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## An approach to the *sḏm.f*: forms and purposes\*

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This paper is merely an attempt to come to terms with current thinking on one of the greatest difficulties in learning and teaching Egyptian – the *sḏm.f*. It makes no claim to originality, but at least starts with a touch of autobiography. From the very beginning of my learning Middle Egyptian as an undergraduate, it was obvious that there was an unexplained, and perhaps insuperable, contrast between what we may call the "Gardiner" approach (that is, to follow the scheme used in Gardiner's *Egyptian Grammar* and other publications, and to treat the distinction between imperfective and perfective in Egyptian as one of aspect, as if Egyptian were no different from the Semitic languages) – and the discovery by Polotsky of the "emphatic" behaviour of the so-called imperfective *sḏm.f*. In practice, this difficulty was ignored, in the hope that it would disappear. It did not disappear. Nevertheless, a suspicion remained that there was a synthesis to be had, if not in the realm of absolute truth, at least in the classroom. This was accompanied by an increasing belief that the solution to some of the problems of Egyptian grammar lay in the field of vocalisation. Unfortunately, because of the nature of the hieroglyphic script, this is more often than not a case of *ignotum per ignotius*. Nowadays the study of Egyptian vowels, which the Egyptians themselves did not trouble to write, is normally disregarded by scholars – and indeed it is a difficult and abstruse subject – but its value as a clue to the mechanism of what was, after all, a spoken language is surely underestimated. The pioneers of Egyptian philology, notably Steindorff and Sethe, paid great attention to this aspect of things, and there is a useful Appendix on the subject in Gardiner's *Grammar*. In addition, there is a considerable amount of material to be found in G. Fecht's *Wortakzent*

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\* Originally written as a result of discussions with W. Kelly Simpson, Eric Cohen, Leo Depuydt, and Mark Lehner during demotic (*sic*) classes at Yale early in 1988. I am also particularly conscious of a debt owed to Christopher Eyre, especially to his paper which appeared in *Crossroad I* (Copenhagen 1986); Eyre has discussed with me several of the questions which are raised here. Anthony Leahy and Mark Collier commented in detail on an early draft of this paper, and Helmut Satzinger made valuable comments on the phonetic aspect of things. I am grateful to them all.

*und Silbenstruktur*. In recent years, vocalisation has retreated into the field of Coptic, and has to a large extent been ignored by Egyptologists; and yet a work such as J. Vergote's *Grammaire copte* is surely fundamental to all periods of our subject, and there is much to be gained from an eclectic reading of W. Vycichl's *Dictionnaire étymologique de la langue copte*. The complex but related subject of noun-formation in early Egyptian was attempted by J. Osing in his *Die Nominalbildung des Ägyptischen*, and more recently was tackled by W. Schenkel (*Zur Rekonstruktion der deverbalen Nominalbildung des Ägyptischen*). Here too there is much of interest to be found. It is unfortunately true that the subject of vocalisation has been given a bad name by some over-ambitious attempts at reconstruction, but this does not invalidate the essential principles, on which there is general agreement; nor should it encourage us to ignore the field completely.

Vocalisation was an interest of the late John Callender, and it led him to one of his most remarkable theories: the notion that the tenses which linguists call the preterite, prospective, and circumstantial *sdm-f*s are nothing more or less than the nominative, accusative, and genitive of a verbal noun<sup>1</sup>. The idea that the *sdm-f* is essentially nominal, and means something like "his hearing", is widely accepted, and this view of things is confirmed by the use of a possessive suffix (*·f*) after the verbal stem. The merit of the Callender theory is that it provides an extremely elegant explanation for the syntactic behaviour of the various Egyptian tenses. The prospective, for example, frequently acts as the object of the verb *rdi*, and it can normally be thought of as dependent on an unexpressed verb of wishing, expecting, or the like. The circumstantial, too, can easily be seen as a genitive, since the genitive, both in Indo-European and in Semitic, often expresses the sphere within which an action takes place; and a phrase such as *s sdm-f* ("a man who hears") is readily analysable as a possessive phrase ("a man of his hearing"). On the other hand, the main difficulty with Callender's idea is that there is no independent evidence for the existence of case-endings in early Egyptian; if there were really nominatives in *-u*, accusatives in *-a*, and genitives in *-i* in the spoken form of the language, one would expect to find from time to time an accusative writing such as \**Hnz(3)* or a genitive \**Hnzi* alongside the supposed nominative *Hnzw*<sup>2</sup>. Nevertheless, the endings *-u* (nom.), *-a* (acc.), and *-i* (gen.) are

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<sup>1</sup> The essentials of this theory are contained in Callender, *AAL* 2/6, 1975. The idea that the suffix conjugation as a whole is based on a verbal noun (*nomen actionis*) is convincingly argued by Schenkel, *Suffixkonjugation*; this notion replaces the theory of Gardiner and Sethe that the base for the system is a series of passive participles, but of course the reality may have been complex.

<sup>2</sup> This idea has been opposed by, among others, Vycichl, *CdE* 57 (1982), 55-64; but the scepticism is probably unjustified. In general the present writer agrees with the arguments of Vergote, *Grammaire copte* Ib, §§ 66-68, according to which all proto-Egyptian words ended with a final vowel. Vergote reconstructs this as *-u*, which in the Callender theory would be the nominative ending. At first sight an objection to this scheme is raised by the survival of infinitives with final syllables that are both short and accented. Forms in Coptic such as ⲩⲧⲁⲙ and Ⲛⲩⲟⲧ seem to go back to \**ḥatim* and \**naḥát* (cf. Osing, *Nominalbildung*, 42-8, 59-63, following general principles laid down by Edgerton, *JNES* 6(1947), 1-17, although it is important to remember that Edgerton intended his reconstructions to apply to a stage of the language which did not predate 2000 BC.). If such forms had originally ended in a vowel one would expect a lengthening of the vowel in the penultimate syllable (\**ḥatimu*, \**naḥātu*). Alternatively, it is possible that the original form

common in the earlier forms of the Semitic languages, and it is quite likely that pre-hieroglyphic Egyptian possessed them too. They may even have been pronounced, but not written, in the language of the first few dynasties, since the writing-system of the earliest inscriptions is as defective in its treatment of grammatical nuances as it is effective for the purposes for which it was designed. The Coptic evidence quoted by Callender in *Afroasiatic Tenses* fits his suggested scheme so well that, in this writer's opinion, it outweighs the previous objection, and it is no exaggeration to say that the whole theory serves as a liberation from the syntactic dead-end in which some contemporary Egyptian philology finds itself.

