Interpreting Written Morphology: the *sḏm.n=f* in the Pyramid Texts

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Introduction

Based on data from the Coffin Texts, Wolfgang Schenkel has proposed that the mostly uniform written forms of the Earlier Egyptian *sḏm.n=f* could conceal two underlying forms, morphologically distinct by the position of stress.[1] One of these forms would have been used in "predicative" environments (to use the author's labeling), while the other would have been used in "abstract-relative" (or "emphatic") ones. The possible implications of Schenkel's "split *sḏm.n=f* hypothesis" are manifold. This is one of a series of empirical studies by Schenkel aimed at achieving a more precise description of the inventory of inflectional categories of the Earlier Egyptian verb, a task still incomplete.[2]

With respect to issues that transcend morphology proper, the proposal further implies that the two types of constructional environments mentioned above would correlate with contrasts in verbal morphology in all types of events—not only in those for which a morphological contrast is readily apparent in written forms—which is a hypothesis often made, yet never empirically examined before. A further implication is that the form of the *sḏm.n=f* in "abstract-relative" environments would be closely related morphologically to the attributive (or "relative") form of the *sḏm.n=f*, with further consequences on the syntax of various Earlier Egyptian verbal constructions.

Schenkel's hypothesis of two morphologically distinct forms of the *sḏm.n=f* was based on a discussion of written forms of *II.red* in the Coffin Texts. As I analyze in another paper,[3] these written forms are compatible with Schenkel's hypothesis, yet they are just as compatible with the competing hypothesis of a single *sḏm.n=f*. The written forms of *II.red* in the Coffin Texts were, in other words, argued to be neutral as to the issue at hand. In view of the associated implications recalled above, the hypothesis must then be examined further by including relevant data from

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[1] Wolfgang Schenkel, "Prädikatives und abstrakt-relativisches *sḏm.n=f*," in *Egyptian, Semitic and General Grammar. Studies in Memory of H. J. Polotsky*, ed. Gideon Goldenberg and Ariel Shisha-Halevy (Jerusalem, 2009), 40–60. See Schenkel's further discussions in "Von der Morphologie zur Syntax und zurück," *LingAeg* 14 (2006): 61–67; *Tübinger Einführung in die klassisch-ägyptische Sprache und Schrift* (Tübingen 2012), 192–97. The research for the present paper was conducted as a part of the project "The Old Egyptian Verb: Functions in Text," funded by the Swiss National Science Foundation.

[2] Major other studies by Wolfgang Schenkel include: "Die Endungen des Prospektivs und des Subjunktivs (*sḏm=f, sḏm.w=f, sḏm.y=f*) nach Befunden der Sargtexte. Mit einem Anhang zum prospektivischen Partizip *sḏm.t(i)=f(i)*," *LingAeg* 7 (2000): 27–112; "Das *sḏm(.w)=f*-Passiv, Perfekt vs. Futur, nach dem Zeugnis der Sargtexte," *ZÄS* 131 (2004): 173–88 and *ZÄS* 132 (2005): 40–54; "Die Clèresche Relativform," *ZÄS* 137 (2010): 66–90.

[3] Andréas Stauder, "Splitting the *sḏm.n=f*? A Discussion of Written Forms in Coffin Texts. Parts I & II," *ZÄS* 141.1 (2014): 83–98 and *ZÄS* 141.2 (forthcoming, 2014). See also Sami Uljas, "Formally Speaking: Observations on a Recent Theory of the Earlier Egyptian *sḏm.n=f*," *LingAeg* 18 (2010): 253–61.

beyond the Coffin Texts—a point repeatedly stressed by Schenkel himself in various recent conferences and workshops.[4] This call is here taken up through an examination of the *sḏm.n=f* in the Earlier Egyptian corpus that displays the richest alternations in written forms, the Pyramid Texts. Unlike the Coffin Texts or any other Earlier Egyptian corpus, the Pyramid Texts make an abundant use of the written prefix <*i.*>. I first discuss written forms of the *sḏm.n=f* forms with

the prefix <*i.*> (e.g., *i.spš.n=k*), which are apparently limited to the Pyramid Texts. I then concentrate on analyzing one at first sight rather unassuming phenomenon, the inflectional behavior of the *sḏm.n=f* in *2rad*, which turns out to have major consequences as to whether Earlier Egyptian had one or two morphologically distinct forms of the *sḏm.n=f*. In the process, I also discuss aspects of the notion of "flexivity" in Earlier Egyptian verbal morphology, as a necessary component in the overall argument, and as a phenomenon interesting in its own right.

Preliminary Considerations

Before entering a discussion of written forms in the Pyramid Texts, the two competing hypotheses may be briefly recalled.[5] The one form of the *sḏm.n=f* that Earlier Egyptian certainly had (subsequently referred to as *sḏm.n=f_X*) can be reconstructed as based on an inflectional pattern in which stress lay between the penultimate and last root consonants: schematically, CvC'vC-nv-. This is firmly established by the long written stems of *II.red* in various corpora (mainly the Coffin Texts and the Pyramid Texts),[6] and independently confirmed by (admittedly later) cuneiform transcriptions of personal names that include a closely related morphological category, the attributive (or "relative") *sḏm.n=f*.[7] In Schenkel's hypothesis, Earlier Egyptian would have had an additional form of the *sḏm.n=f*. This hypothesized form (subsequently referred to as *sḏm.n=f_Y*) would have been distinguished from the *sḏm.n=f_X* by an inflectional pattern in which stress lay after the last root consonant: schematically,

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[4] In past research, only two observations had been made in this respect. First, H. J. Polotsky, *Les transpositions du verbe en égyptien classique*, Israel Oriental Studies 6 (Tel Aviv, 1976), 23, n. 40 noted that with *rḏi*, "give," a few early Middle Egyptian texts ("petit nombre") make a distinction between a stem with *r-* in "nominal" environments (*rḏ.n=f*) and a stem without *r-* in "circumstantial" ones (*ḏ.n=f*). This does not, however, represent evidence for distinguishing two forms of the *sḏm.n=f* (nor has this in fact been claimed by Polotsky himself). In those texts that make the distinction, forms with *r-* are in sentence-initial position (in the "emphatic construction") or after the negation *n* (*n rḏ.n=f*); forms without *r-* are after *iw* (*iw ḏ.n=f*) or otherwise in positions that are not sentence-initial (thus in dependent clauses, in which the verb is clause-initial, but not sentence-initial). The same verb *rḏi* displays a similar alternation of stems with and without *r-* in forms of the *sḏm=f*: for instance, the Old Egyptian "past tense" *sḏm=f*, which is always in sentence-initial position or after the negation n, has a stem with *r-* (*rḏ N; n rḏ=f*); the unaccomplished *sḏm=f*, which is used after *iw*, a noun phrase, or otherwise in a position that is not sentence-initial, has a stem without *r-* (*iw ḏ=f; NP ḏ=f*; dependent *ḏ=f*). Leaving aside the (in the present context, inconsequential) issue of whether the Old Egyptian "past tense" *sḏm=f* and the "aorist" *sḏm=f* are two morphologically distinct forms, the correlation of stems with and without *r-* is exactly the same as in the *sḏm.n=f*, an entirely unrelated category. In a few texts, the *sḏm.n=f* of *rḏi* thus ends up in two different surface "forms," if by "form" a phonetic string is meant; yet, the alternation of stems with and without *r-* can be fully accounted for on prosodic grounds and does not, therefore, provide evidence for establishing two forms of the *sḏm.n=f*, if by "form" an inflectional category is meant. Second, three instances of a *sḏm.n=f* of *iri*, "do, make," with a reed-leaf (<*i ir n*>) have been noted, all three in "emphatic" environments (E. Doret, *The Narrative Verbal System of Old and Middle Egyptian*, Cahiers d'Orientalisme 12 [Genève 1986], 69, nn. 743–44; 152, n.1802). In the Old Kingdom, the written sequence <*i ir*> is documented in other written forms of *iri*, thus in the prospective V-passive (e.g., Pyr. 373c^WNT; Pyr. 1099a^PMN; 1651d^MN) or in the unmarked/perfective passive participle (e.g., Pyr. 657b^T, 657c^TM). In all these cases, the written sequence <*i ir*> is a mere spelling of *ir*, according with Old Kingdom conventions (see also the comment by S. Schweitzer, *Schrift und Sprache der 4. Dynastie*, Menes. Studien zur Kultur und Sprache der ägyptischen Frühzeit und des Alten Reiches 3 [Wiesbaden 2005], §373). That the same orthography is found in "emphatic" environments is not statistically significant in view of the exceedingly small number of cases implied. In addition, the distribution is straightforwardly accounted for in view of the visual oddity of a graphic sequence such as, *<i w i ir (. . .)>*.

[5] For a fuller contrastive exposition, A. Stauder, "Splitting the *sḏm.n=f*?": Part I: 84–86.

[6] For the Coffin Texts, compare W. Schenkel, "Prädikatives und abstrakt-relativisches *sḏm.n=f*," 45 (the right column in the table). For the Pyramid Texts, compare James Allen, *The Inflection of the Verb in the Pyramid Texts*, Bibliotheca Aegyptia 2 (Malibu, 1984), §767D, and the comments in the main text below. For early/mid-Eighteenth Dynasty Middle Egyptian texts, see Schenkel, "Von der Morphologie": 63–64, and Stauder, "Splitting the *sḏm.n=f*?": Part I: 94–96.

[7] E.g., Jürgen Zeidler, "Review of Karel Petráček, *Vergleichende Studien*," *LingAeg* 2 (1992): 214–15; Jürgen Osing, "Die Partizipien im Ägyptischen und in den Semitischen Sprachen," in *Form und Mass. Beiträge zur Literatur, Sprache und Kunst des alten Ägyptens. Festschrift für Gerhard Fecht zum 65. Geburtstag am 6. Februar 1987*, ed. Jürgen Osing and Günter Dreyer, Ägypten und Altes Testament 12 (Wiesbaden 1987), 356–57. Roman Gundacker, "On the Etymology of the Egyptian Crown Name *mrsw.t*: An 'Irregular' Subgroup of *m*-Prefix Formations," *LingAeg* 19 (2011): 59, n. 185.

CvCC´v-nv-. In the "split *sḏm.n=f* hypothesis," the *sḏm.n=f*$_X$ would have been used in "abstract-relative" (or "emphatic") environments, while the *sḏm.n=f*$_Y$ would have been used in "predicative" (or "non-emphatic") ones. In the "unitary" hypothesis, the *sḏm.n=f*$_X$ would, by definition, have been used in all environments alike: the two hypotheses thereby differ only as to whether some other form, distinct from the *sḏm.n=f*$_X$, would have been used in "non-emphatic" environments or not.

As regards *II.red* (the inflectional class mainly studied by Schenkel in his discussion of Coffin Text material), written forms of the *sḏm.n=f* in the Pyramid Texts are neutral as to which of these two hypotheses is correct. This is because all *II.red* documented in the *sḏm.n=f* in the Pyramid Texts are from "emphatic" environments—from environments, therefore, in which the same form, a *sḏm.n=f*$_X$, is expected under either of the competing hypotheses. In descriptive terms, *II.red* other than *mȝȝ* consistently display long written stems (<ABB-n>):[8] *išš.n*, "has spat," *pšš.n*, "has spread out,"[9] *nšš.n*, "has given birth,"[10] *sȝȝ.n*, "has become wise,"[11] *ḳbb.n*, "has become cool," *ṯbb.n*, "has stepped on." Only one verb, *mȝȝ*, displays the short written stem (<AB-n>: *mȝ.n*, "has seen"), with similar consistency.[12] The long written stems of *II.red* other than *mȝȝ* and the short written stem of *mȝȝ* are both consistent with an interpretation as a *sḏm.n=f*$_X$, as is expected under both hypotheses.[13] An examination of written forms of the *sḏm.n=f* in the Pyramid Texts has therefore to turn to other features of written inflection than the ones that have been considered in the Coffin

Texts: the distribution of the written prefix <*i.*> is accordingly set as the focus of the present study.

1. <*i.*>-prefixed Written Forms of the *sḏm.n=f* in the Pyramid Texts

Apparently limited to the Pyramid Texts is the occasional occurrence of the written prefix <*i.*> in forms of the *sḏm.n=f*. That such written forms do not recur in contemporary or later corpora is primarily a matter of shifting conventions in written representation, not of linguistic difference or change. In other inflectional categories of the verb as well, <*i.*> is a regular feature of written inflection in the Pyramid Texts only. As the case of the subjunctive *sḏm=f* of *2rad* directly demonstrates, the segment which in written form is commonly represented by <*i.*> in the Pyramid Texts was present in underlying form in other periods as well, since the form of the subjunctive *sḏm=f* of *2rad* must have been as ˁCCá- (below, 2.1.A) at all Earlier Egyptian times. This in turn implies that results to be gained from an analysis of prefixed written forms of the *sḏm.n=f* in the Pyramid Texts have relevance to the morphology of the *sḏm.n=f* in Earlier Egyptian more broadly.

