ḫr and Modal Obligation in Earlier Egyptian

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by *Joseph Emmett Clayton*

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Joseph Emmett Clayton:

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In *Future at Issue: Tense, Mood and Aspect in Middle Egyptian: Studies in Syntax and Semantics* (1990), Pascal Vernus convincingly argued that *ḥr* constructions express actions or events that are "*governed by an external norm or necessity*", by which he was describing modal obligation. In this study, by close contextual examination of the different *ḥr* constructions in Earlier Egyptian and by the application of elements borrowed from linguistic studies of modal necessity, Vernus's conclusion is refined and expanded upon. It is further argued that the *sḏm.ḥr=f*, *ḥr=f sḏm=f* and *ḥr sḏm=f* forms are not variants of nor developments of one another, as Vernus and others had assumed, but that the first expresses generic necessity, the second case-specific necessity and the third is an erroneous categorisation, being in fact a *sḏm=f* form preceded by a sentence adverb *ḥr* which, while still expressing modal necessity, can stand in front of a variety of constructions.

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INTRODUCTION

In previous treatments of the *sḏm.ḫr=f* form, all commentators have regarded the *ḫr=f sḏm=f* and *ḫr sḏm=f* forms as variants of, or developments from, the *sḏm.ḫr=f* form and attributed them with more or less the same values of that form. However, in this study, it is argued that the *sḏm.ḫr=f* form is indeed used to express generic concepts, as first proposed by Junge in 1972, but that neither the *ḫr=f sḏm=f* form nor the *ḫr sḏm=f* form are developments or variants of it, nor is expressing generic tenses its sole function. A close examination of the contexts in which the *ḫr=f sḏm=f* form appears reveals that they are quite different from those in which the *sḏm.ḫr=f* form appears in that the *ḫr=f sḏm=f* form never appears in generic contexts. It is concluded that the *ḫr=f sḏm=f* form is, in fact, an expression of case-specific modal necessity. Close reading of the texts also shows that the *ḫr sḏm=f* form is an erroneous categorisation and that examples of the form are actually a variety of different *sḏm=f* forms preceded by the particle *ḫr*, which is also used to express modal necessity and is used elsewhere to introduce other verbal, non-verbal and pseudo-verbal constructions. Each of the three main uses of *ḫr*; *sḏm.ḫr=f*; *ḫr=f sḏm=f* and as a particle (*ḫr sḏm=f*) are discussed separately in the three main chapters of this study.[1]

The texts used in this study are those written in Middle Egyptian and the genres in which particular *ḫr* constructions appear, or do not appear as the case may be, are discussed in the relevant chapters. Although the definition of Middle Egyptian is different for every Egyptologist, the criteria used here are that a text uses language not significantly different from the written language of the Middle Kingdom, as exemplified by texts which physically date to the Middle Kingdom and that it is usually included in standard Middle Egyptian Grammars[2]. However, because a large part of this study deals with verbs, texts from *égyptien de tradition,* which are often included in Middle Egyptian Grammars but habitually use constructions not found in writing in the Middle Kingdom proper, or use them in a different way, have been confined to an appendix for the sake of improving homogeneity. Texts with a physical date from later than the Middle Kingdom which do not differ greatly from the written Middle Egyptian of the Middle Kingdom in the structure of their language, such as Papyrus Westcar, the Satire of the Trades, the Hymn to the Nile and the medical Papyri Ebers and Edwin Smith, have also been included[3]. There are only three texts from the Old Kingdom that

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[1] *iḫr* and *ḫr m-ḫt*, have not been included in this study because they have been traditionally regarded as unrelated to the *ḫr* constructions mentioned above. It is, however, highly likely that they share some of the same characteristics of those constructions (See IV.1; Matters for Further Investigation)

[2] Gardiner (2001); Allen (2010 and 2014); Borghouts (2010); Callender (1975); Lefebvre (1955); Winand and Malaise (1999). See also Loprieno's (1995: 5-6) definition of Middle Egyptian.

[3] The decision to include the Satire of the Trades and the Hymn to the Nile is discussed in section III.4.1 and III.4.2 respectively). Papyrus Hearst is referred to infrequently because the passages that contain *ḫr*, apart from two (Papyrus Hearst §25 and 159) are identical to those in which it appears in Papyrus Ebers. The Berlin Medical Papyrus 3038, despite using *ḫr*, has been excluded,

employ *ḥr* constructions; these have also been included in the corpus as have several examples from the First Intermediate Period.

The study builds on the fourth chapter of Pascal Vernus's monograph in *Future at Issue. Tense, Mood and Aspect in Middle Egyptian: Studies in Syntax and Semantics* where he argues that *ḥr* constructions express actions or events that are "*governed by an external norm or necessity*" (1990: 80) by which he was describing modal obligation. Vernus makes a strong case but his conclusion can be refined further and expanded upon by close contextual examination of the different *ḥr* constructions in Earlier Egyptian and by the application of elements borrowed from linguistic studies of modality.

The evidence from Egyptian confirms that Vernus's theory is correct and that *ḥr* is undoubtedly a marker of modal obligation although Vernus, while translating *ḥr* constructions using the modal auxiliary "*must*" or by using adverbs of modal obligation, nowhere actually uses the terms "*modal necessity*" or "*modal obligation*". In the Egyptological literature prior to Vernus, several commentators had imbued *ḥr* constructions with some degree of modal obligation. Green, in his monograph *The Coptic Share Pattern and its Ancient Egyptian Ancestors* (1987), uses neither "*must*" nor "*have to*" for his translations nor does his conclusion mention necessity or modal obligation but he does in fact describe modal obligation in many places when dealing with his examples. Junge, in his article *Zur Funktion des sḏm.ḥr.f* (1972) had also mentioned in passing that a "*higher authority*" plays a role in *ḥr* constructions but consistently translated with *sollen* rather than *mussen*. Callender in his teaching grammar (1975: 40) too uses "*must*" when describing the function of *sḏm.ḥr=f* but not in any of his translations. Satzinger (2003: 246) also stated that *ḥr* constructions are capable of expressing "*must*" but gave them no more ability to do so than *iw=f sḏm=f* forms, circumstantial *sḏm=f* forms, imperfective *sḏm=f* forms or imperfective participle and relative forms. However, modal obligation has been keenly studied by both logicians and linguists for many years and their studies can make a strong contribution to the analysis of *ḥr* constructions in Egyptian by providing a theoretical framework which has already been successfully applied to many languages for modal obligation, which can, in turn, be employed to produce a better understanding of Egyptian texts.

Before examining the evidence from Egyptian and how it relates to expressions of modal necessity, it is necessary to outline the major linguistic theories regarding modal obligation and stating what is understood by it in this study. Until the mid 1980s the view of the London school, typified by Palmer (1986), who took a semantic approach to the analysis of modals, was prevalent[4]; he regarded modal auxiliaries such as "*must*" and "*have to*" and adverbs such as "*necessarily*" as a measure of the speaker's commitment to the truth of a proposition. He writes that a proposition, which he refers to as a "*declarative*", may have "*must*", "*have to*" or another modal adverb such as "*certainly*" added "*to emphasize the commitment* [to the truth] *over and above what would be indicated by a simple declarative*" (1986:28). Other

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notwithstanding its late date, on the grounds that the passages containing *ḥr* are, for the most part, badly copied passages of Papyrus Ebers.

