Concordance in morphology

Lexeme and suffix in Spanish nouns

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Introduction

The issue that will be treated in this contribution is which features of the base and the suffix are "active" in words formed by suffixation. More specifically, the question is how the base and the suffix interact. In such a lexematic approach, as has been discussed in Beard (1981; 1995; 1998), the base has lexical semantic features which are interpretable in base position. The suffix is a spell-out of lexical category and of grammatical functions which are interpretable in suffix position. Thus, the question is which part of the meaning of a word formed by suffixation is provided by the base, which part of its interpretation is provided by the suffix and how these interpretations are combined and merged, giving the meaning of the word formed by suffixation. I will try to show that the merger of base and suffix has concordance properties: uninterpretable features in the base or in the suffix which have not been eliminated will produce a "crash", as has been proposed in the "Minimalist" framework (Chomsky (1995)) for concordance phenomena.

In this paper, the analysis of Spanish nouns on -*ido*, on -*azo* and on -*era* will be discussed. A careful survey of available studies can be found in Rainer (1993). These suffixes have been treated as suffixes having lexical meaning: -*ido* as having the meaning "sound", -*azo* as having the meaning "hit" or "blow" or "smash" or "shot", and -*era* as having different meanings, such as "container" or "bottle" or "can". Note that noone suggests that -*ido*, -*azo*, -*era* are not suffixes: they cannot be treated as suffix-like nominal heads of compounds.

In the lexematic approach, lexical meanings such as "sound", "hit", "blow", "smash", "shot", or "container" are not found in suffix position, and the traditional, compound-like analyses reviewed by Rainer (1993) cannot be true.

I will try to show that this traditional, compound-like analysis is insufficient and inappropriate. It has been favored by the fact that many translation equivalents

in English, German and Dutch are compounds headed by a noun expressing one of these meanings. I want to show that these suffixes have no such lexical meanings. Lexical meaning is part of the base; the suffix has grammatical meaning and it merges with the base. Pragmatic aspects determine the referents of the Spanish words formed by suffixation: real world knowledge that the speaker and the hearer share on the usual referents.

In the first section, on nouns with the suffix *-ido*, which denote sounds, and on other nouns denoting sounds and the corresponding verbs, some ways of interpreting "morphological concordance" will be discussed.

In the second section, on the Spanish suffix *-azo* and its interpretation, it will be shown that semantic properties of the base are responsible for aspects of meaning that have been taken to be properties of the suffix *-azo*. The "concordance" issue will be taken up again: the hypothesis will be adopted that the suffix has grammatical meaning which gives access to the "telic quale", a semantic feature of the base.

In the third section, on the *-era* suffix, which is said to have a number of distinct, but related meanings, it will be argued that the suffix has one grammatical meaning, which is "typical location". The suffix has access to what will be called the "locative quale", a semantic feature of the base.

In the fourth section, a short résumé of some conclusions will be given.

1.   On nouns and verbs denoting sounds

Consider some Spanish nouns with the suffix *-ido* and the related verbs:

(1)   i.   aullido (howl, yell)   < aullar (to howl, to yell)
      ii.   balido (bleat(ing))   < balar (to bleat)
      iii. bramido (bellow)   < bramar (to bellow)
      iv.   ladrido (bark(ing))   < ladrar (to bark)

According to Rainer (1993: 531), the suffix *-ido* is used to derive "nomina actionis" from verbs denoting sounds. Thus, the verbal base denotes the "action" of producing a typical sound; the suffix *-ido* is used to form the corresponding "nomen actionis", which denotes the act of producing the sound or the sound which is produced in this act.

