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## Egyptian possessive constructions: a diachronic typological perspective

### 1. Introduction

Among the 6,500 or so known languages of human history, there is only a small minority that has been attested over a period of time long enough to provide the means for deeper insights into their historical development. Egyptian, classified as an independent branch of the Afroasiatic group and spanning diachronically pre-Old Egyptian of the late fourth mil-

**Figure 1:** Chronolectal division of Egyptian

Pre-Old Egyptian		32 <sup>nd</sup> –27 <sup>th</sup> cent. BC
Earlier Egyptian	Old Egyptian	27 <sup>th</sup> –21 <sup>st</sup> and 7 <sup>th</sup> cent. BC
	Archaic Old Egyptian	27 <sup>th</sup> –22 <sup>nd</sup> cent. BC
	Standard Old Egyptian	25 <sup>th</sup> –21 <sup>st</sup> cent. BC
	Neo-Old Egyptian	7 <sup>th</sup> cent. BC
	Middle Egyptian	23 <sup>th</sup> cent. BC–4 <sup>th</sup> cent. AD
	Early Middle Egyptian	23 <sup>rd</sup> –20 <sup>th</sup> cent. BC
	Classical Middle Egyptian	21 <sup>st</sup> –14 <sup>th</sup> cent. BC
	Late Middle Egyptian	20 <sup>th</sup> –13 <sup>th</sup> cent. BC
	Transitional Middle Egyptian	15 <sup>th</sup> –12 <sup>th</sup> cent. BC
	Neo-Middle Egyptian	11 <sup>th</sup> cent. BC–4 <sup>th</sup> cent. AD
Later Egyptian	Late Egyptian	14 <sup>th</sup> –7 <sup>th</sup> cent. BC
	Late Egyptian I	14 <sup>th</sup> –12 <sup>th</sup> cent. BC
	Late Egyptian II	13 <sup>th</sup> –7 <sup>th</sup> cent. BC
	Demotic	8 <sup>th</sup> cent. BC–5 <sup>th</sup> cent. AD
	Early Demotic	8 <sup>th</sup> –4 <sup>th</sup> cent. BC
	Middle Demotic	4 <sup>th</sup> –1 <sup>st</sup> cent. BC
	Late Demotic / Old Coptic	1 <sup>st</sup> cent. BC–5 <sup>th</sup> cent. AD
	Coptic	3 <sup>rd</sup> –20 <sup>th</sup> cent. AD
	Standard Coptic	3 <sup>rd</sup> –12 <sup>th</sup> cent. AD
	Late Coptic	11 <sup>th</sup> –16 <sup>th</sup> cent. AD
Neo-Coptic	19 <sup>th</sup> –20 <sup>th</sup> cent. AD	

lennium bc to Coptic, which ceased to be used as a medium of spoken communication in remote areas of Upper Egypt no earlier than the Early Modern Period, is one of them and not only the individual language with the longest duration of attestation in human history, but perhaps also the solitary example of a language with a considerable diachronic depth that can be observed over the whole cycle of its existence: There are reasons to assume that Egyptian had not existed for a long time prior to the development of the hieroglyphic writing system, but only emerged during the second half of the fourth millennium by a non-genetic fusion of an African and a South-West Asian component (cf. KAMMERZELL 1994).

The present paper consists of two main parts. Section 2 supplies general information essential especially for readers who lack specialized training in Ancient Egyptian and its history. In Section 3, the supposed connection of the typological parameters *head marking* and *inalienable possession* is treated.

## 2. Egyptian language history: some basic data

Usually, Egyptian language history is divided into two major stages. What we call *Earlier Egyptian* (EE) includes Old Egyptian and Middle Egyptian, while Late Egyptian, Demotic and Coptic are labelled as *Later Egyptian* (LE). More detailed information about the historical setting of written Egyptian is given in Table 1. Diachronically close chronolects differ only slightly from each other (mainly through a distinct ratio of respectively preferred and not preferred means of expressions altogether roughly belonging to a common pool), but those varieties at the opposite ends of the chain – that is pre-Old Egyptian and Coptic – are dissimilar to a degree that they would not have been mutually intelligible. Examples (1) to (6) demonstrate the possible amount of divergence even in a case where no lexical replacement occurred. The clauses are all construed by the author and mean: “The sun(-god) drank milk.”