Following Callender, *Afroasiatic Tenses*, we may reconstruct the vocalisation of the various forms as follows:

	<i>Preterite</i>	
*sádmuf	>	ⲁⲢ(Ⲙⲱⲧⲙ)
	<i>Prospective</i>	
*sádmáf	>	(ⲑ)ⲙⲉⲘⲟⲘ

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was \*naḥáttu or \*ḥatímmu, with a doubling of the final consonant. Vergote opts for the patterns *qatālu* and *qatīlu* (id., § 71-2), but it is difficult to see why the vowel became short in such cases after it had been long. The answer may be that we are dealing with a shift of accent from an original form \*sádamu to \*sádamu, a form introduced to express intransitive force; this innovation would be a partial exception to the normal rules of phonetic development. It is conceivable that the final vowel seen in Akhmîmic writings such as Ⲙⲱⲧⲙⲉ or ⲟⲮⲁⲁⲃⲉ is a relic of such an ending, but it is more likely that this is a secondary development, confined as it is to this dialect. Another interesting possibility is that inflection survives in the Coptic independent pronoun ⲚⲧⲟⲢ and the form ⲚⲧⲁⲢ, which means "belonging to him". These must go back to forms containing á and í respectively, and may be a deictic accusative (cf. expressions such as "c'est moi" and "it is him") and an original possessive genitive. However, it is also possible that the form ⲚⲧⲁⲢ is influenced by, or even originates in, the preposition written *m-di* in Late Egyptian. See further Edel, *Orientalia* 36 (1967), 67-75. It must be admitted that there are features of Middle Egyptian which argue against the existence of case-endings: strict word-order, and the regular use of prepositional phrases to express relationship with the verbal action, are obvious examples. However, classical Arabic shows the same features, and classical Arabic possesses case-endings. So too does Akkadian, where the word-order is particularly strict. Case-endings are not written at all in the earliest stages of the Arabic language (the fact that they are vocalic is presumably the main reason for this, although even endings with nunation are similarly unrecorded), and they are not written consistently in Akkadian. Such writing-systems were not intended for those learning the language. It is therefore possible that Old and Middle Egyptian possessed similar endings. On balance, however, it is easier to believe that case-endings were present in the early phases of Egyptian, were obsolescent in the Old Kingdom, and disappeared after that; but it is impossible to apply a time-scale to the process. In Hebrew, the Semitic case-endings have left mere traces, while in Akkadian, they survive into the first millennium BC. In Arabic, they survived far longer. In all these languages, the presence of a construct (or "direct genitive") is difficult to explain if case-inflection had not once existed; a phrase such as the Egyptian *nbt pr* is unlikely to have originated in mere apposition, any more than its colloquial Arabic equivalent.

*Circumstantial*

\*sadmíf > ΜΕΩΔΚ / ΜΕΩΕ ΝΙΜ  
 (Ε)ΖΝΔϢ [Fay. (Ε)ΖΝΕϢ] "if he wish"  
 ξnef (see below)

*Nominal / Imperfective*

\*saddâmuf (nom.)  
 \*saddâmaf (acc.)  
 \*saddâmif (gen.)

a. It is assumed that "standard" Egyptian possessed three vowels, a, i, u, which could appear in both long and short forms. In reconstructions elsewhere in this paper the vowel e is used for an unaccented vowel of no particular value, similar to the Hebrew *shewa*. An accented vowel, if short, is shown with an acute accent; if long, it is written with a circumflex.

b. For the verbal form *qatlu*, here taken to be the basis of the perfective tenses, see J. Vergote, *Grammaire copte* Ib, 121-2. This has clear affinities with the infinitive sâdam(u) > ϢΩΤΜ̄.

c. The forms from the mutable verbs are harder to reconstruct. Verbs like *mri* have an unstable third radical, whose behaviour is difficult to determine. If this third radical disappeared in an unaccented syllable, and perhaps also before the vowel í, we would have the following pattern:

<i>imperfective</i>	*merrâref
<i>perfective</i>	*máriuf>mâref
<i>prospective</i>	*mariáf>meriáf (hence <i>mry.f</i> )
<i>circumstantial</i>	*mariíf>meríf (?).

d. The scheme presented here is certainly oversimplified, as Callender realised. Not only do the verbs *ini* and *iwi* show irregular prospective forms, but a whole class of verbs, the so-called *secundae geminatae*, have a reduplicated form for the circumstantial; thus *qbb* produces *qbb.f* and not *\*qb.f*. These unusual forms, which may have been pronounced *\*qebîbif* or something similar (the middle vowel being derived from the final syllable), are an important reminder that no language is completely regular, or immune to change. Nevertheless, they are certainly a complication.

The proposed vocalisation of the imperfective or nominal stem is strongly supported by the Greek form Ἰμενσθωτιειον, which was investigated by Vergote<sup>3</sup>. This

<sup>3</sup> Vergote, *Grammaire copte* Ib, 287, § 216. For the form *qattālu* in general see idem, *Grammaire copte* Ib, 114-5, § 75: A3. Vergote (*ibid.*, § 211) argues for an original imperfective form *\*sađâmmaf*, with a

implies an original form \*'Aman-ša(d)dâdiy (the doubled consonant is required to close the first syllable as well as to open the second). It is also supported by the interesting Coptic form ⲬⲀⲚⲐⲮⲐ, which appears used as an epithet in the Romance of Cambyses, and can be plausibly reconstructed as \*sannâd(u) from the root *snd* "fear"<sup>4</sup>. A similar form may underlie divine names such as Amun (\*'Iammânaw or 'Iammânu "hidden"), Chnum (\*Hannâmu "moulder"), and Anubis (\*'Iannâpu). As it happens, the reconstructed forms \*ša(d)dâd and \*sannâd are identical with the Arabic reduplicated form *qattâl*, which is used to indicate professions or habitual activities. This makes it likely that the Egyptian form was similarly designed to indicate continuous or habitual action, and it is not surprising that the so-called "imperfective" participles and relative forms in Middle Egyptian continue to indicate such a meaning. In addition to this, there are occurrences of the narrative *sḏm.f* in Middle Egyptian, such as the examples from the *Eloquent Peasant* and other texts quoted by Gardiner, which seem clearly to bear an imperfective or habitual force<sup>5</sup>.

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doubling of the third radical. He bases his argument largely on the gemination which is seen in the *tertiaef infirmae* verbs (*mrr.f*), and on the fact that in the few surviving Greek transcriptions the stressed vowel seems to be short. This evidence is not conclusive, however, and in fact the form Ἰμενοθωτειον which Vergote himself quotes argues against it. Even though the form in question here is certainly an imperfective participle, and not a *sḏm.f*, it seems perverse to imagine a different base for these two parallel forms. The same objection applies to the Coptic form ⲬⲀⲚⲐⲮⲐ from the root *snd*. If the original of this were \*sanâdd, we would surely expect a short vowel in the Coptic descendant (\*ⲬⲀⲚⲐⲮⲐ or \*ⲬⲚⲐⲮⲐ). Another Greek transcription, θυνάβουνουν for Egyptian *t3 hwt Nb-wnn.f*, also supports this reconstruction; an original \*wenânnef ought to give rise to \*-ουνουν in Greek. It therefore seems easier to follow most other commentators and to reconstruct the imperfective *sḏm.f* as \*saddâmf. This reconstruction raises an apparent problem over the biliteral verbs, but here a form \*nâdef or nâddef (from original \*iannâdef ?) would probably explain the surviving evidence. A more complicated solution would be to argue that Egyptian possessed both an imperfective base \*saddâmm- and a frequentative or professional form \*saddâm-; but this is difficult to defend in the present state of our knowledge. Thacker, *Relationship*, 217-20, also argues strongly for an imperfective form \*s'd'mm'f, but in such a case what is one to make of the Carlsberg form ⲐⲮⲱⲧⲧ discussed elsewhere in this paper? An original \*wa3âdd would surely become \*ⲐⲮⲱⲧⲧ. One of Thacker's principal arguments is that the imperfective form *mrr.f*, which shows an unusual reduplication, is more likely to arise from an original \*merâyyef than from \*merrâyyef. While Semitic analogies do exist to support this, it is equally likely that the form with an additional r seen in \*merrâref grew up to maintain the structure of the imperfective form, when it was in danger of contracting into \*merrâif. One would expect the form \*merâyyef (with a double *yod*) to be stable, and to have been preserved as *mry.f*. This does not happen. For some other difficulties in Vergote's otherwise excellent reconstruction see Polotsky, *Orientalia* 33 (1964), 279-84.

