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CHAPTER 46

HISTORY OF THE EGYPTIAN LANGUAGE

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INTRODUCTION: PERIODIZATION OF THE LANGUAGE

ANCIENT Egyptian, including Coptic, has the longest written documentation of any language, extending over more than four millennia.[1] This is traditionally divided into the following stages:

- [Archaic Egyptian: fragmentarily attested, Dynasties 0–3, *c.*3050–2650 BC][2]
- Old Egyptian (Old Kingdom, *c.*2650–2150 BC)[3]
- Middle Egyptian (First Intermediate Period through Amarna, *c.*2150–1350 BC)[4]
- Late Egyptian (Amarna through Third Intermediate Period, *c.*1350–650 BC)[5]
- Demotic (Late Period, *c.*650 BC–AD 300)[6]
- Coptic (the indigenous language of Late Antique and medieval Egypt, *c.*AD 300–1300)[7]

[1] Surveys: Loprieno and Müller 2012, Loprieno 2001, Junge 1985, 1984. Monographic treatments: Allen 2012, Loprieno 1995.

[2] For the lexicon, Kahl et al. 2002–; for phonology, Kammerzell 2005.

[3] Edel 1955–1964 (the reference grammar, now outdated for verbal inflection); for the verb, Allen 1984 (Pyramid Texts), Stauder 2014 (in general), Stauder 2020 and Doret 1986 (both for autobiographies); for specific corpuses: Allen 2017 (pyramid of Unis), Schweitzer 2005 (Fourth Dynasty).

[4] Malaise and Winand 1999, Borghouts 2010, Schenkel 2012, Allen 2014, Gardiner 1957; for documentary texts, Brose 2014.

[5] Junge 2008³, Neveu 1996, Erman 1933.²

[6] Quack in prep., Simpson 1996, Johnson 1976, Spiegelberg 1925. Note the occasional mismatches between Demotic language and script: Demotic language written in the hieroglyphic or hieratic scripts and, conversely, Middle Egyptian or 'égyptien de tradition' (see below) written in the Demotic script; see Quack 2010a; 1995.

[7] Layton 2011³, Polotsky 1987–1990, Till 1961, 1931, Steindorff 1951; Müller in prep.

The traditional subdivision is largely a product of an awareness of the historicity of the Egyptian language that emerged gradually among scholars from the later nineteenth century onwards.[8] While entrenched in academic teaching practice, this subdivision is inherently problematic as it projects historical periodization onto linguistic history. It is indirectly relevant insofar as the major political and cultural discontinuities that it mirrors had effects on the types of texts and contents that were committed to writing at a given time; on the constitution of written standards of the language (including their possible geographical bases); on graphemics (the shifting conventions for representing language in writing); and thereby, more broadly, on aspects of how Egyptian-Coptic presents itself as a corpus language. Current research emphasizes the dialectics between linguistic change per se, as a series of continuous processes largely indifferent to such external determinations, and the partly discontinuous ways in which ancient Egyptian manifests itself in a written record. The latter is problematized in its artefactual nature and as reflecting the extra-linguistic determinations of successive episodes of 'Verschriftlichung' of which it is the product.

Linguistically, the traditional division is substantiated by a relatively limited set of mainly formal (morphosyntactic) criteria, many to do with verbal morphology. A consideration of a higher number of more diverse criteria, and of the occasionally more elusive dimensions of semantic change, alters the picture.[9] As description becomes more refined, increasing attention is paid to the considerable diachronies internal to traditionally defined language stages; this leads to distinctions such as between 'Middle Egyptian I' (First Intermediate Period–early Twelfth Dynasty) and 'Middle Egyptian II' (late Twelfth–Eighteenth Dynasty), between earlier and later Late Egyptian (late Eighteenth–Twentieth Dynasty and late Twentieth Dynasty–Third Intermediate Period, respectively), or between early, middle, and late Demotic.[10] As a result, the boundaries between discrete stages as traditionally defined are also getting blurred.[11] In addition, the often considerable variation observed in the written record at any given time is increasingly taken into consideration (see below). Variation is studied both as a defining dimension of written language in use in different cultural settings,[12] and as providing the necessary basis for linguistic change itself; this results in a blurring of the traditional dichotomy between synchrony and diachrony.

From the late New Kingdom to Roman times, the monumental, ritual, and funerary spheres witnessed a continued cultivation or even revival of (elements of) older linguistic varieties (mostly from Middle Egyptian, but also from Old and even Late Egyptian). This phenomenon—described as 'égyptien de tradition' (or, roughly, 'Traditional Egyptian')—is

[8] Schenkel 1990: 7–10.

[9] Lexical change would be highly relevant too in principle, but can hardly serve refined periodization in practice given the severely incomplete diachronic attestation of the lexicon in the record.

[10] For major changes occuring during 'Old Egyptian', Stauder 2014 (*passim*); during 'Middle Egyptian', Vernus 1990a: 143–93, Stauder 2013c (*passim*); during 'Late Egyptian', Winand 1992: 13–17 (and *passim*), 2014b, 2016; during 'Demotic', Quack in prep. Coptic is traditionally described in mostly synchronic terms, but internal diachronies are revealed, e.g., when closer attention is paid to differences between 'dialects' as reflecting diverse stages in grammaticalization processes (Grossman 2009).

[11] Transitions from Old to Middle Egyptian, Stauder 2014 (*passim*), Oréal 2010 (*passim*), Vernus 1996b; from Middle to Late Egyptian, Kruchten 1999, Kroeber 1970; from Late Egyptian to Demotic, Winand 2016: 252–4, 261–2, and 2014b: 260–2, 264–5; Quack forthcoming and 2001: 168–72, Vernus 1990b, and Shisha-Halevy 1989; from Demotic to Coptic, Quack forthcoming and 2006.

[12] Introduction: Polis 2017a; pioneering influential studies are Junge 1985, 1984; further references below.

embedded in textual practice, presents inherent features of hybridity, and is therefore not a historical stage of the language (see further below).[13] The coexistence of 'égyptien de tradition' with contemporary written varieties (later Late Egyptian, Demotic) resulted in a situation of increasing written diglossia from the late New Kingdom and early Third Intermediate Period on.[14]

Based on typological criteria, finally, a higher-order grouping contrasts 'Earlier Egyptian', comprising Old and Middle Egyptian, with 'Later Egyptian', comprising Late Egyptian, Demotic and Coptic (see below).[15]

Elements of a Cultural and Social History

Ancient Egyptian represents an autonomous branch in the Afroasiatic phylum, alongside the Semitic (for example Akkadian, Ge'ez, Arabic), Berber, Cushitic (for example Somali, Bedja), Chadic (for example Hausa), and perhaps Omotic groups.[16] Afroasiatic is established as a genetic phylum based on a number of notably morphological isoglosses (common features; examples involving Egyptian are given below).[17] Isoglosses between Egyptian and the Semitic group in particular are the most apparent but should not be taken to imply an Egyptian-Semitic subgrouping, or node, within Afroasiatic considering that the perspective is heavily biased by the early attestations of these two groups and the very uneven density of documentation and scholarship in the Afroasiatic phylum. At present, any nodes within Afroasiatic remain highly disputed and the phylum is best represented in terms of a coordinate branching of all five groups.[18] Moreover, tree models must be integrated with models of spread forking with converging, models of language split with convergence areas, and substrate and adstrate influence. Given more hospitable climatic conditions and more mobile lifestyles in prehistoric times, the whole area, including the Eastern Sahara, must have been a zone of protracted contact over millennia. Rather than in principally cladistic

[13] The label was coined by Vernus (e.g. 1996a, 1979) to capture the cultural status and hybrid character of the phenomenon. Terminologically less fitting are 'Spätmittelägyptisch' (Jansen-Winkeln 1996), which suggests that 'égyptien de tradition' is a continuation of Middle Egyptian, and 'Neo-mittelägyptisch' (Junge 1985), which evokes 'Neo-Latin' and could be taken to suggest that 'égyptien de tradition' is a restoration of Middle Egyptian as a cohesive whole.

[14] Vernus 1996a. This situation of written diglossia is to be distinguished from the fact that the written language differed more or less strongly from the spoken language at all times, and also from the fact that written Egyptian itself displayed internal variation at all times.