[4] For an outline of the situation regarding modality in general and linguistics prior to this see Polis (2005: 2-4)

approaches to modals such as Force Dynamics (Talmy 1988)[5] became popular but, from the mid 1980s onwards, the study of modality in linguistics was dominated by methodology taken from modal logicians and known as Modal Logic for Linguistics (MLL), its greatest exponent being Angelika Kratzer whose analyses of modal expressions between 1977 and 2012 provided the "standard theory" for most contemporary thinking concerning them. This is attested by the centrality of Kratzer's work in the most commonly used textbook account of modality, Portner's *Modality* (2009). Although MLL is much more widely applied now, it has a slightly different goal from that of the semanticists who followed Palmer, and, unlike him, its aim is not to analyse natural language semantically but to systematise and understand reasoning processes when dealing with necessity and obligation (and for that matter, other modals)[6]. In its most basic form MLL says that a proposition is necessarily true if it is true in all possible worlds[7], in other words, it is the only possibility. It can also be phrased as

 "'*It is necessary that the proposition is true*'[8]
or
 "*It is not possible that the proposition is not true*". [9]

However, a formula this simple only applies to atomic propositions studied in isolation and, to express the intricacies of natural language and to incorporate context, time and speaker, many more variables are needed. The linguists employing modal logic therefore concern themselves with turning modal propositions into very descriptive formulae, the elements of

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[5] In Force Dynamics, modal obligation can be illustrated as a force (the agonist) pushing against, or being pushed by, something else (the antagonist). The agonist either has a tendency to do nothing and the antagonist pushes him into doing something, or, the agonist has a tendency to do something and the antagonist stops him from doing it, which results in either an action or inaction, the whole process being illustrated by simple diagrams using a few symbols. For instance, Problem 4 of the Rhind Mathematical Papyrus $ir.\d{h}r{=}k \frac{2}{3} \quad \frac{1}{30}$ "*You have to do $\frac{2}{3}$ + $\frac{1}{30}$ (Exx. 3)* might be illustrated with the following diagram:
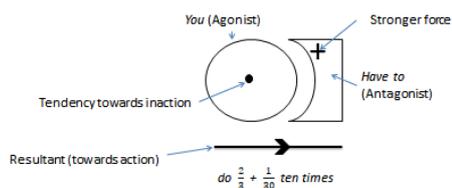
Fig. 1 An example of a Force Dynamics diagram

 The subject's (agonist) tendency is to do nothing, maybe because he doesn't know how, but this is opposed by an external authority (the antagonist), maybe the teacher, who wants the subject to do the sum right or something more abstract such as the desire to get the sum right. The antagonist then prevails because he is the stronger force (symbolised by the plus sign) and this results in the agonist doing the sum (the resultant).

[6] See Portner (2009: 29) for a summary of the goals of Modal Logic for Linguistics.

[7] The possible worlds theory was first conceived by Leibniz in *Théodicée* (1710) and first applied to modal semantics by Kripke in his 1959 paper *A Completeness Theorem for Modal Logic*.

[8] In MLL, just as in other branches of logic, *p* is used to represent the proposition, the symbol □ is used to stand for "*It is necessary that......*" so a modal proposition that is necessarily true is expressed by □*p*.

[9] This can also be written as ¬◊¬*p,* with ◊ used to represent "*It is possible that….*" and ¬ to represent "*not*".

which are able to describe the workings of any modal proposition whatsoever. A lot of the research done is designed to formalise both possibility modals and necessity modals as well as degrees of them, such as *should, could, might* and *ought to* with the same formulae. It is therefore not necessary in this study, which deals only with necessity, to overcomplicate matters by using descriptions designed to accurately illustrate a universal theory of every type of modality[10]. According to the modal logicians, if a proposition holds in all possible worlds it is the only possibility. This results in the action or situation being the only possible thing that could happen; all alternatives are removed. Palmer and the other semanticists come to a similar conclusion although not formulated in these terms; for them, the speaker is fully committed to the truth of a proposition. It is therefore assumed that *ḥr*, as a marker of modal obligation, displays these characteristics. A working definition of modal obligation as it relates to this study, which is based on a simplified version of MLL can therefore be formulated as follows:

> *An action or situation involving ḥr is the only possible course of action or the only possible situation; there is no alternative course of action or situation.*

Traditionally, in both philosophy and linguistics, necessity modals were divided into two types; deontic and epistemic. The first is derived from the Greek δέον "*that which is binding*" and concerns what must happen according to a set of rules, whether those rules are the laws of nature, morality or anything else that places an obligation upon a subject. The second is derived from the Greek ἐπιστήμη "*knowledge*" and is concerned with what must be the case according to what is known. There are, however, several different meanings for "*must*" in English and this is the same for many other languages[11]. For instance, take the following three Egyptian examples:

Papyrus Rhind, Problem 4. (Exx. 3) which deals with how to divide 7 loaves among 10 men:

$$ir.ḥr=k\ \frac{2}{3}\quad\frac{1}{30}$$

$$\text{"You must do } \frac{2}{3}\ +\ \frac{1}{30}\text{"}$$

Coffin Texts Spell 404, V 208d (Exx. 76), which deals with etiquette in front of the divine tribunal:

wn.ḥr ȝḥ pn sḥwt (See n. 151 for this word) *ḥr ḫt=f m-ḫn[w]-ꜥ =sn*

"*The spirit must be spread-eagled on his belly among them*"

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[10] To illustrate the complexity of the notation we can use an example from The Eloquent Peasant B1, 219: *sȝ mrw tnm.ḥr=f* "*The son of Meru must be out of control*" (See I.14). This would be expressed in MLL notation as follows: {*w*: for all $u \in \cap f(w)$, there is a $v \in \cap f(w)$ such that: (i) $v \leq_{g(w)} u$, and (ii) for all $z \in \cap f(w)$: If $z \leq_{g(w)} v$, then $z \in$ [[The son of Meru is out of control]] ^{c,f,g} }

[11] See Bybee et al (1994: 181-187) for similar systems of expressing modal obligation in other languages.

The Tale of the Eloquent Peasant B1, 219, which expresses the Peasant's assessment of Rensi's mental state (section I.14):

s3 mrw tnm.ḫr=f

"The son of Meru must be out of control"

One could rephrase them as:

It is necessary that you do $\frac{2}{3}$ + $\frac{1}{30}$

It is necessary that the spirit is spread-eagled on his belly among them

It is necessary [to conclude that] that the son of Meru is out of control

All use the same construction in both Egyptian and English, but the auxiliary verb *"must"* and the construction *sḏm.ḫr=f* only tell us that the action is necessary; they give no information as to why it is necessary. From the contexts of each example we know that in the first it is necessary to do that sum in order to reach an overall correct answer, in the second we know that it is necessary to grovel because the rules about greeting superiors demand it and in the third it is necessary to conclude that Rensi is wild because all the evidence thus far is indisputable. All three use modal obligation and all have different reasons for using it but in the old system the first two would be lumped together under "*deontic*" and the third filed under "*epistemic*". In fact, any necessity modal with any of a myriad of reasons for being necessary would have to be classed under one or the other.

Kratzer (1977 and 1981) realised that the terms "*deontic*" or "*epistemic*" were not enough on their own to accurately distinguish different types of necessity modals and so, to model the subtleties in their usages, came up with the concept of "*conversational backgrounds*". In her system for describing necessity modals she retains the categories of "*deontic*"[12] and "*epistemic*" which she calls modal bases, but, in addition, each modal is given one or more "*conversational backgrounds*". Necessity modals therefore have a modal base, which is either "*circumstantial*" or "*epistemic*", which tells us whether it is based on circumstances or knowledge, and one or more conversational backgrounds, which give us an idea as to why the action or situation is necessary. Kratzer illustrated different types of conversational backgrounds by prefixing a modal with "*In view of*" and the following is her basic list, although many more subtle categories could be added:

Circumstantial:	*In view of the circumstances that hold (it has to.......)*
Deontic:	*In view of the rules in place (you must.......)*
Teleological:	*In view of the need to achieve a particular goal (you must........)*
Epistemic:	*In view of what is known (it must be the case that....)*
Stereotypical:	*In view of what is normal or expected (it can only be the case that.....)*
Bouletic	*In view of a set of desires (you have to)*

Fig. 2: Conversational backgrounds

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[12] Which she renames "*circumstantial*". It is also known as "*root modality*"

According to this list the first example above would have a "*teleological*" conversational background; "[In view of the need to get the sum right] *you have to do* $\frac{2}{3}$ + $\frac{1}{30}$", the second would have a "*deontic*" conversational background; "[In view of the rules governing etiquette] *you have to grovel*" and the third an "*epistemic*" conversational background; "[In view of what is known about Rensi] *he must be out of control*".