An inventory of prefixed written forms of the *sḏm.n=f* is given in J. Allen's classic study on the morphology of the verb in the Pyramid Texts, yet no interpretation of these has been given to date. I here discuss the distribution of the written prefix <*i.*> over inflectional classes and analyze this as to the conditions, morphological or phonological, that license, or trigger, the occurrence of the segment represented by the written prefix.

1.1 *Distribution over Inflectional Classes*

The relative frequency, and even possibility, of occurrence of the written prefix <*i.*> in the *sḏm.n=f* is strongly skewed depending upon inflectional classes, sub-classes, and individual verbs. It is therefore an analysis of such differential distribution that provides the basis for subsequent interpretation. Individual witnesses of a given passage tend to be remarkably consistent with each other, all displaying <*i.*>, or none doing so.[14] The following counts (Table 1) are therefore by passages, not by occurrences in individual pyramids: the

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[8] Allen, *Inflection*, §767D.

[9] In one passage, Pyr. §2100b (PT 690), *pšš.n* (N) alternates with *pš.n* (Nt). The environment is "emphatic" and the underlying form therefore a *sḏm.n=f*$_X$: while the long written stem in N is predicted under both competing hypotheses, the short written stem in Nt is contrary to expectation under both of these. The alternation—a short written stem as a textual variant to an expected long one—is reminiscent of similar alternations occasionally encountered in the Coffin Texts: CT II 268/9e *wr.n* (var.mss.) alongside expected *wrr.n* (B1C); CT IV 23b *ng.n* (Sq1Sq) alongside expected *ngg.n* (T1L; Sq6C). Further discussion in Stauder, "Splitting the *sḏm.n=f*?": Part II §1.7 and §1.8.B, respectively; compare also Part I: 91–94 (for alternations *ȝm.n* ~ *ȝmm.n* in CT II 236c and in CT I 397b).

[10] Whether this is a *II.red* is made slightly uncertain by Pyr. §205a (PT 222), where *nšš.n* (Nt) alternates with *nšnš.n* (W) and *nhnh.n* (N); compare the comments in Allen, *Inflection*, §756.

[11] Discussed in Stauder, "Splitting the *sḏm.n=f*?": Part I: 90.

[12] Allen, *Inflection*, §767D.

[13] Stauder, "Splitting the *sḏm.n=f*?": Part I: 88–90.

[14] One exception is Pyr. §641a^TN (PT 369), quoted below, 1.2, (xii).

first figure indicates the number of passages that have a prefixed *sḏm.n=f*, while the second indicates the total number of *sḏm.n=f*'s in a given inflectional class:[15]

Table 1—<ì.>-*prefixed forms of the* sḏm.n=f *in the Pyramid Texts*[16]

	sḏm.n=f	(attributive *sḏm.n=f*)
Caus-2rad:	11/28[17]	(1/2)
IV.inf:	3/31	(4/8)
III.inf:	only with *mrì*: 7/8	(0/4)
2rad:	1/ca.100	(0/ca.50)

In many inflectional classes, prefixed forms of the *sḏm.n=f* are never found: these include two major classes, *3rad* and *II.red*, as well as all reduplicated long stems with or without the derivational prefix N-. In two other major classes, *2rad* and *III.inf*, <ì.> is altogether exceptional with the *sḏm.n=f*, being limited to one occurrence in the former (<1%) and to one verb in the latter (*mrì*, for which it is common: 7/8). In only two inflectional classes do prefixed forms of the *sḏm.n=f* occur with some regularity, *caus-2rad* (ca. 39%) and *IV.inf* (ca. 18%). As regards attributive forms of the *sḏm.n=f*, these come in numbers too low for proportions between prefixed and non-prefixed forms to be representative (this can be directly demonstrated in the case of *IV.inf*: see below, 1.C). The information to be derived from attributive forms is therefore qualitative only, namely that prefixed forms of the attributive *sḏm.n=f* are found in the same two classes in which prefixed forms of the non-attributive *sḏm.n=f* themselves occur fairly commonly.

(A) Beginning with *III.inf*, only one verb, *mrì*, "desire," displays <ì.> in the *sḏm.n=f*, and does so with surprising regularity. The same verb also commonly has *ì.mr* alongside *mr*, but not *mrr*, in various forms

of the *sḏm=f*:[18] unlike in later stages of Egyptian, *mrì* takes significant exceptions with the more common inflection of *III.inf* in the Pyramid Texts. While the present author lays no claim to understanding the puzzling inflectional behavior of *mrì* in the Pyramid Texts, the written forms *ì.mr.n=f* thus appear to be an individual history of one verb, with no further relevance to the subsequent discussion. As is demonstrated by the great many occurrences of the *sḏm.n=f* of other verbs from *III.inf*, all non-prefixed, *III.inf* is in general not a prefixing class in the *sḏm.n=f*.

(B) With *2rad*, a prefixed *sḏm.n=f* is altogether exceptional, being limited to one single occurrence, against more than a hundred occurrences of non-prefixed *sḏm.n=f*.[19] This is worth quoting in context:

(i) **ḏr.n ḥr ḏwt irt N (/ irt=k) m ifdt=f (/ m ifdt=k) ì.ḥm.n stš irt.n=f ir N (ir=k) m ḫmnt=f (/ m ḫmnt=k)**
"Horus has repelled the evil that was against N (/ against you) on his (/ your) fourth day; Seth has negated (lit., ignored) what he did against N (/ against you) on his (/ on your) eighth day." (Pyr. §746b–c[TM]; PT 419)

In this passage, *ì.ḥm.n* stands in parallel to another *sḏm.n=f* of a verb of the same inflectional class, *ḏr.n*. The former has the written prefix in both T and M, while the latter lacks the prefix in both T and M. As discussed below (1.C–D), *IV.inf-I.ḥ* also display prefixed forms, while *IV.inf* (non-*I.ḥ* and non-*I.n*) never do. Compounded with the apparently principled distribution of prefixed and unprefixed written forms in Pyr. §746b–c[TM], this suggests that the nature of the first root consonant in *ḥm* here plays a role in whatever underlying phenomenon is reflected by the written prefix. In general, therefore, *2rad* is not a prefixing class with the *sḏm.n=f*. All major classes, *3rad*, *2rad*, *III.inf*, and *II.red* are non-prefixing in the *sḏm.n=f*.

(C) Instances of the prefixed *sḏm.n=f* of *IV.inf* are not exceptional, although not as regular as with *caus-*

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[15] Data drawn from Allen, *Inflection*, §801F, §796F, §777F, and §757D, respectively; for the attributive *sḏm.n=f*, see §804D, §799E, §780E, and §760E, respectively. While some additional text material has since become available, this does not significantly affect the type of information relevant here, namely the possibility or not of the occurrence of <ì.> in the *sḏm.n=f* of a given inflectional class, and the relative proportions of prefixed and non-prefixed forms of the *sḏm.n=f* in those classes that allow prefixed forms.

[16] One apparent occurrence with a *caus-III.inf* (Pyr. §1611a[N]; PT 590), noted by Allen, *Inflection*, §814F, is to be read differently, as a passive: see Allen, *The Ancient Egyptian Pyramid Texts*, Writings from the Ancient World 23 (Atlanta 2005), 214.

[17] In J. Allen's original data (*Inflection*, §801F), the figures are 9/26. In the present study, two additional instances of prefixed forms of the *sḏm.n=f* of *caus-2rad* are identified: *ì.siꜥ.n* in Pyr. §641a[TN] (PT 369), quoted below, 1.2, (xii); *ì.smn.n* in Pyr. §1198b[PMN] (PT 518), quoted below, 1.2, (v).

[18] Allen, *Inflection*, §777A.

[19] As noted by a reviewer, *Wb.* III 278 once assessed *ḥm* as 'III. inf., dann 2rad.' This reflects an old Sethean view, long abandoned, according to which written reduplication would be an exclusive property of *ult.inf*. As regards *ḥm*, reduplication is only with the (aspectually unmarked/'perfective') passive participle (*ḥmm*), which subsequent research has shown to be regular for *2rad* in general. In all other written forms, *ḥm* similarly patterns with *2rad* (*mrr=f*: no reduplication; infinitive: no ending .*t*; etc.).

2rad (18% and 39%, respectively). Upon closer inspection, however, a remarkable correlation appears:

Table 2—*Prefixed forms of the* sḏm.n=f *of* IV.inf

In main clauses (3/31): *i.ḥmꜥ.n* N (Pyr. §615a–b[TM]; PT 364); *i.nḏr.n* N (Pyr. §744a[TM]; PT 419); *i.nḏr.n=s* (Pyr. §1282a–b[PN]; PT 535).

In attributive use (4/8): *i.ḥmḫt.n=sn* (Pyr. §61b[WN]; PT 91); *i.ḥmḫt.n=sn* (Pyr. §89c[WTN]; PT 147); *i.nsbt.n=sn* (Pyr. §98c[WT]; PT 166); *i.nsb.n=f* (Pyr. §228[W]; PT 228).

In Table 2, three out of seven instances of prefixed forms of the *sḏm.n=f* of *IV.inf* are from *I.ḥ*, while the other four are from *I.n*: *IV.inf* that are neither *I.ḥ* nor *I.n* never display the written prefix in the *sḏm.n=f*. The nature of the first consonant of the stem thereby appears to be a determining parameter in licensing the occurrence of the written prefix in the *sḏm.n=f* of *IV.inf*. That half of all occurrences of the attributive *sḏm.n=f* are prefixed in *IV.inf* further appears as a mere artifact of the low numbers and skewed attestation of that form, which so happens to be often found with *I.ḥ* and *I.n* in the preserved corpus. More representative is the non-attributive *sḏm.n=f*, in which prefixing forms are rare, as accords with the specific nature of the conditions that license them. In sum, *IV.inf* is a prefixing class in the *sḏm.n=f* only under specific circumstances, not in general.

(D) The fairly common occurrence of the prefix *<i.>* in written forms of the *sḏm.n=f* of *IV.inf-I.ḥ* is immediately reminiscent of the singular *i.ḥm.n* (Pyr. §746c[TM]; PT 419: above, B, [i]), the only prefixed form of the *sḏm.n=f* documented for any *2rad*. As noted above, this locally contrasts with the non-prefixed *dr.n* N in the preceding clause, confirming on independent grounds that a first root consonant *I.ḥ* is a factor licensing the occurrence of the written prefix *<i.>* in some inflectional classes.

In Pyr. §746c[TM] (PT 419), the word-play (*i.ḥm.n=f* (. . .) *ḥmnt=f*) implies that the environment is "emphatic." Under either of the competing hypotheses, the "split *sḏm.n=f* hypothesis" and the "unitary *sḏm.n=f* hypothesis" alike, a *sḏm.n=f*$_X$ is therefore expected. By a lucky circumstance, the morphology of the *sḏm.n=f*$_X$ of *2rad* can be reconstructed with some confidence as CíC-nv- based on cuneiform *<zi-in-nu-uk>* (for relative *ḏd.n=k*; Boghazköy).[20] This is admit-

tedly late, but consistent with the general inflectional pattern of the *sḏm.n=f*$_X$ (CvCˊvC-nv- based on written forms of *II.red*), a pattern that in the case of *3rad* may be set more specifically as CaCíC-nv-.[21] The singular written form *i.ḥm.n* is then interpreted as standing for */ᵃɣímnv-/* or the like, with *<i->* a representation of a vocalic support added to the left edge of what is otherwise a regular form of the *sḏm.n=f*$_X$ of a *2rad*. The Pyramid Texts have four other instances of the *sḏm.n=f* of *2rad-I.ḥ* (*ḥm.n*: Pyr. §*1583a[Nt] (PT 586); Pyr. §1978d[N] (PT 670); *ḥr.n*: Pyr. *§1781b[N] (PT 627); Pyr. §2058c[N] (PT 684)), all without the written prefix: this may reflect the optional nature of the initial vocalic support in *2rad-I.ḥ*; alternatively, it may reflect the optional nature of the written representation thereof.[22]

In *IV.inf-I.ḥ*, *<i.>*-prefixed forms[23] are also from "emphatic" environments and therefore stand for a *sḏm.n=f*$_X$ under either of the competing hypotheses. Unlike for *i.ḥm.n*, the underlying form cannot be fully reconstructed, given the lack of any independent evidence for the *sḏm.n=f*$_X$ of *IV.inf* more generally. An interpretation of what the written prefix *<i.>* may have stood for is perhaps possible still, through successive exclusion of alternative possibilities. In some forms, such as the imperative of *2rad*, the written prefix *<i.>* stands for a segment that is morphologically distinctive (e.g., *i.wn* for */ᵃwán/*): if this was the case in the *sḏm.n=f* of *IV.inf*, *<i.>* would be expected to occur more broadly across *IV.inf* as a whole, rather than be restricted to *IV.inf-I.ḥ* and *IV.inf-I.n*. In other forms, such as the subjunctive *sḏm=f* of *2rad*, *<i.>* stands for an additional segment serving to solve an initial consonant cluster (e.g., *i.ḏd* for */ᵛḏdá-/*):[24] if this was

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[20] VBoT 1 (= EA 31), 25–27, *istamassun zinnuk humanda* "I have heard all the *zinnuk*," where *zinnuk* has been interpreted as an instance of code-switching, reflecting Egyptian *ḏd.n=k* "what you

have said," cf. Frank Starke, "Zur Deutung der Arzaua-Briefstelle VBoT 1, 25–27," *Zeitschrift für Assyriologie* 71 (1981): 221–31.