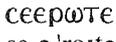
- (1) \*ta 'wil-na 'li:du-w gu 'la:k-at-a<sup>(?)</sup>  
 VB.-PRET. THEON.-NOM. SBST.-FEM.-ACC.  
 drank sun(-god) milk (c. 3000 BC)

- (2)  (conventional Egyptological transcription)  
 zwr-n R<sup>c</sup>w jrt-t (phonological interpretation)  
 f̄sa 'wil-na 'li:duw ju 'la:c-at  
 VB.-PRET. THEON. SBST.-FEM.  
 drank sun(-god) milk (c. 2400 BC)

- (3)  (c. 1800 BC)  
 jw zwr-n R<sup>c</sup>w jrt-t  
 jiw sa 'wij-na 'ri:duw ju 'ra:c-a?  
 TOP. VB.-PRET. THEON. SBST.-FEM.  
 it drank sun(-god) milk

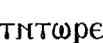
- (4)  (c. 1200 BC)  
 zwr p-R<sup>c</sup>w jrt-t  
 sawij pə- 'ri:ʃu ju 'ra:ta?  
 PRET. ART.-THEON. SBST.  
 drank the sun(-god) milk

- (5)      
 jr p-R'w zwr jr-t  
 ja- p- 'ri:f ,saw- jə 'ro:ɪə  
 AUX. ART-THEON. INF SBST.  
 did the sun-(god) drinking milk (c. 100 AD)

- (6)    
 a-p- 'ri: ,se-ə 'ro:ɪə  
 PAST-ART-SBST. INF-SBST.  
 did-the-sun drink-milk (c. 500 AD)

The transition from Earlier Egyptian to Later Egyptian may be characterized in short by certain phonetic and phonological changes, the loss or replacement of certain word-final elements, the syntactic shifts from NPro to DemProN, as well as from (Neg)VSO to (Neg)-AuxSVO, a general preference for analytic instead of synthetic constructions as well as the development of explicit markers of subordination and a well-defined distinction between clause conjugations on the one hand and sentence conjugations on the other hand. For further information, see SETHE (1925), STRICKER (1944), HINTZE (1947, 1950), SCHENKEL (1966), JUNGE (1984, 1985, 1996: 15–22, 49–51 and *passim*), EYRE (1994), LOPRIENO (1995: 5–8 and *passim*), PEUST (1999).

The following examples show a few of the most obvious morphosyntactic differences between the two major diachronic stages of Egyptian. In (9), we notice the loss of the old feminine suffix and its substitution by a prefixed article.

- (9) EE:  LE:  >   
 ntr-t t-ntr-t > t-ntōre  
 na 'ca:lat tənə 't'a:rə? > tɪ 't'o:ɪə  
 SBST-FEM. ART:FEM.-SBST:FEM.  
 goddess the goddess

Other classes of morphemes in the noun phrase that underwent significant changes are demonstrative pronouns and pronominal possessive suffixes. The transition from NDem to DemN is given in (10), while (11) shows the replacement of earlier NPro by DemProN.

- (10) EE:  LE:  >   
 ntr-t-tin ty-ntr-t > tei-ntōre  
 na 'ca:lat-tin tejnə 't'a:rə? > tejn 't'o:ɪə  
 SBST-FEM.-DEM.:FEM. DEM.:FEM.-SBST:FEM.  
 this goddess this goddess

- (11) EE:  LE:  >   
 jr-p-s py-s-jrp > pe-s-ērp  
 'ʃulpə-s pəjs 'ʃu:rp > pəs 'ʃi:rp  
 SBST-3FS DEM.-3FS-SBST  
 her wine her wine

In (12), the original synthetic verbal construction is succeeded by an analytic expression employing an infinitive dependent on a negative auxiliary, which can be analyzed as the grammaticalization of a negated present tense form of a matrix verb  $\text{𓂏𓂏} p;j$  'have done'.