Kratzer's basic list of conversational backgrounds provides a useful way of dividing up the examples of *ḥr* constructions as well as giving a rough idea about which particular "external powers" (see below p. 11) might be enforcing necessity modals. Each category is dealt with in more detail in the chapters that follow but, for the time being, here is an overview of each category of conversational background and which types of examples fall into each one:

Circumstantial conversational background: In expressions of modal obligation with a circumstantial conversational background the obligation to conform comes from circumstances themselves. Direct results, which are covered in section I.5.5.2, in which circumstances themselves make a particular result inevitable, have a circumstantial conversational background and the external powers that act upon the subject are the laws of nature or physics or circumstances themselves which are not theoretically, but in reality, undefiable. Examples with a sentient subject are rare in both Egyptian and English but a large proportion of the Egyptian examples employing the particle *ḥr* are results (See section III.7). All the Egyptian examples are third person.

Deontic conversational background: In expressions of modal obligation with a deontic conversational background the use of the modal is based on a set of rules; for instance: "[In view of the rules in place] *All tax-returns have to be completed by the 31ˢᵗ of January*". In this example the rules are set by the government which is an external power that, in theory at least, cannot be defied, and so, the only possible course of action is to comply. Modals with this conversational background are instructions intended to enforce particular standards of behaviour and so, fear of retribution, divine or otherwise, plays a strong role in enforcing them. The rules are not necessarily those imposed by a physical higher authority such as a government, a monarch or an employer but are often derived from duty, morality or norms of behaviour. In the Middle Egyptian corpus presented here, the only certain examples of *ḥr* constructions with this conversational background come from the Coffin Texts (See sections I.10 and II.8)[13]

Teleological conversational background: The obligation in modal necessity expressions with a teleological conversational background derives from the desire to accomplish a particular aim. These modals are always used to issue instructions; for instance: "[In view of your need to reach the library] *You have to turn left at the lights*". This is the only possible way, according to the speaker anyway, to reach the library and doing anything else would result in failure. The external power at work here is the desire to not work against your own interests.

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[13] Examples of deontic conversational backgrounds are, however, plentiful from égyptien de tradition; nearly all the examples of *ḥr* constructions from the Duties of the Vizier (See Appendix A.2 and A.3), which concerns itself with rules for running the office, have deontic conversational backgrounds as do the examples of *sḏm.ḥr=f* and *ḥr=f sḏm=f* from the Busirite ritual (Vernus 1990: 69).

Examples of *ḥr* constructions with a teleological background are plentiful in the medical, mathematical and Coffin texts, which consist almost entirely of instructions designed to ensure a favourable outcome (See sections I.9 and II.7.1)

Epistemic conversational background: Modal expressions with an epistemic conversational background are based on evidence and represent inescapable conclusions based on the facts available (See *assertions* below). For instance: "[In view of the fact that he had motive, means and opportunity] *He must be the murderer*". The external power at work here is evidence, logic and, to a certain extent, experience of the way the way the world works; to argue against a conclusion based on them would be to deny the evidence and to defy logic or common sense. *sḏm.ḥr=f* forms with this conversational background are few, being found only in glosses in the medical texts (see section I.11) and in the single example from the Eloquent Peasant. There are several examples of indisputable assertions using the particle *ḥr* (see section III.8.1) but no examples at all from the *ḥr=f sḏm=f* form.

Stereotypical conversational background: Modal obligations with a stereotypical conversational background are similar to epistemic modal propositions in that the obligation to accept an assertion is based on evidence. However, assertions with an epistemic modal conversational background are based on direct evidence whereas stereotypical propositions are based on much wider and more general evidence such as cultural norms, experience and tradition. For instance: ["In view of the fact that it is common knowledge that everybody fails attempting it*] Anybody who tries it will invariably fail"* or, in view of what is normal, usual or expected the only possible outcome of trying is failure. It is also often employed in hindsight when the only thing that could have happened, according to what is usual or normal or expected, happened. For instance: "*Naturally, he failed (because it is common knowledge that everybody attempting it fails)*". Anybody arguing against an assertion with this kind of conversational background would be defying conventional wisdom and would be regarded as at best unreasonable and lacking in common sense or, at worst, mad. There are no examples of *sḏm.ḥr=f* or *ḥr=f sḏm=f* which have this conversational background but there are a few examples involving the particle *ḥr*.

Bouletic conversational background: Modal obligation with a bouletic conversational background is based on the wishes or the desires of the speaker. He or she sets themselves up as an undefiable power in order to influence events or others in their favour, for instance "[In view of what I want] *You have to go to bed now*". The only examples with this conversational background in Egyptian come from the Heqanakhte Letters (See section II.11).

There are two main uses of necessity modals in both Egyptian and English; issuing instructions and making assertions, the former being by far the most common usage of *ḥr* constructions in Egyptian; 648 out of 678 examples of *sḏm.ḥr=f* forms are instructions (96% of all the *sḏm.ḥr=f* examples) and, 26 out of 29 examples of the *ḥr=f sḏm=f* forms are instructions (90% of all the *ḥr=f sḏm=f*). The usual way of issuing an instruction using modal obligation in English is to use the auxiliary verbs "*must*" or "*have to*" but in both English and Egyptian there are several ways of issuing instructions, with varying degrees of force. Heqanakhte Letter I Rt 8-9

(Exx. 98) contains three different types of instructions, including *ḫr=f sḏm=f*, in close proximity and therefore provides a convenient place to illustrate some of these and to show the differences between instructions issued using modal obligation and other types:

Here, Heqanakhte is trying to obtain some land to lease so it can be cultivated by his own people and he sends his steward Merisu to rent some land with a series of detailed instructions. Once they have been told how to obtain the wherewithal to pay for the land Heqanakhte issues the following instructions:

> *m h₃w ḥr ₃ḫt nt rmṯ nb[t]*
> *dbḥ=ṯn m-ꜥ h₃w (šry)*
> *ir tm=ṯn gm m-ꜥ=f ḥr=ṯn šm=ṯn tp-m hrw-nfr ntf dd ṯn ḥr ₃ḫt ḳbt nt ḫpšyt*
>
> *"Don't farm the land everyone else farms.*
> *You should claim [some land] from young Hau.*
> *If you don't find [any] from him, you will have to go before Herunefer. He is the one who can put you on watered land of Khepshyt"*

There are three instructions here, all with a different force behind them. The first, *m*, is an imperative or direct order. When using an Imperative, the speaker instructs the addressee to do something for his own purposes, which may or may not be benign but is always subjective. The answer would be "*No*" or "*Yes, sir*" depending on who is asking; whether the addressee complies or not depends on the authority of the speaker or whether his interests coincide with the speaker's or not. Heqanakhte doesn't want Merisu to farm the common land for reasons which aren't stated and, were Merisu to disobey Heqanakhte, he would be answerable to him, and him alone.

The second instruction, *dbḥ=ṯn*, issued with a subjunctive, is milder; "*You should do something*" or "*You ought to do something*". In this case it would be beneficial for the addressee to do what he is asked; he may choose to follow the advice given or not, there may be other ways of obtaining the same result without following the advice. Whether he follows the advice or not depends on whether his interests coincide with the speaker's and how much respect he has for the speaker's judgement. Not following the advice would only result in someone not benefiting from it; there is a degree of choice about whether it is followed or not. Here *dbḥ=ṯn* is a suggestion by Heqanakhte; it would be beneficial if they could claim some land from Hau but this may not be possible, hence the alternative instructions in the event of Hau not having any land.