[21] Also based on cuneiform transcriptions of the relative form, compare the references above, n. 7.

[22] The latter possibility is perhaps more likely in view of the fact that *i.ḥm.n* is from earlier pyramids, T and M, while the non-prefixed forms of *2rad-I.ḥ* in other passages are from later pyramids, N and Nt—a distribution that could be interpreted as suggestive of shifting conventions in written representation.

[23] While in *2rad-I.ḥ*, the prefixed *sḏm.n=f* stands against four non-prefixed *sḏm.n=f*'s (above), the three occurrences of prefixed *sḏm.n=f* in *IV.inf-I.ḥ* stand against only one non-prefixed form, which is textually secondary (*ḥsf.n* in Pyr. §624c[M] [PT 365]; T, P, and N have relative *ḥsf=k*). In view of the low numbers involved, this observation does not lend itself to further interpretation.

[24] As the well documented cases of the imperative and subjunctive of *2rad* imply, the written prefix *<i.>* is not a "mark" in the

the case in the *sḏm.n=f* of *IV.inf*, *<i.>* would similarly be expected to occur more broadly across *IV.inf*. By elimination of alternative options, it then appears that *<i.>* in *IV.inf-I.ḫ* is a vocalic segment added to the left edge of that form, just as was proposed for *i.ḥm.n*, also a *I.ḫ*. (I intentionally renounce reconstructing an actual form because the evidence available does not support outlining any more detailed scenario.)

(E) In *IV.inf-I.n*,[25] the occurrence of the written prefix may similarly be due to some phonological determination, although this seems less likely here in view of the nature of the first consonant, a liquid. Alternatively, the possibility must be contemplated that the two verbs of *IV.inf* attested with the written prefix *<i.>* in the *sḏm.n=f*, *nḏri*, "seize," and *nsbi*, "lick," include the derivational prefix N-. In the case of the *nḏri*, this is independently suggested by the nominal derivative *ḏrt*, "hand," which lacks the first consonant of the stem:[26] while N-prefixed verbs have alternant forms without the initial consonant *n-*,[27] *I.n* in which *n* is a genuine root consonant do not. Identifying *nḏri* as an N-prefixed verb would also be consistent with the oftentimes medial semantics displayed by the Egyptian prefix N-,[28] which cross-linguistically include

self-benefactive events of "taking."[29] *Nsbi*, "lick," may then include the prefix N-, even though no positive indications to that effect are otherwise given.

Occurrences of *i.nḏr.n* and *i.nsb.n* are from attributive forms (above, C) or, in main clauses, from "emphatic" environments:

(ii) *i.nḏr.n ꜣst ꜥ=k sꜥk=s tw m-ḫnw mniw (/ mnw) ḏbꜣ tꜣ ḫꜣi (/ ḫꜣ) wršw=k*
"Isis has seized your arm that she might have you enter inside the *meniu*-pavilion that adorns earth while your watchers mourn." (Pyr. §744a[TM]; PT 419)

(iii) *nbt-ḥwt i.nḏr.n=s n=s tp n mnḏwy=s{n}y (/ =s) n sn=sn N inp (/ inpy) ḥr ḫt=f wsir m swt=f inpw ḫnt ꜣmm*
"Nephthys, she has seized to herself the tip of her breasts, for their (*scil.* Isis' and Nephthys') brother N lying (?) on his belly, Osiris in danger (?), Anubis with grasp forward (?)." (Pyr. §1282a–b[PN]; PT 535)

In all cases, therefore, the prefixed *sḏm.n=f* of *IV.inf-I.n* stands for a *sḏm.n=f_X*, under either of the two competing hypotheses alike. Although inconsequential for deciding which of these hypotheses is correct, a partial attempt at reconstructing the underlying form is nonetheless undertaken here, as this is part of the broader task of appreciating the conditions that license the occurrence of the written prefix *<i.>*. Given the indirect, and in part itself uncertain, nature of the indications here given, the following considerations are set on an explicitly more speculative level than other analyses in the present paper. With *IV.inf*, *<i.>* occurs in a great many inflectional categories, probably reflecting a variety of phenomena. Among these, one, the imperative, is noteworthy in the present context: in the imperative, *nḏri* has prefixed forms, contrasting with other *IV.inf* (non-*I.n*), which lack such prefixed forms.[30] The underlying form of the imperative of *IV.red* is of course itself an unknown due to the lack of direct evidence other than the written forms themselves, yet a plausible proposal for reconstruc-

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differential sense of the word: the same written segment here demonstrably stands for two different morphological phenomena, a morphologically distinctive segment, and the secondary outcome of a morpho-phonological process. This is hardly surprising in view of the root-and-pattern morphology of the language and the nature of the Egyptian writing system, which was not initially devised to notate continuous segments of speech, nor therefore alternations of inflected forms. In some cases, the written prefix *<i.>* may contribute to the reader's inferences, but only secondarily so: its primary function lies in representing a segment of the form, whatever this may be and always optionally, but not in being a distinctive "mark" of such form.

[25] As is usual, the actual occurrence of the prefix is optional in written form: the two prefixed forms of *nḏri* stand against six non-prefixed ones (Allen, *Inflection*, §796F).

[26] Relating *ḏrt* to *nḏri* goes back to a suggestion by Kurt Sethe, cf. Pierre Lacau, *Les noms des parties du corps en égyptien et en sémitique*, Mémoires de l'Académie 44 (Paris 1970), §24, n. 5; similarly, Elmar Edel, *Altägyptische Grammatik*, Analecta Orientalia 34 and 39 (Rome 1955–1964), §427.

[27] Pascal Vernus, "Le préformant *n* et la détransitivité: formation *n*-$C_1C_2C_1C_2$ versus $C_1C_2C_1C_2$. À propos de la racine *gm* 'notion de trituration'," *LingAeg* 17 (2009): 301–307.

[28] A comprehensive study of the Earlier Egyptian prefix N- remains a desideratum; provisionally, see P. Vernus, "Le préformant *n* et la détransitivité"; Giovanni Conti, *Studi sul Biliterismo in Semitic e in Egiziano. Il tema verbale N1212*, Quaderni di Semitistica 9 (Florence 1980); Marie-Thérèse Derchain-Urtel, "Das *n*-Präfix im Ägyptischen," *GM* 6 (1973): 39–54. See further Andréas Stauder,

"The Earlier Egyptian Passive: Voice and Perspective," *Lingua Aegyptia Studia Monographica* 14 (2014): 212–20.

[29] E.g., Suzanne Kemmer, *The Middle Voice*, Typological Studies in Language 23 (Amsterdam, 1993). In the specific case at hand, self-benefactive semantics are directly manifest in the common co-occurrence of *nḏri* with subject-indexed "dative," e.g., in Pyr. §1282a[PN] (PT 535), quoted below, (iii).

[30] Allen, *Inflection*, §798.

tion is along the following lines. If broadly similar to Semitic, the underlying representation of the imperative could have been as **CCvC (almost the bare lexical representation), yielding forms such as CvC´vC (*3rad*) and C´vC (*2rad*). In the case of *nḏri*, arguably an N-prefixed verb, the written forms with the prefix <*i.*> could then point to ᵛN-C´vC or the like, i.e., as the segmentation expresses, to a form consisting in the combination of N- with a segment that is similar to the imperative of a short stem (*2rad / III.inf*). Extending this idea to the *sḏm.n=f*$_X$, written forms of *IV.inf-I.n* with the prefix <*i.*> could point to ᵛN-C´vC-nv-, i.e., to a form consisting in the combination of N- with a segment that is similar to the *sḏm.n=f*$_X$ of a short stem (*2rad / III.inf*). This would account for the occasionally <*i.*>-prefixed written forms of the *sḏm.n=f* of *nḏri* (*i.nḏr.n*, alongside *nḏr.n*) as they contrast with the forms of the *sḏm.n=f* of *3rad-I.n*, which consistently lack the prefix <*i.*>: unlike *IV.inf*, *3rad* do not include N-prefixed verbs in the Pyramid Texts.

(F) The case of *caus-2rad* can now be fully appreciated. In other inflectional classes that have written forms of the *sḏm.n=f* with <*i.*>, the occurrence of the written prefix is licensed, or triggered, by specific determinants other than the general inflectional properties of these classes: in the case of *mri*, in relation to the also otherwise-observed peculiar inflectional behavior of that specific verb; in the case of *ḥm* and *IV.inf-I.ḥ*, in relation to the nature of the first root consonant; and in the case of *IV.inf-I.n*, in relation to what is arguably a derivational N-prefix. In *caus-2rad*, by contrast, the occurrence of the written prefix <*i.*> is common in the *sḏm.n=f* (39% of all written forms of the *sḏm.n=f*'s of *caus-2rad* display the prefix), and the segment represented by <*i.*> is therefore probably regular in the underlying (/ "spoken") form.

Caus-2rad have long been defined as a distinct inflectional class based on their inflectional behavior in the infinitive, which often displays a written ending <.*t*> (*smn.t*, "establish," contrasting with *3rad*, including *3rad-I.s* such as *sḏm*, "hear"). [31] As the above

discussion demonstrates, *caus-2rad* display distinctive inflectional behavior in yet another inflectional category, namely the *sḏm.n=f* itself. This distinctive inflectional behavior of *caus-2rad* in the *sḏm.n=f* is visible only in the Pyramid Texts; in view of the introductory comments to the present section, it probably generalizes over Earlier Egyptian more broadly. The distinctive inflectional behavior of *caus-2rad* in the *sḏm.n=f* is related to the most obvious defining characteristic of that class, namely the derivational prefix S- itself. This further accords with the above analysis that in *IV.inf* as well, distinctive inflectional behavior in the *sḏm.n=f* can be triggered by the presence of a derivational prefix, in this case N-.

1.2 <*i.*>-*prefixed Written Forms of* caus-2rad *and Possible Implications*

Other than in *IV.inf-I.n*, *IV.inf-I.ḥ*, and in the singular form of a *2rad-I.ḥ*, prefixed written forms of the *sḏm.n=f* of *caus-2rad* are not limited to "emphatic" environments: they may therefore be relevant to assessing whether the *sḏm.n=f* is to be split into two distinct morphological categories, or not.

<*i.*>-*prefixed written forms of* caus-2rad:
(a) *In "emphatic" environments*:
(iv) *ḥ3 wsir i.smn.(n)*[32](=*i*) *n=k ᶜrty=k psš.t(i)*
   "O Osiris! I have fastened for you your jaws so that they are spread." (Pyr. §30a^{WNt}; PT 37)

(v) *n wḏ3.n* (/ MN *n wḏ3*) *ib=n ir ḥ3t=k i.n=sn ḏd.n=tn i.smn.n=tn*
   "'Our heart cannot be sound until you have descended,' so they said.

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[31] Wolfgang Schenkel (p.c. June, 2013) draws my attention to the fact that while standard descriptions have the infinitive of *caus-2rad* always with an ending *.t*, the Coffin Texts also display written forms without the ending: *smn.t* in CT I 199g B1Y and CT IV 366c, but *smn* in CT I 199g (other witnesses) and CT VI 173h; *sḥr.t* in CT I 199g B10Cb, B1Y and CT I 252a, but *sḥr* in CT I 199g B12C, B17C, B16C; *sgr.t* in CT VII 462c B3C, B4C, B6C, B9C, but *sgr* in CT I 399a, CT III 170b, and CT VII 462c B1Bo, B1L (all data generously provided by Schenkel). Interpreting this

alternation is difficult, although it may be tentatively suggested that the written forms without *.t* reflect a loss of the ending, in which case the ones with *.t*, often in the same passages, would stand for the more conventional orthography of the same form. Earlier than the Coffin Texts, only one written form of an infinitive of a *caus-2rad* is securely given in Pyramid Texts, *smn.t* in Pyr. §1297c (two forms without *.t* are interpreted as verbal nouns by Allen, *Inflection*, §805A). In the context of the present discussion, the fact that *caus-2rad* can have an ending *.t* in the infinitive, and often do, suffices to establish a contrast in inflectional behavior with *3rad*, which never have such an ending. As is well known, the difference extends to vocalization and syllable structure: contrast Coptic ˢ**ϭⲘⲒⲚⲈ**, ᴮ**ϭⲈⲘⲚⲒ** (< *smn.t*) with **ϭⲰⲦⲘ̄** (< *sḏm*).