<sup>4</sup> Vycichl, *DELIC*, 2, 191-2, who prefers a passive \*sannâdaw. But *snd* is normally intransitive. A more difficult problem is raised by the divine name Ptaḥ, which does not seem to go back to the imperfective \*Pattâḥu; it may descend from a form like Coptic ⲠⲧⲀⲘ or ⲚⲠⲠⲐⲧ. On the other hand some other divine names look like participles: *Hnsw*, for example, is probably \*Hânizu "traverser". Gods' names, however, are likely to be conservative, and may not follow the general drift of the language; witness the goddesses Neith (\*Niyitu or \*Niritu) and Mût (\*Mâwi(ya)tu "mother"), where the original t was preserved until Roman times, contrary to expectation.

<sup>5</sup> Gardiner, *EG*, § 440 and idem, *JEA* 33 (1947), 99 ff. A further argument against the exclusively emphatic nature of the imperfective *sḏm.f* is well known, but worth repeating: there are clear cases where no adverbial extension is present, and therefore nothing to emphasise. The Hymns to Sesostri III, for example, contain sentences such as *sti šsr mi irr šhmt* "who fires the arrow like the action of Sekhmet", and *tr n nšnn pt* "at the time of the sky's raging" (Griffith, *Hieratic Papyri from Kahun and Gurob*, Pl. I line 7, II line 17). Here surely it is the continual or universal nature of the action which is being expressed, rather than anything else. Of course, the standard theory has an explanation for these sentences, in terms of

This would be in line with comparative Semitic philology, in particular the evidence of Akkadian and Arabic, and it seems perverse to argue that Egyptian was an exception. If we pursue this comparison to its extreme, we should be prepared to find not merely narrative tenses, but also an imperfective infinitive (\*saddâmu) alongside the perfective one (\*sâdamu, which became Coptic ⲥⲱⲧⲙ). This does not seem to happen, either because the need to mark an infinitive as imperfective was not felt, or because the form was contrary in some other way to the natural flow of the language<sup>6</sup>. There may even have been an imperfective imperative form at some early stage of Egyptian, which may similarly have died out; Coptic does show the reduplicated forms ⲁⲛⲓⲛⲈ and ⲁⲢⲓⲢⲈ from ⲈⲛⲓⲛⲈ "to bring" and ⲈⲢⲓⲢⲈ "to make", although these may have a different origin (Vycichl, *DELIC*, 13). Whatever the explanation, there is no good evidence at present for an imperative \*inn or \*irr in Middle Egyptian. In general, therefore, the distinction between the two aspects does not seem to have been maintained throughout the verbal system; but this does not mean that it was of no importance in those areas where it was preserved. In the participles and the relative forms the force of the "imperfective" aspect does seem to be one of continuity or repetition; certainly it is difficult to make out a good argument for their "emphatic" nature. If this is true of the adjectival forms, it is likely to be true of the narrative ones, at least in the early stages of the language.

The "geminating" *sdm.f* / *mrr.f* of Egyptian syntax therefore represents the original imperfective aspect: "his frequent, or continued, hearing" becomes "his way of hearing" (this is the approximation used by Callender in his Grammar, *Middle Egyptian*), "his hearing" (taken for granted), or "the fact of his hearing". The standard theory of Polotsky, according to which the geminating *sdm.f* ceases to be a narrative tense and becomes a that-

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the idea of an "abstract relative" ("what he hears"), but there are difficulties inherent in the notion of an abstract relative, which seems to be unique to Egyptian. One wonders, for example, how such a form can have arisen from intransitive verbs. Nevertheless, if the standard theory is accepted, it is still possible that the two approaches are compatible. A good example of this can be seen in a sentence from the Coffin Texts (*CT VI 86 c-d*) which is sometimes quoted as proof of the emphasising nature of the geminating *sdm.f*: *bwt·i pw prt m grh, prr·i m hrw*. Here there is clearly a contrast between the two propositions in the sentence, but a translation such as "Going forth by night is my abomination; I always go forth by day" would seem to meet the requirements in practice, and perhaps in theory as well. In other words, how much do we need to emphasise the notion of emphasis?

<sup>6</sup> There may be an exception surviving. In Coptic, the verb ⲈⲢⲓⲢⲈ "to make" has an irregular form Ⲣⲁ, which is durative and largely confined to phrases such as ⲒⲬⲖ ⲛⲓⲙ ⲈⲧⲐⲢⲁ ⲚⲙⲐⲢ "every thing which they do". The form seems to be essentially frequentative, as was realised by Chaîne, *RdE* 2 (1936), 35-6. It is difficult to imagine that this form arose in Coptic alone. Vycichl, *DELIC*, 169-70, suggests an original vocalisation \*ierrîr for this variant. Could this be a survival of an imperfective infinitive, which has otherwise left no trace? The strange imperatives ⲁⲢⲓⲢⲈ and ⲁⲛⲓⲛⲈ preserve a similar vowel. This in turn implies that there were forms in the spoken language of the early dynasties which were not acceptable in the script; an interesting and rather disturbing notion. In this context it is worthwhile noting that Sander-Hansen, *Ägyptische Grammatik*, 52 § 165, argues for a series of perfective infinitives, alongside a normal imperfective one; these extra infinitives would survive as the forms that we call verbal nouns. However, his criteria are different from the ones discussed here; see further *ibid.*, §§ 258-76. A similar difficulty applies to the interesting article on the *tertia infirmae* verbs by Lacau, *BIFAO* 52 (1953), 7-50, where several comparisons with Semitic grammar are introduced. Although it is difficult to agree with many of Lacau's conclusions, he is surely right to point out the complexity of the problem.

form, or abstract relative, at first sight seems to contradict this; but in practice there does not seem to be much difference between a form which means "anything he may hear", and one that means "that he hears" and "his general hearing". It is at least possible to imagine how the one could have arisen from the other. To put the argument in other words, as a result of using a habitual or generalising form, the verbal action becomes topicalised. This in turn almost inevitably implies a comment: "the fact that he hears – wait for it – is yesterday / pointless / in obedience to his father / a good thing, etc." Such an implication gives rise naturally to the "emphatic" uses which were so well analysed and described by Polotsky. A clear example of this can be seen in the well-known inscription from Sinai, Ḥarwerrē', 5: *mṯn dd st Ḥthr n nfr* "See, Hathor's giving-this (is) to the good", i.e. "It is for a good purpose that Hathor continues to allow this"<sup>7</sup>. This notion may equally well be translated as "Hathor always grants such things for a good purpose". In such a sentence, the fact that Hathor bestows is understood, if not taken for granted; the more important point is the new information about this fact which is contained in the adjunct. If this is the true history of the imperfective *sdm.f*, the "emphasis", which was so perceptively seen by Polotsky, is surely a consequence of the topicalisation of the verb.