(12) NEG.-VERB-SUBJECT > NEG.AUX.-SUBJECT-VERB

EE:  $\text{𓂏𓂏} \text{𓂏} \text{𓂏}$

*nj-šm-j*

NEG.-VB.(&PRES.)-1C.S

I did not go

LE:  $\text{𓂏𓂏} \text{𓂏} \text{𓂏}$

*bpy-j-šm(-t)*

NEG.AUX.:PAST-1C.S-VB.(&INF)

I did not go

For many centuries, the replacement of Earlier Egyptian did not affect language usage in its totality, as Middle Egyptian remained the norm of certain sorts of written and perhaps also oral communication (above all religious texts) until the end of the Pharaonic culture in late antiquity. That this situation of diglossia was felt as such by the Egyptians themselves becomes apparent in the existence of "translations" between different chronoclects.

### 3. Alienable and inalienable possession in Egyptian

Some years ago, in one of her large-scale studies on the geographical distribution of morpho-syntactic features and their interdependence with particular linguistic types, JOHANNA NICHOLS claimed that there is a correlation between head marking and inalienable possession (NICHOLS 1988: 576–579 and 1992: 116–123). Even a superficial glance at possessive constructions in Late Egyptian supports this hypothesis. In most cases, the noun referring to the possessed and forming what NICHOLS calls the lexical head (1988: 558) is identical in shape with the unconnected form of the respective word, while the possessor is linked to it – and thus, marked – by means of a prefix *n-*, which is etymologically a grammaticalization of the old determinative pronoun *n(j)-* (masc. sg.), *n.w-* (masc. pl.), *n.t-* (fem. sg./pl.) and may be synchronically analyzed as a preposition 'of' or perhaps even as a genitive case affix. This situation is exemplified below in (13).

- (13) a.  $\text{𓂏} \text{𓂏}$  b.  $\text{𓂏} \text{𓂏} \text{𓂏}$  c.  $\text{𓂏} \text{𓂏} \text{𓂏}$  d.  $\text{𓂏} \text{𓂏} \text{𓂏}$
- |             |           |             |           |             |           |           |           |              |             |
|-------------|-----------|-------------|-----------|-------------|-----------|-----------|-----------|--------------|-------------|
| <i>jr</i> p | <i>p-</i> | <i>jr</i> p | <i>p-</i> | <i>jr</i> p | <i>n-</i> | <i>p-</i> | <i>sn</i> | <i>py-f-</i> | <i>jr</i> p |
| 'ʃurəp      | <i>p-</i> | 'ʃurəp      | <i>p-</i> | 'ʃurəp      | <i>n-</i> | <i>p-</i> | 'san      | pəf-         | 'ʃurəp      |
| wine        | the       | wine        | the       | wine        | of        | the       | brother   | his          | wine        |

There is, however, a class of nouns referring to inalienable objects – above all body parts, kinship terms and entities indispensably connected with a particular individual such as name, household, property – that occur in possessive constructions of a different type. Such nouns, when appearing together with an possessor (which they almost regularly do), constitute the head of a compound. As the unconnected form /'ħar/ differs from both, /ħar/, preceding a nominal possessor, as well as /ħəri/, followed by a pronominal possessor (see 14), this is a clear case of head marking (cf. NICHOLS 1986: 58).

- (14) a.  *hr*  
'har  
face
- b.  *hr-*  
har-  
face
- c.  *sn*  
'san  
brother
- d.   *hr-f*  
hə'ri-f  
face-his

The fact that Late Egyptian is well in accordance with NICHOLS' hypothesis is *per se* not utterly remarkable. On the other hand, matters had been quite different in earlier varieties of Egyptian, and the organization of possessive constructions had been restructured several times, before – after almost 2,000 years of development – a stable state was achieved, that should be valid for the next two and a half millennia until the demise of Egyptian. The unsurpassed long duration of the history of written language-processing in Egypt offers an ideal opportunity not only for evaluating supposed universals but also for studying how a particular connection of typological features generally favoured in human languages came into being.