[32] The lack of the tense marker -*n*- is a case of principled omission: in Pyramid Texts, sequences of three *n*'s are as a rule avoided, being reserved for the logographic representation of *mw* "water" (Allen, *Inflection*, §17).

'Having spoken, you have established.' " (Pyr. §1198a–b[PMN]; PT 518)[33]

(vi) *m tw ir=k b3.ti shm.ti r ntrw šm'w 3hw=sn ist nšnš.n iwrt i.spš.n=k grh htm.ti m sth* (. . .)
"For see, you are more *ba* and more in control than the gods of the Nile Valley and their *akh*'s alike.
You whom the pregnant one spewed forth,[34] you have illuminated the night, provided as Seth, (. . .)" (Pyr. §204c–205a[W]; PT 222)

(b) *Not in "emphatic" environments:*
(vii) *šdd sw šw r rmnwty šw {s}<i.>snk.n[35] N m irtt idty kmty mn'ty b3w iwnw*
"Shu raises him to be a companion of Shu after N has suckled from the milk of the two black cows, the nurses of the *ba*'s of Heliopolis." (Pyr. §531b–c[P]; PT 325)

(viii) *ip N in nst=f(/ P ip.n sw st=f) i.sh3.n sw m'hw=f gm.n N nst=f šw.t(i) m wndwt 3ti r' n nbw*
"N has been counted by his seat (/ his seat counted him);
his rudder has recognized him;
N has found his seat empty in the cavity of the Sungod's *ati*-bark of gold." (Pyr. §602a–c[TPN]; PT 359)

(ix) *mdw pt sd3 t3 3gbgb ntrw iwnw hr hrw wdnt tp-'wy N šdy.n[36] sw mwt=f b3stt i.snh.n sw hrt-ib nhb rd<.n>*

{n=i}[37] *hrt-ib dp 'w=s ir=f mk sw iy mk sw iy mk N pn iy n 'nh w3s*
"The heaven speaks, the earth shakes, the gods of Heliopolis quiver at the sound of the offering (presented) before N.
"His mother Bastet has raised him, the one presiding over Nekheb has nurtured him, the one presiding over Dep has set her arms toward him. Behold, he is come! Behold, he is come! Behold, this N is come for life and authority!" (Pyr. §1110a–1112b[PN]; PT 508 [N largely broken])

(x) *iw=sn hm ms.n=sn n=sn m N i.sfh.n sw dwt (/ N: i.sfh.n N dwt irt=f) rd.n srkt (/ M nbt-hwt) 'wy=s (/P 'wy) ir N pn (/ M, N: ir N)*
"They have now given birth for themselves; behold N, the bad has released him(?).[38] Selqet has given her arms to this N (. . .)" (Pyr. §1427a–c[PMN]; PT 565)

(xi) *dd-mdw i.stz.n gbb irt hr k33t hrt 'wy k3w=f wrw tpt k3w=f '3w d tp=t m3=t hr* (. . .)
"Recitation. Geb has elevated Horus's eye. You scheming (?) goddess on the arms of his great *ka*'s and atop his many *ka*'s, turn your head and see Horus (. . .)" (Pyr. §2087a–2088a[N]; PT 689)

(γ) *Environments that are unclear in interpretation:*
(xii) *rd.n n=k hr ntrw i.si'.n=f(/ si'.n=f)[39] n=k sn i.shd=sn hr=k*
"Horus of the gods has given to you, he has elevated them to you that they may shine on you." (Pyr. §641a[TN]; PT 369)[40]

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[33] Interpreted as a *Wechselsatz*, as an expression of the performative power of the gods' spoken word.

[34] An alternative interpretation is with *nšnš.n iwrt*, a finite clause under omission of the object pronoun (Doris Topmann, *Thesaurus Linguae Aegyptiae* [=TLA; Berlin, n.d.]: "Kaum hat (dich) die Schwangere ausgespien (?), da hast du die Nacht erleuchtet, ausgestattet als Seth, (. . .)"). For *i.spš.n=k*, this makes no difference.

[35] With *s* for *i*, a mistake due to similar sign forms, and also documented elsewhere in Pyramid Texts. The emendation is almost certain in view of the fact that *ssnk* would be a *hapax legomenon* (compare Rainer Hannig, *Ägyptisches Wörterbuch I. Alters Reich und Erste Zwischenzeit*, Hannig-Lexika 4 [Mainz, 2003], 1234a, where Pyr. §531c is the only occurrence noted for the Old Kingdom and First Intermediate Period; *Wb.* [correctly] ignores *ssnk* altogether). In addition, the Semitic cognate root is *jnq*, and *ssnk*, if correct, would therefore be a "double causative."

[36] This form of *šdi* with a written ending <-*y*> is singular, standing against roughly a hundred written forms of the *sdm.n=f* of III.inf without such ending in Pyramid Texts (Allen, *Inflection*, §777F). In other corpora, only a handful of similar written forms have been noted, three in the Coffin Texts and one in the Illahun papyri (compare S. Uljas, "Formally Speaking," 260). In view of the extreme rarity of such written forms, compounded by the not-yet

elucidated complexities associated with the written ending <-*y*> in general, I renounce interpreting.

[37] A leftover from the original first person-formulation.

[38] The segmentation and grammatical interpretation of Pyr. §1427a–b are problematic. The above renditions follow D. Topmann, TLA; alternative interpretations are with *m N* as the predicate in a situational predicate construction (thus Raymond Faulkner, *The Ancient Egyptian Pyramid Texts* [Oxford, 1969], 220, with n. 6: "He whom they have fashioned for themselves is myself"), or with *m N* as the indirect construction of the object of *msi* (Allen, *Pyramid Texts*, 175). Independently of which of these interpretations is correct, *i.sfh.n* is probably not from an "emphatic" environment, since Pyr. §1427c cannot easily be related to the preceding clause.

[39] An exceptional case where in a form of the *sdm.n=f* one pyramid (T) has the written prefix, while another one (N) omits it.

[40] *(i.)si'.n=f* may be on the same level as *rd.n*, and thus arguably in an "emphatic environment." Alternatively, it may express an anterior circumstance to *rd.n*.

(xiii) *nṯr m st=f nfr nṯr m st=f*
i.sꜥb.n sw sṯit m fdt=s ꜣbwt m ꜣbw
"The god is in his place, the god is well in his place; Satet has (/ after Satet has (?)) cleansed him with her four washing-jars in Elephantine." (Pyr. §1115c–1116b[P1,P2]; PT 508)[41]

(xiv) *i.smn(.n)(=i) n=k ir(t) ḥr m tp=k*
"I have placed for you Horus' eye on your head." (Pyr. §2274[Nt]; PT 744)[42]

In *caus-2rad*, the same, *marked*, written form, the prefixing *sḏm.n=f*, is thus found in "emphatic" and "non-emphatic" environments alike. To appreciate the possible implications of this observation, some degree of reconstruction must, inasmuch as possible, be attempted.

(B) Differences in inflection between *caus-2rad* and *3rad* are not limited to the *sḏm.n=f*: they extend most famously to the infinitive, and, as regards <*i.*>-prefixed forms in the Pyramid Texts specifically, to some form of the *sḏm=f*,[43] the pseudoparticiple,[44] participles,[45] and the imperative (see below). This particular inflectional behavior of *caus-2rad* is not a predictable outcome of regular morpho-phonological processes and therefore a genuine case of flexivity, to be set in relation to the derivational prefix S- which defines the class. That a derivational prefix may effect flexivity in the *sḏm.n=f* was independently observed in the case of the <*i.*>-marked forms of the *sḏm.n=f*$_X$ of *nḏri*, a verb in which N- is arguably a derivational prefix as well (1.1.E). This interpretation is further supported, if indirectly, by written forms of the imperative: just as *nḏri* contrasts with other *IV.inf* in having occasional <*i.*>-prefixed forms of the imperative (1.1.E), so do *caus-2rad* display occasional <*i.*>-prefixed forms of the imperative,[46] contrasting with the consistently non-prefixed forms of *3rad*, including of *3rad-I.s*.[47] In both cases, therefore, the derivational prefix is seen effecting flexivity, manifest in the occasional occurrence of the written prefix <*i.*>.

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[41] Both Allen, *Pyramid Texts*, 140 and D. Topmann, TLA, read with a "non-emphatic" construction, the former as a main clause, the latter as a clause of anterior circumstance. An "emphatic" construction can not be excluded, however, in view of the possible word-play between *sꜥb* and (. . .)=*s ꜣbwt* (. . .).

[42] Text: R. Faulkner, *Pyramid Texts*: Supplement, 83.

[43] Written forms in Allen, *Inflection*, §801A with such of *3rad*.

[44] Written forms in ibid., §802 with such of *3rad*.

[45] Written forms in ibid., §804A, B with such of *3rad*.

[46] Bernard Mathieu, "L'emploi du yod prothétique dans les textes de la pyramide d'Ounas et son intérêt pour la vocalisation de l'égyptien," *BIFAO* 96 (1996): 314, n. 5.

[47] This suggests a reconstruction of the imperative of *caus-2rad* along the lines of ꜥS-AꜥB-, i.e., as the bare stem (AꜥB: compare *2rad*) preceded by the derivational prefix S-, realized as ꜥS-. A similar type of reconstruction was proposed above for the imperative of *nḏri* (1.1.E).

In view of the above discussion, it is tempting to interpret the <*i.*>-prefixed forms of the *sḏm.n=f* of *caus-2rad* along the lines of ꜥS-AꜥB-nv-, i.e., as consisting in the combination of S- with a segment that is similar to the *sḏm.n=f*$_X$ of a short stem (*2rad / III.inf*). Although on admittedly hypothetical grounds, a similar type of analysis was suggested above for <*i.*>-prefixed forms of the *sḏm.n=f* of *nḏri*, as ꜥN-AꜥB-nv-. The proposed interpretation would also account for the consistent lack of any <*i.*>-prefixed forms of the *sḏm.n=f* of *3rad*, including *3rad-I.s*: in these, *s* is the first root consonant, not a derivational prefix, and therefore not subject to a realization as ꜥS-.

(C) If the above line of reasoning is roughly correct, <*i.*>-prefixed written forms of the *sḏm.n=f* of *caus-2rad* would naturally lend themselves to an interpretation as a *sḏm.n=f*$_X$. Since these <*i.*>-prefixed written forms are found in all constructional environments alike, one may then be tempted to conclude that they afford evidence for the *sḏm.n=f*$_X$ having been used not only in "emphatic" environments (as is predicted under both the competing hypotheses), but also in "non-emphatic" ones, disproving the "split *sḏm.n=f* hypothesis." Jumping to such a conclusion must be strictly renounced, however: at no point in the above has it been demonstrated that the same written form that naturally lends itself to a reconstruction as a *sḏm.n=f*$_X$ would be incompatible with a reconstruction as a *sḏm.n=f*$_Y$. It remains possible, in other words, that the same written form, even if a marked one, may have stood for two different underlying forms: not only one along the lines of ꜥS-AꜥB-nv- (*sḏm.n=f*$_X$) argued for above, but possibly also one along the lines of ꜥS-AvBꜥv-nv- (which would then be a realization of the hypothesized *sḏm.n=f*$_Y$). That this possibility must be contemplated in earnest is also suggested, indirectly, by <*i.*>-prefixed written forms of *caus-2rad* in the *sḏm=f*:

(xv) <*i.*>-*prefixed forms of the sḏm=f of caus-2rad*:
i.siꜥ.n=f(/ siꜥ.n=f) n=k sn i.sḥḏ=sn ḥr=k
"He has elevated them to you that they may shine on you." (Pyr. §641a[TN]; PT 369)— *Probably a subjunctive* sḏm=f.

(xvi) *wn n=f ꜣwy pt i.szn=f ꜣwy kbḥw*
"The door of the sky has been opened to him; he will pull open (/ that he may pull open [?]) the doors of the Cool Waters." (Pyr. §862[P]; PT 458 = §2238b[N]; PT 720)[48]—*Prospective or subjunctive* sḏm=f (?)

(xvii) *tꜣ sḏm nn ḏd.n gbb i.sꜣḥ=f (w)sir m nṯr (. . .)*

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[48] Faulkner, *Pyramid Texts*: Supplement, 70.