If adverbial emphasis were the primary and sole intention of the "imperfective" *sdm.f*, it would be necessary to translate a common expression such as *wnn pt wnn mnw·i tp t3* as a double emphatic: "it is that it is upon earth that my monument endures that heaven endures". Such a sentence collapses under the weight of its own emphasising. Clauses of this kind are essentially imperfective, as Gardiner argued. A possible defence by the syntactic school would be to maintain that the verb *wnn* is an exception to the normal rules; but, while the verb "to be" is grammatically irregular in many languages, there is no need to postulate a syntactic anomaly in order to escape from an impasse<sup>8</sup>. The verb *wnn* ("to exist") probably behaves like any other verb in this respect, and what is true syntactically of *sdm* should also be true of *wnn*. The example quoted is of course an extreme one, and few if any would in practice translate this sentence in such a way; but it illustrates the argument rather well. How many examples of the "emphatic" *sdm.f* would benefit from being translated as imperfectives?

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<sup>7</sup> Gardiner - Peet - Černý, *The Inscriptions of Sinai II*, 97 n. d; text conveniently published in Sethe, *Lesestücke*, 86 line 5-6.

<sup>8</sup> Note, for an inoffensive example, Lefebvre, *GEC*, §§ 311-7, as opposed to §§ 325-6. A similar embarrassment can be seen in the otherwise excellent account by Dieter Müller, *A Concise Introduction to Middle Egyptian Grammar*, § 59, where it is argued that the language contained an immutable biliteral verb *wn* "to exist", alongside an auxiliary *wnn*. This is rather complicated, and one wonders whether it is necessary. An interesting example is in fact quoted by Müller himself (*ibid.*, § 30b): the manuscript variant *m wnn Hr m hrd* "when Horus was a child", which takes the place of the more usual *m wn·f m hrd*. Mueller is tempted to ascribe this variant to the change from pronominal to nominal subject. Such a change, however, would be unprecedented, and it is surely easier to see here a case of the circumstantial form, as the genitive of an original noun, following the preposition *m*; the form with *wn* would then be secondary.



Another interesting feature of the imperfective meaning of *wnn·f* is that it accounts well for the fact, familiar to any student, that the geminated form of this word often needs to be translated as a future: continued existence normally implies extension beyond the present. There may well be other verbs of which this holds true; an obvious example seems to be the verb *rdi* "give", where the form *dd·f* often requires to be translated as an injunctive (Hekanakhte 1/17: *dd·k n·f m it-mḥ ḥqst 8 m 3bd* "you are to give him specifically 8 bushels of northern barley per month"). Here, it is easy to see how such a usage could have developed out of a form which originally meant "your continued giving". It is even possible that the form survives into Late Egyptian with the same meaning<sup>9</sup>. If *dd* in this sentence is emphatic, or is to be seen as an abstract relative, it would be interesting to discover which element is being emphasised, since both subsequent phrases are prepositional. In other words, the notion of emphasis sometimes creates more problems than it solves, and this may be the reason why it is often ignored by translators.

With the decay of case-endings in Egyptian the imperfective nominal form, which we have argued is based on a geminating stem found in other Semitic and Afroasiatic languages, probably became a unity, with an unaccented vowel in the final syllable (\*saddâmf). Originally, there may have been distinctions within the imperfective system, and it is interesting to see that Polotsky himself has occasionally postulated tenses such as the prospective of the emphatic form; in other words, our accusative form *saddâmf*<sup>10</sup>. These forms may well have existed in an early stage of the language, but probably soon merged into one general tense. Certainly, one gains the impression that few cases exist where the form *mrr·f*, for example, needs to be translated as a prospective or a circumstantial. On the other hand, the three perfective forms are based on an unreduplicated stem (\*sadm-, cf. Arabic *qatl-*). These tenses survived the loss of the case-endings, since in such circumstances it was necessary to preserve the distinctions in meaning phonetically. The reduced form which survives in Coptic ⲁⲓⲚⲟⲩⲧⲏ suggests that the nominative (preterite) form was accented on the stem, as were the imperfective nominal forms; but the accusative and genitive were deliberately accented on the ending, in order to convey the necessary differences in meaning. Later Coptic vocalisations bear this out: the prospective *sdm·f* which follows the causative  $\tau$ - in verbs such as  $\tau\text{C}\bar{\text{N}}\text{K}\text{O}$  or  $\text{M}\text{E}\text{C}\text{O}\text{C}$  is clearly accented on the final vowel, as are the unusual forms  $\text{Z}\text{N}\Delta\text{C}$  "he wills" and  $\text{M}\text{E}\text{Q}\Delta\text{K}$  "maybe" (lit. "you never know", from the demotic and Late-Egyptian *bw rh·k* and *bw ir-*

<sup>9</sup> See the commentary by James, *Hekanakhte Papers*, 104. This example is also quoted by Silverman, *Orientalia* 49 (1980), 200-201; he argues convincingly that *m* in such cases should be translated "only". Compare similarly the example from the Coffin Texts quoted in note (5) above; here the words *pr·i m hrw* might well be translated "I shall always go out by day".

<sup>10</sup> Polotsky, *Etudes*, 83 (§ 29), 91; nevertheless one wonders whether there was much call for such a tense in practice. On the other hand, the genitive of the imperfective might have maintained itself for some time after prepositions; Allen, *Inflection of the Verb*, § 251A, notes the regular use of the geminating forms after several such prepositions. Some of these which he quotes, such as *qr m33·sn*, may be the circumstantials of 2-ae gem. verbs, but others must be imperfective, presumably in the genitive form \*saddâmf.

*rh·k*). We therefore arrive at the following forms, which are quoted in the first-person singular:

imperfective:		saḏḏāmuya (-aya, -iya)
perfective:	(nom.)	saḏmuya
	(acc.)	saḏmâya>saḏmái
	(gen.)	saḏmîya

The prospective ending -âya probably soon became simplified to -ái (cf. Coptic ΤΔΚΟΙ). The others may well have retained their longer forms for some time, but it is also possible that the unaccented ending -uya was unstable, and was replaced by -i on analogy with other forms of the verb, or with the usual possessive suffix which followed nouns. Later, when the so-called *Zweisilbengesetz* – the rule which places the stress either on the penultimate or on the ultimate syllable – had come into operation, these forms would have needed to adapt to the new pattern. It is also possible that the first person of the circumstantial was simplified to \*saḏmî. Coptic merely shows the simple ΔΙΣΩΤΜ̄ (presumably from the preterite *ir·i sdm*) and ΜΕΙΣΩΤΜ̄ (from the negative aorist form *bw-ir·i sdm*) for these tenses<sup>11</sup>.