With a fair degree of certainty, the unconnected forms of the nouns quoted in the pre-Old Egyptian examples can be reconstructed as \*'janu 'brother', \*'ħalu 'face', and \*'t'apattu < \*'t'apawtu 'boat'. While we may be quite confident about the sound shape of the two former substantives, neither the quality nor the quantity – and not even the position – of the vowels in \*'t'apattu is based on solid grounds (this word was nevertheless selected as an example for it is one of very few nouns which show distinctive stems in written language). We may infer that in Stage I head marking or dependent marking appeared according to the respective part of speech of the possessor (see 15). Some relics of that state in Old Egyptian as well as comparative evidence seem to indicate that a nominal possessor in pre-Old Egyptian had been marked by a case suffix, whereas a pronominal possessor had been cliticized to a particular form of the head noun. Obviously, there was no morphological differentiation between alienable and inalienable possession, although constraints as those extant in the historical period that restrict the use of certain syntactic constructions – like bipartite nominal clauses (e.g. *sn.t-f Spd.t* 'his sister is Sothis') or complements of adjectives (e.g. *spd- hr* 'sharp of face, clever') – to inalienable nouns might already have been valid.

(15) STAGE I (c. 3000 BC)	possessor a noun		possessor a pronoun
alienable head noun	*'t'apattu SBST.:FEM. boat	'jan-i SBST.:GEN. brother-'s	*'t'ap'wati-φu SBST.:STATPRON.:FEM.-3M.S boat-his
	<b>DEPENDENT MARKING</b>		<b>HEAD MARKING</b>
inalienable head noun	<b>DEPENDENT MARKING</b>		<b>HEAD MARKING</b>
	*'ħalu SBST. face	'jan-i SBST.:GEN. brother-'s	*'ħa 'li-φu SBST.:STATPRON.-3M.S face-his

Looking at Stage II we come across a different situation (see 16). Nominal possession in Old Egyptian is generally expressed by means of a compound consisting of an unstressed form of the head noun preceding the noun that refers to the possessor and is left unchanged. As the unconnected forms of the model nouns are 'jan, 'ħal, and 't'a:pat, now head marking prevails absolutely. As an exception, there are a few compounds in historical Egyptian that bear the stress on the first constituent (e.g. *ħm-ntr* / 'ħam-nacal/ > Coptic ϩONT / 'hənt/ 'servant of

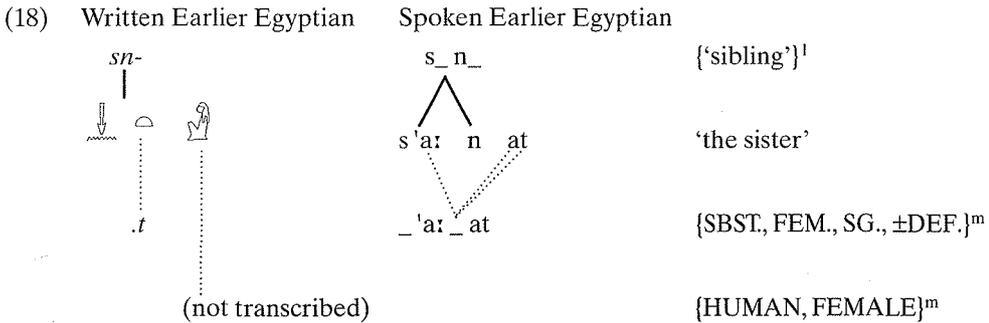
god, priest'), thus exhibiting dependent marking. These are known in Egyptology as "older compounds" (FECHT 1960, cf. PEUST 1999: 277–284) and may be interpreted as lexicalizations of constructions of Stage I that have undergone a weakening of their final element.