"Earth, hear this that Geb has said, namely that he will *akh*-ify Osiris as a god (. . .)" (Pyr. §1013a[N]; PT 483))—*Probably a prospective* sḏm=f; *subjunctive* sḏm=f *or* mrr=f *rather unlikely.*)

(xviii) *hꜣ N pw ṯz ṯw mnw is i.pʿ=k ir pt ʿnḫ=k ḥnʿ=sn i.srd=k {m} ḏnḥw<=k> šwt=k m tp=k šwt=k tp k̲ʿḥ=k*

"O Neith, raise yourself as Min, and fly to the sky and live with them!
You shall grow your wings, with your plumage on your head and your plumage on top of your upper arms!" (Pyr. §*1951a–c[Ntb]; PT *667A)—*Subjunctive* sḏm=f, *or a* mrr=f (?)

Some of the above forms are unclear as to their precise identification, yet at least one has a strong chance to be a subjunctive (xv), while at least another one stands a good chance to be a prospective (xvii). In terms of the position of stress, the inflectional pattern of the subjunctive is broadly comparable with the one of the hypothesized *sḏm.n=f*$_Y$ (CvCCá- and CvCC´v-nv-, respectively), demonstrating that a <*i.*>-prefixed form of the *sḏm.n=f* in *caus-2rad* may itself be compatible with an interpretation as a *sḏm.n=f*$_Y$. More broadly, the subjunctive and the prospective have different stress patterns, directly demonstrating that the occurrence of <*i.*> in *caus-2rad* is not bound to a single accentual scheme. With respect to the main question of the present paper, this makes <*i.*>-prefixed forms of the *sḏm.n=f* of *caus-2rad* ultimately unreliable to support any definite conclusions.

2. The *sḏm.n=f* of *2rad* in the Pyramid Texts

The preceding section was devoted to describing and interpreting the *presence* of a written mark, <*i.*>, in the *sḏm.n=f* of certain inflectional classes in the Pyramid Texts. Perhaps more surprisingly at first, this section examines the implications of an at-first-sight unassuming fact of written inflection in the Pyramid Texts, namely the consistent *lack* of that same written mark in the *sḏm.n=f* of another inflectional class, *2rad*. (For the singular instance of *i.ḥm.n*, which is arguably phonologically conditioned, above, 1.1.B, D.)

2.1 The Argument

What distinguishes the two competing hypotheses is whether, in addition to a well-established form of the

sḏm.n=f with stress between the penultimate and last root consonants (CvC´vC-nv-: the *sḏm.n=f*$_X$), Earlier Egyptian also had a form of the *sḏm.n=f* with stress after the last root consonant (CvCC´v-nv-: the hypothesized *sḏm.n=f*$_Y$). The argument to be developed in the present section capitalizes on the fact that Earlier Egyptian has one other finally stressed inflectional category, the subjunctive *sḏm=f*.

For the subjunctive *sḏm=f*, the position of stress after the last root consonant is firmly established based on Coptic evidence (T-causatives). Independent confirmation is afforded by Earlier Egyptian written forms on various levels: *II.red* have the short written stem, which is directly accounted for under a pattern CvCCá- (*ḳb* for */ qvbbá-/*). Moreover, Middle Egyptian written forms of *III.inf* not uncommonly have a segment <-*y*>, which is not limited to singular pronominal subjects:[49] this is accounted for as a reflection of the "last week" segment of *III.inf*, which, in a finally stressed pattern, stands at the onset of the stressed syllable (*mry* for */ mvrjá-/*). The correlation of Coptic evidence with written forms that are earlier by some two millennia and more is of considerable importance, for it shows that the largely uniform paradigm of Coptic T-causatives is not the result of some later analogical leveling. Put the other way around, the Earlier Egyptian subjunctive *sḏm=f* was demonstrably inflected in a fairly uniform manner across inflectional classes: in the two inflectional classes in which effects on written forms are predicted in Middle Egyptian, such alternations are in fact observed.

In the Pyramid Texts, the one Earlier Egyptian corpus in which <*i.*> is more than a sporadic feature of written inflection, <*i.*> itself is very common with the subjunctive *sḏm=f* of *2rad*, being probably found in excess of half of all cases.[50] This is immediately accounted for against the background just recalled:

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[49] The precision is required for the Coffin Texts, where the prospective also displays forms in <-*y*>, but only with singular pronominal subjects, see Schenkel, "Die Endungen des Prospektivs und des Subjunktivs."

[50] Compare the great many prefixed forms of the *sḏm=f* of *2rad* in Allen, *Inflection*, §757, the vast majority of which (ca. 80%) are subjunctives. For Unis' pyramid specifically, also B. Mathieu, "L'emploi du yod prothétique": 316–18 (with a note of caution: some among the forms counted by the author as "prospectif" [i.e., "subjunctive" in the present terminology] are in fact instances of the *mrr=f*). No list of occurrences of the subjunctive *sḏm=f* in Pyramid Texts has been compiled to date: the above figure ("> 50%") is a personal estimate based on extensive text reading. Whatever the exact proportion, prefixed written forms of the subjunctive are very common.

when an inflectional pattern with stress after the last root consonant is accommodated to a biradical root, this results in an initial consonant cluster (**CC´v-). In Earlier Egyptian, where an initial consonant cluster is not licensed, this could in principle be solved either through anaptyxis (ʾCvC´v) or through addition of an initial vocalic support (ˁCC´v-). Written forms with <*i.*> necessarily stand for the latter option, while forms without the prefix may represent either the former or the latter. Both these options may have existed alongside each other, as two different surface realizations of one and the same form.[51] Taking into account that <*i.*> is optional in general, the high frequency of <*i.*> with the subjunctive of *2rad* strongly suggests that the form with initial vocalic support was the more common one in the Pyramid Texts, perhaps even the only one in the variety (or varieties) represented in these texts:

Table 3—*The subjunctive of* 2rad

Inflectional pattern:	(Cv)CC´v-
Accommodated to *2rad*:	**CC´v- → ˁCC´v- (possibly also CvC´v-)
Written forms:	*i.ḏd* (ˁCC´v-); *ḏd* (for ˁCC´v-; perhaps also for CvC´v-)

(The correlation between finally-stressed patterns and the occurrence of <*i.*> in *2rad* is of course a one-way implication only: the reverse claim, namely that written <*i.*> should imply stress after the last root consonant, is directly contradicted by the <*i.*>-prefixed imperatives of *2rad*[52] (e.g., *i.wn*, 'open,' for */ˀwán/*, Coptic ⲁⲩⲱⲛ), and, similarly, by <*i.*>-prefixed delocutive forms of the pseudoparticle (e.g., 3ms *i.rb*, "knows" (Pyr. §328a[WT]; PT 262); 3fs *i.ḫr.t(i)*, "has fallen" (Pyr. §1611b[MN]; PT 590)).

Like the subjunctive *sḏm=f*, the hypothesized *sḏm.n=f*$_Y$ would have had stress after the last root con-

sonant (CvCC´v-nv-; compare subjunctive CvCCá-). Accommodating the pattern of the *sḏm.n=f*$_Y$ on *2rad* would thus similarly have resulted in an initial consonant cluster to be solved (**CC´v-nv-; compare subjunctive **CCá-). In the Pyramid Texts, where <*i.*> is a commonly used mark of written inflection, the prediction under the "split *sḏm.n=f* hypothesis" is therefore that the hypothesized *sḏm.n=f*$_Y$ of *2rad* should display the written prefix <*i.*>, as does the subjunctive *sḏm=f*. The prediction is, in other words, that in those constructional environments in which the hypothesized *sḏm.n=f*$_Y$ would have been used ("non-emphatic" ones), written forms of the *sḏm.n=f* of *2rad* should in the Pyramid Texts commonly, or at least not uncommonly, display <*i.*>.

2.2 The sḏm.n=f *of* 2rad *in "Non-emphatic" Environments*

Pyramid Texts include about a hundred instances of the *sḏm.n=f* of *2rad*.[53] Of these, only one has a written prefix <*i.*> (*i.ḥm.n* in Pyr. §746c[TM] [PT 419, see above, 1.1.B, D]): as discussed above (1.1.B, D), the presence of <*i.*> is in this one form determined by a specific phonological environment, the construction implies that this is a *sḏm.n=f*$_X$ (under either hypotheses), and the form is therefore of no further relevance to the issue at hand. Given the roughly one hundred other occurrences of the *sḏm.n=f* of *2rad* in the Pyramid Texts, all without <*i.*>, the absence of that written prefix is fully regular, not a gap in the record.

What remains to be shown is how many of these roughly hundred *sḏm.n=f*'s, all non-prefixed, are from environments that are plausibly interpreted as "non-emphatic" ones. Several must be exhibited, since, for obvious reasons having to do with the logic of quantifiers, demonstrating the systematic nature of the *absence* of a mark requires higher numbers than demonstrating the occasional presence of that same mark. Against the background of the relative frequencies of prefixed and non-prefixed forms of the subjunctive *sḏm=f* (>50% for the former), exhibiting half a dozen instances of *sḏm.n=f*'s in "non-emphatic" environments would be strongly suggestive, while exhibiting a dozen of such would be sufficient evidence to disallow the existence of a *sḏm.n=f* with stress after the last root consonant in the inflectional class here examined, *2rad*.

[51] An anonymous reviewer here wonders: "why (then) is the form of the relative *sḏm.n=f* of the New Kingdom *satepnv-(ria)* not syncopated to *ˁstepnv-*?" However, in the subjunctive of *2rad* forms with initial vocalic support are not the product of a "syncopation" at all, but the direct outcome of the necessity to solve an initial consonant cluster as results from the accommodation of the inflectional pattern of the subjunctive onto the root structure of *2rad*. Whether forms of the relative *sḏm.n=f* in the New Kingdom, or in other times, were "syncopated" or not is an altogether different issue. (Note that both surface realizations, which are morphologically equivalent, could well have existed in different times and/or in different varieties, diatopic and/or diastratic, of the language).

[52] Very common as well, cf. Allen, *Inflection*, §759; for the pyramid of Unis specifically, also Mathieu, "L'emploi du yod prothétique": 314–16.

[53] Allen, *Inflection*, §757D.

The odds that, of the roughly hundred instances of the *sḏm.n=f* of *2rad* in the Pyramid Texts, more than 90% would be from "emphatic" environments (and thereby less than 10% from "non-emphatic" ones) are low in general. It is preferable, however, to exhibit instances in "non-emphatic" environments explicitly.[54] The task at hand is made slightly more difficult by the fact that the most readily identified of all "non-emphatic" environments, *iw*-headed clauses, cannot be made to contribute: given the possibility, and indeed likelihood, of *samdhi*-phenomena intervening after *iw*, non-prefixing *sḏm.n=f*'s of *2rad* after *iw*[55] are inconsequential for testing the hypothesis. Also to be excluded are all instances after negation, since *samdhi*-phenomena may similarly have taken place.[56] To be excluded are further all instances of *2rad-I.i*, such as *ip*, "count,"[57] as are all instances of *wḏ*, "order," a verb that for epigraphic reasons almost never displays <*i.*>, even in the subjunctive.[58]

The following is a list of *sḏm.n=f*'s of *2rad* in "non-emphatic" environments under exclusion of all the above. Counts are as (# of passages : # of witnesses) and ordering is by verbs in alphabetical sequence. The list includes those passages for which an interpretation as "non-emphatic" seems certain or overly likely, followed by those for which such interpretation is relatively more likely than the alternative one. For structural reasons, such a list can only be incomplete, leaving out other cases that may possibly also be from "non-emphatic" environments, yet for which interpretation is too insecure. It almost lies in the nature of the present exercise that some, or even several, individual cases may be interpreted differently by the reader. What matters here is different, namely the general density of overall attestation: even if the

list were reduced by two thirds, the argument to be made would still remain unaffected. Of the following, examples (xix)–(xxxiii) are certain or near-certain cases, while (xxxiv)–(xxxix) are likely ones:

(xix) *i.ḥ'y ḥnnw wts ib n tssw šnbt*
'm.n=sn irt ḥr b3qt imit iwnw
ḏb' N šrrw šd nw imi šp3 wsir
"The hoers (?) rejoice, the heart of those who . . .? the breast raise,
having swallowed Horus' bright eye that is in Heliopolis.
It is N's little finger that digs out this which is in Osiris's navel." (Pyr. §118a–c[W]; PT 204)

(xx) *ḏd-mdw ḥr ḥr r ḥr m3.n ḥr ḥr*
pr inm s3b km w3ḏ r=s 'm.n=f n=f i.nsb.n=f
"Recitation. Face falls to face, face has seen face. The dappled knife, black and green, emerges against it, it has swallowed for itself the one it has licked." (Pyr. §228a–b[W]; PT 228)

(xxi) *ḏd-mdw pr ḥḏt 'm.n=s wrt*
'm.n ns ḥḏt wrt n m3.ti ns
"Recitation. The White Crown emerges, it has swallowed the Great One.
The White Crown's tongue has swallowed the Great One without the tongue being seen." (Pyr. §243a–b[W]; PT 239)

(xxii) *ḏd-mdw ḥr ḥr ḥr ḥr pr inm s3b km r=s*
'm.n=f n=f it.n=f n=f
"Recitation. Face falls on face, the black dappled knife emerges against it,
it has swallowed for itself and acquired for itself." (Pyr. §431a–b[WTNt]; PT 290)[59]

(xxiii) *mk ir=k pḥ.n N k3ww pt*
m3.n=f ḏt=f m msktt in N ḥn im=s
si3.n=f i'rt m m'nḏt in N pnḫ s(i)
"Look, N has reached the heights of the sky. He has seen his cobra in the evening bark; it is N who rows in it.
He has recognized the uraeus in the morning bark; it is N who bales it out." (Pyr. §335a–c[WT]; PT 262)[60]

(xxiv) *i n=ṯ N pn nwt i n=ṯ N pn nwt*
km3.n=f it=f r t3 fḫ.n=f ḥr m-ḫt=f

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[54] As the case of *II.red* other than *m33* demonstrates, "emphatic" environments can be over-represented in the Pyramid Texts (occurrences of the *sḏm.n=f* of verbs of this class are twelve in number, all from "emphatic" environments). Skewedness is of course expected to be less strong with *2rad*, in view of the higher numbers involved.