The properties of *-ido* in (1) can be described in general terms, as in (2), or in a "Minimalist formulation", as effects of the concordance which must hold between a feature of the base and the suffix, as in (3):

(2)   PROPERTIES OF *-IDO* AND ITS BASE
      i.   The base is a verb denoting sound;
      ii.   The suffix *-ido* denotes an act, or its effect;
      iii. The suffix *-ido* selects as its base a verb denoting a sound

(3)   "Mɪɴɪᴍᴀʟɪsᴛ ғᴏʀᴍᴜʟᴀᴛɪᴏɴ": ғᴇᴀᴛᴜʀᴇs ᴏғ -*ɪᴅᴏ* ᴀɴᴅ ɪᴛs ʙᴀsᴇ
    i.   The suffix -*ido* has the semantic feature [sᴏᴜɴᴅ]
       Note: The [sᴏᴜɴᴅ] feature is uninterpretable in suffix-position.

Consider the "Minimalist formulation" that has been given in (3). The statement that the suffix -*ido* selects a base that has a [sᴏᴜɴᴅ] feature, given in (2i), is not necessary if the semantic feature [sᴏᴜɴᴅ] is uninterpretable in the suffix. Being uninterpretable, it must be eliminated; it can be eliminated by concordance with the semantic feature [sᴏᴜɴᴅ] of the base, which is interpretable.

An advantage of this approach is that different types of affixes can be distinguished: some affixes, like -*ido*, possess a semantic, but uninterpretable feature that must be eliminated by a base of a specific semantic type. Other affixes are general, since they do not contain an uninterpretable semantic feature. They contain a grammatical feature like [ᴀᴄᴛɪᴏɴ], which can be assumed to be part of the "semantic" -*ido* suffix as well. The lexical base contains interpretable semantic features and can take a semantically non-specific affix, like the general "action suffix" -*o*. And in fact, alternations like *aullido/aúllo* are found.

Note that, on the one hand, the semantic suffix -*ido* requires a base which is able to eliminate its uninterpretable feature [sᴏᴜɴᴅ] and that, on the other hand, a base with the semantic feature [sᴏᴜɴᴅ] can take a meaningful suffix like -*ido*, or a grammatical suffix like -*o*. If the base has the feature [sᴏᴜɴᴅ], this semantic feature of the base is interpretable, and it can, but it need not, eliminate an uninterpretable [sᴏᴜɴᴅ] feature of the suffix. If the base is followed by a suffix lacking the [sᴏᴜɴᴅ] feature, the result can be fine, since there is no need for the base to combine with a suffix having a [sᴏᴜɴᴅ] feature.

Consider a small number of "sound" verbs and related nouns which do not take the -*ido* suffix, but a general suffix -*o*, as given in (4)

(4)   Sᴏᴍᴇ "sᴏᴜɴᴅ" ᴠᴇʀʙs ᴀɴᴅ ɴᴏᴜɴs
    i.   gritar (to shout) / grito (shout) [*gritido]
    ii. sollozar (to weep) / sollozo (weeping) [*sollocido]
    iii. cantar (to sing) / canto (song) [*cantido]

Thus, the -*ido* suffix is found with some [sᴏᴜɴᴅ] bases, and the -*o* suffix with other [sᴏᴜɴᴅ] bases, and in some cases we find both suffixes.

Let us take a closer look at the relation between the base and the suffix.

Usually, [sᴏᴜɴᴅ] verbs are assumed to be basic and [sᴏᴜɴᴅ] nouns, to be derived from them. However, no reasons are given why this should be so. The [sᴏᴜɴᴅ] noun might be basic, and the [sᴏᴜɴᴅ] verb, denominal.

A different approach is to assume that the base has no lexical category and that it is the suffix which determines the lexical category of the word. Not only lexical category, but also its grammatical value is provided by the suffix. Thus, the base *grit*- has the semantic feature [sᴏᴜɴᴅ]; the verbal suffix -*ar* in *gritar* has transitive

"event" meaning (say [PRODUCE]; cf. Hale and Keyser (1993)) and the nominal suffix -*o* adds the nominal meaning, the action or its effect.

Now, two questions arise:

i.   How does the native speaker know the appropriate verbal suffix?;
ii.   How does the native speaker know the appropriate nominal suffix?

These are not questions on how the speaker/listener acquires lexical and morphological properties but on how they are encoded in the mental lexicon.