(16) STAGE II (c.2500 BC)	possessor a noun	possessor a pronoun
alienable head noun	 <i>dp.t- sn</i> <i>t'apat- 'san</i> <u>SBST.:STAT.CSTR.:FEM.-SBST.</u> boat-brother <b>HEAD MARKING</b>	 <i>dpw.t-f</i> <i>t'ap'wa-t-f</i> <u>SBST.:STAT.PRON.:FEM.-3M.S</u> boat-his <b>HEAD MARKING</b>
inalienable head noun	<b>HEAD MARKING</b>  <i>hr- sn</i> <i>ħal- 'san</i> <u>SBST.:STAT.CSTR.-SBST.</u> face-brother	<b>HEAD MARKING</b>  <i>hr-f</i> <i>ħa'li-f</i> <u>SBST.:STAT.PRON.-3M.S</u> face-his

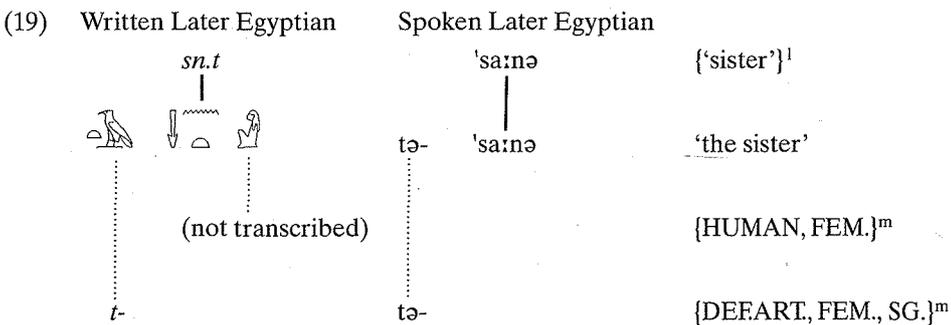
Stage III represents Middle Egyptian, especially the norm of classical literary works. The actual unconnected forms of the three paradigmatic nouns have undergone some phonological processes and turn up as 'san, 'ħar, and 't'a:pəʔ. Possessive expressions with alienable possessed are no longer built productively by means of compounds, but rather exhibit the determinative pronoun *n(j)-* (masc. sg.) 'that of', *n.w-* (masc. pl.) 'those of', *n.t-* (fem. sg. or pl.) 'that/those of'. As a consequence, in constructions with noun possessor, alienable possession and dependent marking contrast with inalienable possession and head marking (see 17). The morphosyntactic opposition between alienable and inalienable possession emerged as a result of the fact that an inherited manner of expression had lost its former ubiquitous applicability and continued to be used solely in cases of nouns referring to particularly closely connected entities – be it lexicalizations of specific compounds or inalienabilia.

(17) STAGE III (c.2000 BC)	possessor a noun	possessor a pronoun
alienable head noun	 <i>dp.t</i> <i>n.t- sn</i> <i>'t'a:pəʔ</i> <i>nət- 'san</i> <u>SBST.:FEM. DET-FEM.-SBST.</u> boat      that of-brother <b>DEPENDENT MARKING</b>	 <i>dpw.t-f</i> <i>t'ap'wat-f</i> <u>SBST.:STAT.PRON.:FEM.-3M.S</u> boat-his <b>HEAD MARKING</b>
inalienable head noun	<b>HEAD MARKING</b>  <i>hr- sn</i> <i>ħar- 'san</i> <u>SBST.:STAT.CSTR.-SBST.</u> face-brother	<b>HEAD MARKING</b>  <i>hr-f</i> <i>ħə'ri-f</i> <u>SBST.:STAT.PRON.-3M.S</u> face-his