[15] Note the labelling: Earlier Egyptian ('Älteres Ägyptisch', 'égyptien de la première phase') ≠ Old Egyptian ('Altägyptisch') ≠ Ancient Egyptian (Egyptian as a whole). Similarly, Later Egyptian ('Späteres Ägyptisch', 'égyptien de la deuxième phase') ≠ Late Egyptian ('Neuägyptisch', 'néo-égyptien').

[16] For surveys of the Afroasiatic language families, see Frajzyingier and Shay 2012. The relationship of Omotic to Afroasiatic remains debated, as does the nature of the Omotic grouping itself, as a genetic family or an areal pool: see, recently, Güldemann 2018: 330–40, 347–8.

[17] Gragg 2019; Hayward 2000.

[18] For a review of proposed subgroupings in Afroasiatic, see Peust 2012; for recent discussions of this issue, see the studies in Štubňová and Almansa Villatoro forthcoming. On the even more problematic question of a putative Afroasiatic 'homeland', see, for instance, Haggerty and Renfrew 2014: 315–18.

terms, the coalescence of Egyptian, in a region at the crossroads of Northeast Africa and the Levant, should be viewed in relation to contact with languages from other Afroasiatic as well as non-Afroasiatic groups, many of which are now completely submerged.

The development of Egyptian as a written language is a history of its various written standards, in relation to spheres of written performance (see Chapter 47 in this volume) and possibly reflecting diverse geographical and social varieties. The Egyptian language was first committed to writing in relation to state formation during the late fourth and early third millennia BC, '...a time when a number of languages was likely spoken over Egyptian territory.' Underlying geographical variation of Egyptian itself has to be posited at all times, considering the geographical extension of Egypt, the effective porosity of borders to all sides, and the lack of homogenizing forces, such as mass literacy. Such variation, however, remains largely invisible in the written record as a result of the elite nature of the written language, the centralized political and cultural models of written culture and scribal education, and the continuity of the high-cultural written tradition. Only a few elements of possible dialectal variation in pre-Coptic Egyptian have been noted, either synchronically or in relation to apparent discontinuities between successive diachronic varieties.[19] Such discontinuities are plausibly interpreted as pointing to the contributions of different underlying geographical varieties to the standards that defined written Egyptian at various periods. The earliest Egyptian was likely the language of a small group that formed the elite, with southern origins, of the early supra-regional state in the early third millennium BC. The written language of the Old Kingdom was arguably the highly formalized outcome of a mixing of features of southern and northern origins, at a remove of any variety spoken locally. The relatively more widespread literacy in the Middle Kingdom (even though still restricted to the elite) and the increased importance of social groups such as the military in Ramesside times may have played a role in the definition of Middle Egyptian and Late Egyptian as we know it, respectively. In the context of a regionalization of written culture, elements of underlying regional variation become somewhat more visible in Demotic, then more fully so in Coptic. For some Coptic dialects, assigning precise locations in geographically defined speech communities remains difficult, also due to their possible nature as 'scripto-lects'.[20] Sahidic (originating in Middle Egypt) and Bohairic (originating in the North) achieved supra-regional status at various periods, the latter in relation to the influence of the Alexandrine Church.

By definition, written standards imply a distance from spoken language. The latter is elusive throughout Egyptian history. Reported discourse of people of lowly condition are voiced by the elite that had them inscribed; they purport to evoke, rather than transcribe, whatever spoken language may have been like.[21] Epistolary genres have their own standards, displaying only occasional lapses into what may be actual vernacular forms of the language.[22] At a much later time, the generally low number of Greek loanwords in most Roman Demotic is revealing, particularly when contrasted with their significantly higher number in the less

[19] Winand 2016; Gundacker 2017, 2010: 97–103; Allen 2004; and Peust 1999a: 34 (with references to previous observations beginning with Edgerton 1951).

[20] Funk 1988; Kasser 1991.

[21] Vernus 2010a ('Reden und Rufe'); Winand 2017b (words of thieves in the Tomb Robberies papyri).

[22] For the Middle Kingdom, see Brose 2014 and Allen 1994 (noting that Hekanakht makes a slight difference in register when addressing a superior and when dealing with private business matters); for Ramesside times, see Sweeney 2001; and for the different situation in Coptic, see Richter 2006.

standardized language of the contemporary Narmuthis ostraca;[23] similarly, Arabic loanwords were largely kept out from most Coptic texts even at a relatively late date.[24]

The formality of the pre-Coptic record reflects the high-cultural determinations of written performance specific to ancient Egypt. Egyptian was first committed to writing in very short inscriptions in ceremonial and funerary contexts, then extended to administrative functions. Continuous texts, mirroring the sequence of speech, developed only later from 2700 BC on;[25] written genres diversified only gradually. In relation to the sacralizing function of inscriptions, written language in the lapidary sphere tends to show a remarkable stability of formulations from one monument to the next and across time. In the Old Kingdom, constructions of the verb differ partly in the Pyramid Texts and in tomb autobiographies, reflecting the different ritual functions of these types of texts.[26] The refined and highly patterned language of Middle Egyptian literature is a product and index of a court-oriented elite society in which face-to-face interaction and verbal rhetoric were vital.[27] Furthermore, it draws on constructions, formulations, and modes of patterning otherwise found in lapidary genres with which Middle Egyptian literature is intertextually allied.[28] In a changed cultural and social setting, the language of Late Egyptian literature displays no similarly intensively productive linguistic connections with the inscriptional sphere, but significant internal variation in relation to time and genre, with teachings, for example, being typically more conservative linguistically.[29] In the early Third Intermediate Period, the apparent linguistic proximity of *The Misfortunes of Wenamun* to the contemporary vernacular is only partial, and part of the fictionalizing framing strategies of the literary composition.[30]

Late Egyptian, more generally, displayed a complex continuum of written registers, defined in relation to types of texts, contents, supports, and contexts of written performance.[31] Linguistic selections were thus made in relation to a cultural code, itself changing over time. At the close of the Second Intermediate Period (*c.*1550 BC) already, the highly composed language of the Kamose inscriptions accommodated a great many innovative expressions with an otherwise highly classical Middle Egyptian, indexing claims of both insertion into a tradition and novelty in terms of content and textual format.[32] In Ramesside times (*c.*1295–1069 BC), texts and genres that ranked higher in decorum and/or were more strongly bound by past textual tradition tended to include higher amounts of Middle Egyptian expressions alongside generally more conservative spellings.[33] In inscriptions and in literature notably, expressions deriving from various periods could be accommodated within a single textual composition, resulting in deliberate linguistic heterogeneity

[23] Ray 1994; on the Narmuthis ostraca, see also Quack 2006. [24] Richter 2017.

[25] Stauder-Porchet 2017: 9–33.

[26] Stauder 2020, 2014: 114–16, Allen 1982; also, for 'particles', Oréal 2010 (*passim*).

[27] Stauder 2013c; Collier 1996; Loprieno 1996. [28] Stauder 2013b and 2013c: 242–9.

[29] Quack 1994: 29–50 (*Teaching of Ani*); Vernus 2013 (*Teaching of Amenemope*).

[30] Winand 2011.

[31] This has been described in the terms of been described in the terms of a 'néo-égyptien partiel', 'néo-égyptien mixte', and 'néo-égyptien complet' (Winand 1992: 10–30); see also Junge 1984 and 1985, in a broader historical perspective.

[32] Stauder 2013c: 43–50.

