

# The construct state and the pseudo-construct state in Maltese

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The morpho-syntactic and semantic properties of the construction containing a noun in the Construct State in Maltese are discussed, providing a description of the typical characteristics of such constructions. The Construct State is then contrasted to the Pseudo-Construct State, as well as to Complex Name Formation, and a possible structural analysis is suggested which can account for some of the differences observed.

## 1. Introduction

One strategy adopted by a number of languages to express the possessor-possessed relation (in a broad sense) obtaining between the objects denoted by two nouns is to make use of the so-called Construct State. The Construct is typical for Semitic languages like Hebrew, Arabic or Maltese, but also occurs in other languages such as Irish, for example. In this paper I want to briefly describe the basic properties of the Construct in Maltese, contrasting it to what I will term the Pseudo-Construct and suggesting a formal representation that accounts for at least some of the facts described. I thus hope to make a contribution towards the ultimate aim of adequately describing the noun phrase in Maltese. A more detailed analysis of the Construct State in Maltese and a first attempt at a formalisation of the facts within a lambda-categorial framework can be found in Fabri (1993). For other formal studies of the Construct State in other languages, see Borer (1988), Duffield (1992), Fassi Fehri (1993), Mohammed (1988) and Ritter (1988), amongst others.

In what follows, for the sake of simplicity I will use the term "Construct State" (CS), rather than "Construct State Construction" for example, to refer to the syntactic construction containing a noun in construct, and I will call the noun in the Construct State the head noun or simply the noun in construct. Moreover, I will use the terms "possessor noun" and "possessed noun" instead of the more accurate but rather long-winded expressions "the noun referring to the possessor object" or "the noun referring to the possessed object".

## 1.1. The construct state in Maltese

The CS is a construction in which two nouns bearing a certain semantic relation to each other, typically the possession relation, are juxtaposed. In Maltese the CS is mostly restricted to constructions in which the noun in construct is an inalienable possessed noun denoting a body part such as *xagħar* 'hair' or a family relation such as *omm* 'mother', as can be seen in (1a) and (1b).

- (1) a. xagħar Pawlu b. omm Pawlu  
 hair(msg) Paul mother(fsg) Paul  
 'Paul's hair' Paul's mother'  
 c. \* ktieb Pawlu d. \* mejd-a Pawlu  
 book(msg) Paul table-fsg Paul  
 'Paul's book' 'Paul's table'

(1c) and (1d) show that "alienable" nouns such as *ktieb* 'book' or *mejd-a* 'table' do not usually appear as heads in the CS. Instead with such nouns the possession relation is expressed by means of a construction involving the preposition *ta'* 'of', as shown in (2). (See Koptjevskaja-Tamm, this volume, for a study of the CS and the analytical form with *ta'*).

- (2) a. il-mejd-a ta' Pawlu b. il-ktieb ta' Pawlu  
 df-table-fsg of Paul df-book(msg) of Paul  
 'Paul's table' 'Paul's book'

There is however a small class of nouns like those in (3) which do not denote body parts or family relations and yet also occur in the CS:

- (3) a. żmien it-tadam b. xatt il-bahar  
 time(msg) df-tomato(msg) shore(msg) df-sea(msg)  
 'the tomato season' 'the seashore'

In the following, the typical morpho-syntactic properties of the CS in Maltese involving nouns for body parts and kinship terms are described in some detail, to be followed by an analysis of CSs in which the noun in construct does not refer to such objects. It turns out that, in terms of typical CS properties, the latter class is not homogeneous, and the theoretical implications of this lack of homogeneity for the syntax-lexicon interface will be discussed.

## 2. Properties of the CS

## 2.1. Adjacency and morphological marking

The CS is a syntactic construction in which the possessor noun, which in Maltese is morphologically not explicitly case marked in any way, is right adjacent to the possessed noun, or rather, to be more exact, the maximal noun phrase (or DP) containing the possessor noun is right adjacent to the head noun.

- (4) a. xagħar il-mara b. \* il-mara xagħar  
 hair(msg) df-woman df-woman(fsg) hair(msg)  
 'the young woman's hair'  
 c. xagħar dik il-mara d. \* dik il-mara  
 hair(msg) that(fsg) df-woman that(fsg) df-woman(fsg)  
 xagħar  
 hair(msg)  
 'that young woman's hair'

This sort of structural relationship, i.e. structural adjacency to the right, is typical in the unmarked case in Maltese also for the phrasal complements of other lexical heads such as verbs, prepositions and adjectives, some examples of which are given in (5). It suggests that the possessor noun, or rather noun phrase, in such constructions is syntactically also a complement of the possessed noun.