One thing that is clear is that, although these forms were originally nominal, they were soon felt to be verbs. This is shown by commonly used sentences such as the one chosen above: *wnn pt wnn mnw·i tp t3*. This originally meant "the existence of heaven (is) the existence of my monument on earth", and is therefore nothing more than an identifying ("nominal") sentence, in which two nouns or noun phrases are equated. In standard Middle Egyptian such sentences require the element *pw*: *sn·i pw s pn* "this man is my brother". But *pw* is never used in sentences such as *wnn pt wnn mnw·i tp t3*. This shows either that the construction is an archaic survival, similar to *dpt mwt nn* "this is the taste of death" and *'Imn-m-ḥ3t rn·f* "his name is Amenemḥat", or else it demonstrates that the forms in question were felt to be verbs, and the sentence corresponds to the English "heaven continues to endure, (and correspondingly) my monument continues to endure on earth". In other words, such a sentence is essentially a case of parataxis. The latter explanation is probably the right one, as Pascal Vernus argues in his forthcoming Grammar, and this in turn means that those syntactical systems, some deriving from the Polotsky school, which see Middle Egyptian as a language without verbs may theoretically be right, since the base of the *sdm·f* system was originally nominal, but are in practice wrong. The origin of a form

<sup>11</sup> For the nature of the first person suffix in Egyptian (-i after a consonant, -ya after a vowel) see Thacker, *Relationship*, 21-3. This dichotomy, which also exists in Akkadian, is shown by writings such as *rdwy·y·i* (Sin. B 16) for *rdwy·i* "my two feet". It would be interesting to see whether writings with an extra y appear more often in the preterite and circumstantial *sdm·f* than in the prospective; but the written evidence is probably insufficient to decide the question. The hieroglyphic variants of the first person suffix are essentially determinatives of the unwritten vowel -i, and are not in themselves phonetic.

or institution is not in itself a guide to its later behaviour, although knowledge of its origin may sometimes be a useful clue to its development.

It might be argued here that, if the imperfective *sḏm·f* became increasingly topicalised – in other words, became used to describe a concept whose existence is taken for granted and about which a comment is then made – then it must have been felt as a noun. This is not strictly the case. In the sentence "I know that my redeemer liveth", the words which follow the main verb are the topic (which is not the same as saying that they are the grammatical subject). In traditional grammar, they function as a noun-clause. It is possible that most examples of the imperfective *sḏm·f* can be similarly described, but this does not amount to declaring that they are nouns. It is doubtless true that the imperfective *sḏm·f*, because of its suitability to be made into a topic, remained closer to its original meaning than did the various forms of the perfective *sḏm·f*, but this is probably all that can be said about it. The fact that the imperfective or nominal *sḏm·f* was felt to be a verb is shown well by the sentence from Ḥarwerrē' quoted above: *mtn dd st Hthr n nfr*. If the element *dd* were still felt to be a noun, the subject (*Hthr*) would have to be a subjective genitive dependent on it ("Hathor's giving"); however, the pronoun *st* is allowed to come between these two nouns, which could not happen with an ordinary direct genitive. The way to avoid this, if the possessive relationship were still felt to be essential, would have been to use an indirect construction (*\*dd-st n Hthr*). This clearly does not happen, and it looks as if *dd* in such a sentence – whatever its origin – was felt by the Egyptians to be a verb, much in the sense that we feel it.

When the syntax and the uses of the various forms of the *sḏm·f* are compared, it can be seen that Callender's view of the perfective forms as the nominative, accusative and genitive of a verbal noun has every chance of being right. Many insights follow from this simple scheme. It implies, to take a controversial example, that the verbal form used after the particle *ir* "as for, if" is circumstantial, since *ir*, which was originally a preposition, should be followed by a genitive. This is an extremely interesting area. The best recent discussion on the phrase *ir sḏm·f* is by Malaise, *CdE* 60 (1985), 152-167; this concludes that the form normally used after conditional *ir* is the prospective, and that, in the relatively few cases where forms such as *iw* ("come") *iry* or *m33* occur, these can be ascribed to the archaic "future" form *sḏmw·f*. This leads Malaise, as we have already seen in the case of Polotsky himself, to make a special case for the verb *wnn* "to be", which often appears in the form *ir wnn·f*. This is not particularly convincing. The form *iry* may well be prospective, like most of the other examples he quotes, but the forms *wnn*, *m33*, and *iw* are far more likely to be circumstantials. This use of the circumstantial would have been the original construction (*ir sḏmí·f* "as to his hearing"); however, since most conditions refer to a relative future time, the use of the prospective tense would have been a natural development once the strict syntax of the construction was forgotten. This process would have accelerated as soon as case-endings had disappeared in ordinary nouns; when this had happened,

the use of a genitive – that is, a circumstantial – would no longer be compulsory after *ir*, and the way would have been open for other tenses to occupy the construction.<sup>12</sup>

A similar problem occurs with the negative expression *n sp sḏm·f* "he never hears". It is tempting to analyse this as *\*n spiu sḏmí·f* "there was not an occurrence of his hearing", with the main verb being a preterite from *spi* "occur, be left over" (cf. Coptic ⲪⲉⲎⲉⲤ). However, there is overwhelming evidence that the tense normally used in this construction is the prospective *sḏm·f*.<sup>13</sup> It therefore looks as if we should analyse this phrase as "there did not occur (that) he hear", with an accusative of the verbal noun (*sḏmá·f*) used deictically after the main expression. This too would have been formed according to the underlying sense, and not with regard to strict rules of grammar; there are, after all, many examples of the prospective *sḏm·f* used absolutely. A form such as *\*‘anhá* "(long) live" used at the beginning of an oath (Coptic Ⲙⲁ) is equally ungrammatical, and must depend on an implied verb of wishing or the like. Similar deictic accusatives are familiar from classical Arabic, as well as from the Indo-European languages, and a good parallel can be seen in the classical French use of *que* before a subjunctive: *que mon nom fleurisse*.