The *ḫr=f sḏm=f* form has a different, and much stronger force behind it; firstly, this example illustrates fairly clearly that the action expressed by *ḫr* is the only one possible and that there are no alternative courses of action. By the point that Heqanakhte uses the *ḫr=f sḏm=f* the other two options for obtaining land (farming the land that everyone else does or getting some land from young Hau) have already been ruled out or exhausted, therefore the only possible way to obtain land is to go to Herunefer. The fact that there is no alternative to going to Herunefer is reinforced by the use of the independent pronoun in the following clause; *ntf dd ṯn ḥr ₃ḫt ḳbt nt ḫpšyt*, which is the answer to the question "*Who can put you on the irrigated land of Khepshyt?*".

The sentence *ir tm=ṯn gm m-ꜥ=f ḥr=ṯn šm=ṯn tp-m hrw-nfr ntf dd ṯn ḥr ꜣḫt ḳbt nt ḫpšyt* can therefore be analysed as follows:

The *ir* clause restricts the circumstances in which *ḥr=ṯn šm=ṯn* is valid; if Merisu can obtain land from young Hau he doesn't have to go before Herunefer. However, it is important here to note that Hau not having any land does not cause Merisu to automatically go to Herunefer, with no control over his actions; it is still Heqanakhte instructing him to do it and sending Merisu to Herunefer is a necessary reaction to the circumstances, not an inevitable result of them. (See I.5.4)

The conversational background here is both teleological and circumstantial; *"[in view of the need to obtain land and the circumstances of it not being available anywhere else] you will have to go before Herunefer"*. Because going to Herunefer is the only way to obtain the land, Merisu would be working against his own interests were he to defy the instruction and would have no chance of obtaining any land whatsoever.

We can also demonstrate the difference between the ways of framing the instructions above by postulating that they had all been followed by Merisu and presenting the reasons for which he might have done so:

> **Imperative** *m*: *Merisu didn't farm the common land because Heqanakhte told him not to and had sufficient authority to do so.*
> **Subjunctive** *dbḥ=ṯn*: *Merisu went to young Hau because he trusted Heqanakhte's advice enough to do so.*
> *ḥr=f sḏm=f: Merisu went to Herunefer because he had no alternative but to do so.*

Another very common usage of modal necessity is to make strong assertions. In English the main types of modal necessity assertions are those formed with the auxiliary verb "*must*" and those formed with modal adverbs such as *necessarily*, *certainly* and *undoubtedly*. These two categories are also present in Egyptian; the former being expressed in Egyptian with *sḏm.ḥr=f* and the latter with the particle *ḥr*. The distinction between them is discussed in detail in section III.11.

Assertions framed with "*must*" are epistemic modals (see above) and are necessary conclusions based on evidence which are used where the speaker is unable to confirm the truth of a proposition visually or by other completely unequivocal means[14]. The evidence for the assertion is often presented; for instance, "*John must be in his office because the lights are on*". According to the evidence that the speaker possesses *(the lights are on)* the proposition (*John is in his office*) is necessarily true. An Egyptian example of this is The Tale of

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[14] Palmer (1986: 66-77) discusses evidentials, or different types of evidence for assertions and their relative strength, in several different languages. In all the languages he covers, including English, visual confirmation is regarded as the most reliable evidence possible.

the Eloquent Peasant B1, 219, which expresses the Peasant's assessment of Rensi's mental state:

s3 mrw tnm.ḫr=f

"The son of Meru must be out of control"

This is then followed by the evidence on which it is based, namely Rensi's ignoring injustice, refusing to listen to reason and losing his temper when his shortcomings are brought up (See section I.14). These kinds of assertions can be seen in the same light as modal instructions in that they place an obligation on the subject to be in the situation that the speaker ascribes to it or him; the situation that he describes is the only one possible, from his perspective, anyway. However, just as in the case of an instruction issued with a modal, there is still a chance, however slight, that the subject will not conform and that new evidence regarding the subject will render the original proposition invalid. These kinds of assertions are therefore necessarily true according to the evidence that the speaker possesses *at the moment of speaking* but there is still a possibility that the subject will disprove it and the assertion will no longer be necessarily true. In the example above, we, as readers, know that the Peasant is actually wrong about Rensi and at the end of the text the Peasant would have to accept that, but, at the moment of speaking, the only possible conclusion from the evidence is that Rensi is out of control.

On the other hand, the type of assertion constructed with an adverb such as *necessarily*, *definitely*, or *undoubtedly*[15], is merely presented for acceptance by the speaker[16]. The assertion is necessarily true at the moment of speaking and thenceforth and, unlike an assertion constructed with "*must*", which has a subject with the capability of changing the truth of the assertion, there are no variables that might change that. By using modal adverbs, the speaker is indicating that the situation that he is describing is necessarily true. For instance, Satire of the Trades §XXIIa, Sallier II version (Exx. 120):

ir swt rḫ=k sš ḥr wnn=f m nfr n=k st

But, if you learn writing it will inevitably be good for you"

Here, *ir* restricts when the modal is valid; obviously if the scribe doesn't learn writing it can't be good for him. *ḥr* marks the proposition that follows (writing will be good for you) as being necessarily true; there is no alternative to writing being good for you, or, it is not possible that writing will not be good for you.

As far as translation into English is concerned the different conversational backgrounds also tend to affect which auxiliary verb or which adverb is used to express modal obligation; the following table is a, by no means exhaustive, selection of expressions relating to them:

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[15] See *Fig. 3* below and Quirk et al (1985: 620) for more adverbs of modal obligation.
[16] See Palmer (1986: 29 and 86-88)

Conversational background	Verbal expressions	Adverbs associated with the conversational background
Epistemic	*Must be, can only be, got to be*	*Inevitably, definitely, certainly, undoubtedly*
Deontic	*Have to, must, got to, be obliged to*	*Perforce*
Teleological	*Have to, must, got to*	*Inevitably, necessarily*
Circumstantial	*Have to, must, cannot help, can only*	*Inevitably, necessarily, invariably, automatically*
Stereotypical	*Bound to, must*	*obviously, naturally, of course, inevitably, invariably,*
Bouletic	*Have to, must*	*-*

Fig 3. English expressions relating to modal obligation

When a speaker employs the two main uses of modal necessity he renders an instruction or a situation undefiable or indisputable, however, none of the linguistic analyses of modals mentioned above pay much attention to what the mechanism that enforces a modal obligation actually is. The reason for which one would, theoretically at least, have no choice but to obey an instruction, act in a particular way or be unable to dispute an assertion is rarely addressed. This is obviously an extremely complicated question but, to better understand the use of modal obligation in Egyptian, it is worth attempting to provide a suggestion as to how an instruction or a situation is rendered undefiable or indisputable by the speaker. When using a modal of obligation in an instruction the speaker makes clear to the addressee that the authority by which he issues it, comes not from himself but from a force much more powerful than he; something that the addressee cannot, would not want to, or dare to, defy. This force does not have to be specified, and indeed rarely is, but possibilities include nature, morality, laws, self-preservation, circumstance, tradition or logic[17]. If an addressee were to act otherwise than instructed, he would be defying not the speaker but the external force that the speaker invokes, which renders an instruction framed with a necessity modal *theoretically* undefiable and is intended to force the addressee into a particular course of action. This does not mean that the instruction is *actually* undefiable; the addressee may have no respect for tradition, rules or morality or, more importantly and more probably, may not believe that the speaker has any right to invoke the powers he does. The same applies to assertions containing *ḫr*; the speaker makes it clear to the listener that the truth of a proposition is not dependent on his own reliability or authority but on something else, something that one cannot, would not want to or dare to question; if one were to doubt what was said one would not be doubting the speaker but the external force that he invokes by

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[17] In a similar vein, Vernus (1990:80) provides a specific list of "*external norms or necessity*" that "*govern events, actions and situations*" expressed with *ḫr*: "*the cosmic order, the nature of human things, common sense, the mechanism of magic, the king/queen's charisma, the logic of mathematics, the fixed arrangement of a ceremonial etc*".

using *ḥr*. The working definition concerning *ḥr* and modal obligation, which was mentioned above (p. 4) can therefore be extended as follows:

*When a speaker uses *ḥr* he transfers the authority for what is said from himself to a theoretically undefiable external power, thereby making the action or situation expressed with *ḥr* the only possible course of action or the only possible situation; any alternative course of action or situation is, in effect, removed and the addressee is thereby forced, theoretically at least, to obey the instruction or to accept the proposition.*

It is this definition, in conjunction with Kratzer's conversational backgrounds and other ideas borrowed from Modal Logic for Linguistics, that will be used in the analysis of the *ḥr* constructions in the rest of the study.