- (5) a. ra-t dak il-film b. b'dak  
 saw-3fsg that(msg) df-film(msg) with that(msg)  
 l-attur  
 'She saw that film'  
 c. u żgur li għogħob-ha  
 and certain(msg) that pleased-her  
 'and it is certain that she enjoyed it'

The complement is not morphologically marked in any way, but certain kinds of head noun display a marker traditionally called *t-marbuta* (bound-*t*; see also Payne, this volume). This marker occurs on any head noun that ends in *-a* (and is therefore morphologically feminine singular) when it occurs outside of the CS, i.e. in the absolute state (cmp. (6a)-(6c) with (6d)-(6f)). There are historical reasons for why bound-*t* is restricted to occurring in nouns which, in the absolute state, end in *-a*. This, however, will not be discussed here. In the following *-t* will be glossed as fsg/pd (for feminine singular possessed).

- (6) a. nann-a grandparent-fsg Paul Pawlu c. \* nann-a grandparent-fsg Paul  
 'grandmother' Paul's grandmother' Paul  
 d. missier e. father(msg) Pawlu f. \* missier-t father-fsg Paul  
 'father' Paul's father'

In Fabri (1993) bound-*t* in the CS is considered to be the morphological reflex of a lexical operation that allows the possessor argument of a two-place predicate to be expressed syntactically (i.e., more technically, it adds a  $\theta$ -role to the  $\theta$ -grid; see also Ortman 1994). A justification of this interpretation however goes beyond the main concerns of this paper, which are more descriptive than formal in nature.

## 2.2. Definiteness

As can be seen in (7), the complement noun phrase in the CS can be either definite or indefinite.

- (7) a. oht dak it-tifel b. oht (wiehed) tifel  
 sister(fsg) that(msg) df-boy(msg) sister(fsg) one(msg) boy(msg)  
 'that boy's sister' 'a boy's sister'

Note that the definite article in Maltese is underlyingly /l/ but its form often changes since it can undergo progressive assimilation and *i*-epenthesis in certain phonological environments. The indefinite article is usually simply not expressed explicitly, but under certain conditions (see Fabri 1993) the numeral *w-f-d* 'one' can be used to mark indefiniteness.

The noun in construct itself cannot occur with an explicit (in)definiteness marker, i.e., it never appears with either the definite (see (8b)) or the indefinite article (see (8c)). Note, however, that nouns that occur as heads in the CS can take the definite or indefinite article when they appear in the absolute state (see (8d)), and therefore they must be considered to be somehow "inherently" definite (or rather, perhaps more correctly, specific) in some semantic sense for the purposes of the CS. Formally, inherent definiteness can be assumed to be an effect of the lexical operation mentioned above in connection with bound-*t*.

- (8) a. zi-t Pawlu b. \*iz-zi-t Pawlu  
 aunt-fsg/pd Paul df-aunt-fsg/pd Paul  
 'Paul's aunt'  
 c. \* wahd-a zi-t Pawlu d. iz-zij-a raqđ-et  
 one-fsg aunt-fsg Paul df-aunt-fsg slept-3fsg

Evidence for the fact that the head noun in the CS is inherently definite comes from the following considerations. Numerals in Maltese govern an indefinite noun, i.e. a noun not prefixed by the definite article /l/ (see (9a) and (9b)), while demonstratives govern a definite, i.e. /l/ prefixed, noun (see (9c) and (9d)).

- (9) a. iz-żewg toqob b. \* ż-żewg it-toqob  
 df-two hole(pl) df-two df-hole(pl)  
 'the two holes'  
 c. dawk it-toqob d. \* dawk toqob  
 those df-hole(pl) those hole(pl)  
 'those holes'

If the assumption that the head noun in the CS is inherently definite is correct, then numerals should not be able to govern a noun in construct but demonstratives should, a prediction which is borne out by the facts, as can be seen in (10) and (11). (Note that the ending *-ejn* in (10) is historically the dual marker, which, however, has essentially been reanalysed as a plural marker; see Fabri 1993 and Fenech this volume).