[55] E.g., Pyr. §123a[W] (PT 205) *iw sn.n*; §123a[W] and §123c[W] (PT 205) *iw nk.n*; §239b[W] (PT 235) *iw nk.n=k*; §290c[WT] (PT 254) *iw nḏ.n*; §293c[WT] (PT 254); *iw dr.n*; §410a[WT] (PT 274) *iw 'm.n*; §411d[WT] (PT 274) *iw 'm.n*; §514d[W] (PT 319) *iw ḳd.n*; §1685b[PMN] (PT 606) *iw nḏ.n*.

[56] E.g., Pyr. §1321a[P] (PT 539) *n nk.n=s*; §1450b[PM] (PT 570) *n 'm.n*; §1450d[PM] (PT 570) *n 'm.n*; different, but also subject to possible *samdhi*, is §2058c[N] (PT 684) *iwtw ḥr.n=sn*.

[57] In "non-emphatic" environments: Pyr. §216c[W] (PT 223); §590b[MTPMNNt] (PT 357); §602a[P] (PT 359); §615c[TM] (PT 364); §895b[PNNt] (PT 468); §1524b[P] (PT 577).

[58] Allen, *Inflection*, §14.

[59] Following W; differences in T and Nt do not affect the interpretation of *'m.n=f*.

[60] Following W; differences in T do not affect the interpretation of *pḥ.n=f*.

rd ḏnḥwy=f m bik (. . .)
"This N comes to you, Nut! This N comes to you, Nut!
He has thrown his father to the ground, he has left Horus behind him.
His wings grow like (wings of) a falcon (. . .)"
(Pyr. §250a–cᵂ; PT 245)

(xxv) *h3 wsir N **nḏ.n** tw ḥr*
ir.n=f n k3=f im=k ḥtp=k m rn=k n k3 ḥtp
"O Osiris N! Horus has tended you.
He has acted for his *ka* in you, that you might become content in your identity of *ka*-at-rest." (Pyr. §582c–dᵀᴹᴺᴺᵗ; PT 356)

(xxvi) *n bi3.n Ḥr ir=k **nḏ.n** ḥr it=f im=k*
ʿnḥ.ti m ʿnḥ nḏḏḏḏ=k m ḏḏt
"Horus cannot get far from you, for Horus has tended his father which is you.
Be alive like the living beetle and endure in Djedet!" (Pyr. §1633bᴹᴺᴺᵗ; PT 593)

(xxvii) *ink n=k wrrw iʿb n=k mrw*
*n ḥr **nḏ.n=f** it*
*n it=f (/ n it N pn) **nḏ.n=f** ḏt=f*
"The great basins have been assembled for you, the hoe-lands have been gathered for you:
for Horus, since he has tended the father, and for his father (/ and for this N's father), since he has tended himself." (Pyr. §1728a–bᴾᴹ; PT 611)

(xxviii) *m-kw **šp.n=k** sw*
"Look, you have blinded him." (Pyr. §45aᴺᴺᵗ; PT 64)

(xxix) *ḫʿ.n=f ḥr š ḥr ḥndw=f **dm.n=f** bi3 m 3ḫ=f*
"He has appeared on the lake on his throne after having penetrated the heavenly water with his *akh*." (Pyr. §*1948fᴾᴺᵗᵇ; PT 667A)

(xxx) *in **sm3.n=f** tw **dd.n** ib=f mwt=k n=f*
mk ir=k tw ḫpr.ti r=k r=f m imnw n sm3
"Has he killed you after his heart has said that you would die for him?
But look, you have become a more permanent wild bull than he." (Pyr. §481a–bᵂᴹ; PT 306)

(xxxi) *in ir.n=tn ir=f **dd.n=tn** mwt=f*
n mwt=f ʿnḥ ʿnḫt N pn ḏt
"Have you acted against him, having said that he would die?

He will not die: this N will truly live forever."
(Pyr. §1477a–bᴾᴹ; PT 572)[61]

(xxxii) *ḥtp nṯrw nb ḥr ḥt nbt i.ḏdt N pn nfrt n=f im n ḏt ḏt*
***dd.n** itm ir N m3 r pʿn imi=n ḏw=f n šm=n iʿb.nw n=f*
h3 nṯrw nb (. . .)
"All gods shall be content with everything this N says, through which it will be good for him for the course of eternity.
(For) Atum has said about N: 'Look at the clever one (?) among us as he calls us! Let us go and be gathered to him.'
O, all gods! (. . .)" (Pyr. §1645c–1647aᴺ; PT 599)

(xxxiii) *ip.n imiw dw3t ḏt=sn snš.n=sn msḏrw=sn ḥr ḥrw N pn h3=f mm=sn*
***dd.n** n=sn wdn sḫm=f wnt N pn m wʿ im=sn*
"Those in the Duat have collected themselves and unplugged their ears at the sound of this N's voice when he descends among them. Heavy-in-his-strength has said to them that this N is one among them."
(Pyr. §2084–2085bᴺᴺᵗ; PT 688)

Probably also:

(xxxiv) *dd-mdw ʿḥʿ im n=k ʿ=k n ḥr ḏ=f ʿḥʿ=k*
sk.n n=k gbb r3=k
***nḏ.n** tw psḏt*
ḏ.n=sn n=k stš ḥr=k ḥnk=f ḥr=f
ḥw.n=sn 3ʿ=f isd=f ir=k
"Recitation. Stand up! Give your arm to Horus, that he may make you stand up.
Geb has wiped your mouth;
the Ennead has tended you:
They have put Seth under you, so that he is endowed with you,
and they have prevented him from expectorating his spit against you."
(§1627a–1628cᴹᴺᴺᵗ; PT 593)[62]

(xxxv) *dd-mdw h3 wsir N ʿḥʿ tz tw*
ms.n tw mwt=k nwt
sk.n n=k gbb r3=k

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[61] Thus P; M has only the first sentence: §1477aᴹ in *sm3.n=sn tw **dd.n=sn** mwt=k n=sn*, "Have you slain him having said that you would die for them?"

[62] While there is stylistic parallelism between *sk.n* (. . .) and *nḏ.n* (. . .), then also between *ḏ.n=sn* and *ḥw.n=sn*, the clauses *sk.n* (. . .) *nḏ.n* (. . .) are not semantically balanced any further, and therefore probably do not constitute a "Wechselsatz."

i.nḏ (/PMN *nḏ*) *ṯw psḏt ʿꜣt ḏ.n=sn n=k ḫftiw=k Ḥr=k*

"Recitation. Ho, Osiris N! Stand up, raise yourself!

Your mother Nut has given you birth, Geb has wiped your mouth.

The Big Ennead shall tend you, having given you your opponent under you." (Pyr. §626a–c^TPMN; PT 366)[63]

(xxxvi) *sk.n n=k gbb rꜣ=k* (Pyr. §1627b^MNNt; PT 593); see above, (xxxiv).

(xxxvii) *šʿ.n(=i) tp=f šʿ.n(=i) sd=f šʿ.n(=i) ʿ=f šʿ.n(=i) rdwi=f*

"I have cut off his head, I have cut off his tail, I have cut off his arms, I have cut off his legs." (Pyr. §1545c–d^P; PT 580)[64]

(xxxviii) *hꜣ N pw ʿnḫ n mwt=k i n=k Ḥr wḏʿ=f zꜣrw=k hꜣʿ=f mḏwt=k dr.n Ḥr imi-rd=k n nḏrw ṯw ꜣkrw*

"O, this N! Live! You have not died. Horus comes to you that he might sever your shackles and throw off your hobbles. Horus has removed your impediment and the earth gods will not seize you." (Pyr. §2201c–2202b^N; PT 703)[65]

(xxxix) *ḏd.n gbb pr m rꜣ n psḏt nṯrw* (. . .)

"Geb has spoken, and it has come (/ it comes [?]) from the mouth of the Ennead: (. . .)" (Pyr. §162b^WNt; PT 218)[66]

In the above list, certain or near-certain occurrences of the *sḏm.n=f* of *2rad* in "non-emphatic" environments number sixteen (thirty-one, counting different witnesses individually: left column in Table 4, below). Plausible instances are in an additional nine occurrences (seventeen, counting individual witnesses; right column, figures in square brackets).

In none of these passages, nor in any single individual witness of these, is a written form of the *sḏm.n=f* of

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[63] While there is parallelism between *ms.n ṯw* (. . .) and *sk.n n=k* (. . .), there is no semantic balancing, as would be expected if this were a "Wechselsatz."

[64] While an interpretation as a fourfold enumeration is more likely, an alternative interpretation as two "Wechselsätze" cannot be absolutely ruled out.

[65] An interpretation as a setting construction is possible, but less likely on semantic grounds ("Horus having removed your impediments, the earth's gods will not seize you.").

[66] A similar note of uncertainty concerns this passage ("Once Geb had spoken, it has come out of the mouth [. . .]").

Table 4—*The* sḏm.n=f *of* 2rad *in "non-emphatic" environments in the Pyramid Texts*

	Certain or near-certain		[Probable]	
ʿm.n ("swallow")	(4:6)	(xix)–(xxii)		
pḥ.n ("reach")	(1:2)	(xxiii)		
fḫ.n ("release")	(1:1)	(xxiv)		
nḏ.n ("tend")	(4:11)	(xxv)–(xxvii)	[1:3]	(xxiv)
sk.n ("wipe")			[2:7]	(xxxv)–(xxxvi)
šʿ.n ("cut off")			[4:4]	(xxxvii)
šp.n ("be blind")	(1:2)	(xxviii)		
dm.n ("penetrate")	(1:2)	(xxix)		
dr.n ("supress")			[1:1]	(xxxviii)
ḏd.n ("say")	(4:7)	(xxx)–(xxxiii)	[1:2]	(xxxix)
Total:	(16:31)		[9:17]	

2rad ever prefixed by <*i*.>. Written forms of the subjunctive of the same inflectional class, by contrast, have the written prefix in high numbers, probably in excess of half of all occurrences. Most of the same verbs that present the non-prefixed *sḏm.n=f* in "non-emphatic environments" are themselves documented with <*i*.>-prefixed forms in the subjunctive, often more than once (the illustration is selective: only one example for each verb is given in Table 5).

Table 5—*Prefixed written forms of the subjunctive* sḏm=f *with the verbs as in Table 4, e.g.*

i.ʿm (Pyr. §512a^W; PT 318); *i.fḫ* (Pyr. §137c^W; PT 214); *i.nḏ* (Pyr. §626c^T; PT 366); *i.sk* (Pyr. §372d^WN; PT 268); *i.šʿ* (Pyr. §1212e^PM; PT 519); *i.dr* (Pyr. §142a^W; PT 215) *i.ḏd* (below, [h]).

Taking one verb in particular, *ḏd*, the articulation of the argument may be summarized as follows in Table 6:

Table 6—*The argument, illustrated by the case of* ḏd

- Inflectional pattern of the subjunctive: CvCC´v- (stress after the last root consonant); when accommodated to *2rad*, **CC´v- → ^vCC´v-. Inflectional pattern of the hypothesized *sḏm.n=f_Y*: CvCC´v-nv- (same position of stress as in the subjunctive);
- A *great many* forms of the subjunctive with the written prefix <*i*.>, *i.ḏd*: Pyr. §222c^N; §448a^W; §1450c^P;[67] §1450e^M; §1496a^P;[68] §1558b^N; §1680d^N; §1991b^N; §2174b^N; sim. in the passive, *i.ḏd.t(i)*: Pyr. §1268b^P (and ff.: §1269b, §1271b, §1274b);[69]
- Written forms of the *sḏm.n=f* in "non-emphatic" environments *always* without <*i*.>: *ḏd.n* (Pyr. §481a^WM; §1477a^PM; 1646a^N; §2085a^NNt [xxx]–[xxxiii]). Not a gap in the record, because similarly with all *2rad*.
→ *2rad* do not have a *sḏm.n=f_Y*.