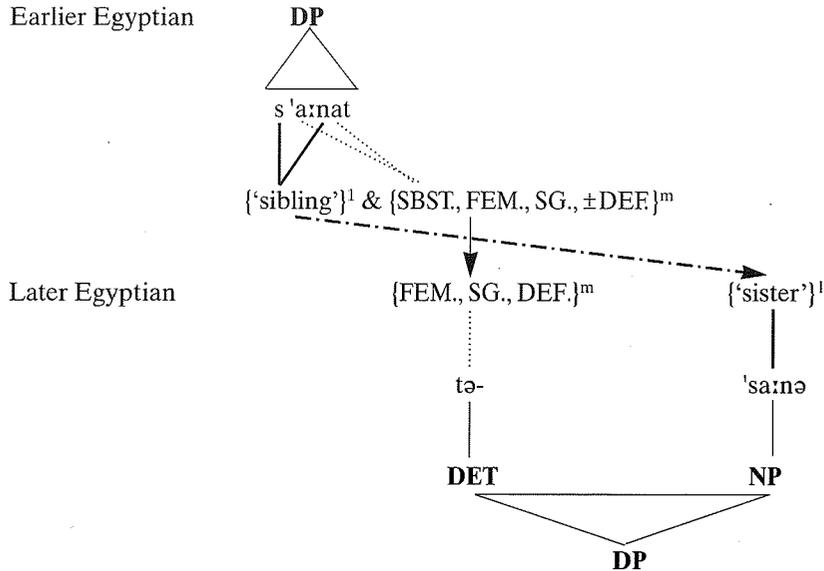
With respect to the morphosyntactic structure of noun phrases, Later Egyptian differs considerably from Earlier Egyptian. What recent works on Generative Grammar classify as DP and its respective complement – or, to use a more traditional terminology, the lexical core of a nominal expression and the elements signalling grammatical categories like number, gender and definiteness – were fused into one synthetic form in Earlier Egyptian. Thus, an actual noun generally consisted of at least two discontinuous morphemes: the purely consonantal lexical root on the one hand and a vocalic tier (plus possible affixes) furnishing additional grammatical information on the other (see 18).



Beginning already with the later period of Old Egyptian, the shape of the original grammatical elements was largely reduced and, due to a phonological process causing the loss of /t/ in word-final position, the contrast between masculine and feminine nouns as well as the number distinction was severely weakened. Consequently, the grammatical elements expressing nominal categories were no longer identified with the vocalic tier fused with the root, but became isolated as a new additional element – the definite article – located to the left of the lexeme. Now, as a result, the lexeme was not only analysed as one continuous morpheme, but also transferred to a lower level of the phrase, so that it acted as a complement of DET (see below the diagram in 19). The structural difference between the earlier and later constructions is depicted schematically in (20).



## (20) Earlier Egyptian



We should add that demonstratives and possessive suffixes, which had served as postnominal modifiers in Earlier Egyptian, were also shifted into a prenominal position and became (part of) the head of the respective DP in Later Egyptian. Resulting from the dislocation of possessive pronouns into a prenominal position, possessive constructions of Stage IV seem to represent a situation that might be characterized as a correlation between alienable possession and dependent marking on the one hand and inalienable possession and head marking on the other (see 21).

(21) STAGE IV (c. 1200 BC)	possessor a noun	possessor a pronoun	
alienable head noun	 <i>t- dp.t</i> tə- 't'a:pəʔ ART:FEM.-SBST	 <i>n- p- sn</i> n-pə- 'san PREP.-ART.-SBST	 <i>ty-f- dp.t</i> tef- 't'a:pəʔ DEM.:FEM.-3M.S-SBST
	boat	that of-brother	boat-his
	<b>DEPENDENT MARKING</b>		<b>"DEPENDENT MARKING"</b>
inalienable head noun	<b>HEAD MARKING</b>  <i>hr- sn</i> ħaʔ- 'san SBST:STATCSTR.-SBST		<b>HEAD MARKING</b>  <i>hr-f</i> ħə'ri-f SBST:STATPRON.-3M.S
	face-brother		face-his