- (10) a. ghajn-ejn Pawlu b. \* iz-żewgħ ghajn-ejn Pawlu  
 eye-pl Paul df-two eye-pl Paul  
 'Paul's eyes'  
 c. iz-żewgħ ghajn-ejn blu ta' Pawlu  
 df-two eye-pl blue of Paul  
 'Paul's two blue eyes'
- (11) a. oht Pawlu b. dik oht  
 sister Paul that(fsg) sister  
 'Paul's sister' 'that sister of Paul's'

One has to assume, therefore, that the head noun in the CS (and the whole phrase as a result of percolation) is in fact definite (specific), without, however, being explicitly marked as such morphologically. It is interesting to note, finally, that the only two nouns that occur exclusively in the construct, and consequently never take an (in)definiteness marker, are those encoding the relational terms "sister" and "brother", viz., *oht* and *ħu*. In contrast, other obviously relational (and functional) terms like *omm* 'mother' and *missier* 'father', for example, can occur with the definite article when used in the absolute state. In such cases they do not refer to the mother/father relation but rather to the mother/father role (in society, the family, etc.). This role interpretation is obviously not available for the brother/sister pair. Therefore, being purely relational, these nouns are restricted to occurring in the construct.

2.3. *Modification*

Attributive adjectives, which are post-nominal in Maltese, cannot appear between the head noun and the complement within the CS, even when they modify the head. This shows that the head and the complement must be strictly adjacent, since no intervening element is allowed.

- (12) a. sieq Pawlu l-leminij-a b. \* sieq il-leminij-a Pawlu  
 foot(fsg) Paul df-right-fsg foot(fsg) df-right-fsg Paul  
 'Paul's right foot'

Both head and complement can be modified by attributive adjectives to the right of the complement (see (13a) and (13b)). Potential ambiguities with respect to whether the adjective modifies the head or the complement do not arise when their gender/number markings differ, since agreement on the adjective here serves to establish clear relations. However, if the head and the complement have the same agreement categories, structural ambiguity results, as in (13c).

- (13) a. hu l-mar-a x-xih-a  
 brother(msg) df-woman-fsg df-old-fsg  
 'the old woman's brother'  
 b. hu l-mar-a l-kbir  
 brother(msg) df-woman-fsg df-groß(msg)  
 'the woman's elder brother'  
 c. hu t-tifel iż-żgħir  
 brother(msg) df-boy(msg) df-small(msg)  
 'the small boy's brother/the boy's younger brother'

The facts concerning the adjacency of possessor and possessed noun provide further evidence for the assumption that the noun in construct and its sister noun phrase stand in a head-complement relation within the CS, since strict adjacency between a head and its complement has often been assumed to be a structural prerequisite for (abstract) case assignment.

2.4. *Agreeing clitic and topic noun phrase*

The complement phrase in the CS can be replaced by a clitic pronoun which appears in the same syntactic position as the complement, i.e., right adjacent to the head, and which, like the complement noun phrase, can be assumed to saturate the relevant argument position. In such constructions a full topic noun phrase agreeing in person, number and gender with the clitic can be freely adjoined to S (IP or TP

depending on the framework adopted), thus allowing a relatively free word order at sentence level (see (15), in which Tp stands for Topic, Pr for possessor, Pd for possessed, and A for (predicative) adjective). The same process is possible with verbs and prepositions and their nominal complements. (16) shows an example with the preposition *fuq* 'on'.

- (14) a. xagħar Nena abjad b. xagħar-ha abjad  
 hair(msg) Nena white(msg) hair(msg)-3fsg white(msg)  
 'Nena's hair is white'  
 (15) a. Nena xagħarha abjad Pr/Tp Pd A  
 b. Nena abjad xagħarha Pr/Tp A Pd  
 c. xagħarha Nena abjad Pd Pr/Tp A  
 d. xagħarha abjad Nena Pd A Pr/Tp Pd  
 e. abjad Nena xagħarha A Pr/Tp Pd  
 f. abjad xagħarha Nena A Pd Pr/Tp Pd  
 (16) a. raqđ-et fuq il-bank b. raqđ-et fuq-u  
 slept-3fsg on df-bench(msg) slept-3fsg on-3msg  
 'She slept on the bench'  
 c. il-bank raqđ-et fuq-u  
 df-bench(msg) slept-3fsg on-3msg  
 'The bench, she slept on it'

To summarise, the CS is a syntactic construction consisting of an inherently definite nominal head and a right adjacent noun phrase complement, which can be replaced by a pronominal clitic, which in turn licenses the adjunction to S of an agreeing topic noun phrase.

