:

(5)   **hear** ... When you **hear** sounds, you are aware of them and are able to recognise or understand them by means of your **ears**.
        ear ... The ears of a person or animal are the two matching parts of their body, one on each side of their head, with which they **hear** sounds.

Different types of syntagmatic lexical relation can be distinguished. I mention a few types without any discussion (the types are characterised in terms of semantic roles; see De Stadler 1991):

- actor - action: *dog* x *bark, king* x *reign, thief* x *steal, choir* x *sing*
- actor - patient: *chemist* x *medicine, pediatrician* x *children*
- locative: *harbour* x *ship, bank* x *money; swim* x *water, sit* x *chair, sleep* x *bed*
- instrument: *buy* x *money, look* x *eye, write* x *pen, bite* x *teeth*
- action - patient: *read* x *book, eat* x *food, park* x *vehicle, iron* x *clothes*
- feature: *snow* x *white, needle* or *pin* x *sharp, ice* x *cold*

3. Syntagmatic lexical relations: implications for lexicography

Syntagmatic lexical relations are important to the lexicographer for the very reason that they, as stated earlier, constitute essential meaning relations, and just as the lexicographer accords a certain importance to the paradigmatic relations, this essential relation too should find its way into the dictionary definition of a particular lexical item. In this paper I will deal with different mechanisms available to the lexicographer to account for this very important type of lexical relation. I will show that these mechanisms can become, if

they have not already done so, lexicographical conventions with some theoretical import. For this discussion I will focus my attention on monolingual dictionaries of English, Afrikaans and Dutch.

The most obvious mechanism available to the lexicographer is the possibility of accounting for the syntagmatic lexical relation in the most direct way, namely by stating it in the definition itself, as in the definition of *university* given by the Concise Oxford, clearly reflecting the syntagmatic lexical relation that this lexical item contracts with the lexical item *student*:

> (6) **university** 1 an educational institution designed for instruction, examination, or both, of *students* in ...

or in the account of the syntagmatic lexical relation between the Afrikaans *blokman* (Eng. *blockman, butcher*) and *slaghuis* (Eng. *butchery*) in two Afrikaans dictionaries, namely NASIONALE WOORDEBOEK (NW) and VERKLARENDE HANDWOORDEBOEK VAN DIE AFRIKAANSE TAAL (HAT) (my italics in definitions – L. G. de S.). NW defines *blokman* as follows:

> (7) **blokman** man wat 'n karkas in dele kap in 'n *slaghuis*.
> (*man who cuts up a carcass in a "butchery".*)

In HAT this particular syntagmatic lexical relation is dealt with only indirectly by the use of a derived form, namely the superordinante term *slagter* (Eng. *butcher*, derived from the verb *slag* which relates to the compound *slaghuis* as a constituent morpheme):

> (8) **blokman** *Slagter* wat vleis op 'n blok kap.
> (*"Butcher" who chops up meat on a block.*)

Although this is a less direct mechanism to account for the particular syntagmatic lexical relation, this morphological relation activates the semantic field of butchery items (*slag, slaghuis, slagding, slagtery, slagpale*, etc.), which form the domain in which *blokman* becomes meaningful. In Webster's this same mechanism is used to reflect the syntagmatic lexical relation between *choir* and *sing* via the derivation *singer*:

> (9) **choir** an organized company of *singers* ...

as opposed to the definition in Collins Cobuild, where the relation is reflected in a direct fashion:

> (10) **choir** A choir is a group of people who sing together ...

The VAN DALE GROOT WOORDENBOEK DER NEDERLANDSE TAAL reflects the syntagmatic lexical relation between *non* (Eng. *nun*) and *klooster* (Eng. *convent*) by using compounds:

> (11) **non** 1. vrouwelijk persoon die de *kloostergelofte* heeft afgelegd, *kloosterzuster* ...

Returning to the example in (7), not only does NW account for the syntagmatic lexical relation between *blokman* and *slaghuis*, but it also accounts for the unilaterality of the relation in a specific way: the encapsulated item (in this case *slaghuis*) forms part of the definition, whereas the item which accommodates the encapsulation is the definiendum (the lemma), namely *blokman*. However, when one looks up the definition of the encapsulated item, namely *slaghuis*, as one should expect, there is no indication of a syntagmatic lexical relation with *blokman*:

(12) NW: winkel waar vleis verkoop word; slagtery.
(*shop where one buys meat; butchery.*)