In the light of the above we should reconsider the vocalised examples given by J. Osing, in: *Lingua Sapientissima*, 65-71. In this very interesting article, Osing deals with the glosses to an unpublished late hieratic text in Copenhagen. The text in question contains several of these, written in "Old Coptic" script. The most important from our point of view

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<sup>12</sup> Polotsky himself seems to have been the first to demonstrate (*Egyptian Tenses*, 5-6) that the tense used in *ir sḏm·f* is circumstantial. This is to be expected under the Callender theory. This is also borne out by the Fayyūmic form ⲉⲒⲎⲉⲤ "should he wish"; if we are right in seeing this as the descendant of an original *ir ḥn·f*, the vocalisation of the final syllable corresponds to what we have postulated for the circumstantial *sḏm·f* elsewhere in this article. Nevertheless, it is clear that the prospective could also be used on occasion after the particle *ir*; note for example the form ⲟⲩⲧⲁⲤ in our Carlsberg text. This may be due to a drift caused by the general future sense of most conditions, or it may be that the particle could be felt as deictic, rather on the lines of *mk* and *ist*. In such a case, it could have been followed by the accusative (*\*ir sḏmá·f*). Another way of stating this would be to say that Egyptian had prepositions which could take the accusative, but this would be contrary to the practice of the Semitic languages, and it is more than likely that Egyptian prepositions are originally nouns; in which case the noun following would be linked as a direct genitive. It is therefore better to see the use of the prospective here as one of natural development. The process may well have been helped by cases where another particle intervened, such as *ir grt sḏm·f*; here the prospective was likely to be used, since it is closer to the intended sense. Doret, *Narrative Verbal System*, 22 n. 77 introduces a different approach. He distinguishes (following Satzinger, *Neuägyptische Studien*, 273 n.3) between *ir* "when", followed by the circumstantial, and *ir* "if", which is followed by the prospective *sḏm·f*. This is a neat distinction in practice, but it is likely to be secondary. The original form was probably simple *ir sḏmí·f* "as for his hearing"; the construction with the prospective tense would later have developed *ad sensum*. Schenkel, *Suffixkonjugation*, 49 argues for a form *rdi·f* after the conditional *ir* which is different from the normal circumstantial form *di·f*. This is unparalleled, however, and the writing may simply reflect the final *r* of *ir*, holding the initial *r* of the verb in place and preventing it from disappearing: *\*ierredif*. This at least has the advantage of removing the need for an extra "conditional" tense from the language.

<sup>13</sup> Gunn, *Studies*, 94-5; Edel, *AäG*, § 1081; Doret, *Narrative Verbal System*, 42 § 1. The forms *iry·i* and *iwt·i* quoted by Gunn are conclusive.

are the ones which accompany the sentence *ir w3d·f w3d t3 dr·f* "if it flourishes, the whole land flourishes". Here the two forms of the verb *w3d* are glossed as 0ΥΤΔϣ and 0ΥΩΤ respectively. The form 0ΥΩΤ is correctly analysed by Osing as an imperfective *sdm·f*; he also sees the same form in the adjective verbs of Coptic, such as ΝΔΩΩΩ=, ΝΕϢΒΩΩ=, ΝΔΝ0Υ=, etc. This is extremely plausible, and it fits well with our proposed vocalisation for the imperfective base: the late rendering 0ΥΩΤ could well originate in an original form \*wa33âd, with loss of the weak middle radical and subsequent contraction. In the same way, the Coptic ΝΔΩΩΩϣ probably originates in an imperfective form \*‘aššâ3ef, preceded by the late prefix na-, whose origin is unknown. A greater problem lies with the conditional form glossed as 0ΥΤΔϣ. In the Egyptian this corresponds to the construction *ir sdm·f*, and should ideally be a circumstantial form following the particle *ir*, which, as argued above, is essentially a preposition. This agrees well with the Coptic form ΜΕΩΔΚ, which we have already suggested as a late survival of the circumstantial tense. Osing, however, takes the form to be a prospective, a form which is commonly found in conditions. In such a case, the form 0ΥΤΔϣ would represent an original \*wa3dâf. Normally, this tense in Sa‘îdic is marked by the vowel 0, but there are dialects – Fayyûmic, for example – where the original vowel Δ is preserved. The Carlsberg text almost certainly originates in the Fayyûm, and ought to share this vocalisation. However, there is a second and stronger reason for Osing's identification, in that the same Copenhagen text also has a gloss *ξnef* for a hieratic form *hn·f*, which could well be a circumstantial used as a relative (*ibid.*, 69). It is hard to see what other form this tense could be, and if the writer of the glosses to our text intended the circumstantial to carry the vowel ε, he must have been speaking a different dialect from the one which produced ΜΕΩΔΚ. In fact, the Akhmîmic dialect of Coptic uses the variant ΜΕϞΕΚ here, which is clearly a sign that such differences existed.

The same is probably true of the forms in the London/Leiden Magical Papyrus glossed *mtef* and *mtes*. These correspond to the verbs in the hieratic *hr mwt·f* and *mwt·s* "then he (or she) dies". This tense may also be a circumstantial; after *hr*, which may originally be a verbal noun ("a falling"), a genitive would naturally be expected<sup>14</sup>. Equally interesting is the evidence from the Fayyûmic dialect, where the form 2ΝΔϣ appears as (ε)2ΝΕϣ. This is generally held to be a circumstantial *sdm·f*, and it agrees completely with the form *ξnef* seen in our Carlsberg papyrus. The Carlsberg texts, as explained above, are likely to be Fayyûmic, and this makes it all the more likely that we are dealing with a dialect variation. In this context it is worth recalling the demotic variant *ddy<sup>^</sup>t n·f* (instead of the more usual *ddt n·f*), which is descended from the original formula *dd·tw n·f* "also called",

<sup>14</sup> The examples of *mtef* and *mtes* are listed in Johnson, *Demotic Verbal System*, 14ff. The form *hr sdm·f* may originally have meant "a case (lit. "fall") of his hearing", a form which would have rapidly been specialised to express contingency. The "particle" (*i*)*hr* may itself be a perfective *sdm·f*, pronounced something like \*(y ~)hâr(u); the later Coptic ωΔ- is not a direct survival, being descended from the compound *hr ir*. For the related Akhmîmic form ϞΔΡΕϣ see Polotsky, *Orientalia* 29 (1960), 420 § 58; the vowel ε is what would be expected according to our theory (\*hâr ierîf > \*hârîf). The glossed form *mtef* after *hr* is paralleled in other demotic examples, all probably from the Thebaid; cf. Johnson, *Demotic Verbal System*, 14.

and which is used to introduce alternative namings<sup>15</sup>. It is possible that the -y- which appears in this demotic writing is an attempt to reproduce the vowel from an original circumstantial *sdm·f*, since this is certainly the tense which would be expected in such a phrase. In such a case the original vowel would have been preserved (\**dedîte-naf* or the like), but it is difficult to be sure of this in view of the nature of the demotic script; a similar spelling, for example, occurs in some writings of the old passive *sdm·f* which are preserved in demotic religious texts<sup>16</sup>. Unfortunately, it is hardly possible to know how such an archaic form was meant to be pronounced. This is about as much as can be said at the moment.

In short, the later dialects of Egyptian would certainly have distinguished the various tenses of the *sdm·f* morphologically. For this purpose they used vowel-endings which represented the correct descendants of the original -u, -a, or -i ; but these descendants may well have been different from one dialect to another, and the same vowel may even have stood for different tenses in different dialects. This in itself may have helped to hasten the demise of the Middle-Egyptian verbal system, and encouraged its replacement by analytic forms which were less open to misunderstanding. In the Sa'îdic dialect of Coptic, we would expect the various forms of the *sdm·f* to have left traces as follows:

imperfective	(saddâmf)	*CTΩMĪ
perfective	(sâdmuf)	*COTMĪ
prospective	(sađmáf)	*CETMŌÇ
circumstantial	(sadmíf)	*CETMΔÇ.