3. *Semantic restrictions on CS heads*

As has been mentioned above, typical CS heads are nouns referring to body parts or family relations. Some of these nouns are listed in (17).

- (17) a. *body parts* 'head' 'hand' 'backside' 'eye' 'heart' 'back'  
 ras 'head'  
 id 'hand'  
 sorm 'backside'  
 għajn 'eye'  
 qalb 'heart'  
 dahar 'back'  
 b. *family relations* 'mother' 'father' 'brother' 'mother' 'grandmother/father' 'aunt/uncle'  
 omm 'mother'  
 missier 'father'  
 hu 'brother'  
 oħt 'mother'  
 nanna/u 'grandmother/father'  
 zija/u 'aunt/uncle'

Except for a few phonologically conditioned exceptions such as *gilda* 'skin' and *kilwa* 'kidney' (see Fabri 1993 for a discussion), almost all body part nouns in Maltese can, and usually do, occur in the construct. If such

a noun occurs in a prepositional construction with *ta'* of instead of in the CS, the result sounds rather odd, since the body part is then interpreted as being somehow separable from the body. In fact, with body part nouns, the prepositional construction is mostly used when referring to inanimate objects such as a statue, for example.

- (18) a. <sup>?</sup> ir-ras ta' Pawlu waqgh-et b. ir-ras ta' l-istatwa  
df-head of Paul fell-3fsg df-head of df-statue  
waqgh-et  
fell-3fsg

'The head of Paul fell off' 'The head of the statue fell off'

With kinship terms the choice between the prepositional construction and the CS is usually optional (see (19a) and (19b)). This is not the case however with the small set of kinship terms consisting of *omm* 'mother', *missier* 'father', *oht* 'sister' and *ħu* 'brother', which never take a prepositional phrase with *ta'* (see (19c) and (19d)).

- (19) a. nann-t Pawlu b. in-nann-a ta' Pawlu  
grandparent-fsg Paul df-grandparent-fsg of Paul  
'Paul's grandmother'  
c. oht it-tifl-a d. \* l-oht ta-t-tifl-a  
sister(fsg) df-girl-fsg df-sister(fsg) of-df-girl-fsg  
'the girl's sister'

Some family terms, such as *neputi* 'nephew', do not occur in the CS if the possessor noun phrase is non-pronominal (see (20a)), again probably for phonological reasons. These nouns however can bear a pronominal suffix (see (20b)) and thus, like the nouns in construct described up to now, can license a topic noun phrase (see (20c)).

- (20) a. \* neputi Ingrid b. neputi-ha c. Ingrid neputi-ha  
nephew(msg) Ingrid nephew(msg)-3fsg Ingrid nephew (msg)-3fsg  
'Ingrid's nephew' 'her nephew' 'Ingrid, her nephew'

Note that since also the noun *ħabib* 'friend' can appear in the CS, what counts as a "kinship" term for grammatical purposes is not necessarily equivalent to what is usually considered to be a family member in social terms. Looked at from another point of view, one could claim that the expression "kinship term" does not cover all of the nouns actually involved and that it is not the concept of family relation that is relevant but some other concept. In fact one way of describing the relation between the head and its complement in semantic terms (and thus restrict the number of possible candidates that may appear in construct) is by means of the "part-of" relation ("member of" in set

theoretical terms). Thus family members and friends can be considered to be parts (members) of the group (set) of close acquaintances (which includes family and friends) and body parts are of course parts (members) of the group-object (set) body. (See Seiler 1983 for several examples and a discussion of kinship and body part terms in possessive constructions from a typological perspective).

An observation applying to the examples considered up to now and constituting another possible semantic restriction on the CS is the fact that the complement noun phrase always refers to an animate being. Consideration of an additional set of data not involving body-part or kinship terms, however, shows that this condition does not always apply, which suggests that it might be too restrictive. However, it can be shown that the majority of constructions that violate this condition also differ from the typical examples discussed up to now in several other interesting ways. Such constructions will be examined in the following section.