CHAPTER I

sḏm.ḥr=f

In all previous investigations into the *sḏm.ḥr=f* form it has been treated as a variant of, or an ancestor of, the *ḥr=f sḏm=f* form and the *ḥr sḏm=f* form. Here, in line with the general methodology employed in this study, the *sḏm.ḥr=f* is examined separately from the *ḥr=f sḏm=f* and *ḥr sḏm=f* forms and it is seen that the term "*generic obligation*" is an appropriate description for all the examples of *sḏm.ḥr=f*.

I.1 ORTHOGRAPHY OF THE *sḏm.ḥr=f* FORM

Class	Form[18]	Transliteration	Reference
3 lit		*sšp*	*Eb. 854c*
		nḏr	*Sm. Cases 10; 14; 23; 26; 28; 47*
2 lit		*ḏd*	*Eb. 188-206; 207(x2); 617; 831-833; 856d; 856e; 876b, Sm. Case 9; 20, L. Gyn. Cases 1-17; 26(x2); 28, CT Spell 404: V 181h; 182d; 184c; 185b; 186d; 186h; Spell 405: 202j; 203f; 203k; 204a; 207a; 207d; 207f; 207j; 208e; 209a; 209e; 209k; 209o; 210f; Spell 650: VI 272i; 272k; 272m; Spell 818: VII 17t; 18a; 18b; Spell 1165: VII 508c, Teaching XVI1 (DeM 1400 vso.),*

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[18] Only a couple of representative examples for 2lit and 3lit verbs have been given, although all variants of the other classes have been given.

	𓍑𓀜 / 𓊖𓂧 *wt*	*wt*	*Sobekemkhent p. 240 [34]* *Sm. Cases 7, 25, 26, 27,28, 29, 30, 32(x2), 34, 35, 36, 37, 38, 40-3, 47*
2ae geminating	𓄿𓅓𓅓 *m33*	*m33*	*Eb 188a; Sm. Case 19*
3ae inf.	*ir* (never 𓁹)	*ir*	*Eb. 188-193, 196-197, 198(x2), 199-202, 203(x3), 204(x3), 207(x2), 501, 522, 565, 831-833, 857-862, 867-8 and 871-7, Sm. Cases 9 (x2), 14, 23, 41 (x3), 48 and XX, 15, L. Gyn. Cases 1-17, MMP VI 6; VII 1, 3-4; VIII 3; X 5, 6; XI 1; XIII 1, 2; XV 1-3, 5; XVI 4; XVIII 4-5; XIX 1, 2, 3-4; XX 1; XXI 5, 6; XXII 1, 2, 3; XXIII 6; XXIV 1; XXV 2, 3; XXVI 2; XXVII 4, 5, 6; XXVIII 3, 4-5; XXX 5; XXXI 4-5, 6, 7; XXXIII 4, 5, 6(x2); XXXIV 1; XXXV 3, 5; XXXVI 3, 4, 4-5; XXXVII 3, 4, 5; XXXVIII 3, 4, 5; XL 6, XLII 5 7; XLI 1, 2; XLII 6; XLIII 4, 5, 7; XLIV 2; UC32124A 2; 3; 5; UC32162 Col II 4; 5; 7; 8; 10 (x2); Col III 9; 10; UC 32118B x+3; x+4 Rhind 4-5; 26; 40-42(x2); 43; 44(x2); 45(x3); 46(x3); 50; 51(x2); 52(x2); 55(x2); 56(x2); 57(x2); 58(x4); 59(x2); 59B(x2); 61-62; 63(x2); 66(x2); 68; 69(x2); 70(x2); 71(x2); 72(x3); 73(x2); 74(x2); 75-76; 77(x2); 78, Berlin Mathematical Papyrus 6619: Problem 1 lines 4; 5; 6(x2)*

	𓈖 (int sign)	*int (ḥr.tw=f)*	*Eb. 294*
	𓈖 (in sign)	*in*	*Eb. 325*
	𓈖	*in*	*Eb. 325; Sm. XXI, 9 Ram.Medical III, pl 14, Col 32*
	𓇋𓂝	*iꜥ*	*Eb. 384*
	𓇋𓂝𓅱	*iꜥw*	*Sm. XXI,20*
	𓉔𓅱𓅱	*h33*	*Sm. Case 22*
	𓄁𓂋𓅱	*ḳbb*	*Sm. Case 9 (V,4)*
	𓄿𓂝𓀀	*iṯt*	*Sm. Case 20*
Causative 2ae geminating	𓋴𓅓𓅓𓌻	*sšmm*	*Eb. 325*
rdi	𓂋�	*rdi*	*Eb. 448; 295; 189(x2); 191; 194; 204; 307(x3); 312; 325(x3); 864; 571; 833; 789; 794; 786 (x2), Sm. Cases 4; 6; 7(x3); 9; 17; 25; 20(x2); 21(x4); XX, 18; XXI, 2; XXI, 16; XXI, 19; XXII, 1; XXII, 3; XXII, 7, L. Gyn. Cases 13; 17; 25; 26; 27; 28, L. Vet. Cols. 26; 39*
wn	𓃹𓈖	*wn*	*CT V 200b; 208d; 209g-j; L. Vet. Col 22b; Lahun Poem vso, Col 12*
ii	𓇍𓅱	*iw*	*CT 387h*

Fig. 4 Orthography of the sḏm.ḥr=f form

Gardiner (§430) divided the *sḏm.ḥr=f* into "*single future acts*", which he says are represented by non-geminating forms of the stem of the verb and are derived from a perfect passive participle, and "*geminating forms*" in which the stem is derived from an imperfective participle. On the other hand, Lefebvre (1955: §287) says that the stem is identical to that of

the *sḏm.n=f* and the *sḏm.in=f* forms but then goes on to contradict this assertion by saying that there is doubling in geminating verbs, using *m33.ḥr=f* in the medical texts as an example. Both Gardiner and Lefebvre make a distinction between *wn.ḥr=f* and *wnn.ḥr=f* despite the fact that the latter is only attested in a handful of Books of the Dead from the 19th dynasty onwards. Westendorf (1962: §271, 2) discusses the matter of the base form of the *sḏm.ḥr=f* at length and, with reservations, identifies the stem as a prospective passive participle lacking a *w*. As evidence for this he uses the single example from Middle Egyptian of a *sḏm.ḥr=f* stem with a *w* ending (*iʿw* in Papyrus Edwin Smith XXI,20) and two examples ending in *w* from the much later, and rather inconsistently written, Berlin Medical Papyrus 3038. He goes on to say that the form of *rdi* in the *sḏm.ḥr=f*, which consistently retains its initial *r*, counts against it being a prospective but skims over this rather weighty objection and sticks by his conclusion. Vernus (1990: 61) follows him in saying that the stem is similar to that of the prospective *sḏmw=f* form but also says that it is similar to that of the "*circumstantial*" *sḏm=f*, although it is not clear from the evidence as to how he arrived at that conclusion. Winand and Malaise (1999: §547) also say that the stem is that of a prospective *sḏmw=f* without the *w* and Callender (1975: 40) says that *sḏm.ḥr=f* has both emphatic and indicative stems but provides no evidence for this (see section I.2). Depuydt doesn't touch on the topic of the morphology at all and Green, although he briefly outlines the form that a few of the mutable verbs take in *sḏm.ḥr=f* (1987: 15), does not comment on which other verb types they resemble.