However, in the Carlsberg texts discussed by Osing, we have a prospective form \*CETMΔÇ (in the case of 0YTΔÇ) and a circumstantial \*CETMεÇ (as seen in the glossed form *ξnef* and its parallel *mtef*). Similarly in Akhmîmic, which in some respects is closest to earlier Egyptian, we have a prospective in Δ, and a circumstantial in ε (surviving in the

<sup>15</sup> Erichsen, *Demotisches Glossar*, 690. Note for example the repeated writings in the plaque from Dendera published by Shore in: *Glimpses of Ancient Egypt*, 145, passim.

<sup>16</sup> See the information collected by Smith, *Demotic Papyri in the British Museum* III, 89. A clear example of a passive in -y is contained in Mummy Label Leiden inv. V.3 (=P. Lug. Bat. 19, text 43), lines 8-9: *shy / n ḥ3t-sp 15 3bd-4 šmw sw 6*. This is in line with the evidence from Greek and Old Coptic; Vergote, *BiOr* 34 (1977), 139 quotes the Greek transcriptions Μεσιυρις and Μεσιησις, which seem to contain this form. (On the other hand, the name Μεσιουησις, which is also included by this author, looks more like a perfective *sdm·f* in the third plural *msi·w*). Vergote also accepts Osing's reconstructed form in BM 10808, 48 <ε>M for *gmy* "ist gefunden". A similar formation may be seen in Bohairic ϮϮ "document", which is presumably a passive form from the lamed-aleph verb *zh3* "write" (ϮϮϮ). Černý's attempt to derive this from *sh3* "remember" (*CED*, 173) is unnecessary; cf. the demotic writing in graffito Philae 417, 10, *p3 nty n3-fty n3y shy3* "he who shall erase these writings" (Griffith, *Demotic Graffiti from the Dodecaschoenus*, pl. LXV). This evidence is at least pleasantly consistent. Unfortunately, these examples are confined to the *tertia infirmae* verbs and to the partially weak verb *zh3* "write". This makes the form from the strong verbs hard to reconstruct: both \**sedim̃w* and \**sedmiw* are possible as things stand.

form  $\text{M}\epsilon\text{z}\epsilon\text{K}$ ). Such variants are confusing, but are unfortunately to be expected<sup>17</sup>. Nevertheless, the *sdm·f* system must have had considerable powers of resistance, and is still found as an essential feature of demotic texts, some two thousand years after the onset of the Middle Kingdom, and some three millennia after its earliest appearance<sup>18</sup>.

It will be obvious that no reference has yet been made to other parts of the so-called suffix conjugation, and it is certain that there are complicating factors here. If James P. Allen (*Inflection of the Verb*, §§ 265-7; 364-99) is correct in seeing a subjunctive form as well as a future ("prospective") tense in early Egyptian, we will need to revise our theory

<sup>17</sup> It must be admitted that there are traces of the *sdm·f* in Coptic which defy easy analysis. There are, for example, the forms seen in the auxiliary perfect  $\text{z}\lambda\text{q}\omega\tau\bar{\text{m}}$ , and in the (non-standard) future  $\text{o}\gamma\lambda\text{n}\text{b}\omega\text{k}$ . It is generally agreed that these derive from a *sdm·f* of  $w3h$  and  $w3i$  respectively, but which one? Vycichl, in the corresponding entries in *DELIC*, sees these forms as prospective. This is theoretically possible in the case of  $w3h·f$ , where the aspirate  $h$  might have prevented the change from  $\lambda$  to  $\theta$  in Coptic, but most unlikely in the case of  $\text{o}\gamma\lambda\text{n}\text{b}\omega\text{k}$ , which ought to have become  $*\text{o}\gamma\theta\text{n}\text{b}\omega\text{k}$ . The most likely explanation at the moment is that  $\text{o}\gamma\lambda\text{q}\omega\tau\bar{\text{m}}$  is genuinely prospective ("let him fall to hearing"), and that all the surviving forms are non-Sa'idic. On the other hand, it is difficult to see why the prospective *sdm·f* of  $w3h$  should be used to form a perfect tense. This form surely means "he has laid down hearing", and by rights this should be an original perfective *sdm·f*. In this context, it is worth noting the Subakhmîmic variant  $\lambda\text{z}\bar{\text{q}}\omega\tau\bar{\text{m}}$  (Vergote, *Grammaire copte* IIb, 218). This could easily go back to an original perfective  $*\text{w}\lambda\text{z}\bar{\text{h}}\text{ef}$ , as could the corresponding relative form  $\epsilon\tau\lambda\text{z}\omega\tau\bar{\text{m}}$ . (This is at variance with the reconstruction proposed by Edgerton, *JAOS* 55 [1935], 260, although Edgerton was writing at a stage when the *sdm·f* could still be seen as a unity.) Phonetically, both  $\text{z}\lambda\text{q-}$  and  $\text{o}\gamma\lambda\text{q-}$  (as normally written) look like circumstantials, but it is extremely difficult to see why this form should be needed here. It is of course possible that  $w3h·f$  in this usage is a late-Egyptian preterite, which took the place of the old *sdm·n·f* form, and was perhaps derived from it. The same may even be true of the  $\lambda\text{q}$  in  $\lambda\text{q}\omega\tau\bar{\text{m}}$ , although Vycichl, *DELIC*, 2 gives good reasons for thinking that this prefix goes back to an original perfective form  $*i\lambda\text{rief}$ . However, we are on safer ground with the conditional form  $\text{M}\lambda\text{q}\omega\tau\bar{\text{m}}$  (on which see Crum, *ZÄS* 65 [1930], 125-7). Černý, *CED*, 77 suggests the etymology *mi ir·f sdm* for this construction. According to our theory the tense should be circumstantial following the preposition *mi*, and the dialect variant  $\text{M}\epsilon\text{q}\omega\tau\bar{\text{m}}$  suggests that the original vowel was *i*; which is as it should be. A greater uncertainty lies with the negative aorist  $\text{M}\epsilon\text{q}\omega\tau\bar{\text{m}}$  (demotic *bw-ir·f sdm*). Callender and Vergote agree in seeing this as a survival of the original perfective, and this may be right, but we have seen that the form used in the clearly related form  $\text{M}\epsilon\text{q}\lambda\text{k}$  is likely to be a circumstantial. A further difficulty occurs with the auxiliary of the imperfect, which appears in Coptic in the forms  $\text{N}\lambda\text{q}$  or  $\text{N}\epsilon\text{q}$ , and which is regularly written *wn-n3·f* in demotic. This must be some form of the verb *wnn* "exist". These are indeed problems, but they are probably superable, and it is always possible that verbal auxiliaries, which were conservative as well as essentially unaccented, observed phonetic rules of their own as the language developed. Equally interesting are the few traces of older relative forms which have survived in set phrases such as  $\text{P}\epsilon\text{z}\lambda\text{q}$  (Akhmîmic  $\text{P}\lambda\text{z}\epsilon\text{q}$ ) and  $\text{G}\rho\theta\text{q}$ ; these may or may not shed light on the problems raised in this paper.