[33] Goldwasser 1999, 1990. A complex differentiation of registers is already observed in the Eighteenth Dynasty: for Amarna, Silvermann 1991; for early Thutmoside times, see Stauder 2013a and 2013c: 9–55, particularly 50–3, and 238–42.

modulated in relation to similar parameters of decorum, phraseological embeddedness, and generic boundedness.[34] Linguistic variation is also observed at the level of a scribal community, at Deir el-Medina, where an identifiable individual author (Amunnakht) also differentiated linguistic register according to context of written performance.[35]

Linguistic heterogeneity in what presents itself as one text could also result through layered textual history, and, more broadly, through the inclusion of formulations and textual materials deriving from various periods.[36] The phenomenon becomes particularly manifest in the context of the written diglossia that emerged when the register continuum characteristic of Ramesside written production evolved, in the early first millennium BC, into a starker contrast between the monumental and religious spheres and the more mundane ones. In the former, 'égyptien de tradition' drew on past written tradition in ways that were both reproductive and genuinely productive[37]—and, thereby, on multiple linguistic models (mostly Middle Egyptian in various forms, but also Old and Late Egyptian)—so as to evoke a 'primeval' or 'pristine' language associated with tradition as a source of authority and with the ritually to be re-enacted 'First Time' (*sp tpy*).[38] In 'égyptien de tradition' in its many actualizations, the morphosyntax of older varieties could be simplified; equally characteristic are various degrees of interference, as well as elements of intentional dissimilation, from contemporary varieties.[39] In addition to continuously transmitted texts, excerpts from old texts were used on monuments,[40] and compendia of what may be termed historical lexicography were compiled in sacerdotal contexts,[41] the effects of such textual, hence linguistic, archaeology being visible for example in the lexical wealth of Ptolemaic temple inscriptions. In similar contexts, practices of intralingual translation, from Middle Egyptian into Demotic, are documented, with the implication that the situation of written diglossia was clearly recognized as such culturally.[42]

With the progress of Greek, the native idiom became gradually confined to the spheres of religion and private business in early Roman Egypt, then further to magical texts, mummy labels, and 'personal piety' in the third century AD. The advent of Coptic, in the fourth century AD, represents a 'Neuverschriftlichung' of the native language in relation to the translation of texts from the new Gnostic, Manichean, and Christian religions.[43] More than in pharaonic times, the functional spheres of written performance remained restricted: Coptic was used in written form for religious literature of various sorts, and, discontinuously, for business matters, scientific texts, poetry, and in private graffiti, but not, as a rule,

[34] For inscriptions, notably Paksi 2020 and 2016 (Ramesside royal inscriptions); Gillen 2015 (eulogistics vs. narrative parts in the Medinet Habu inscriptions),Vernus 1978 (Samut son of Kyky, with literarizing tendencies); for literature, see, e.g., Quack 2001: 168–72 (Wermai); Goldwasser 1990 (Satirical Letter).

[35] Polis 2017a and 2017b.

[36] E.g. for earlier times, in the Coffin Texts, see Vernus 1996b; in later times, in P. Jumilhac, see Quack 2008.

[37] Vernus 2015, 2016, 2017.

[38] For general introductions to this topic, see Vernus 1996, 2016 and Engsheden 2016. For specific studies, see Vernus 1979, 2015; Engsheden 2003; Depuydt 1999; Jansen-Winkeln 1996; der Manuelian 1994; and Lustman 1999.

[39] See, for example, Engsheden 2003 and Vernus 1979.

[40] Osing and Rosati 1998; Kahl 1999.

[41] Osing 1998.

[42] Cole 2015, von Lieven 2007: 258–73.

[43] Richter 2009; for the writing system, see Quack 2017.

for public administration or political display which remained the domains of Greek and, later, Arabic.

The demise of Coptic was a protracted process, varying according to geographical areas and functional spheres of written and oral performance. An advanced stage of ongoing language shift to Arabic in the thirteenth and fourteenth centuries AD is inferred from the discontinuation of new written production in Coptic and from intense philological activity which included the translation of Coptic written tradition into Arabic, and the redaction of lexico-grammatical sketches of the language in Arabic.[44] In its Bohairic form, Coptic survives to the present day as the liturgical language of the Coptic Church.

During much of pharaonic civilization, Egyptian carried an unrivalled prestige in Egypt and was strongly associated with Egyptian writing, and, beyond this, with high culture itself. While this did not preclude occasional extensive borrowing from other languages (see below), other languages spoken in Egypt by various foreign communities at various periods were hardly ever committed to writing before the Late Period.[45] Generally speaking, languages spoken outside Egypt were also not written down, with the notable exceptions of short magical spells embedded in Egyptian texts[46] and of Akkadian as the language of international diplomacy in the Late Bronze Age.[47] Conversely, the Egyptian language was generally not used outside Egypt, except for display in short royal inscriptions by the Middle Bronze Age governors/rulers of Byblos and in more elaborate ones by Napatan rulers around the mid-first millennium BC.[48] In both cases, this was part of a broader adoption of elements of Egyptian decorum indicative of prestige, and in the case of the Napatan rulers, it also arguably carried a claim of cultural continuity with the Twenty-fifth Dynasty that had ruled Egypt itself.

The bulk of the linguistic heritage of Egyptian lies in loanwords in Egyptian Arabic and in native (pre-Arabic) toponymy.[49] A few loanwords found their way into other languages, particularly those denoting items culturally associated with Egypt; for example 'oasis' < *wḥ3.t* 'cauldron, oasis' (via Greek); 'Susan' < (ancient Hebrew) *shoshanah* 'lily' < *zšn* 'lotus'; 'Onofrio' (an Italian proper name) < *wn(n)-nfr* (an epithet of Osiris); Meroitic *ant* (*/annata/) 'priest' < *ḥm-nṯr*.

Linguistic history: a selective presentation

The Afroasiatic background

Earlier Egyptian displays a series of lexical and morphological commonalities ('isoglosses') with other Afroasiatic languages.[50] The identification of lexical isoglosses is made difficult by the time depth involved; by the considerable phonological development in Egyptian

[44] For the latter, see, for example, Khouzam 2002.
[45] Quack 2010b, 2017: 28–30.
[46] Quack 2010b; see also Steiner 2011 (disputed).
[47] Müller 2010.
[48] For the latter, see Peust 1999b.
[49] For the former, see Vittmann 1991; for the latter, see Peust 2010.
[50] See the studies in Štubňová and Almansa Villatoro forthcoming, with further references.

prehistory; and by the late attestation and unequal description of several branches of Afroasiatic. Even in the case of the Semitic domain, which is better documented, more thoroughly studied, and of early attestation, the partly different phonological reconstructions lead to a partly diverging set of cognates.[51]

Morphological isoglosses are more easily identified.[52] Egyptian shares a general morphological type with Afroasiatic, by which a well-formed word results from the intersection, or 'interfixation', of two discontinuous morphemes, a lexical and a grammatical one, with or without additional affixes ('root-and-pattern morphology'). Specific isoglosses in nominal morphology include:

- the various series of personal pronouns,
- the feminine ending *-t* and elements of plural formation,
- elements of derivational morphology (the prefix *m-*; the *nisba* formation).

For example

lexical root morpheme:	{*s-ḏ-m*} 'hear'		
inflectional morpheme:	{CaCCá-f}	→ */saʄˈmaf/	'may he hear' (*sḏm=f*)
	{Cá:CaC}	→ */ˈsa:ʄam/	'hear' (*sḏm*)
	{CaCíC-nv-f}	→ */saˈʄimnvf/	'he heard' (*sḏm.n=f*)
	(etc.)		

Specific isoglosses in verbal morphology include:

- the pseudoparticiple (cognate to, for example, the Akkadian or Berber stative, and the West-Semitic perfect),
- the passive morpheme *.t(w)* (cognate to the Afroasiatic transitivity-reducing affix {t}),
- and the derivational prefixes *s-* (causative) and *n-* (intransitive, detransitive, and with certain morphological functions).

Major differences in the morphological inventory are:

- the *sḏm=f* suffix conjugation, present only in Egyptian,
- and, conversely, the lack of the Afroasiatic prefix conjugation (for example Semitic *ya-qtul*).

On the last account, Egyptian could reflect an earlier, or, conversely, a more innovative, stage within Afroasiatic. Alternatively, Egyptian could also represent a separate development, in which case neither the Egyptian suffix conjugation nor the Afroasiatic prefix conjugation would project back to the proto-language, assuming there even ever was one.

While the verbal isoglosses mentioned above make for a shared morphological inventory, the forms in individual branches of Afroasiatic can have a partly different functional profile or morphological status. For example, both the Egyptian 'pseudoparticiple' and the

[51] See the partly diverging analyses in, for example, Allen 2012: 31–6; Schneider 1997; Loprieno 1995: 31–7; Schenkel 1993, 1990: 48–57; and further Gensler 2015. For an etymological dictionnary of Egyptian in Afroasiatic, see Takács 1999– (the work has received a mixed reception).