In the case of a bilateral lexical relation the definitions of both items should indicate the bilaterality by making the encapsulated item part of the definiens in both cases, as in the Collins Cobuild example mentioned earlier (5), or in the definitions of *graaf* (Eng. *spade*) x *spit* (Eng. *spit*) in HAT:

(13) a.   **graaf** Werktuig bestaande uit 'n staalblad onder aan 'n steel, en gebruik
om mee te *spit*, te delf of grond te verplaas ... (first polysemic value)
(*instrument with a steel blade and a handle used to spit ...*)
b.   **spit ww**. Die grond met 'n *graaf* of vurk omwerk; grawe: ...
(*To work the soil with a "spade" or fork ...*)

The bilaterality is marked by the presence of both lexical items in both the definitions, either as definiendum or as definiens. One quite often finds dictionaries failing to reflect the bilaterality of the relation. Such is the case in the Concise Oxford concerning the syntagmatic lexical relation between *camera* and *photograph*:

(14) a.   **camera** 1 an apparatus for taking *photographs*, consisting ...
b.   **photograph** a picture taken by means of the chemical action of light or
other radiation on sensitive film ...

In both HAT (15) and Heritage (16) this bilaterality is clearly reflected:

(15) **kamera** Toestel gebruik om *foto's* of films (rolprente) mee te neem ...
foto Negatiewe afbeelding wat met behulp van 'n *kamera* op 'n fotografiese
plaat of film aangebring word ...

(16) **camera** 1 Any apparatus for taking *photographs* ...
photograph An image, especially a positive print, recorded by a *camera* ...

In many cases a lexicographer may feel that there is some prototypical relation between two lexical items, but there is some uncertainty as to the degree of prototypicality (or in some cases the lexicographer has not noticed the syntagmatic lexical relation). In such cases dictionaries quite often account for the syntagmatic lexical relation in the examples given in the article. The verb *play* (Afr. *speel*) is a case in point: this particular verb relates to a prototypical agent on the syntagmatic level, namely a child. However, one may argue that this relation is not prototypical enough to qualify as a strong syntagmatic lexical relation. In the two Afrikaans dictionaries that I have been dealing with in this paper the relation between *speel* and its prototypical agent is accounted for by the choice of examples in the article of the verb, as can be seen from the description of the first polysemic value of this item:

(17) NW: **speel** Jou vermaak (in lugtige beweging), aangenaam besighou. Die
"kleintjies –." (Afr. *kleintjie* = Eng. *little one*)
HAT: **speel** Jou vermaak; iets doen om jou aangenaam besig te hou –
veral gesê van kinders: Die "kinders" speel." (Afr. *kinders* = Eng. *children*)

HAT also deals with the prototypical value of *speel*, as it is projected in its syntagmatic relation with *kind/kinders*, by using the formula *veral gesê van kinders* (Eng. *especially said of children*). To my mind this particular formula can be used effectively to deal with the prototypical character of lexical meaning in dictionaries, since quite often the user of the dictionary desires information on precisely this aspect of lexical meaning. The differences

in dealing with prototypicality in a syntagmatic lexical relation can also be seen in the following definitions of the noun *convent*, a noun that contracts a syntagmatic lexical relation with the noun *nun*:

(18) **convent** 1 an association or community of recluses devoted to a religious life under a superior: a body of monks, friars, or nuns constituting one local community – now *usu.* restricted to a convent of *nuns.* (Webster's)

19) **convent** 1 A community, *especially of nuns,* bound by vows to a religious life under a superior. 2 The building or buildings occupied by such a community; *especially, a nunnery.* (Heritage)

(20) **convent** A convent is 1 a building or group of buildings in which a community of *nuns* live together ... 2 a school which is attached to a convent and in which many of the teachers are *nuns.* (Collins Cobuild)

While to the lexicographers of Collins Cobuild there is a clear syntagmatic lexical relation between *convent* and *nun*, the other two dictionaries see a lesser degree of prototypicality, marked by labels such as *especially* or *usually*.