It is evident that the conjugation class feature is an accidental, unpredictable feature. Given the base *grit-*, a formal feature such as [+__ar] is necessary to derive the correct first conjugation (infinitival) verb form *gritar*, and to avoid deriving the second or third conjugation verb forms, **griter* or **gritir*. Moreover, if the base *grit-* has no lexical category, it is necessary to indicate that a verb can be derived from it. Furthermore, it has to be stated that the same base underlies a noun has the suffix -*o*; the formal feature [+__o] represents this.

(5)   THE BASE FORM AND ITS LEXICAL CATEGORIAL FEATURE(S).
       Base form: *grit-*
       Lexical categorial feature(s): [+V = __ar] or: [+N = __o]

These formal features are eliminated if the base combines with the appropriate suffix, the right verb conjugation class feature or the right nominal suffix. Thus, formal features of the base are eliminated by merging with the appropriate suffix.

In this approach, the formal features of the base are uninteresting: they must be eliminated, by adding the right suffix to the base to derive an appropriate word. When deriving the noun *grito*, the suffix -*o* eliminates the corresponding formal features of the base. When **gritido* is formed, the base cannot "lose" its formal feature, which is why the word is inappropriate.

An affix like -*ido* can be thought to be special in that it contains a lexical feature which must match the same lexical, semantic feature in the base. Only in this way can the base eliminate the uninterpretable feature of the affix.

Other features of the suffix are non-lexical, functional or grammatical: they are interpretable in suffix position. This is why they do not need to be eliminated by a matching feature of the base. The base must possess appropriate semantic features to accommodate aspects of the (grammatical) meaning of the suffix. Therefore, the base might be hypothesized to contain a feature which must be accessed by a functional or grammatical feature of the suffix.

The analysis of the suffix -*azo* in the next section will show that access to a semantic feature of the base is essential in the interpretation of -*azo* words.

2.   The interpretation of the Spanish suffix -*azo*

The Spanish suffix -*azo* is described as having the basic meaning [Hɪᴛ/ʙʟᴏᴡ/sᴍᴀsʜ/
sʜᴏᴛ], since many nouns ending in -*azo* denote hits, blows, smashes and shots and
their effects, the wounds or bruises. Rainer (1993) states that the suffix -*azo* has the
basic lexical meaning [ᴠɪᴏʟᴇɴᴛ ʜɪᴛ/ʙʟᴏᴡ/sᴍᴀsʜ/sʜᴏᴛ]; it takes other meanings by
analogy or metaphorical extension.

Thus, the traditional analysis of the meaning of -*azo* is as given in (6):

(6)   Tʀᴀᴅɪᴛɪᴏɴᴀʟ ᴀɴᴀʟʏsɪs ᴏғ ᴛʜᴇ ʙᴀsɪᴄ ᴍᴇᴀɴɪɴɢ(s) ᴏғ ᴛʜᴇ sᴜғғɪx -*ᴀᴢᴏ*
      -azo = [ʜɪᴛ/ʙʟᴏᴡ/sᴍᴀsʜ/sʜᴏᴛ]

In this section, it will be shown is that the suffix -*azo* has no such basic lexical mean-
ing(s). The "violent" lexical meaning(s) it seems to have is (are) part of the meaning of
the base, if it denotes an instrument designed to give a hit, blow, smash or shot. If the
base denotes an instrument or artifact designed for other, non-violent functions,
the -*azo* word does not denote a hit, blow, smash or shot. Intuitively speaking, the
suffix -*azo* has access to a specific part of the meaning of the base, its intended use.

Note that the statement that the suffix -*azo* is characteristic of words denoting
hits, blows, smashes and shots is correct. This is a fact of the Spanish lexicon. It does
not follow, however, that the suffix -*azo* is responsible, behaving like a nominal
head of a compound noun. I will show that -*azo* is not like the nominal head *hit* or
blow or *smash* or *shot* of a compound, but that it has only functional or grammati-
cal, non-lexical meaning.

Let us start with the analysis of Spanish -*azo* words.