[52] Stauder forthcoming a.

morphologically cognate Akkadian 'stative' can be described as resultatives (denoting a state that results from some previous action). But the Egyptian form has also developed regular uses as a perfect with various low-transitivity events (for example *(ỉw=ỉ) ỉỉ.kw* meaning not only 'I am here (having come)', but also 'I have come' or even 'I came' in a narrative chain).[53] Similarly, the morphemes {n}, {s} and {t} tend to be part of a productive derivational system at the crossroads of grammatical functions and lexical semantics in various Afroasiatic languages (developing into so-called stems in Semitic language). By contrast, the cognate morphemes in Egyptian are either fully inflectional (*.t(w)*, coding the sole grammatical function of passive voice) or more fully derivational (*n-* and *s-*) with a diachronic tendency to reduced productivity and eventually lexicalization.[54]

Phonology

During the course of its written history, Egyptian underwent major phonological changes that can only be hinted at here.[55] Under the influence of a strong expiratory stress, unstressed vowels were reduced to *shᵉwa* (/ə/).[56] This resulted in a thorough renewal of the inventory of licensed syllable structures with the rise of complex syllables with initial or final consonant clusters in different positions in the word,[57] for example, under loss of the pre-tonic vowel, #CvCVC > #CCVC$, */wiˈdaħ/(*wdḥ*) 'fruit' >/wdah/(ⲟⲩⲧⲁϩ).[58]

Long and short stressed vowels underwent a global shift beginning in the later second millennium BC:

In the later second millennium BC
- /uː/>/ɛː/ for example */ˈkʰuːmat/(*km.t*) 'Egypt' > */kʰɛːmə/(cf. Coptic ⲕⲏⲙⲉ)
- /u/,/i/>/ɛ/ for example */rin/(*rn*) 'name' >*/rɛn/(cf. $^{\text{ALMF}}$ ⲣⲉⲛ)

In the earlier first millennium BC
- /aː/>/oː/ for example */ˈraːmac/(*rmṯ*) 'man' > */roːmə/(cf. ⲣⲱⲙⲉ)

In Sahidic and Boharic, further, the outcomes of:
- /ɛ/>/a/ for example */rɛn/(cf. $^{\text{ALMF}}$ ⲣⲉⲛ) > */ran/($^{\text{SB}}$ ⲣⲁⲛ)
- /a/>/o/ for example */san/(*sn*) 'brother' (cf. $^{\text{ALMF}}$ ⲥⲁⲛ) > */son/($^{\text{SB}}$ ⲥⲟⲛ)

In the consonantal domain, the realization of various phonemes in earlier times remains disputed; so does the mode of articulation in various series, as a contrast of voice, of aspiration, or otherwise. Among major changes, the phoneme conventionally transcribed as ꜣ evolved early from a liquid, possibly realized as a uvular trill (/ʀ/), to a glottal stop (/ʔ/). A general tendency from the second millennium BC onwards was for the place of articulation to move forward, velars and uvulars undergoing palatalization, palatals evolving into dentals. For example, illustrating the palatalization of the initial velar, as well as the change of ꜣ

[53] Stauder forthcoming a: §3.4; 2014: 109–19, 279–88.

[54] Stauder forthcoming a: §3.2, §4; 2014: 212–22; see Vernus 2009 for *n-*.

[55] For introductions to Egyptian historical phonology, see Peust 1999a; Loprieno 1995: 28–50; Kammerzell 1995, 2005; Schenkel 1990: 24–93; Allen 2020.

[56] Fecht 1960.

[57] Loprieno 1995: 39–40 and 48–50. '$' for syllable boundary, '#' for word boundary.

[58] Unless otherwise mentioned, Coptic examples are from the Sahidic variety.

from/ʀ/to/ʔ/and possibly zero, */ˈkʰaʀmaw/*kȝnw*, *kȝm* ('garden', cf. Semitic *krm*) > [LEg]*/kʰaʔm/>/kʲoːm/(ϭⲱⲙ). Various neutralizations occurred, for instance between pharyngeal/ħ/(*ḥ*) and glottal/h/(*h*), both >/h/(first millennium BC), and modes of articulation in different series underwent complex restructuring. In syllable-final and word-final positions, various phonemes were reduced to a glottal stop and ultimately to zero, for example *mšꜥi* 'walk' */ˈmaʃʕaj/ > */ˈmoʔʃə/(with metathesis, ⲙⲟⲟϣⲉ), *rmṯ* 'man' */ˈraːmac/> */roːmə/(ⲣⲱⲙⲉ).

Nominal morphology and syntax

The above phonetic changes resulted in an evolution, and partial restructuring, of the inherited patterns of synthetic nominal formation over time.[59] In addition to these, new patterns of nominal derivation developed, involving prefixes that arose from erstwhile analytical constructions, for example ϫⲓⲟⲩⲉ 'steal' → ⲣⲉϥ-ϫⲓⲟⲩⲉ 'thief' (with ⲣⲉϥ- < *rmṯ iw=f* (*ḥr* INFINITIVE) 'a man who (. . .)').[60]

The expression of gender and number was transferred from endings to articles from Late Egyptian onwards, for example */ˈsaːnat/*sn.t* 'sister' (with */-at/the feminine ending) →/tcoːnə/ⲧⲥⲱⲛⲉ (with ⲧ- the fem. definite article); the plural ending *-w* retained some productivity down to Coptic. Note that the effects of the feminine ending */-̆t/>*/-ə/on the syllable structure of the word are often still felt in Coptic in the form of typically feminine nominal patterns, for example /ʃpɛːrə/'wonder' (ϣⲡⲏⲣⲉ) < */xapuːrat/or the like (*ḫpr.t*). While the article provided a new formal expression of gender and number, it did not develop, therefore, because there was any strong need for such formal renewal. Rather, the rise of the definite article ⲡ-/ⲧ-/ⲛ- out of the demonstrative *pȝ*/*tȝ*/*nȝ* (during the early and mid-second millennium BC) represents a cross-linguistically well paralleled development by which a deictic expression undergoes semantic weakening into an anaphoric one, beginning in Egyptian in the later Twelfth Dynasty.[61] The later rise of an indefinite article (SG. ⲟⲩ- < *wꜥ* 'one' and PL. ϩⲛ- < *nhy n* 'some'), as well as the fact that the definite article should be innovated first, similarly find abundant cross-linguistic parallels. Related to this development is also the rise of a possessive article, superseding the earlier suffixed expressions of possession, for example [MEg] *pr=f* 'his house' → [LEg] *pȝy=f pr*. In Late Egyptian, Demotic, and Coptic, the earlier suffixed construction became increasingly restricted to the expression of inalienable possession (such as body parts), in another development that finds good cross-linguistic parallels.[62]

In the expression of gender and number, of pronominal possession, and in nominal derivational patterns, nominal morphology thus displayed a general diachronic tendency for grammatical material to be increasingly agglutinated to the left of the lexical word. This does not represent an overarching drift,[63] but resulted from a variety of developments, all following

[59] For these earlier synthetic patterns, Schenkel 1983, Osing 1976, Fecht 1960.

[60] In the above example, reanalysis is manifest in that ⲣⲉϥϫⲓⲟⲩⲉ can be preceded by the definite article (ⲡ-ⲣⲉϥϫⲓⲟⲩⲉ 'the thief'), while the source construction included a circumstantial clause (*iw=f ḥr iṯȝ*), possible only with an indefinite antecedent (**pȝ rmṯ iw=f ḥr iṯȝ* would have been ungrammatical in Late Egyptian or Demotic).

[61] Kröber 1970: 1–30; Zöller-Engelhardt 2016: 74–129.

[62] Haspelmath 2015.