This is exactly the state of affairs we should expect according to NICHOLS' studies (1988: 576–579 and 1992: 116–123) and the "principle of conceptual distance" proclaimed by JOHN HAIMAN (1985, cf. CROFT 1990: 174–183, RIJKHOFF 1998: 339–341). Nevertheless, it must be

emphasized that even though the findings well support the intention of these hypotheses, a representation like that of (21) might be misleading to a certain degree. NICHOLS' definition of what head marking and dependent marking respectively should be considered (NICHOLS 1986: 56–59, 1992: 46) does not match exactly the syntactic structure of Late Egyptian DPs. There is some reason to assume that, in the case of definite nouns requiring the use of an article or a possessive pronoun (consisting of a demonstrative plus a personal suffix), the head of the phrase is not the noun but the determiner. Identifying head and dependent in Egyptian DPs is no trivial task. Consider the following example:

- (22)     
*fd-t-s*                      *-jptw*                      *nms-(w)t*  
 NUM.-FEM.-3FS          DEM.:PL.FEM.          SBST-PL.FEM.  
 four-her                      these                      vessels  
 these four jars of hers          (SETHE 1908–22 = Pyr. 1180c<sup>EM,N</sup>, 23<sup>rd</sup> and 22<sup>nd</sup> cent. BC)

If in (22) the noun *nms-(w)t* 'jars' had to be considered the head of the noun phrase 'these four jars of hers', we would face several problems: not only does a demonstrative of the *pw*-series usually follow a noun and agree in gender and number, but a sequence Num Dem N contradicts as well the rules of patterning in simple noun phrases as governed by the *Principle of Domain Integrity*, the *Principle of Head Proximity* and the *Principle of Scope* that allow exclusively the orderings listed in (23).

- (23) *Possible patterns in the simple NP* (RIJKHOFF 1998: 339–362)
- |             |             |             |             |
|-------------|-------------|-------------|-------------|
| Dem Num A N | Dem A N Num | Num A N Dem | A N Num Dem |
| Dem Num N A | Dem N A Num | Num N A Dem | N A Num Dem |

As the sequence of (22) is the basic expression in Old Egyptian and not a pragmatically marked alternative, we assume that numerals larger than one are not modifiers of a noun, but nouns themselves in Egyptian (LOPRIENO 1986: 1310). Thus, Egyptian numeral expressions do not constitute simple noun phrases (cf. RIJKHOFF 1998: 350–357), but complex phrases in which the head is formed by the numeral and the noun counted follows in apposition. This analysis is confirmed by cases such as (24), where the numeral is referred to by means of a singular demonstrative – a practice that can be observed occasionally in Old Egyptian and became standard in Middle and Late Egyptian.

- (24)         
*fd(w)*    *-pw*    *ntr-(w)*    *pr-r-w*    *m-*    *wp-t*    *Gb*  
 NUM.    DEM.:SG.    SBST-PL.    DPA.-PL.    PREP.    SBST-FEM.    THEON.  
 four    this    gods    coming forth    in    vertex    Geb  
 these four gods that issue from the vertex of Geb  
 (JÉQUIER 1933: pl. VIII,11 = Pyr. \*1579b<sup>Nt</sup>, c. 2150 BC)

A similar structure should be ascribed to Old Egyptian constructions employing one of the demonstratives *nn* 'this' and *nf* 'that', which – in contrast to *-pn* 'this' and *-pf* 'that' – never follow a noun, but either precede it (often connected by the determinative pronoun *n(j)-*) or are used autonomously. The demonstratives *nn* and *nf* are not specified for gender and number. Syntactically, they behave like singular nouns. Co-referential participles or relative forms take the masculine form, but the personal pronoun referring to them is feminine. The

meaning of a phrase employing *nn n(j)*- is singular before a singular noun (25), but plural, if the noun is in the plural (26).