As said, many bases of -*azo* words denote weapons or utensils of violence. Some
illustrative examples are given in (7):

(7)   Sᴏᴍᴇ Sᴘᴀɴɪsʜ -*ᴀᴢᴏ* ᴡᴏʀᴅs ᴡɪᴛʜ ᴀ ʙᴀsᴇ ᴅᴇɴᴏᴛɪɴɢ ᴀ ᴡᴇᴀᴘᴏɴ
      alfanjazo < alfanje (cutlass), arcabuzazo < arcabuz (harquebus), ballestazo <
      ballesta (crossbow), bayonetazo < bayoneta (bayonet), cachiporrazo < cachi-
      porra (truncheon), cañonazo < cañón (cannon), carabinazo < carabina (car-
      bine), chicotazo < chicote (whip)

The meaning of these -*azo* words can be guessed if it is known how the weapon is
used: cuts are produced by using a cutlass, shots are produced by using the harque-
bus, the crossbow, the cannon and the carbine, thrusts are produced by the bayonet
and blows are produced by the truncheon and the whip.

Now consider other -*azo* words given in (8):

(8)   Sᴏᴍᴇ Sᴘᴀɴɪsʜ -*ᴀᴢᴏ* ᴡᴏʀᴅs ᴡɪᴛʜ ᴀ ʙᴀsᴇ ɴᴏᴛ ᴅᴇɴᴏᴛɪɴɢ ᴀ ᴡᴇᴀᴘᴏɴ
      abanicazo < abanico (fan), brochazo < brocha (brush), plumazo < pluma (pen)

The typical use of a (hand-held) fan is to produce a flow of air, brushes are used to
make brush strokes and pens to write signs. The -*azo* words have predictible

meaning: movement of a fan to produce a flow of air (*abanicazo*), brush stroke (*brochazo*), and pen stroke (*plumazo*).

Monolingual dictionaries, sometimes, give strange definitions of some -*azo* words, which are due to the conviction of the lexicographer that the basic meaning of -*azo* is [BLOW] ("golpe" in Spanish) and to the fact that, in some cases, the lexicographer has to deal with a basic noun which denotes an object that is no longer in use and with which (s)he is not familiar. No problem arises with the definition of *brochazo* and *plumazo,* which are never defined as "blow with a brush/ pen", since these instruments are well-known, and since such blows are difficult to conceive as so common that specific words exist to denote them. All dictionaries give the appropriate " brush stroke" (*brochazo*) and " pen stroke" (*plumazo*) defini- tions. However, *abanicazo* is defined in many monolingual dictionaries as "blow with a fan", although this can hardly be seen as the basic use of a hand-held fan.

In an older bilingual Spanish-Dutch dictionary, Van Dam (1955), cases can be found of weird translations of -*azo* words, based on monolingual dictionaries of that period; some examples are given in (9):

(9) CURIOUS "BLOW" TRANSLATIONS OF SPANISH WORDS ENDING IN -*AZO*
      capotazo < capote (bullfighter's cloak); escobazo < escoba (broom); hisopazo < hisopo (aspergillum); librazo < libro (book); pantuflazo < pantuflo (slipper); sombrerazo < sombrero (hat) (Van Dam, s.v.)

In some cases, it is easy to see that the "blow" translation is misguided. Bullfighter's cloaks are not used to hit the bull, but to "guide" him; brooms are not used to give blows, but to sweep the floor, and the sweeping movement is the primary referent of the -*azo* word; hats are not used to give blows with, but they are removed from the head to greet someone; the aspergillum is not used to give blows, but it is shaken to give holy water. Native speakers are able to assign "typical uses" to artefacts, which is why *pantuflazo* can have acquired the meaning "blow with a slipper"; and *escobazo* "blow with a broom"; some other similar cases are found.

These examples show that dictionaries are not always reliable sources of information. The number of -*azo* words incorporated in dictionaries is surprisingly different: many -*azo* words seem to have been incorporated to provide a meaning which has been lost, since its base denotes an instrument which is no longer in use.