Thacker (1954: 137-42) is the only commentator to have made an exhaustive study of the base of the *sḏm.ḥr=f* form and he concludes that *sḏm.ḥr=f* shares its stem with the *sḏm.ty=fy* form, the negatival complement and the *sḏm.k3=f* and *sḏm.in=f* forms. He concludes that their shared stem is "*an uninflected form of universal application*", which he terms the "*second infinitive*" (1954: 142)

I.2 STATE OF PLAY

The earliest commentators on *sḏm.ḥr=f* mentioned it only in relation to the Coptic ϢⲀⲢⲈ pattern, which is, quite justifiably, regarded as the descendant of the earlier Egyptian *ḥr* constructions[19]. Gardiner (GEG §431) writes that *sḏm.ḥr=f* is related to the particle *ḥr* "*that indicates what comes next in order*" and that it "*may have originally meant something like 'he proceeds to hear'*". He goes on to say that in reference to future time it is "*common in injunctions and statements of result*" and translates examples in various ways, ranging from "*thou shalt*" to "*I shall have to*" and "*it will*" (GEG §431.1). While admitting that examples relating to the present are "*rare and not quite certain*" he goes on to say that they are "*perhaps summing up the result of a situation*" (GEG §431.2) and quotes the Eloquent Peasant B1, 219 (See Section I.14) and Ebers §855k (Exx. 84 in this study) as evidence. In section §431.3 he describes the *sḏm.ḥr=f* form as occasionally referring to past events, saying it only occurs with two verbs, *ḏd* and *wn*. He quotes the Stela of Harwerre (See section I.15) in support of this as well as an example from égyptien de tradition from the Installation of the Vizier (Exx. 171 here). He illustrates the negation of the *sḏm.ḥr=f* in §432 by quoting Ebers §296 (Exx. 62 here) and notes that the verb *tm* is used.

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[19] For a summary of interpretations of the ϢⲀⲢⲈ pattern see Green (1987:1-5)

Lefebvre writes in his Grammar "*se rapporte normalement au futur, marquant un résultat, une constatation, une prescription*" (1955: §289) and uses one of the instances from Ebers §188 (Exx. 53 in this study) as his first example, pointing out that the *sḏm.ḥr=f* form is used to express both diagnosis and treatment. He also uses Papyrus Rhind Problem 41 as an example of this. He goes on to state that *sḏm.ḥr=f* refers sometimes to the past and uses Hatshepsut's Punt inscription (Exx. 164 here) to illustrate this, he also mentions the Stela of Harwerre (See section I.15) as another example with past reference. He writes of the *sḏm.ḥr=f* that "*Il n'a que exceptionellement la signification du présent*" and, like Gardiner, quotes the Eloquent Peasant B1, 219 (See section I.15) in support of this. In his §287 he produces a not very complete table of the forms of the various classes of verb as they are found in the *sḏm.ḥr=f*.

Westendorf, in his *Grammatik der Medizischen Texten* (1962: §272-275), describes the contexts in which it is used in the medicine texts well and labels it an *optativ-futur*. He uses *sollen* "*should*" to translate it but doesn't distinguish the *sḏm.ḥr=f* from any other verb form that is used to issue instructions, using *sollen* to translate other verb forms too.

Junge, (1972), was the first to treat the *sḏm.ḥr=f* form at any length in its own right, rather than as the predecessor to the Coptic ϢⲀⲢⲈ pattern. He starts off by discussing the distribution of the form, pointing out that as far as narrative examples are concerned "*Beispiele zahlenmäßig auffallend gering sind (insgesamt 8[20]!)*" (1972: 133). He goes on to say that apart from those instances the *sḏm.ḥr=f* form is only found in the administrative documents, namely the installation of the vizier and the regulations of the vizier and mathematical and medical texts, which he describes as being "*in eine Textkategorie gestellt werden können, nämlich der gnomischer und allgemeingiltiger Aussagen und zeitstellenwertloser Mechanismen*". From this he extrapolates that to express this is the specific function of the *sḏm.ḥr=f* form. He also says that *sḏm.in=f*, as a literary narrative form should not be associated with *sḏm.ḥr=f* (1972: 133) despite admitting later in the article that it is hard to see what the difference between their respective uses might be when they appear in the medical texts (1972: 135). He illustrates the various contexts in which the *sḏm.ḥr=f* is used, dividing them into:

1. "*Mathematics*", in which he uses various examples from Papyrus Rhind and makes the pertinent observation that *ḫpr.ḥr* followed by a number should be regarded not as a result but part of the procedure (See I.5.5.1).
2. "*Scientific Observation*" where he uses the examples from Ebers §788 about smelling bad milk (Exx. 56 here) and from Papyrus Edwin Smith XVII, 17 regarding the man with an injury that causes him to retract his legs (Exx. 8 here). He also makes the point that it is difficult to assess what other verb forms could be used in this position.
3. "*Medical Diagnoses*" where he outlines the general formula that the diagnosis takes: *ir m₃=k* ....*ḏd.ḥr=k*.........*ir.ḥr=k* and points out, not quite accurately, that the second and third of those can be replaced by the *sḏm.in=f* form (see section I.9.1.4). He also compares the diagnostic process to that of the mathematical texts.

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[20] In this number he includes the examples from égyptien de tradition, mentioned in Appendix A in this study

4. "*Drug preparation*" which he illustrates with one example from Papyrus Hearst 25 (2, 9-10) and one from the Ramesseum Medical Papyrus[21].

5. "*A coordinated sequence*". Particularly interesting here, with regard to the line of argument taken in the present study, is that he says that *sḏm.ḫr=f* expresses more or less inevitable results, arranged by a "*higher authority*" a statement which he backs up with an example involving *ḫr sḏm=f* [22]. He also uses two Coptic examples and Edwin Smith IX, 9-10 (Case 26) *ir m-ḫt id=k sw wt.ḫr=k sw ḫr iwf wḏ*, translating "*Nachdem Du sie (die Wunde) genäht hast, sollst Du sie verbinden mit frischem Fleisch*" although it is hard to see what relevance the latter has to his argument.

In his next section Junge follows Koschmieder's (1945) methodology for identifying the properties of verb-forms[23] and says that the *sḏm.ḫr=f* form's appearance in only "*scientific*" texts satisfies his criterium of non-interchangeability while acknowledging that impersonal passives and infinitives may come close to being interchangeable with it (See section I.7). He continues the argument he had outlined earlier, that *sḏm.ḫr=f*, is a specialist verb form with no inherent time designation and uses the Turkic and Greek verb forms that Koschmieder had already identified as evidence that such a specialised verb form could exist (See sections I.5.1 and I.5.2 here for discussion of the temporal aspect of *sḏm.ḫr=f*). He then applies this to various examples of the ϢⲀϤⲤⲞⲦⲘ form in Coptic and concludes that generality plays an important role in those examples too. He concludes the section by saying:

> "*So läßt sich der Schluß ableiten: Ein Ausdruck allgemeinen Sinnes induziert die Verwendung einer Verbalform allgemeingültiger Aussage; oder anders: eine jederzeit gültige Aussage (einer, der .. .; jeder, der ... .) bedingt eine jederzeit gültige Folge*"(1972: 137)

He then makes the point that a prerequisite and a consequence is crucial to the choice of form, an observation which is not strictly valid (See sections I.5.4 and I.5.5) and supplies a few examples preceded by conditionals from both Egyptian and Coptic.