#### 4. The Pseudo-Construct-State

There are a number of examples which do not easily fit in with the description of the CS just given, either because it is difficult to make out in what sense the head noun is part of some domain relevant for the complement, or because the complement is not animate, or for both reasons. In (21) a number of examples of such constructions are given. The list is not meant to be exhaustive but it is fairly representative of such constructions.

- (21) a. xewqet it-tfal wish df-children 'the children's wish'  
żmien it-tadam season df-tomato 'the tomato season'  
xogħol omm-ok work mother-your 'your mother's work'  
mewt il-mara death df-woman 'the woman's death'  
lejlet il-festa eve df-feast 'the eve of the feast'  
kelmet is-sultan word df-king 'the king's word'  
hegġet it-tijm stamina df-team 'the team's stamina'  
hajjet il-fqar life df-poor 'the life of the poor'  
dar il-Malti house df-Maltese 'the house of the Maltese'
- b. xatt il-bahar shore df-sea 'the seashore'  
xirket il-qaddisin community df-saints 'the community of saints'  
siegħet il-mewt hour df-death 'the hour of death'  
jum il-Milied day df-Christmas 'Christmas Day'  
hasret il-qalb sadness df-heart 'the sadness of the heart'  
bejjeġħ il-laham seller df-meat 'the butcher'  
art twelid-ek country birth-2sg 'your country of birth'

In terms of the properties of the CS described above, the examples in (21) do not constitute a homogeneous group. In fact they can be divided into two main sub-groups, with some possible border-line cases: the examples under (21a) behave morpho-syntactically just like typical CSs, while those in (21b) do not. I will therefore refer to the construction in which the latter occur as the Pseudo-Construct-State (PCS).

The elements involved in the PCS differ morpho-syntactically from the others and from the CS proper in the following ways:

- (i) the complement cannot be indefinite, i.e. it is obligatorily definite,
- (ii) attributive adjectives cannot modify the complement,
- (iii) cliticisation, and therefore topicalisation, is not possible.

For the purpose of illustration, therefore, in the following I will consider the phrases *xewqet it-tfal* 'the children's wish' from (21a) and *xatt il-baħar* 'seashore' from (21b). In (22) the two phrases are contrasted. Note that the phrase in (22ib) is not starred because apparently it is judged to be grammatical by some speakers. Judgements however are not always clear and clarification of this question must be left for future studies.

(22) (i) definiteness of complement

- |  |   |                                |                              |
|--|---|--------------------------------|------------------------------|
| a. xewq-et<br>wish-fsg/3pl<br>'a boy's wish' | (wiehed)<br>one(msg)<br>boy(msg)                          | b. * xatt<br>shore(msg)        | bahar<br>sea(msg)            |
| (ii) modification                            |   |                                |                              |
| a. xewq-et<br>wish-fsg/3pl                   | it-tfal<br>df-child(pl)                                   | iz-zgħar<br>df-small(pl)       | il-bahar<br>df-sea(msg)      |
|  |   | imqalleb<br>rough(msg)         |                              |
|  | 'the small children's wish/<br>the children's small wish' |                                | 'the shore of the rough sea' |
| (iii) clitic and topic                       |   |                                |                              |
| a. xewq-it-hom<br>wish-fsg/3pl               | it-tfal<br>df-child(pl)                                   | b. * xatt-u<br>shore(msg)-3msg | l-bahar<br>df-sea(msg)       |
|  | 'the children, their wish'                                |                                |                              |

These differences suggest that the constructions in (21a) belong to the class of CS, while those in (21b) make up a class of their own, namely, what I have termed the PCS. Before I describe the differences between the CS and the PCS in structural terms, I would like to discuss some other facts involving complex noun formation in order to show that there are interesting similarities between such formations and the PCS.

5. Complex proper nouns

In Maltese there is a class of complex proper nouns that behave in many ways like the PCSs just described. Complex names can be formed by juxtaposing two nouns. (For a historical and comparative survey see Borg 1989.)

- (23) a. Dar il-Paċi house df-peace 'House of Peace'
- b. Wied il-Għajn valley df-source 'Valley of the Source'
- c. Triq l-Indipendenza street df-independence 'Independence Street'

Just as in the PCS, the noun on the left in a complex name cannot usually be prefixed by the definite article /l/ (see (24a)). The element on the right, however, must obligatorily prefix /l/ (see (24b)). Moreover the noun on the right cannot be modified (see (24c)) and, since it cannot bear a clitic, it cannot license a topic noun phrase either (see (24d)).