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[67] In variation with the non-prefixed form in M, *ḏd*.

[68] Forms without the written prefix in parallel formulations, *ḏd*: §1497a^P, §1498a^P.

[69] Forms without the written prefix in parallel formulations, *ḏd.t(i)*: §1272b, §1273b.

The above argument implies that there was no *sḏm.n=f* of *2rad* with stress after the last root consonant. In other words, *2rad* had no *sḏm.n=f*$_Y$, only a *sḏm.n=f*$_X$.

2.3 Generalizing beyond 2rad: *Flexivity in Earlier Egyptian Verbal Paradigms*

It remains to be assessed whether this result generalizes over inflectional classes other than *2rad*. This is dependent upon how uniformly, or not, the *sḏm.n=f* was inflected across inflectional classes.

The question is raised in the context of the current discussion of flexivity in Earlier Egyptian verbal morphology. Flexivity is defined as the property by which an inflectional category (a "form") is realized differently in various inflectional classes, in ways that are not predictable as the outcomes of regular morpho-phonological processes.[70] (Flexivity is in fact what justifies speaking of inflectional classes in the first place; if not expressed in these terms, the phenomenon has therefore been recognized as a general property of the Earlier Egyptian verb ever since the Berlin School.) What recent studies suggest is that flexivity may have been more widespread than previously assumed, including internally to the inflectional classes that were traditionally recognized. Various cases of flexivity are therefore evoked in this subsection, with a view on how flexive, or not, the *sḏm.n=f* may itself have been.

(A) One of the most far-reaching implications of Schenkel's now classic study of the prospective in the Coffin Texts is that it demonstrates flexivity in that paradigm.[71] Only some inflectional classes can display a written <-*w*> (*ult.inf*, *caus*, and *long*), while other ones never do (*2rad*, *3rad*, and *II.red*).[72] Moreover, the inflectional classes that can display a written <-*w*> may themselves not have been uniformly inflected in the prospective, since the relative frequency under which <-*w*> occurs in these classes varies with individual verbs, possibly in significant ways.[73] Based on an analysis of the principled distribution of the alternation of written endings <-*w*> and <-*y*>, Schenkel convincingly argued that <-*w*>-marked forms stand for a syllable structure $*/(\ldots)C´v{:}w\text{-}/$ (thus, with *III.inf*, $*/jvr(j)´v{:}w\text{-}/$),[74] and further proposed that written forms of *III.inf* not marked by <-*w*> may have stood for $*/j´v{:}r\text{-}/$.[75]

This is a plain case of flexivity, since the phenomena observed do not relate to regular morpho-phonological processes. It does not, however, have implications as to the main issue under discussion in the present paper, since the stress position in the prospective would, if anything, be similar to the one in the *sḏm.n=f*$_X$, not to the one in the hypothesized *sḏm.n=f*$_Y$. Moreover, the issues just evoked concern *ult.inf*, *caus-2rad*, and *long* (and thereby issues of "infirmity" and "length"), not *2rad*, which in the prospective align with *3rad* and *II.red*.[76]

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[70] For an introduction, e.g., Balthasar Bickel and Johanna Nichols, "Inflectional Morphology," in *Language Typology and Syntactic Description. Volume III: Grammatical categories and the lexicon*, ed. Timothy Shopen (Cambridge, 2007), 169–240.

[71] Schenkel, "Die Endungen des Prospektivs und des Subjunktivs"; elaborating on some possible further implications of that study, S. Uljas, "Syncretism and the Earlier Egyptian *sḏm=f*. Speculations on Morphological Interconnections Across Paradigms," *LingAeg* 19 (2011): 155–74; and "To See an Invisible Form: Paradigms, Parallelism and Practises Once Again" (forthcoming in *Proceedings of the Workshop on Earlier Egyptian, Brown University March 27–29, 2013*, ed. James Allen, Mark Collier, and Andréas Stauder (Providence, RI).

[72] Schenkel's paradigm of the prospective has generally been met with acceptance (e.g., Uljas, "Syncretism and the Earlier Egyptian *sḏm=f*"; "To See an Invisible Form"), yet has also been challenged (James Allen, "Rethinking the *sḏm=f*," *LingAeg* 19 [2011]). I consider the fact that the written ending <-*w*> is found in some inflectional classes only to be a strong argument in favor of Schenkel's prospective. If there was no distinct form of the prospective, this ending <-*w*> would be associated with forms of the subjunctive, and therefore stand for the final stressed vowel that can securely be reconstructed for that form. As the Coptic T-causatives, however, demonstrate, the subjunctive was uniformly inflected across all inflectional classes: the prediction would then be that the ending <-*w*> should be found with all inflectional classes, not only some. This is not the case.

[73] Schenkel, "Die Endungen des Prospektivs und des Subjunktivs": 52–59, specifically 57–59; Uljas, "Syncretism and the Earlier Egyptian *sḏm=f*": 161–66.

[74] Schenkel, "Die Endungen des Prospektivs und des Subjunktivs": 51–52.

[75] Ibid., 59 and 60.

[76] Although this is not required to the present argument, one may venture the following additional, admittedly speculative, comments. As suggested by Schenkel (ibid., 60), the type $*/j´v{:}r\text{-}/$ of *III.inf* is plausibly related to the pattern CvC´vC- of inflectional classes that never display <-*w*> (*3rad*, *2rad*, *IIred*: established based on the long written stems of *II.red*). The type $*/jvr(j)´v{:}w\text{-}/$, could perhaps itself be related to the same pattern CvC´vC-, differently realized through an additional segment $*/\text{-}´v{:}w\text{-}/$. The two types ($*/j´v{:}r\text{-}/$ and $*/jvr(j)´v{:}w\text{-}/$), which are not functionally distinct in any manner, would then be alternate realizations of the same underlying pattern ((Cv)C´vC-). With respect to *caus* and other long stems, the forms in <-*w*> could perhaps be similarly accounted for as a strategy to accommodate an inflectional pattern that for some prosodic reasons could not directly be accommodated to stem in these long and/or derived inflectional classes. The overall result, to be sure, is to make inflection, both written and spoken, *less* uniform (thus Schenkel, ibid., 61) and in ways that are genuinely flexive.

Related to this is the case of the partly reduplicated prospective passive of *2rad*, *3rad*, and *II.red* (*sḏmm=f*), another plain instance of flexivity, in both written and underlying (/ "spoken") forms. The connection to the active prospective is evident in that inflectional classes that have partly reduplicated forms in the passive stand in complementary distribution to the ones that can have the written mark <-*w*> in the active.[77] Just as in the active, *2rad* align with *3rad* (and *II.red*) in the passive: *2rad* do not, therefore, display a behavior that would be specific to these in particular. An additional observation is that reduplication of the last root consonant in the prospective passive *sḏmm=f* is arguably a secondary lengthening of the stem, possibly aimed at accommodating passive morphology with prospective morphology in a distinctive manner.[78] If so, the partly reduplicated formation of the prospective passive of *2rad*, *3rad*, and *II.red* is no less flexive, yet flexivity may in this case reflect an underlying pattern in common with other inflectional classes.

A significant amount of flexivity is also observed with *caus-2rad*, in various inflectional categories (above, 1.2.B). As discussed, this is determined by the presence of the derivational prefix S-, which induces inflectional behavior different from verbs that are not prefixed by S-, including such that have a first root consonant *s*. Like the above, this type of flexivity is not relevant to the main issue here under discussion, since it is conditioned by parameters that do not concern *2rad*: by definition, these lack a derivational prefix.

(B) Specific to *2rad*, on the other hand, are the partly reduplicated forms of the perfective passive participle (*ḏḏd-*), yet another case of plain flexivity. These are best approached through a contrast with the formation of the finite prospective passive (*sḏmm=f*: above, A), also partly reduplicated. The perfective passive participle and the prospective passive contrast on three levels simultaneously: in terms of their distribution over inflectional class(es) (*2rad vs.* all classes that are not *ult.inf*, *caus*, or *long*), of their Tempus-Aspect-Modus profiles ("perfective," here in the sense of aspectually unmarked *vs.* "prospective," as a conventional label for "posterior," a relative tense), and of textual distribution (Pyramid Texts and early

Coffin Texts *vs.* Earlier Egyptian more broadly). As further analysis implies,[79] the threefold contrast is principled: this strongly suggests that partial reduplication in the unmarked passive participle of *2rad* is a secondary stem lengthening achieving distinctiveness of the perfective passive participle *vis-à-vis* the active one in a short inflectional class.[80] Flexivity is thereby conditioned by highly specific parameters: these do not concern the *sḏm.n=f*.

Also to be mentioned in this context are the fairly common <*i̓.*>-prefixed forms of *2rad* in the Pyramid Texts. In the subjunctive *sḏm=f*, these are the result of a regular morpho-phonological process (2.1.A), and therefore not a case of flexivity. Genuine instances of flexivity are, on the other hand, afforded by the not uncommon <*i̓.*>-prefixed forms of the imperative (e.g., *i̓.wn*, "open" for */ᵃwán/), of the pseudoparticiple (ˇCˊvC- in delocutive forms), and of the *sḏm=f* in environments that imply an identification as forms other than the subjunctive. In the first and third of these cases, special inflectional behavior of the *2rad* ends up making forms more distinctive than if they had lacked the segment reflected in writing by the prefix <*i̓.*>. Under the hypothesis that Earlier Egyptian had a *sḏm.n=f*ᵧ, the *lack* of such a form with *2rad* (established above) would be a case of morphological syncretism: if this was limited to *2rad*, this inflectional class would have been flexive with respect to other classes in the *sḏm.n=f*. This would have been just the opposite of the type of flexivity described above for *2rad* in other inflectional categories (the imperative and forms of the *sḏm=f*): in these, flexivity achieves formal distinctiveness, rather than reduces it.

Assuming syncretism in the *sḏm.n=f* of *2rad*, but not in other inflectional classes, is even less likely in view of how directly the pattern of the hypothesized *sḏm.n=f*ᵧ—should Earlier Egyptian have had this form—could have been distinctively accommodated to *2rad*. Compare, yet again, the subjunctive *sḏm=f*, which is based on an inflectional pattern stressed similarly to the hypothesized *sḏm.n=f*ᵧ, and in which this pattern is directly accommodated to *2rad*. Also illuminating is the case of the perfective passive participle, evoked previously: in this, a direct accommodation of passive morphology could with *2rad* have resulted in a partial lack of distinctiveness, perhaps even in syncretism: this to is avoided under partial replica-

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Even so, flexivity may here be the result of various strategies for accommodating *one* underlying pattern, which would then turn out to be *in common to* the whole paradigm.

[77] Stauder, "Earlier Egyptian Passive": 44–60, esp. 45–46 and 53–54.

[78] Ibid., 53–56.

[79] Ibid., 45–51 and 53–54.

[80] Ibid., 56–57.

tion of the last root consonant, a heavy morphological strategy.

(C) Invisible in written forms, yet no less real, is flexivity of *2rad* as documented through Coptic evidence and the *Nebenüberlieferung*. In erstwhile delocutive forms of the pseudoparticiple, the pattern of *2rad* (cf. Coptic ⲔⲎⲦ) differs from the pattern of *3rad* (cf. Coptic ⲤⲞⲦⲠ̄). For perfective active participles,[81] the *Nebenüberlieferung* suggests a pattern CíC- of *2rad*, while both Coptic unstressed and stressed forms (*participia coniuncta* and forms lexicalized as nouns, respectively) point to a pattern CáCC- for *3rad*.

The type of flexivity in these cases becomes apparent when the Semitic cognate categories are drawn into the picture. The pattern of the pseudoparticiple is based on an underlying **CaCVC- (where capitalized V expresses that this vowel had a specific quality, lexically determined, often *i*, also *u*, more rarely *a*). In the case of delocutive forms of *3rad*, this yields CáCC- (> ⲤⲞⲦⲠ̄), under elision of V in the posttonic syllable before ending. In the case of delocutive forms of *2rad*, no similar elision takes place, yielding C′vC- (> ⲔⲎⲦ, possibly with further analogical leveling across the class). The observed flexivity between *2rad* and *3rad* is thus related to an underlying pattern in common to these two inflectional classes. Similar comments extend to perfective active participles,[82] for which Semitic suggests an underlying pattern as **CaCiC-, yielding CáCC- for *3rad* and CíC for *2rad* (possibly alongside CáC-, if these are original, rather than the result of analogical leveling).