Green (1987) provided the most extensive study of *sḏm.ḫr=f* and its related forms but is more concerned with its role as an ancestor of the Coptic ϢⲀⲢⲈ pattern than its usages in earlier Egyptian. He rejects the notion that any form involving *ḫr* is "*specialised for expression of gnomic or aoristic sense*" (1987:88) but bases this argument almost exclusively on his conclusions about the nature of their descendant, the Coptic ϢⲀⲢⲈ pattern. He writes in his conclusion "*The basic function ascribed in this study to ϢⲀⲢⲈ, to sḏm.ḫr=f and to ḫr(.f) sḏm=f is the expression of a 'fact', in the form of a modally neutral ('indicative') statement which expresses the logical consequence or deduction stemming from the premise(s) expressed in the preceding statement(s)*" and distinguishes the *sḏm.ḫr=f* and *ḫr=f sḏm=f* forms on the

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[21] Junge gives the reference as III, B 9 following WMG §272 but in this study Barns (1955) is the publication used and the example cited appears in Plate 10, column 7.

[22] In this study, the *ḫr sḏm=f* form is treated separately in Chapter III.

[23] Koschmieder doesn't mention the *sḏm.ḫr=f* , only the Coptic ϢⲀⲢⲈ form, his study being mostly devoted to comparative philology. Green (1987: 6, n.21) says that Junge was strongly influenced by Koschmieder because he uses several of the same examples.

basis that in the former the focus of attention is on the action and in the latter the focus is on the actor[24] (1987:89). His analysis will be referred to frequently in the rest of this study.

Depuydt (1993) regarded *sḏm.ḥr=f* as a "*Contingent aorist*" (See I.5.4 for a discussion of this term) but, like Gardiner and Westendorf, failed to distinguish it from any other verb form that appears in similar syntactical positions; in his case, his definition of what constitutes "*contingent*" is no different to the definition of a conditional, which can be expressed with various different verb forms. He also says "*Contingency involves an element of uncertainty, whereas causality does not. The element of uncertainty in a contingent relationship is that, when A is a condition of B, B may either happen or not happen. In a causal relationship, on the other hand, when A is a cause of B, A always inevitably leads to B. But what is certain in a relationship of contingency is that, for B to happen, A must have occurred*" (1993: 203) He does not explain, or maybe has overlooked, the clear examples where *sḏm.ḥr=f* is a result, caused by what directly precedes it (See section I.5.5.2) nor does he address the problem of how nearly all the examples of *ḥr sḏm=f*, which he regards as the same as *sḏm.ḥr=f*, are "*causal*" results (See section III.7). Depuydt is right about the generic properties of *sḏm.ḥr=f*, which he refers to as an "*aorist*", but only if one ignores his lack of distinction between *sḏm.ḥr=f* and *ḥr=f sḏm=f* examples. However, this idea was only one that Depuydt adopted, it having been first proposed by Junge in 1972. Loprieno (1995: 80) accepts Depuydt's contention that *sḏm.ḥr=f* is a "contingent" form but categorises it as "non-past" rather than specifically "aorist".

As far as the teaching grammars are concerned, Allen[25] accepts Vernus's argument and says that "*The sḏm.ḥr=f basically expresses necessary action, like the ḥr=f sḏm=f construction, and can generally be translated with the expressions "must" or "have to" before the verb itself*" (2010: §22.7)[26]. In the same section he also describes it as being "*tenseless*" and says that it can be used with reference to past or future actions, quoting the stela of Harwerre for the former and Himmelskuh 29 for the latter (see section I.15). Winand and Malaise also follow Vernus and describe *sḏm.ḥr=f* as a "*forme séquentielle*" and say that it denotes "*une consécution ressentie comme nécessaire*" (1999: §449). They paraphrase Vernus's assessment of it in §624 adding that it possesses "*aucune notion temporelle*" and can be translated with a future, a general present or the adverb "*nécessairement*". Winand, in a later work (2006: 373), further describes it as one of the "formes spécialisées dans l'expression du temps relatif". Callender's account of the *sḏm.ḥr=f* (1975: 40) is interesting but rather incoherent and lacking in supporting evidence, although the second might be expected in a teaching grammar. He describes the *sḏm.ḥr=f* as a *"generic tense"* in the title of the section in which

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[24] See section II.2 for a discussion of the validity of Green's viewpoint regarding the difference between the forms.

[25] The second edition of Allen's Middle Egyptian (2010) has been used in this study by virtue of it being much more expansive than, but not significantly different to, his third edition (2014).

[26] In his earlier work on the Pyramid Texts, Allen (1984: 324) had accepted Junge's argument (1972) that the *sḏm.ḥr=f* denoted a repetitive or normal action but had obviously changed his mind later in the light of Vernus' (1993) analysis.

he deals with it. This designation presumably comes from Junge because he gives no indication other than the title that this is the case, in fact, in his first example, he translates *stp.ḥr=f* from Papyrus Edwin Smith IX, 19-20 (Exx. 6 in this study) with a future: "*he will gag*". He states that "*The tense refers to events that must be performed by the nature of the situation, such as the proper following of a procedure or the operation of number combinations*" although how this relates to instances where *sḏm.ḥr=f* is not an instruction is unclear. He goes on to say that two different stems can be identified; the indicative stem and the emphatic stem and that the latter puts the emphasis on the adverbial phrase that follows it. For this assertion though, he provides no evidence that would justify this conclusion and, in fact, in the example he uses from Papyrus Rhind problem 50, provides his own *y* endings in brackets for *ḫb(i)* and *ir(i)*, which are not present in the original text. He translates one example of an instruction with "*you should subtract*" and the other with "*then you multiply*" so it is not clear whether he puts the general emphasis on the sequential nature or the modal nature of the verb form or whether he thinks either is appropriate. Borghouts, in his analysis of the *sḏm.ḥr=f* (2010: 57. a. 3) accepts Green's theory and says "[this] *complex, tenseless, pattern expresses a consequence, an expectable, logical outcome; the meaning of sḏm.ḥr=f is then (naturally/logically) he hears. The Consequential entails a new situation (which may extend into the future) and often amounts to a regularity. It can occur as a main-clause, including the apodotic clause of an antecedent-consequent sentence*".

Vernus has written the most convincing analysis of the the *sḏm.ḥr=f* form in which he concluded that "*events, actions or situations*, [expressed with *ḥr*], *far from haphazardly happening, are actually governed by an external norm or necessity*" (1990: 80) and goes on to list what those might be. Vernus's central argument, that *ḥr* is a marker of modal obligation, has been accepted here and will be refined in the chapters that follow although his contention that *ḥr=f sḏm=f* and *ḥr sḏm=f* are descendants of *sḏm.ḥr=f* is firmly rejected.

In the most recent treatment of *sḏm.ḥr=f*, Stauder (2013) discusses the *sḏm.ḥr=f* form at length but is much more concerned with how it can be used for dating texts rather than what it means. Following Vernus, whom he quotes often, he regards *sḏm.ḥr=f* as an ancestor of the *ḥr=f sḏm=f* but only sometimes translates *sḏm.ḥr=f* with a modal necessity construction, at other times using "*shall*".