[63] See already Schenkel 1966 for a critique of the notion of 'conversion' advocated by Hintze 1947, 1950.

regular principles of linguistic change. For example, the rise of derivational prefixes (rather than new suffixes) is a consequence of renewal through grammaticalization and reanalysis in a language with head-dependent order, e.g. [*rmṯ*]$_{\text{HEAD}}$ [*iw=f ḥr iṯ3*]$_{\text{DEPENDENT}}$ > ⲣⲉⲙ$_{\text{PREFIX}}$-ϫⲓⲟⲩⲉ

Verbal morphology

Through a series of developments that stretched over three millennia, the suffix conjugation was gradually—and ultimately wholly—superseded by other means of inflection. The process involved two main modes of renewal: the grammaticalization of new verbal patterns from situational predicate constructions ('adverbial predicate constructions'), begun in the Old Kingdom, and the development of new patterns based on periphrasis by the auxiliary *ỉri* 'do', from the New Kingdom onwards; the latter process was complete only in Coptic.

In Old Egyptian already, new verbal patterns—NP *ḥr sḏm* and NP *r sḏm*—had grammaticalized from situational predicate constructions. They did so initially to convey specific semantics, as marked expressions of progressive aspect (corresponding roughly to, English continuous tenses) and of objective necessity, respectively.[64] These constructions subsequently weakened semantically into an unmarked unaccomplished (roughly, English simple present tense) and a future tense, respectively. As a result, they gradually superseded the former synthetic expressions of similar semantics during the (later) Middle Kingdom and early New Kingdom:[65]

OEg–MEg.I–(MEg.II) NP *ḥr sḏm* 'he is hearing' (progressive)
> (MEg.II)–LEg 'he hears' (unaccomplished),
superseding OEg–MEg.I–(MEg.II) N(P) *sḏm=f*

OEg–Meg.I NP *r sḏm* 'he is bound to hear' (objective necessity)
> MEg.II 'he will hear' (future),
superseding OEg–MEg.I 'prospective' *sḏm=f* (*irw=f*)

After developing initially in the positive and active domains, these analytic patterns were subsequently, often much later, generalized to the passive domain,[66] to negative polarity, and to relativization.[67] For example

OEg–MEg.II *sḏm.tw=f* 'he is heard'	→	(MEg.II–)LEg *iw.tw ḥr sḏm=f*
OEg–MEg.II *nn sḏm=f* 'he will not heard'	→	LEg *nn iw=f r sḏm*
OEg–MEg.II *sḏm* 'who hears'	→	(MEg.II–)LEg *nty ḥr sḏm*

[64] For the former, see Collier 1994 and Vernus 1997; and for the latter, see Vernus 1990a: 5–7; Stauder 2014: 119–22; 'NP' stands for 'noun phrase', be this a full noun or a pronominal subject.

[65] For the former, see Vernus 1990a: 143–93; Winand 2006: 263–323; Stauder 2013c: 137–57; 2014: 227–30; and for the latter, see Stauder 2014: 231–3.

[66] For NP *ḥr sḏm*, see Stauder 2014: 360–5, 2013c: 382–405; for NP *r sḏm*, see Stauder 2014: 356–60, 2013c, 364–82.

[67] As elsewhere, the spread of the new constructions was gradual, along the following dimensions: (a) time reference: in the future before (henceforth: '>') present > past; (b) voice: in the passive > active; (c) polarity: negative > positive; (d) syntax of co-reference: oblique constructions > direct ones.

Periphrasis by means of *iri* 'do' is found occasionally already in early times, notably with imperatives. It spread as a regular feature of inflection in the Eighteenth Dynasty, first in the negative imperative,[68] then in the morphological successors of Earlier Egyptian forms based on the long stem (*irr-*),[69] and further, through analogy, in Ramesside times.[70] Further *iri*-periphrased constructions emerged in Roman times. For example:

OEg-MEg *irr=f* (a specialized imperfective)
> late D.18 *i.ir=f sḏm* (the Later Egyptian focusing tense)

OEg-MEg *n sḏm.n=f* 'he does not hear' (>late D.18 *bw sḏm=f*)
> D.19 *bw ir=f sḏm*

LEg-Rom.Dem *ḫr ḏ=f* (an habitual present) > Rom.Dem *ḫr ir=f sḏm*

These analytic and periphrastic patterns in turn underwent phonological reduction and re-synthesis. For example:

LEg *bn iw=f (r) sḏm* > ⲙⲙⲛ=ϥ-ϲⲱⲧⲙ 'he will not hear'
LEg *bw-ir=f sḏm* > ⲙⲉ=ϥ-ϲⲱⲧⲙ 'he (habitually) hears'
Rom.Dem *ir=f sḏm* > ⲁ=ϥ-ϲⲱⲧⲙ 'he heard'

These combined developments led to two major typological changes: (1) in morphology, a shift from a more fusional to a more agglutinative type, and (2) in word order, a shift from a Verb-Subject order to a Subject-Verb order. Regarding the first of these changes, Earlier Egyptian verbal morphology was broadly of a fusional type: it made use of a rich variety of stem alternations combined with affixation to express verbal categories. In Later Egyptian, by contrast, synthetic inflection was increasingly limited to the infinitive, the pseudoparticiple (or stative, itself developing into a non-finite form), and to participial forms of the verbs (with an increasingly reduced functional yield). Grammatical meaning, carried by various conjugational auxiliaries and prefixes, was thus increasingly isolated from the lexical meaning, carried by the infinitive and stative:[71]

	Earlier Egyptian	Coptic
'he did'	*/ˈjarnˇf/(?) (*ir.n=f*)	ⲁ=ϥ-ϭⲓⲣϩ$_{\text{INF}}$ (< *ir=f sḏm*$_{\text{INF}}$)
'he does'	*/. . ./(?) (*ir=f*)	ϥ-ϭⲓⲣϩ$_{\text{INF}}$ (< *iw=f ḫr sḏm*$_{\text{INF}}$)
'he will do'	*/jˇˈra:wˇf/(?), */jˇˈra:jˇf/(?) (*ir=f, irw=f, iry=f*)	ϩ=ϥ-ϩ-ϭⲓⲣϩ$_{\text{INF}}$ (< *iw=f r sḏm*$_{\text{INF}}$)
'may he do'	*/jˇrˈjaf/(*ir=f, iry=f*)	ⲙⲁⲣϩ=ϥ-ϭⲓⲣϩ$_{\text{INF}}$ (< *mi ir=f sḏm*$_{\text{INF}}$)
'he does...'	*/jˇˈra:rˇf/(?) (*irr=f*)	ϩ-ϥ-ϭⲓⲣϩ$_{\text{INF}}$ (< *i.ir=f sḏm*$_{\text{INF}}$)

This led to a more agglutinative morphological type in Later Egyptian, in which grammatical functions tended to be distributed over discrete morphemes. For example

[68] Vernus 2010a.
[69] Stauder forthcoming b: §2.1; Kruchten 1999: 1–51.
[70] Kruchten 2000; Winand 1992.
[71] The phenomenon has been termed 'Flexionsisolierung': Polotsky 1987–90: 171.

ϵ$_{\text{CIRC}}$-ⲁ$_{\text{PAST}}$=ϥ-ⲥⲱⲧⲙ$_{\text{HEAR}}$ (< $^{\text{LEg-Dem}}$ *ỉw*$_{\text{CIRC}}$ *sḏm*$_{\text{HEAR.PAST}}$=*f*),
giving discrete expressions to the circumstantial function (ϵ- < *ỉw*) and to past tense (ⲁ=),
in contrast to $^{\text{OEg-MEg}}$ *sḏm.n=f*, an anterior tense that could be use in a circumstantial or main clause alike without morphological differentiation;

An apparently reverse outcome is observed with negative constructions, with the rise of conjugational prefixes that combined the expression of negative polarity and tense-aspect in ways that are not segmentable anymore. Contrast:

	Earlier Egyptian	Coptic
'he did not hear'	*n*$_{\text{NEG}}$ *sḏm=f*	ⲙⲡ$_{\text{NEG.PAST}}$=ϥ-ⲥⲱⲧⲙ
'he does not hear (habitually)'	*n*$_{\text{NEG}}$ *sḏm.n=f*	ⲙϵ$_{\text{NEG.HABITUAL}}$=ϥ-ⲥⲱⲧⲙ
'he will not hear'	*n*$_{\text{NEG}}$ *sḏm=f* (*n ỉrw=f*)	ⲛⲓⲓϵ$_{\text{NEG.FUTURE}}$=ϥ-ⲥⲱⲧⲙ