Should Earlier Egyptian have had a *sḏm.n=f$_Y$*, accommodating the pattern of this category (**CvCC′v-nv-) to *2rad* would not have led to any vocalic alternations of the sort just evoked. Rather, it would have led to *<i.>*-prefixed forms in the Pyramid Texts: this is precisely what was observed above not to be the case (2.2).

(D) In ways by no means specific to *2rad*, considerable flexivity is finally observed in the infinitive, a category that includes forms without written endings (vocalized in *a* in major inflectional classes) and forms marked by a final *<-t>* in writing (vocalized in *i* in major inflectional classes), as well as forms with different stress positions for either of these types.[83] Such dif-

ferent patterns are in part lexically determined, rather than solely at the level of the regular behavior of a given inflectional class. This type of flexivity is therefore not directly relevant to assessing the case of the *sḏm.n=f*, a finite category of the verb in which flexivity cannot be lexically determined.

(E) In sum, flexivity is not a rare phenomenon in Earlier Egyptian paradigms, yet none of the various types of flexivity discussed above compares with what type of flexivity would have to be assumed should only *2rad* have lacked a *sḏm.n=f$_Y$*, while other inflectional classes such as e.g., *3rad* had this form. The above examination further shows that flexivity is in several cases a result of extending a common inflectional pattern to inflectional classes in which it is not easily accommodated directly or in a distinctive manner. While flexive to various degrees, Earlier Egyptian verbal morphology thus remains much in keeping with a broader root-and-pattern morphology also characteristic of other Afroasiatic languages, Semitic ones in particular, and shows little signs of the more widespread flexivity associated with, e.g., (earlier) Indo-European languages with ablauting morphology. Most fundamental for the present discussion is the observation that when flexivity is observed in Earlier Egyptian, this is associated with highly specific conditions, none of which concerns the specific issue here discussed. This in turn implies that, should Earlier Egyptian have had a *sḏm.n=f$_Y$*, the underlying pattern of that category would have been directly accommodated onto *2rad*. If so, *2rad* would have had a *sḏm.n=f$_Y$*, and this would have shown in written forms in the Pyramid Texts. It does not.

Yet more direct are finally two further observations, both of which go in this exact same direction. A *sḏm.n=f$_Y$*, should Earlier Egyptian have had one, would have been an instantiation of the higher-order *sḏm.n=f* formation (by definition). In the *sḏm.n=f$_X$*, fortunate circumstances permit us to demonstrate directly that inflection was uniform across inflectional classes, including in *2rad*; compare: *3rad */ CaCíC-nv-/*, *III.inf */ CáC-nv-/* (related to the overall pattern as CvC(íC)-nv-), *2rad */ CíC-nv-/* (related to the overall pattern as (Cv)CíC-nv-).[84] That the

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[81] Osing, "Die Partizipien."

[82] The relationship with Semitic categories is also explicitly developed by Osing, ibid.

[83] Discussed as a case of flexivity, if not in these exact terms, lastly by W. Schenkel, "Chancen und Grenzen bei der Erschliessung des älteren Ägyptisch," in *Proceedings of the Workshop on Earlier Egyp-*

tian, ed. Allen, Collier and Stauder. Detailed data in J. Osing, *Die Nominalbildung des Ägyptischen* (Mainz, 1976).

[84] Based on cuneiform transcriptions of the relative form, respectively: *Šá-te-ep-na-re-a* (*stp.n-r*ꜥ), *mar-ni-ip-ta-aḫ* (*mr.n-ptḥ*), and *zi-in-nu-uk* (*ḏd.n=k*); cf. e.g., Zeidler, "Review of Karel Petráček, *Vergleichende Studien*": 214–15.

hypothesized $s\underline{d}m.n{=}f_Y$, another instantiation of the same higher-order $s\underline{d}m.n{=}f$ formation should have been non-uniformly inflected, while the $s\underline{d}m.n{=}f_X$ demonstrably was uniformly inflected, is not the likeliest of options.

In addition, the hypothesized $s\underline{d}m.n{=}f_Y$ is defined as a form stressed after the last root consonant. The one form for which a similar stress position is well established, the subjunctive $s\underline{d}m{=}f$, displays no sign of flexivity: the inflectional pattern consisting in stress after the last root consonant is accommodated directly onto all inflectional classes, including *2rad* itself (2.1.A). That the hypothesized $s\underline{d}m.n{=}f_Y$ should have been non-uniformly inflected, while the similarly stressed subjunctive $s\underline{d}m{=}f$ is the paradigmatic example of a uniformly inflected category, is similarly unlikely.

The two elements of morphology that would be most relevant to appreciating the inflection of the hypothesized $s\underline{d}m.n{=}f_Y$ (the form as an instantiation of the $s\underline{d}m.n{=}f$ formation, and the position stress after the last root consonant) thus both strongly speak to *2rad not* being flexive in that form, should it have existed. So does a general examination of the conditions associated with flexivity in Earlier Egyptian verbal morphology (above). This implies that the lack of a $s\underline{d}m.n{=}f_Y$ of *2rad* generalizes over other inflectional classes as well. The consistently non-prefixed written forms of the $s\underline{d}m.n{=}f$ of *2rad* in the Pyramid Texts, including in *a great many* occurrences in "nonemphatic" environments, therefore provide direct evidence against the hypothesis of a $s\underline{d}m.n{=}f_Y$ in Earlier Egyptian, not only in this inflectional class, but in general.

Summary

The initial motivation to the present study was to test a hypothesis submitted by Wolfgang Schenkel that Earlier Egyptian may have had two distinct formations of the $s\underline{d}m.n{=}f$ contrasting with each other by the position of stress: while a form with stress between the penultimate and last root consonants (CvC´vC-nv-; here labeled $s\underline{d}m.n{=}f_X$) is universally recognized, Earlier Egyptian would also have had, so Schenkel suggests, an additional form of the $s\underline{d}m.n{=}f$ with stress after the last root consonant (CvCC´v-nv-; here labeled $s\underline{d}m.n{=}f_Y$). This hypothesis is of importance not only for a more accurate reconstruction of the morphological inventory of inflected forms in Earlier Egyptian, but also for the possible implications it would carry as to the syntax and semantics of a series of common constructions in the language. As argued in another study,[85] the alternations in written morphology originally considered by Schenkel, namely the contrasts between long and short written stems of *II.red* in the Coffin Texts, do not support the hypothesis; nor do they contradict it. In the Pyramid Texts, similarly, written forms of *II.red* turn out to be neutral as to whether the "split $s\underline{d}m.n{=}f$ hypothesis" is correct or not. Accordingly, the focus has been here on another element of written morphology, namely the prefix <*i̓.*>. As a general feature of written inflection, this is common in the Pyramid Texts only, and can therefore be fruitfully studied and interpreted only in these; yet, for reasons exposed in the introduction, any conclusions to be made in the Pyramid Texts have direct relevance, and extend, to Earlier Egyptian as a whole.

Part 1 of the present study has concentrated on written forms of the $s\underline{d}m.n{=}f$ in the Pyramid Texts that display the prefix <*i̓.*>. The distribution of the written prefix is strongly skewed depending on inflectional classes as well as within these depending on individual (groups of) verbs. The major inflectional classes, *3rad*, *III.inf*, *2rad*, and *II.red*, do not have written forms of the $s\underline{d}m.n{=}f$ with <*i̓.*>, nor do long or reduplicated stems have such forms. In forms of the $s\underline{d}m.n{=}f$ of *IV.inf-I.ḫ*, as in a singular prefixed form of *ḫm* (a *2rad-I.ḫ*), the occurrence of the written prefix has to do with the nature of the first root consonant, *ḫ*. The prefix is a regular feature of written inflection in one inflectional class only, the *caus-2rad*, where it is interpreted in relation to the defining feature of that class, the derivational prefix S-. A similar account probably extends to <*i̓.*>-prefixed forms of the $s\underline{d}m.n{=}f$ of *IV.inf-I.n*, with verbs that arguably include the derivational prefix N-.

Prefixed written forms of the $s\underline{d}m.n{=}f$ thus provide a clear case in point of how derivational prefixes, be they S- or N-, induce inflectional behavior different from verbs where *s*, respectively *n*, is a mere root consonant. The analysis also contributes an element to the broader discussion of how productive these S- and N-prefixed formations may still have been in the earlier stages of Egyptian: if verbs including these prefixes were fully lexicalized in early times already, such specific inflectional behavior triggered by derivational prefixes would be difficult to account for.

[85] Stauder, "Splitting the $s\underline{d}m.n{=}f$?" Parts I and II.

As regards the main issue discussed in the present paper, namely assessing the "split *sḏm.n=f* hypothesis," prefixed written forms of the *sḏm.n=f* do not permit us to settle the debate in either direction. Prefixed written forms of *IV.inf-I.ḥ*, of *IV.inf-I.n*, and of the singular *2rad-I.ḥ* are all from "emphatic" environments, from environments, in other words, in which a *sḏm.n=f*$_X$ is predicted under the "split" and the "unitary" hypotheses alike. Moreover, the possibility of occurrence of the written prefix is determined by the nature of the first consonant of the verb and cannot therefore be interpreted as reflecting an alternation in inflected forms.

Prefixed written forms of *caus-2rad*, for their part, are documented in all types of constructional environments, yet do not support definite conclusions either: while an interpretation of such marked written forms as standing for the like of ᵛS-C´vC-nv-, and thereby for a *sḏm.n=f*$_X$, is plausible based on various indications, it remains very much possible that the same marked written form may also have stood for a differently stressed form in some cases, and thus possibly for the *sḏm.n=f*$_Y$ hypothesized by Schenkel. Written forms of *caus-2rad* in the Pyramid Texts must therefore be similarly assessed as neutral to the main issue under discussion. Just as with *IV.inf-I.ḥ*, of *IV.inf-I.n*, if in different ways, the occurrence of the written prefix in the *sḏm.n=f* of *caus-2rad* is to do with the nature of the first consonant of the verb, here a derivational prefix, not with a possible alternation in inflected forms.

Taking an altogether different approach, the consistent *absence* of the written prefix <*i.*> in the *sḏm.n=f* of *2rad* in the Pyramid Texts was analyzed in Part 2 as to its implications. The hypothesized *sḏm.n=f*$_Y$ would have been based on a pattern with stress after the last root consonant (CvCC´v-nv-); so was the one Earlier Egyptian inflectional category that is understood best in its morphology, the subjunctive *sḏm=f* (CvCCá-). When a finally-stressed pattern is accommodated onto biradical roots, this results in an initial consonant cluster, not licensed in Egyptian (**CCá-). As the subjunctive *sḏm=f* demonstrates, the initial consonant cluster is solved by adding an initial vocalic support, which commonly surfaces as <*i.*> in written form. Among the roughly hundred passages in the Pyramid Texts to display a *sḏm.n=f* of *2rad*, a sizeable, and therefore representative, amount is from "non-emphatic" environments, i.e., from environments in which the hypothesized *sḏm.n=f*$_Y$ is predicted under the "split *sḏm.n=f* hypothesis." Of these occurrences of the *sḏm.n=f* of *2rad* in "non-emphatic" environments, none ever displays the written prefix <*i.*>. The implication is that *2rad* had no form of the *sḏm.n=f* with stress after the last root consonant, in other words, that *2rad* had no *sḏm.n=f*$_Y$.

An examination of various types of flexivity in Earlier Egyptian verbal morphology very strongly suggests that the *sḏm.n=f*$_Y$, should Earlier Egyptian have had such a form, would have been uniformly inflected across inflectional classes, at least as far as the parameter here most relevant, the position of stress, is concerned. In particular, *2rad* would have had a *sḏm.n=f*$_Y$, characterized by the same position of stress as other inflectional classes. The overall implication is then that the lack of a *sḏm.n=f*$_Y$ in *2rad*, demonstrated on direct empirical grounds, generalizes to other inflectional classes: Earlier Egyptian had no form of the *sḏm.n=f* with stress after the last root consonant. This disproves the "split *sḏm.n=f* hypothesis."[86]

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[86] Technically, proving the "unitary *sḏm.n=f* hypothesis" as defined in the present study (only one stress pattern in the *sḏm.n=f*) is of course not equivalent to proving the unity of the *sḏm.n=f*. At this point, the theoretical possibility would remain that Earlier Egyptian may have had two varieties of the *sḏm.n=f*$_X$ itself, distinguished by vowel quality (thus, e.g., CvCíC-nv- vs. CvCúV-nv-, or the like). This possibility would remain because, by definition, a contrast of this type would be invisible in any alternations (or lack thereof) in written forms. By the same token, this then also falls beyond the scope of empirical argument based solely on an examination of written forms, as in the present article. For direct arguments in favor of the unity of the *sḏm.n=f*, based on altogether different considerations, see Stauder, *Earlier Egyptian Passive*: 235–343.