Note that -*azo* is typically used to refer to a "normal" use of an artifact: fire- arms are used to shoot bullets, bows are used to shoot arrows, and the -*azo* nouns denote the shots and their effects, the wounds; swords are used in a different fashion, as are sticks, truncheons and whips, and the -*azo* words refer to these different uses. Bells are artifacts used to produce sounds; and, in fact, the corre- sponding -*azo* words denote sounds, as will be seen below, in (13).

Even body-parts can have "typical uses". Heads are used to give thrusts, fists are used to give blows, and elbows are used to nudge another person to draw his/her

attention, and the -*azo* words denote just that: a thrust given by the head (*cabezazo* < *cabeza* (head)), a blow given by the fist (*puñetazo* < *puñeta* (fist)) and a nudge given by the elbow (*codazo* < *coda* (elbow)). In soccer, however, elbows are used to give offensive and violent blows, which is another meaning of *codazo*, to refer to an act which is penalized.by the referee, and heads are used to give headers, another meaning of *cabezazo*.

The tentative conclusion is that -*azo* has access to a semantic feature of the base, its "telic quale", which expresses, as will be shown in (12), the "typical use" of the artifact, the instrument or the body-part to which the base refers.

Let us take a short look at a few impossible -*azo* words, according to intuitions of native speakers. Blows can be given with many objects, but speakers tend to reject formations such as those given in (10):

(10)   "Impossible" -*azo* words
       *revistazo < revista (journal), *pinturazo < pintura (painting)

Typical "actions" related to the bases *revista* (review) and *pintura* (painting) can be imagined, but the -*azo* suffix cannot be used to derive the "nomina actionis" *revistazo* and *pinturazo*. The bases of these *-*azo* words suggest some action, such as "reading a journal", "looking at a painting", but the outcome is weird, as indicated in (10). Why is this so? The answer is that -*azo* not only has the meaning [ACTION], but also the aspectual meaning [ACHIEVEMENT]. Actions like "reading a journal" or "looking at a painting" are not achievements. This is the reason why the -*azo* words in (10) are weird.

The hypothesis that I want to consider that -*azo* has grammatical and aspectual meaning which has access to semantic features properties of the base.

The hypothesis is sketched in (11):

(11)   The meaning of -*azo*
       i.   The suffix -*azo* has grammatical meaning [ACTION] and [ACHIEVEMENT]
       ii.   The suffix -*azo* accesses the "telic quale" of the base.
       iii. The base and the suffix agree in aspectual value.

Suffixation, then, can be viewed as a process in which the base and the suffix show concordance in a semantic feature: the suffix -*azo* has some feature which must be in cordance with some semantic feature of the base.

Semantic properties of nouns denoting instruments and artifacts are characterized by Pustejovsky (1993), who calls the semantic feature indicating the intended use of an instrument or artifact its "telic quale". In a non-technical fashion, the telic quale of fire-arms can be represented as in (12):

(12)   The telic quale of nouns denoting arms
       $R(use) (x, y) (x = person, y = weapon) > R(fire) (y, z) (y, z = \{bullet, arrow\})$
       [In words, if a person uses a weapon, the weapon fires a bullet or arrow]

In a similar fashion, if a person uses a fan, (s)he moves it to produce a flow of air, an action called *abanicazo*. If a person uses a bell, the bell emits a sound and *campanill-azo* (loud ring, sudden ring) [< *campanilla* (small bell, electric bell)] and *timbrazo* (ring) [< *timbre* (bell)] denote the sounds made by the *campanilla* or *timbre*. If a person uses a broom, the broom is used to sweep the floor, and this the meaning of *escobazo* (quick sweep), derived from *escoba* (broom).

These -*azo* words are given in (13):

(13)   SOME -*AZO* WORDS DENOTING THE TYPICAL USE, THE TELIC QUALE, OF THE BASE
   i.   abanicazo (fanning action) < abanico (fan)
   ii.   campanillazo (loud ring, sudden ring) < campanilla (small bell, electric bell); timbrazo (ring) < timbre (bell);
   iii. escobazo (quick sweep) < escoba (broom)
   (Translations from Collins, s.v.)