As a result of the above processes of formal renewal, the preferred unmarked word order in verbal clauses yielded gradually from a Verb-Subject one (henceforth: VS) to Subject-Verb (SV) one. The NP *ḥr/r sḏm* patterns inherited their SV order from the subject-predicate order of the situational predicate constructions they grammaticalized from:

ỉw=f$_{\text{SUBJECT}}$ *ỉm*$_{\text{PREDICATE}}$ 'he is there'
(subject-first order in situational predicate constructions)

thus, NP$_{\text{SUBJECT}}$ [*ḥr sḏm*]$_{\text{PREDICATE}}$ → (. . .) ϥ$_{\text{SUBJECT}}$-ⲥⲱⲧⲙ$_{\text{VERB}}$
NP$_{\text{SUBJECT}}$ [*r sḏm*]$_{\text{PREDICATE}}$ → (. . .) ϵ=ϥ$_{\text{SUBJECT}}$-ϵ-ⲥⲱⲧⲙ$_{\text{VERB}}$

With the patterns that originated through *ỉrỉ*-periphrasis, SV order and prefixing morphology derived from the fact that *ỉrỉ*, hosting the subject, preceded the lexical verb in the infinitive, and thereby, ultimately, from the more general head-dependent order in Egyptian:

ḥm$_{\text{HEAD}}$-*nṯr*$_{\text{DEPENDENT}}$ 'servant of the god, priest'
(general head-dependent order of Egyptian)

thus, also, *ỉrỉ*$_{\text{HEAD}}$ *sḏm*$_{\text{INFINITIVE-DEPENDENT}}$ 'do hearing', yielding, for example,
$^{\text{LEg}}$ *bw*$_{\text{NEG}}$-*ỉr*$_{\text{AUX}}$=*f sḏm*$_{\text{INF}}$
→ (. . .) reanalysed as ⲙϵ$_{\text{PREF}}$=ϥ$_{\text{SUBJECT}}$-ⲥⲱⲧⲙ$_{\text{VERB}}$

similarly, *pȝu*$_{\text{HEAD}}$ *sḏm*$_{\text{INFINITIVE-DEPENDENT}}$ 'do hearing in the (remote) past', yielding:
$^{\text{MEg}}$ *n*$_{\text{NEG}}$ *pȝ*$_{\text{AUX}}$=*f sḏm*$_{\text{INF}}$ 'he has not heard (in the remote past)'
> $^{\text{LEg}}$ *bwpw=f sḏm* 'he did not hear'
→ (. . .) reanalysed as $^{\text{Dem}}$ *bp*$_{\text{PREF}}$=*f*$_{\text{SUBJECT}}$ *sḏm*$_{\text{VERB}}$ (> ⲙⲡ=ϥ-ⲥⲱⲧⲙ)

Order in individual clausal patterns and constructions thereby remained generally stable throughout Egyptian history. For example, the unaccomplished *sḏm=f* (VS) did not itself

evolve into, but was replaced, gradually, by NP *ḥr sḏm* during the first half of the second millennium BC (see above), the latter pattern yielding ⲫ-ⲥⲱⲧⲙ (SV). Similarly, past tense *sḏm.n=f* (> LEg-Dem *sḏm=f*: VS) was superseded by *ir=f sḏm* during Roman times, the latter pattern, after reanalysis, yielding ⲁ=ⲫ-ⲥⲓⲣⲉ (prefix-SV). The shift from a VS to a SV order was therefore the by-product of successive processes of grammaticalization over three millennia, in a language that happened to have subject-first situational predicate constructions and a general head-dependent order.

Functional domains

The domain of tense and aspect[72] witnessed complex changes both in terms of which semantic categories were expressed at any given time, and of the (often combined) levels of grammatical form through which these categories were expressed (conjugational tenses, adverbial expressions, auxiliaries), when they were. As far as conjugational tenses are concerned, a tendency towards a less prominent role of aspect is noticeable. During the course of Old and Middle Egyptian already, the inherently perfective *sḏm(w)*-passive increasingly gave way to passives marked by *.t(w)*, an aspectually neutral marker.[73] Beginning in the later Middle Kingdom, NP *ḥr sḏm*, initially restricted to progressive semantics, was gradually generalized to the whole domain of the relative present (see above). In Old and Middle Egyptian, the *irr=f* presented a complex functional profile associating imperfective aspect with a lower assertive modality.[74] In Late Egyptian, the form, now as *i.ir=f sḏm*, has specialized in the expression of adverbial focus and become unmarked for tense and aspect.[75] With participles, the Old and Middle Egyptian aspect-based contrast between unmarked ('perfective') *ir(.t)* and marked ('distributive' or 'imperfective') *irr(.t)* gave way to an increasingly tense-based contrast between anterior and simultaneous relativizing constructions in Late Egyptian. The pseudoparticiple, which in earlier times could express a stative and also a perfect with some types of events, was restricted to the former value after the New Kingdom. In various constructions, absolute time (present, past, future), rather than relative time (simultaneity, anteriority, posteriority) was becoming an increasing point of reference in later Late Egyptian (from the later Twentieth Dynasty, *c.*1100 BC onwards).[76]

Major developments affected the domains of passive voice and transitivity.[77] Old Egyptian had multiple types of inflectional passives (the *sḏm(w)*-passives, forms marked by the affix *.t(w)*, and reduplicating forms) used in a variety of passive constructions with transitive and intransitive verbs, with and without expression of the agent. Beginning in the Old Kingdom already, the *sḏm(w)*-passive was gradually replaced by *.t(w)*-marked constructions in various environments. Beginning in the Twelfth Dynasty (*c.*1985–1773 BC), *.t(w)* was extended to subject-first constructions of the type NP *ḥr sḏm* and NP *r sḏm*, where, being inserted in the subject slot, it functioned as an impersonal subject pronoun. By the end of the New Kingdom and early Third Intermediate Period (roughly at the end of the second millennium BC), all inflectional passives were replaced by a construction in which a 3PL subject pronoun expressed non-specified reference. With regard to transitivity, Demotic and Coptic

[72] Winand 2006. [73] Stauder 2014: particularly 26–31, 250–63, 297–318.
[74] Uljas 2007: 349–59, and Borghouts 1988. [75] Stauder forthcoming b.
[76] Winand 2014b. [77] Stauder 2014.

saw the emergence of a large class of verbs that could be used regularly as transitives and intransitives alike, for example ⲙⲟⲩϩ$_{TR}$ 'fill', ⲙⲟⲩϩ$_{INTR}$ 'become full'. In Earlier Egyptian, the mediate object construction (v *m* o) signalled incomplete affectation of, and/or focus on, the object;[78] after a complex development, it became an obligatory object marker in Coptic 'durative tenses' (historically, broadly the NP *ḥr sḏm* and related patterns) and a differential object marker with the 'non-durative tenses' (historically, broadly the *iri*-periphrased tenses).[79] Demotic and Coptic further witnessed the emergence of a whole set of phrasal verbs and of a series of lexical auxiliaries: for the former, for example ⲕⲱ ⲛⲁ= ⲉⲃⲟⲗ 'forgive', ⲕⲁ ⲡⲟⲟⲩ=$_{REFLEXIVE\ PRONOUN}$ 'forgive, abandon' (with ⲕⲱ < *ḫ3ʿ* 'lay down'); for the latter, for example ⲣ̀-ϩⲁⲡ 'judge' (literally, 'give judgement').

In the domains of clause combining, significant changes led to functional contrasts being increasingly conveyed by morphologically more overt strategies. In Earlier Egyptian, clause combining was largely asyndetic (morphologically unmarked), with referential cohesion, discourse particles,[80] and intonational contour playing a major role in macro-syntactic organization; *iw* served to ground the clause it introduced, either with respect to the speech situation ('contextual *iw*') or with respect to a preceding segment of discourse ('cotextual *iw*').[81] Given the latter function, well attested in the Old Kingdom already, *iw* would develop into (and specialize as) an overt marker of adverbial subordination by the early New Kingdom. Earlier Egyptian prepositions could introduce a variety of tenses, depending on semantics to be expressed (for example with the preposition *r*, *r mr=f*, *r mr.w=f*, *r mrr=f*, *r mr.n=f*, *r mr.t=f*). Later Egyptian lost this type of construction with most prepositions, or kept it only with one specific tense for a given erstwhile preposition, the combination grammaticalizing into a bound form (for example $^{MEg\text{-}LEg}$ *r sḏm.t=f* > ^{LEg} *šzʿ-(i.)ir.t=f sḏm* > ⲱⲁⲓⲧ=ϥ-ⲥⲱⲧⲙ 'until he has heard'). An important overall result of the combined above developments was the emergence of a sharper contrast between main and subordinate clauses in Later Egyptian.