(25)						
	<i>nw</i>	<i>n(j)-</i>	<i>zšzš</i>	<i>wbb</i>	<i>m-</i>	<i>t3</i>
	DEM.	DET.:M.S	SBST.:M.S	NPA.:M.S	PREP.	SBST.
	that	that of	...-flower	having sprung up	in	earth
	that flower that sprang up from the earth					
	(SETHE 1908–22: I 144,1 = Pyr. 264b <sup>W</sup> , c. 2300 BC)					

(26)				
	<i>nw</i>	<i>n(j)-</i>	<i>ms-w</i>	<i>tkk-t</i>
	DEM.	DET.:M.S	NPP.-PL.	SBST.-FEM.
	that	that of	children	wasp
	these children of the wasp			
	(SETHE 1908–22: II 428,2 = Pyr. 1772c <sup>N</sup> , 22 <sup>nd</sup> cent. BC)			

An intermediary rank is held by the demonstrative *p3-* that shares its pronominal position and its syntactic function as a noun with *nn* and *nf* on the one side and matches *-pn* and *-pf* in agreeing with the substantive in gender and number on the other (cf. EDEL 1955/64: §§ 194–201). Occurring at the beginning solely in more informal utterances, *p3-* became the historical source of the definite article, the demonstrative and the possessive article of Later Egyptian.

Hence, strictly speaking, the construction in the top right-hand corner of (21) does not show dependent marking, but is an example of head marking that, however, differs from the respective expressions in (15), (16), and (17) in the noun having been shifted into the position of the dependent and the affixed pronominal possessors having migrated to the head (on the migration of affixes, cf. NICHOLS 1986: 84–88).

The situation in Coptic is comparable to Stage IV. On the whole, the connection between head marking and inalienable possession that had developed in the course of several processes of restructuring the system remained stable. In the final stage of Egyptian language history, some inalienabilia have become bound nouns and occurred mainly or exclusively as formatives of grammaticalized or lexicalized expressions, e.g. \* *jwtj-r'-f* 'one whose mouth does not exist' >  $\Delta\Gamma\rho\omega\psi$  'mouthless, not speaking the language', *j3-t* 'back, dorsum' >  $\omega\omega$ - in  $\psi\omega\omega$ - 'on, at, in' or  $\tau\omega\sigma\omega$ - 'bosom' in  $\epsilon\tau\omega\sigma\omega$ - 'beside, at, with'. A few cases of double marking patterns with bound nouns, like (27), also appear.

(27)	$\Pi\epsilon\text{-}\psi$	$\rho\omega\text{-}\psi$
	pe-f	roi-f
	POSS.ART.-3M.S	SBST.-3M.S
	his	mouth-his

All in all, our findings do not contradict the assumptions brought forward by JOHANNA NICHOLS. This holds true not only regarding her central hypothesis about the connection of inalienable possession and head marking (cf. NICHOLS 1988: 576–578), but also with respect to other formal hierarchies she draws attention to. The claim that bound nouns – a closed set of nouns that must be formally possessed – only appear where there is head marking

(NICHOLS 1988: 578) can be further substantiated by means of the situation in Coptic. NICHOLS' observation that possessive affixes used on inalienable nouns are usually morphologically less complex than those used on the open set of alienables (NICHOLS 1988: 564 and 579) fits well with the data of Later Egyptian (cf. 33). And finally, pre-Old Egyptian of Stage I (cf. 27) supports the premise that "pronoun possessors are frequently head-marked where noun possessors are dependent-marked" (NICHOLS 1988: 580).

### Abbreviations

{ } <sup>l</sup>	encloses lexical morphs	M.	masculine
{ } <sup>m</sup>	encloses grammatical morphs	N	noun
1	first person	NEG.	negation
2	second person	NEG.AUX.	negative auxiliary
3	third person	NOM.	nominative
A	adjective	<b>NP</b>	noun phrase
ACC.	accusative	NUM.	numeral
ART.	(definite) article	PAST.	past tense
AUX.	auxiliary	P(L.)	plural
C.	common gender	POSS.ART.	possessive article
DEF.	definite	PREP.	preposition
DEM.	demonstrative	PRET.	preterite
DET.	determinative pronoun	S(G.)	singular
<b>DET</b>	determiner	SBST.	substantive
<b>DP</b>	determiner phrase	STAT.CSTR.	status constructus
DPA.	distributive participle, active	STATPRON.	status pronominalis
F(EM).	feminine	THEON.	theonym
GEN.	genitive	TOP.	topic
INF.	infinitive	VB.	verb

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