In other words, the grammatical meanings [ACTION] and [ACHIEVEMENT] of the suffix -*azo* have access to the "telic quale" of the base, which defines the "typical action" of the instrument, or of the body part. This access to the "telic quale" permits a suitable interpretation of the suffix.

This intuitive approach to the value of the suffix -*azo* shows the weak point of the traditional analysis, according to which the suffix has a basic meaning like [BLOW], as if -*azo* were some kind of nominal head of a compound.

The approach I have sketched in this section permits a unitary treatment of the basic features of the suffix -*azo*.

Let us now consider an even more interesting case: the suffix -*era*.

3.   The interpretation of the Spanish suffix -*era*

Following again Rainer (1993: 477–480), the following classification of the meaning of the suffix -*era* can be made:

(14)   SOME BASIC VALUES OF DENOMINAL WORDS WITH THE SUFFIX -*ERA*
   i.   "containers for food", like *aceitera* (olive-oil bottle; oilcan) [< *aceite* (oil; olive-oil)], *chocolatera* (chocolate pot) [< *chocolate* (chocolate)];
   ii.   "containers for non-food" like *cartuchera* (cartridge belt) [< *cartucho* (cartridge)], *cerillera* ([Latin America] matchbox) [< *cerilla* [match]];
   iii. "houses of animals" like *conejera* (warren; rabbit hutch) [< *conejo* (rabbit)], *pecera* (fishbowl, fishtank) [< *pez* (fish)]

These values are characterized by Rainer as "word formation types", lexical semantic classes, related but not reducible to one basic semantic value.

It is useful to take a look at the translations in English. The Spanish -*era* words are translated into English as compounds, in which the head of the compound is a

noun denoting some kind of container. The compound heads that are found in the translations that have been mentioned in (14) are listed in (15).

(15) Compound heads in English as translation of the *-era* suffix in (14)
     (i) bottle; (ii) can; (iii) pot; (iv) belt; (v) box; (vi) hutch; (vii) bowl; (viii) tank

In the compounds, the nominal heads refer to different types of containers. Which container noun is used in the compound translation is dictated by the objects that are found in the real world. For example, olive-oil is found in bottles or cans; it follows that English has the compounds " olive-oil bottles" and "olive-oil cans", which are translations of *aceiteras*. Cartridges are usually found in *cartucheras*, that is, in belts, which is why "cartridge belt" is the most appropriate translation. If cans would be used as containers of cartridges, they would be called "cartridge cans" in English, and *cartucheras* in Spanish.

Thus, the Spanish word *aceitera* can be used to denote a bottle, a can, or any other container in which olive-oil is stored. Similarly, the Spanish word *cartuchera* can denote any object in which cartridges are usually kept. National or local use dictate the usual kind of container for cartridges, which is a belt.

In short, the Spanish *-era* words that have been taken into account are translated as compounds having a head which mentions the type of container, but it does not follow that the Spanish *-era* suffix has the meaning [CONTAINER].

If the suffix *-era* has grammatical meaning, the question is which meaning it has. A reasonable guess is that its meaning is the grammatical feature [LOCATION]. The more specific hypothesis is presented in (16):

(16) Interpretation of the suffix *-era*
     The grammatical feature of the Spanish suffix *-era* is [LOCATION].
     Therefore, its base is its Theme.

[LOCATION] is a thematic role which must be defined with respect to a Theme, and the Theme role is provided by the base. World knowledge determines the referent: the usual or typical location of olive-oil is a bottle or a can, not a carton.