In the domain of adverbial-phrase focusing, major changes are observed in the transition from Middle to Late Egyptian.[82] In Earlier Egyptian, a reduced assertive modality of the verbal predicate was signalled by the absence of *iw* or the presence of *is* in certain constructions, and was, furthermore, an effect of the aspectual profile of certain forms of the verb: the *irr=f* as a specialized imperfective, and various forms used as default non-resultatives in the accomplished.[83] In Late Egyptian, the morphological successor of the *irr=f*, the *i.ir=f sḏm* marks adverbial focusing, regardless of tense and aspect. Later Egyptian thus contrasts with earlier stages of the language in displaying dedicated adverbial focusing morphology on the verb.

Some further changes

The above presentation has followed the traditional emphasis of Egyptological research on the verb. It should be stressed, however, that changes affected a great many other domains of the language as well, of which only a few illustrations can be given here. Among parts of

[78] Winand 2015, Stauder 2014: 324–9. [79] Shisha-Halevy 1986: 105–28; Engsheden 2006.
[80] Oréal 2010. [81] Vernus 1998: 194–7; Loprieno 2006.
[82] Stauder forthcoming b. [83] Stauder 2015b, 2014: 235–43.

speech, adjectives gradually reduced their autonomy in Demotic and Coptic. Although a few core adjectives survived as bound forms, the qualifying function was generally transferred to the A *n* B construction.[84] In non-verbal patterns,[85] the predication of quality (*nfr sw*) entered obsolescence during Late Egyptian, and similar semantics were conveyed by other strategies in Demotic and Coptic, including the *n3-nfr=f* form and the stative.

In situational predicate constructions as well as the verbal NP *ḥr sḏm* that had developed from these, *wn* grammaticalized as a mandatory introduction of indefinite subjects in later Late Egyptian.[86] With noun-phrase focusing constructions, the *in*/*m*-marked cleft constructions were lost after Late Egyptian; so-called 'pseudo-cleft' patterns were extended to wider functions, and eventually reanalysed structurally in Demotic and Coptic.[87] While Earlier Egyptian had a rich variety of zero-subject constructions used with referents of low individuation,[88] Later Egyptian lost these (compare, for example, earlier *ḫpr.n ø* 'it happened' with ⲁ=ⲥ-ⲟⲩⲱⲡⲉ, with an overt 3FSG subject). The verb-object (VO) order remained stable throughout history, as did, more generally, the head-dependent order (for example nouns before qualifying expressions). Overall, Coptic tended to display more flexible word order than earlier written forms of the language; one noticeable development was the increased use of right-dislocation.

Change in the lexicon can only be hinted at here. Beyond innovation and obsolescence of individual lexemes, this included semantic change (for example OEg-MEg *ʿm* 'swallow' > LEg-... *ʿm* 'learn, know', by a change by which perception is construed as mental ingestion), as well as changes in the argument structure of verbs. Renewal involved various types of lexicalization (for example *ḫwn-r-ḥr*, lit. 'strike to the face', 'fight' > LEg *ḫnḥ* 'fear')[89] and extended to core vocabulary.[90] Lexical borrowing is discussed below.

Earlier and Later Egyptian

Based on broad typological criteria, Earlier Egyptian (Old and Middle Egyptian combined) is classically contrasted with Later Egyptian (Late Egyptian, Demotic, and Coptic).[91] The former is characterized by a preference for fusional morphology, verb-subject order, and asyndetic embedding of dependent clauses. The latter, by contrast, is characterized by a preference for more agglutinative morphology, subject-verb order, and morphologically overt subordination. Evidently, neither Earlier nor Later Egyptian are pure types. For example, the SV patterns NP *ḥr*/*r sḏm* are already present in Old Egyptian (outside the Pyramid Texts), if with a limited functional yield, while elements of the VS conjugation are still found in Roman Demotic (for example past tense *sḏm=f* alongside the new *ir=f sḏm*). In verbal morphology, Late Egyptian represents an analytic peak between the more fusional type of Old Egyptian and the more agglutinative type of Coptic, both being synthetic, if in different ways.

[84] Shisha-Halevy 1986: 129–39.
[85] For a detailed diachronic study of non-verbal patterns, Loprieno, Müller, and Uljas 2017.
[86] Winand 1989. [87] Loprieno 1995: 133–7, with references to previous studies.
[88] Vernus 2014 and Stauder 2014: 140–8, 192–200. [89] Vernus 2003.
[90] Giving an impression (however partial) of lexical stability and change, see the list of words from *Sinuhe* that are still attested in Coptic (Peust 1999a: 301–6).
[91] See, for example, Loprieno 2001, 1995; Kammerzell 1998: 81–98, Vernus 1988, Hintze 1947.

Major changes, to be sure, occurred between Middle and Late Egyptian (for example the development of *iri*-periphrased forms; new strategies for clause combining and adverbial-phrase focusing; and the redefinition of the functions of *iw*). But several elements that would be typical of Late Egyptian were developing already in Middle Egyptian (for example the semantic generalization of NP *ḥr/r sḏm*; the extension of *.t(w)* to constructions in which it functioned as an impersonal subject pronoun). Moreover, changes that are significant in the overall history of Egyptian unfolded already during Old Egyptian and earlier Middle Egyptian (for example the spread of *.t(w)*-marked passives over *sḏm(w)*-passives; the reduction of the suffix conjugation with the obsolescence of the Old Egyptian past tense *sḏm=f* and prospective *ir(w)=f*). Further major changes occurred only during later Late Egyptian (for example the semantic retraction of the pseudoparticiple to the stative function and its evolution into a non-finite form; an increasing tendency to express absolute, rather than relative, tense; the generalization of past tense *sḏm=f* to all types of events and its use in narrative chains). Other major changes became prominent only in Demotic and later (for example the generalization of the second-tense prefix through reanalysis of earlier focusing tenses; the transitivity alternations described above). When individual constructions are considered, a more continuous tableau of ongoing change thus emerges, complementary to the broad typological contrast between Earlier and Later Egyptian described above.

Mechanisms and factors of change

Linguistic change happens in, and is a product of, the conditions of linguistic interaction.[92] New expressions and variants of existing ones are constantly innovated by speakers, coexist with older ones, and are ultimately selected, or not, by the broader speech community. Synchronic variation is thereby a necessary component of ongoing change, and any statement that an expression A becomes B ('A > B', such as made above) must be read as schematizing. Given the generally high degree of formality of written standards in pre-Coptic times, the record remains opaque to most underlying synchronic variation that existed, and non-standard constructions and constructions that did not catch on are only occasionally noticed.[93] In favourable cases only, the gradual spread of new expressions across different written registers can be described.[94]

Linguistic performance is determined by the often conflicting demands of communication, such as expressivity as opposed to automatization in production and processing. This dynamic results in recurring mechanisms of change, which often involve the interplay of

[92] See, for example, Keller 1994 and Croft 2000.

[93] For example, the future construction *twi r sḏm* in the late Second Intermediate Period and early New Kingdom (Stauder 2017: 152, n. 33, and Kroeber 1970: 93–8); $^{\text{LEg}}$ *(r)-šȝ*ʿ*-m-ḏr-sḏm=f* > $^{\text{Dem}}$ *šʿ-tw sḏm=f* 'since/after he has heard', documented only two dozen times over a millennium from Late Egyptian through Demotic (Collombert 2004).