Apart from the fact that the degree of prototypicality of the syntagmatic lexical relation seems to vary and the fact that it should therefore be dealt with accordingly, a syntagmatic lexical relation more often than not reflects the prototypical character of a lexical item's meaning, and for that very reason it should have its rightful place in the dictionary definition. Quite often dictionaries choose to neglect this very facet of lexical meaning. This seems to be the case when one compares the definitions given by HAT and NW of the lexical item *galop* (Eng. *gallop*). This lexical item can function as a noun or as a verb and in both cases it contracts a syntagmatic lexical relation with the lexical item *perd* (Eng. *horse*), regardless of the fact that there are other animals that also move in this fashion. Taking a prototypical view on lexical meaning one can therefore conclude that *galop* has encapsulated the meaning of *perd*. Given this background, a comparison of the definitions given by the two dictionaries is interesting:

(21) NW: **galop** s.nw. vinnige gang van 'n *perd.* *(fast pace/movement of a "horse".)*
    galop ww. op 'n galop hardloop of ry. (first polysemic value) *(to run or travel at a gallop.)*

HAT: **galop** s.nw. Ritmiese gang van 'n viervoetige *dier,* vinniger as 'n draf en bestaande uit 'n reeks kort spronge in elk waarvan die dier vir 'n oomblik met geen voet aan die grond raak nie: ... *(Rhythmic pace/movement of a fourlegged "animal", faster than a trot and consisting of a series of short leaps during which the animal does not touch the ground for short periods of time ...)*
    galop ww. Op 'n galop voortbeweeg ... 'n *"Perd"* galop vinniger as 'n bees.* *(To move at a gallop ... A "horse" gallops faster than a cow.)*

NW deals with the prototypical value of *galop* in the most direct way, namely by making *perd* part of the definition of the noun. The definition of the verb then takes the form of a cross-reference with the definition of the noun by using the noun *galop* in the definiens of the verb definition, accounting (even though only indirectly) in that way for the syntagmatic lexical relation between *galop* and *perd* and therefore reflecting the proto-typical value of the item under discussion. HAT, on the other hand, chooses to deal with this particular relation in a more indirect (and to my mind, incorrect) fashion, using the superordinate term *dier* (Eng. *animal*) in the definiens of its noun definition, thus suggest-

ing a generalization of the syntagmatic meaning relation that does not ring true. In the verb definition there is only a vague suggestion of the prototypical syntagmatic lexical relation with *perd* in the example that is given. Compare these examples with the definitions given in Webster's (22) and Collins Cobuild (23) respectively:

(22) **gallop** n. **1a** a springing gait of various quadrupeds; *specif:* a fast natural 3-beat gait of the horse in which one or two feet touch the ground ...
gallop vb. **1a** to move or run in a gallop (as of a horse) **b** to ride at a gallop; ride at full speed < – *galloping over the moors on a stallion>* ...

(23) **gallop** 1 When a horse **gallops** ... 2 If you **gallop**, 2.1 you ride a horse that is galloping ... 3 A **gallop** is 3.1 a ride on a horse that is galloping ...

Webster's positions itself somewhere between HAT with its weaker stance on the supposed syntagmatic lexical relation between the two items and NW which stresses the horse as agent in the syntagm. Note the use of the label *specifically*, the "for instance" (*as of a horse*) and the example containing a hyponym (*stallion*). Collins Cobuild, on the other hand, sides with NW by incorporating the reference to the horse as agent in the definiens of the definition.

Another example of the use of a syntagmatic lexical relation when accounting for prototypical lexical meaning can be found in the definition of *harpoen* (Eng. *harpoon*) given by NW. This instrument noun contracts a syntagmatic lexical relation with the patient noun *walvis* (Eng. *whale*):

(24) **harpoen** werpspies met weerhake waarmee *groot visse, veral walvisse,* op see gedood word." (*spear with barbed hooks used to kill "large fishes, especially whales", at sea.*)

NW focuses on the prototypicality of the relation between *harpoen* and *walvis* by using the formula *especially X*, while HAT sees the encapsulation of *walvis* in the meaning of *harpoen* as complete:

(25) **harpoen:** "Lang werpspies met weerhake aan die punt en 'n tou aan die agterent gebruik om *walvisse* mee te vang deur dit in die dier se lyf in te gooi of met kanon daarin te skiet." (*Long spear with barbed hooks at its point and attached to a rope at the end used to catch "whales" by throwing it into the animal's body or shooting it into the body with a canon.*)

4. Conclusion

Dictionaries should account, not only for the paradigmatic lexical relations, but also for the syntagmatic lexical relations that lexical items contract with each other. In this way the dictionary provides a more complete view of the lexical networks found in a lexicon, something that enhances the user's understanding of the lexicon.

I have shown a few mechanisms that can be applied by the lexicographer, mechanisms that are developing into lexicographical conventions. The examples dealt with in this paper, however, also suggest that the lexicographer should carefully consider a number of variables, notably the unilaterality or bilaterality of the relation, the degree of prototypicality in the relation and the degree of generalization (or specialization) before choosing a lexicographical convention.

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