- (24) a. \* il-Wied df-valley il-Għajn df-source b. \* Wied Ghajn valley source
- c. \* Dar il-Paċi fi-l-Mediterran house df-peace in-df-Mediterranean
- d. \* Il-Paċi Dar-ha df-peace house-3fsg

The process that is responsible for complex proper name formation seems to be the same as that involved in the PCS. There are two differences, however, between complex name formation and the formation of the PCS. The first difference is that the former, but not the latter, can occur with a modifying adjective instead of a noun in complement position, i.e. to the right. The adjective agrees with the head noun.

- (25) a. Triq il-Kbir-a street(fsg) df-big-fsg 'Main Street'
- b. Bieb door(msg) df-big(msg) 'Main Door/Gate'

Another difference concerns the selectional restrictions imposed by the noun in construct upon its sister. In complex name formation there seem to be no restrictions of any sort, while in the PCS in (21b), the head noun usually appears with a very restricted range of sisters, in fact often with exactly one type of noun (see (26)). This selectional restriction with regard to the PCSs, in fact, shows that they are highly restricted, idiomatised constructions.

- (26) a. siegħ-et il-mewt hour-fsg/3pl df-death(fsg) 'the hour of death'
- b. \* siegħ-et il-lezzjoni/ il-mar-a/ it-twelid hour-fsg/3pl df-lesson(fsg)/ df-woman-fsg/ df-birth(msg)

Note that in terms of selectional restrictions, proper CSs are different both from PCSs and from complex names in being restricted to having animate complements. Most of the constructions in (21a) in this case also behave just like proper CSs, i.e. they are restricted to animate complements (see (27)), although there are at least two exceptions in the list which are difficult to account for, namely, *zmien it-tadam* 'the tomato season' and *lejlet il-festa* 'the eve of the feast'.

- (27) a. xogħol omm-ok                      b. xogħol il-bdiewa  
 work(msg) mother(fsg)-2sg              work(msg) df-farmer(pl)  
 'your mother's work'                      'the farmers' work'
- c. \* xogħol l-uffiċċj-u  
 work(msg) df-office-msg

Complex name formation therefore essentially has the same properties as the PCS and seems to involve essentially the same sort of process. On the other hand, both can be distinguished from the CS proper (i.e., constructions with body part nouns and family terms, as well as the constructions in (21a)).

The table in (28) summarises the various constructions discussed in this paper and the typical properties they display. X1 refers to the element occurring on the left in the construction (in structural terms, the head), which is always a noun. X2 refers to the element on the right, which can be a complement in the case of the CS proper, or a modifier as, for example, in the case of complex noun formation.

(28) Classification of the various constructions

<b>Construct State Construction</b> 1. strict adjacency of X1 and X2 2. X1 inherently definite (specific)		
<b>Construct State Proper</b> 1. X2 definite or indefinite 2. adjective modifies both X1 and X2 3. cliticisation and topicalisation possible	<b>Pseudo-Construct State</b> 1. X2 obligatorily definite 2. adjective cannot modify X2 3. cliticisation and topicalisation not possible	<b>PCS-II: complex name</b> 1. no select. restricts. 2. X2: noun/adjective
<b>CS-I</b> 1. X1: kinship/body	<b>CS-II</b> 1. X1: other	<b>PCS-I</b> 1. select. restricts. 2. X2: noun

6. Conclusion

The facts described up to now in this paper can be interpreted in the following way: the formation of the CS proper is the result of a syntactic process which, within the limits set by (semantic) selectional constraints, is fully productive. Assuming the internal feature structure of the categories shown in (29a) and (29b), where MX stands for "maximal (projection)", the CS can be represented as in (29c) through to (29e). Note that, being inherently definite, the noun in construct bears the feature [+D] and projects onto a DP syntactically.