Let us take a look at another class of *-era* words, in which the suffix is attached to a base which denotes an animal. For example, the "typical location" of rabbits is their home, either their natural home called "rabbit's burrow" or "rabbit-hole" or the enclosure called "warren" or the home built by rabbit owners called "hutch". Note that these are "typical locations" at the conceptual level, in the mind of the speaker/hearer. As shown in (17), all these "typical locations" are found in English as translations of the Spanish word *conejera*):

(17) Translations of *conejera*
     conejera: (a) warren; burrow; rabbit hutch; (b) … (Collins, s.v.)
     [*conejo*: rabbit]

Other *-era* words are similar, as can be seen in a few cases given in (18):

(18)   *-era* words: "houses of animals"
    i.   leonera [lion's cage; lion's den] < león [lion];
    ii.   pecera [fishbowl, fishtank] < pez [fish];
    iii. topera [molehill] < topo [mole];
    iv. perrera [kennel; kennels] < perro [dog]

Now consider a quite different location, exemplified by *salitrera*, in (19):

(19)   Translations of *salitrera*
salitrera: nitre works; nitrate fields (Collins, s.v.) <   [*salitre*: nitrate]

The English equivalents are compounds whose heads denote the places where nitre or nitrate is found: the plant or the fields, that is, the manmade, artificial location or the natural location. Spanish *salitrera* does not refer to the specific location but it only means "typical place where nitre or nitrate are found".

Another use of *-era* can be interpreted in a similar way: the typical location of tomatoes in the mind of the speaker/hearer is the *tomatera* (tomato plant), where they grow. A small sample of similar words is given in (20):

(20)   Some *-era* words of trees and plants
    i.   alcachofera (alcachofa = artichoke);
    ii.   calabacera (calabaza = pumpkin);
    iii. datilera (dátil = date);
    iv. higuera (higo = fig)

Again, English compounds name the "holder" of the fruit, a plant or a tree, as in "artichoke plant", "fig tree". The Spanish suffix *-era* means "typical location", the place where the speaker/hearer knows that tomatoes and figs are found: plants or trees.

Changing perspective, consider other pairs of nouns which denote trees and the fruits they bear. In (20), the tree or plant is expressed by the sufix *-era*, with grammatical meaning [LOCATION]. In Spanish, there are other ways of relating the names of trees and the fruits that they bear. In a number of nouns denoting fruits and trees, in which the fruit and the tree have the same base, the fruit is feminine and takes the *-a* suffix and the tree is masculine and takes the *-o* suffix. Examples are given in (21):

(21)   Spanish noun pairs: trees (with suffix *-o*) and fruits (suffix *-a*)
(i) manzano (apple tree) < manzana (apple); (ii) cerezo (cherry tree) < cereza (cherry); (iii) ciruelo (plum tree) < ciruela (plum)

In other cases of trees and fruits, we find another suffix, such as *-al* in *peral* (pear tree) (< *pera* (pear)), and *frutal* (fruit tree) (< *fruta* (fruit)). In still another case, there is suppletion: *vid* (vine) bears the fruit called *uva* (grape).

It follows that the base must have a specific semantic feature: it must have a "locative quale", that is, a feature which specifies that it has location. Furthermore, the base combines with a specific suffix if the location is the head.

The "locative quale", then, is part of the semantic structure of a base referring to a concrete object. It specifies its usual location. Furthermore, it is one of the interpretable features of the base.

If a base with a "locative quale" combines with a suffix of location, the suffix has a matching feature. Concordance will consist in checking whether the base and the suffix have the same feature, which is interpreted in suffix position. However, *-era* has no lexical meanings like [CONTAINER], [HOUSE], [TREE].

Another way of forming "locative words" is that the location feature of the base, is promoted to head position: the base selects selects a general, non-locative suffix, which attracts the "locative quale" feature of the base.

4. Résumé

The analysis of Spanish *-ido*, *-azo*, *-era* nouns has shown that the merger of the lexical base and its suffix can be profitably interpreted as "lexical concordance".

The following aspects of this approach have been discussed:

i. The base has a formal, uninterpretable feature stating with which suffix it combines;

ii. The suffix has lexical category and grammatical meaning, which is interpretable in that position; the suffix can contain a lexical semantic feature which is uninterpretable in suffix position, and must be eliminated by an appropriate base, under concordance;

iii. The grammatical properties of the suffix must match properties of the base; the matching effects can be interpreted as different kinds of lexical concordance, in a way that has to be made precise.

Treating suffixation as "lexical concordance" permits a coherent way of dealing with the data that have been discussed.

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