<sup>18</sup> The demotic evidence is well discussed in Johnson, *Demotic Verbal System*, 11-16. The demotic *sdm·f* seems to contain a preterite (whether derived from the Middle-Egyptian perfective or in some way descended from the *sdm·n·f*), a prospective, and a circumstantial; the latter was probably obsolescent, and replaced in most cases by the form *iw·f (hr) sdm*. It is also distinctly possible that a survivor of the imperfective *sdm·f* exists in the later form *i-ir·f*, which is the sign of the emphatic "second" tense in Late Egyptian and demotic. This may well be a phonetic reduction of the Middle-Egyptian form *irr·f*, whose topicalising or "emphatic" nature is generally agreed. Late-Egyptian literary texts also make use of an "emphatic" form *i·sdm·f*, which is difficult to explain in terms of Middle-Egyptian grammar or vocalisation. However, it is not improbable that this is a literary back-formation from the simple *i-ir·f sdm*, and was not in fact present in the spoken language. If this is the case, the form *i·sdm·f* will not be a guide to the pronunciation of the earlier forms.

slightly. There is also the problem of the extended form *sdmw·f*, which seems equally to have a future force, and in some conjugations is in fact replaced by the prospective tense. Whatever its exact function, this form is clearly derived from the basic root plus a termination *-w*, which can be seen as a masculine ending. As such, it is similar to the still imperfectly understood *sdmt·f*, which at first sight looks like a "feminine" counterpart. The vocalisation of these extended forms is difficult. The *sdmw·f* form does not seem to survive into Late Egyptian, or even much into the Middle Kingdom. For the *sdmt·f*, the Coptic survivals ⲘⲛⲁⲧⲓⲚⲓⲧⲉⲩⲧⲉⲩⲛⲓ and ⲙⲁⲗ(ⲛ)ⲧⲓⲚⲓⲧⲉⲩⲧⲉⲩⲛⲓ, which probably contain the verbs *p3w* and *iri*, suggest an original vocalisation \*p3w(a)tef and \*i3r(a)tef from the *tertiaef infirmaef* verbs, but the form from trilaterals is harder to reconstruct<sup>19</sup>. Fortunately, this is not important for our present purpose. Westendorf's idea that *sdmw·f* is merely a writing of the prospective in the pronunciation \*sadm3f, though attractive, is unlikely for such an early period, although it might hold true for some later cases where it is purely a phonetic spelling. It is difficult to imagine that the vowel *o* was current in "polite" Egyptian much before the end of the Eighteenth Dynasty, at least to judge from contemporary vocalisations in cuneiform; yet the writing with final *w* is found even in the earliest Egyptian, where *matres lectionis* of this sort are extremely rare. Nevertheless, the existence of these by-forms does not invalidate the Callender theory of the *sdm·f*, any more than the appearance of other forms of the suffix conjugation; they merely serve to complement it<sup>20</sup>.

In conclusion, it is probably worth recalling the criteria for accepting or rejecting a theory such as this. Short of a fully-vocalised first-dynasty text, there can be no such thing as certainty that Callender's theory of the *sdm·f* is correct, but there is such a thing as the

<sup>19</sup> By analogy, this pattern should be \*s3dmatef, which is extremely interesting, since it looks as if the *sdmt·f* was derived from the feminine noun of action *q3latu* (on which see Vergote, *Grammaire copte* IIb, 116-7). This nominal form also serves as the infinitive of *tertiaef infirmaef* verbs (\*m3syatu > ⲙⲓⲤⲉ) and the causatives of bilaterals (\*s3hnatu > Ⲥⲁⲗⲛⲉ). This may well explain why the *sdmt·f* implies factual occurrence ("he in fact hears/heard", deriving from a form which means "his actual hearing"). This conclusion is in line with the view of Satzinger, *JEA* 57 (1971), 58-69. The difference between the *sdmt·f*, which implies realised action, and the *sdm·f*, which does not, is well seen in Sin. B 247, where we are told that a certain activity – in fact brewing – went on *r pht·i dmi n 'Itw* "until I (finally) reached the town of 'Itw". In Sh. S. 33; 103, on the other hand, the text informs us that a storm blew up *tp- ' s3h·n t3* "before we could touch land". Here, the sequel shows clearly that the ship perished. One may equally compare the constructions *ir sdm·f* "if he hears" and *ir sdmt·f* > *r sdm·f* "until he has heard". Another consequence of the vocalisation suggested here is that, in the case of *tertiaef infirmaef* verbs, the *sdmt·f* and the infinitive were identical, as the script certainly suggests. The main problem with the latter is that it implies a double use of the suffix pronouns, being subjective in one case (*mrt·f* "he in fact loves") but objective in the other (*mrt·f* "loving him"). This demands a separate study. Derivation from a concrete noun *q3latu* implies that there were originally three forms of the *sdmt·f*, corresponding to nominative, accusative, and genitive (after prepositions); in practice, however, it is easier to believe that they coalesced into a single form.

<sup>20</sup> For the *sdmw·f* in general see Edel, *A3G*, §§ 511-3, and Schenkel, *Suffixkonjugation*, 39-42. Westendorf's theory is contained in *Z3S* 90 (1963), 127-31; see also Polotsky, *Transpositions*, 23-4. Polotsky agrees with Westendorf in seeing *sdmw·f* as the full writing of the prospective *sdm·f*; this is unlikely on general grounds, and if the theory contained in the present paper is correct, it is difficult to see how the writing *w* in Old Egyptian texts can do duty for the vowel *3*, which we have taken to be the sign of the prospective tense. For an up-to-date account see Doret, *Narrative Verbal System*, 22 n. 79.



burden of proof. If the "case-ending" theory explains the behaviour of more and more usages of the *sdm·f* as research progresses, it will reach a stage where the burden of proof shifts onto the sceptics. If no disproof is forthcoming from this quarter, the theory will pass into the area of extreme probability, which is as near to certainty as any such theory can come. It is quite possible that the Callender theory and the "Standard" Theory are compatible; if both are describing the same reality they will presumably converge as time goes by. If one is right and the other wrong, they will diverge, and sooner or later one will disappear from the realm of plausibility. If both are wrong, then we are more in trouble than we thought.

The phonetic evidence from what survives in Greek transcriptions and, to a lesser extent, Coptic strongly supports Callender's view. This evidence is of course late; some three thousand years late. It is however consistent, which implies that it is either reliable, or is the product of an artificial scheme for reading Middle Egyptian produced in late-period schools. On balance, it seems better method to accept it as a working guide to earlier Egyptian, and to see where it leads us. In the present writer's opinion, the explanations of *ir sdm·f*, *hr sdm·f* and *n sp sdm·f* which the Callender theory offers are good indications that we are on the right road. If this is the case, then progress has been made, and Middle Egyptian is not so inexplicable as some analyses would have us believe. In his Glanville Lecture at Cambridge in 1984, Polotsky quoted with admiration a comment by Amedeo Peyron that Coptic – and therefore by extension Egyptian – was *lingua geometrica*<sup>21</sup>. At worst, the Callender theory can be seen as a beautiful example of geometricity within a language. At best, it may even be true.

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<sup>21</sup> Polotsky, in: *Lingua Sapientissima*, 20.

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