- (29) a. The Noun Phrase (NP)                      b. The Determiner Phrase (DP)  
 [+N, -V, -D, +MX] = NP                      [+N, -V, +D, +MX] = DP  
 [+N, -V, -D, -MX] = N                      [+N, -V, +D, -MX] = D
- c. CS with definite noun phrase complement                      d. CS with indefinite noun phrase complement                      e. CS with clitic complement
- DP                      DP                      DP
- D                      D                      D
- oht                      oht                      oht
- sister(fsg)                      sister(fsg)                      sister(fsg)
- 'the boy's sister'                      'a boy's sister'                      'his sister'
- NP                      NP                      DP
- it-tifel                      tifel                      -u
- df-boy(msg)                      boy(msg)                      3msg

In contrast, the PCS (and complex name formation) is not a syntactic but a lexical structure, i.e. it does not consist of a maximal phrase but of X elements which, after combining within the lexicon, form another X element, i.e. a word which then itself can project onto a maximal phrase within the syntax. In other words, the PCS is the result of a lexical process which creates complex words, and which is the process of lexical compounding in languages like Maltese.

- (30) a. the PCS in the lexicon                      b. the PCS in the syntax
- D                      D                      DP
- D                      D                      P
- xatt il-                      bahar                      xatt il-bahhar                      Malta
- shore(msg) df-                      sea(msg)                      shore(msg) df-sea(msg)                      of
- 'the seashore'                                           'the seashore of Malta'

These formal assumptions account for some of the differences in the properties of the CS and the PCS. Thus, for example, since by lexical composition a complex word is formed, and assuming the strong lexicalist hypothesis that words are atoms, i.e. opaque, with respect to the syntax, the noun on the right in a composed word (i.e. the PCS) is not syntactically available either for modification by an attributive adjective or for cliticisation (if, as is generally assumed, cliticisation is a syntactic process, of course). On the other hand, the CS proper, being syntactic in nature, allows both modification and cliticisation. The assumptions about the syntactic and lexical nature of the constructions under consideration therefore seem to produce the correct results.

Note that although lexical compounding in Maltese is based on a well-formed syntactic structure, namely, the CS-construction, this does not mean that compounding itself is a syntactic (rather than a lexical) process. The differences in the properties of the CS and the PCS, in fact, arise from the differences in the phrasal status of the categories involved. The categories in the CS project onto maximal elements (full phrases) in the syntax and are therefore subject to specific syntactic processes such as modification and cliticisation, while the categories in the PCS are 0-bar elements compounded in the lexicon, and therefore not subject to syntactic processes.

This is not the whole story, however. The exact nature of the lexical process involved in the formation of the PCS still has to be examined in greater detail in order to account, for example, for the different possible degrees of lexicalisation that a compound word may reach. Thus the examples in (31) differ from those in (21b) in not being compositional, in the sense that the meaning of the whole is not a product of the meaning of its parts. As would be expected if lexical processes are involved, lexicalisation here has gone a step further, so that the derivation is not semantically transparent anymore.

- (31) a. kelb il-bahar b. klieb il-baħar c. qaws-alla  
 dog(msg) df-sea(msg) dog(pl) df-sea(msg) bow(msg)-  
 'shark' god(msg)  
 'rainbow'  
 d. \*qwies-alla e. qawsall-i  
 bow(pl)-god(msg) rainbow-pl  
 'rainbows'

Apart from being both opaque, the two examples in (31) also differ from each other in that *qawsalla* 'rainbow', for example, cannot be considered to be a complex word any more, although it originally must have been produced by the same mechanism that is responsible for composition, which, as was seen above, structurally mimics, at least in

part, the syntactic process of CS formation. The leftmost element in *qawsalla*, unlike that in *kelb il-baħar* and all the other examples considered up to now, cannot be pluralised. Instead the former rightmost element, or rather the whole word, now takes on the plural morpheme *-i*. Moreover, although the individual nouns, *qaws* and *alla*, are both masculine singular when occurring independently, the fused form *qawsalla* is feminine singular, since it ends in *-a*, which is a typical feminine ending in Maltese. *qawsalla* is, therefore, a good example of a word that has reached the last stage in the process of lexicalisation, i.e. in which the two elements which originally made up the word do not have an identity of their own anymore.

Further empirical and theoretical work is still necessary to give a full account of the phenomena described in this paper. The next step is to determine the exact nature and grammatical status of the process that is responsible for creating constructions involving the CS and the PCS. Moreover the semantics of these constructions must be examined in much more detail, especially in connection with what I have called the "inherent" definiteness of the head noun. These tasks however must be left for future research.

#### Notes

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