[94] For example, for the negative imperative, innovative *m ir sḏm* alongside older *m sḏm*, distributed according to written registers during the Eighteenth Dynasty (Vernus 2010a); the third person plural suffix pronoun *=w* gradually superseding *=sn* during the New Kingdom (in the Eighteenth Dynasty, Edel 1959; in the Ramesside period, Winand 1995); *irm* 'with' gradually superseding *ḥnʿ* during the New Kingdom (Winand 2014a).

conventionalized grammatical value and privileged pragmatic inference by the hearer.[95] Among such mechanisms of change, 'grammaticalization', which has received substantial attention in recent times,[96] refers to the recruitment of lexical or grammatical material for (new) grammatical functions and can be broadly defined as the development of tighter internal dependencies in a given constructional scheme. In the grammaticalizing construction, the recruited material undergoes semantic bleaching (including metaphorical generalization) and syntactic de-categorialization (such as from full lexical verb to auxiliary to conjugational morpheme), often followed by morpho-phonological reduction. In the process, selectional restrictions are also relaxed, leading to the generalization of the grammaticalizing construction for example to subject types and event types that were not licensed in the source construction. Other mechanisms of change include 'reanalysis', referring to the reinterpretation of the input by hearers, made manifest by its subsequent mapping out in new constructional environments.[97] 'Extension' refers to the generalization of a construction to new environments, through semantic weakening and/or the relaxation of previously existing selectional restrictions.[98] Its less common reverse, 'retraction', refers to the restriction of a construction to some only among the various environments or functions in which it had been previously used.[99]

The above types of changes often worked in conjunction. For example, the erstwhile syntactic causative based on *rḏi* 'give, cause' (*rḏi* + SUBJUNCTIVE *sḏm=f*) grammaticalized into a new morphological causative (the Coptic ⲟⲩ-ⲟ causatives), superseding the earlier morphological causative (the *s*-causatives). This resulted in a syntactic reanalysis of the construction (here represented through re-bracketing), made manifest by the new forms' full integration into regular Coptic transitivity alternations:

rḏi [*ʒḳ=f*] 'to cause [that he/it perishes]' (syntactic causative)
→ [ⲟⲩⲁⲕⲟ]=ⲥ '[destroy] him/it' (morphological causative)

full integration into Coptic transitivity alternations:
- ⲟⲩⲁⲕⲉ-N 'destroy N(OUN)' (< *rḏi ʒḳ* N); ⲟⲩⲁⲕⲟ=P 'destroy P(RONOUN)' (< *rḏi ʒḳ=f*)
- and also (not to be traced back to the sourec construction):
  ⲟⲩⲁⲕⲟ ⲛ-/ⲙⲙⲟ= (with the mediate object construction as used in some Coptic conjugational tenses, see above)—ⲟⲩⲁⲕⲟ 'destroy', used without expressed object—$\text{ⲟⲩⲁⲕⲟ}_{\text{INTR}}$ 'get destroyed'—ⲟⲩⲁⲕⲓⲩ(ⲟⲩ) 'to be destroyed' (stative, with an ending that is analogically derived).

[95] For example, in the case of the allative future (*twi m n'i (r) sḏm* > ϯ-ⲛⲁ-ⲥⲱⲧⲙ), Grossman et al. 2014; in the spread of the passive marker *.t(w)* (as in *sḏm.tw=f*, etc.) to subject-first constructions (as in *iw.tw ḥr sḏm*), Stauder 2014: 388–95, and 2015: 478–91.

[96] General introductions, e.g. Hopper and Traugott 2003² and Bybee et al. 1994; further, Lehmann 2004 and Haspelmath 2004. Well-studied instances of grammaticalization in Egyptian include NP *ḥr sḏm* (Collier 1994 and Vernus 1997), the Later Egyptian allative future (Grossman et al. 2014), the Coptic periphrastic perfect (Grossman 2009), the conjunctive (Winand 1992: 457–65), *(-)ḫr*-based patterns (Vernus 1998: 198–200), or the *bn ... iwn3* negation (Winand 1997); see also Müller 2016.

[97] For example, for the rise of the Late Egyptian 3PL suffix pronoun *=w* from an erstwhile adverbializing ending, see Stauder 2015a: 522–7, and Edel 1959.

[98] The former is illustrated, e.g., by the weakening of NP *ḥr sḏm* into a general expression of relative present tense, beyond its original semantics as a marked progressive aspect (see above); the latter, e.g., by the rise of the allative future (Grossman et al. 2014).

[99] Illustrated, e.g., by the semantic evolution of the pseudoparticiple beginning in later Late Egyptian, by which the form retains its original stative/resultative functions (also found in Akkadian and Berber) while loosing its dynamic uses as a perfect (which had been an Egyptian innovation).

Such recurring mechanisms define constraints on possible, or even preferred, types of changes. They do not, however, predict when, and how fast, a particular change will take place, nor whether it will at all. Changes in one construction or functional domain can also be dependent on the broader intra-linguistic context in which they occur. For example, the development by the passive morpheme *t(w)* of functions as an impersonal subject pronoun was made possible by the conjunction, at a certain moment in time, of a whole series of unrelated dimensions of favourable context.[100] The renewal of verbal morphology through *ỉri* may have been in part in response to the reduced distinctiveness of patterns of synthetic inflection, itself the result of a strong expiratory stress of Egyptian, yet the loss of endings could also happen for various reasons other than phonological ones. Thus, the gradual reduction of personal endings of the pseudoparticiple, during Late Egyptian, was a consequence of the reduced syntactic distribution of the form resulting in an increasing redundancy of the personal endings.[101]

Among factors of change, sociolinguistic dimensions remain generally elusive due to the nature of the written record. The effects of language contact are documented through extensive lexical borrowing at all times, varying as a function of intensity of contact and of the prestige of the donor language relative to Egyptian-Coptic at the time of borrowing.[102] Technical or culturally specific vocabulary displayed a strong tendency to be borrowed in larger quantities, as well as earlier in case of prolonged contact, than core vocabulary. The word *ssmt* 'horse' was thus borrowed in the early New Kingdom along with the adoption of technical innovations in warfare;[103] similarly, ϥⲩⲭⲏ 'soul' (from Greek) displaced native ⲃⲁⲓ (< *b3*) in the new Greek-mediated cultural context of Christianity. While some loanwords were thoroughly integrated both semantically and morphologically into Egyptian, respectively Coptic, and thereby nativized, other ones, particularly those found in the Ramesside record, did not leave much trace in subsequent language history and are arguably better interpreted as instances of (learned) code-switching.[104] A good illustration of lexical renewal through borrowing is 'sea' ^{OEg} *w3ḏ-wr*, ^{LEg} *ym* (from West-Semitic *yam*), ⲑⲁⲗⲁⲥⲥⲁ (from Greek *thalassa*). As far as current evidence goes, however, language contact seems to have exercised little, if any, direct influence on grammar itself. In the realm of phonology, it has been argued that the sound shift/a:/>/o:/in the early first millennium BC was part of a broader areal phenomenon which included the 'Canaanite Vowel Shift'.[105]

[100] Stauder 2014: 384–403, and 2015: 473–99, 517–21.

[101] Winand 1992: 103–49.

[102] For loans from West Semitic languages, see Hoch 1994 (with critical review in Meeks 1997), Winand 2017a, and Quack 2005 (for the less studied post-Ramesside times); from various Libyan, African, and Indoeuropean languages, Schneider et al. 2004; from African languages specifically, el-Sayed 2011; from Greek, Clarysse 1987 (into Demotic), and Grossman et al. 2017 and Förster 2002 (into Coptic); from Arabic into Coptic, Richter 2017.

[103] Vernus 2010b; in the same context, the word *ḫpš*, of native stock, was extended in its meaning, from 'strong arm' to 'sickle-shaped sword', the weapon itself having been introduced to Egypt during the Second Intermediate Period (Stauder 2013c: 399–401). That a native word was retained in this case was because it already carried significations in royal ideology, now extended to the new weapon.

[104] For Late Egyptian, Winand 2017; Kammerzell 1998: 99–121; for degrees and strategies of integration into Coptic, Grossman et al. 2017.

[105] Kammerzell 1998: 153–71.

Suggested reading

For overviews of Egyptian linguistic history, see Allen 2012 and Loprieno 1995. For examples of case-studies in describing and analysing linguistic change, see Stauder 2014: 349–409, 2015a: and Grossman et al. 2014; and for an introduction to linguistic variation and register in Egyptian at various periods, see Polis 2017. For 'égyptien de tradition', see Vernus 2016, 2017; and for Coptic, see Richter 2009.

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