In summary, all, except Vernus and those that accepted his ideas concerning *ḥr*, failed to give the *sḏm.ḥr=f* form a meaning distinct from that of any other verb form and nobody but Green had treated the *ḥr=f sḏm=f* and *ḥr sḏm=f* forms as anything other than a variant writing of the *sḏm.ḥr=f*. For Gardiner and Lefebvre, it was just a variety of future tense and, similarly, Westendorf's optative future was no different from a prospective. Depuydt's "*contingent aorist*" did not differ from a conditional, which can be expressed by many forms in Egyptian and Junge, although he recognised the *sḏm.ḥr=f* as being generic in nature did not address the problem of how it was different from a generic statement expressed with a *iw=f sḏm=f* form, nor did he separate it from *ḥr=f sḏm=f* and *ḥr sḏm=f*. Vernus was the first to provide a plausible explanation of the *sḏm.ḥr=f* form that took the contexts in which it appears into consideration and thereby the first to provide a convincing explanation as to how it differed from other verb forms that appear in the same syntactical positions. Green's argument was,

in essence, very similar to Vernus in that an external necessity was responsible for actions involving *ḥr* but for him logic was the only factor in a scribe's choosing to use it.

I.3 DISTRIBUTION OF *sḏm.ḥr=f* BY GENRE

The following statistics cannot be used alone to represent the frequency of the form in Egyptian as a whole; as always, we are only working with the extant texts, which represent only a fraction of the texts that originally existed. If, however, the range of genres over which *sḏm.ḥr=f* occurs, rather than the actual number of instances, is taken into consideration the distribution statistics can be used to draw some useful conclusions about the nature of the form.

On examination of the texts, one finds that the 678 occurrences of the *sḏm.ḥr=f* form from Middle Egyptian are fairly narrowly confined as far as genres are concerned. The biggest number of examples in a single text is found in Papyrus Ebers, which has 162 examples; the Moscow Mathematical Papyrus has 142; Papyrus Rhind 135; the Edwin Smith Papyrus 97; the Lahun Gynaecological Papyrus 47; the Lahun Mathematical Fragments have 15 examples in total and the Berlin Mathematical Papyrus 6619 has 12 examples. There are a further 53 examples from the Coffin Texts and one, which is also the earliest example, from the Pyramid Texts (Exx. 20). In addition to these there is a single example from the Tale of the Eloquent Peasant (See I.14) as well as one from the Old Kingdom instruction to the living in the tomb of Sobekemkhent (Exx. No. 77).

Genre	Number of examples
Medical	316
Mathematical	306
Coffin Texts/Pyramid Texts	54
Literature	1
Appeal to the living	1
Letters	0
Total:	678

Fig. 5. Distribution of sḏm.ḥr=f form by genre

As far as the distribution of the form within the types of texts in which it occurs is concerned; 47%, of the examples appear in the medical texts and 45% in the mathematical ones; the Coffin Texts make up 7.5% and the appeal to the living and literature, being represented by only one example each, make up less than 0.5% of the total.

The distribution of the *sḏm.ḥr=f* form in Middle Egyptian is therefore fairly clearly defined; it appears overwhelmingly in contexts where instructions are needed to achieve a particular outcome. Junge had already written about the *sḏm.ḥr=f*:

"*mit Ausnahme dreier Stellen (und einer unklaren) aus der Literatur werden nur Belege aus der Amtseinsetzung und Dienstordnung des Wesirs aufgeführt, die ja beide als administrative Dokumente mit den mathematischen und medizinischen Texten*" (1972: 133) [27]

Green terms this, at first, the "*expository discourse*" genre and defines it as being associated with:

"*contexts of clearly didactic nature to which it appears that the writer wished to impart an air of impartiality, objectivity and 'scientific treatise'*" (1987; 22)

He then renames the genre, much more appropriately, as '*procedural texts*' (1987: 23), a term which will be used henceforth. Borghouts also uses the term "*procedural texts*" saying that *sḏm.ḫr=f* (although he does not distinguish between that form, the *ḫr=f sḏm=f* and the *ḫr sḏm=f*) "*is regularly found in contracts, handbooks of medicine and mathematics and in similar procedural texts*" (2010: 208)

Vernus writes, talking specifically about *sḏm.ḫr=f* rather than "*ḫr*-headed constructions" that "*The overall picture from these data is fairly coherent: sḏm-ḫr.f and wn-ḫr.f are mainly used in religious texts and scientific texts from the end of the Old Kingdom onwards*" (1990: 64). Depuydt (1993) seems unconcerned with the wider contexts in which the form appears, confining himself to the examination of narrow correlative systems from within texts.

For the sake of accuracy, it is worth pointing out in which contexts *within* these genres of texts the *sḏm.ḫr=f* appears as well as those genres in which it doesn't appear at all.

I.3.1 *sḏm.ḫr=f* IN THE MEDICAL TEXTS

The *sḏm.ḫr=f* is used for:

a. Issuing instructions for procedures needed to cure the patient (see section I.9.1)
b. In diagnoses, in the form of *ḏd.ḫr=k r=s* (see section I.9.1.4)
c. In the "glosses" to provide physiological explanations for various internal conditions[28] (see section I.11).
d. The expression of results (See section I.5.5.2).

In the Lahun Gynaecological Papyrus, which is the earliest of the medical texts as far as the physical date of the manuscript is concerned, the *sḏm.ḫr=f* form is used only for instructions and in diagnoses although it should be noted though that it contains no glosses. In the Edwin Smith Surgical Papyrus, *sḏm.ḫr=f* is not used for diagnoses and in Papyrus Ebers it is used in all the capacities listed above.

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[27] Another characteristic of these types of texts, as Junge points out, is "*in eine Textkategorie gestellt werden können, nämlich der gnomischer und allgemeingiltiger Aussagen und zeitstellenwertloser Mechanismen.*" (1972: 133). This is discussed further in section I.5.1

[28] Papyrus Ebers §855k (Exx. 84); §855l (Exx. 15); §855n (Exx. 16); §855q (Exx. 87), Papyrus Edwin Smith I, 26 (Case 3, Gloss C) (Exx. 88)

I.3.2 *sḏm.ḫr=f* IN THE MATHEMATICAL TEXTS

In the mathematical texts all the instances of *sḏm.ḫr=f* are instructions describing the procedure to make sure the reader gets the sum right. Even those that have been interpreted as results (see section 1.5.5.1) are part of the procedure.

I.3.4 *sḏm.ḫr=f* IN THE COFFIN TEXTS

In the Coffin Texts *sḏm.ḫr=f* is almost exclusively used for issuing instructions designed to make sure a dead man reaches the afterlife or to help him survive there. At first sight 53 examples of *sḏm.ḫr=f* coming from the Coffin Texts seems a considerable number but a closer examination of how they are distributed within that corpus shows us that the instances are confined to just 12 spells[29] and, of the 53 occurrences, 37 come from two variants of one spell, the "*Guide to the Hereafter*"; from which there are 17 examples in spell 404[30] and 20 in spell 405[31]. There are over 1300 spells in the Coffin Texts corpus[32] so it can hardly be said that the *sḏm.ḫr=f* form is typical of the genre as a whole; at most it can be said that the form was used in particular types of spell. When the Coffin Text spells containing *sḏm.ḫr=f* are examined we find that they are all of a particular type in that they contain instructions; none of the other spells contain any instructions whatsoever, all consist of a title and words to be said to a particular god or goddess or a pronouncement by the deceased[33]. Like the mathematical and medical texts, the Coffin Text spells that contain *sḏm.ḫr=f* forms show a particular way to proceed in order to achieve a particular aim, in this case to reach and navigate the Afterlife safely.

I.3.5 *sḏm.ḫr=f* IN LITERATURE

The example from the Tale of Eloquent Peasant, which appears in a literary text in direct speech, does not fit into the category of procedural texts but, as an epistemic usage of the *sḏm.ḫr=f*, is an instruction of sorts[34] and is discussed in detail in section I.14. The Tale of the Eloquent Peasant is the longest literary text we have from Middle Egyptian and contains a vast variety of verb forms. Many other literary texts are also very long and wide-ranging in their choice of verb forms yet do not use *sḏm.ḫr=f*. It could therefore be concluded that the form was not particularly suited for literary endeavours.

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[29] Spells 160, 373, 404, 405, 554, 469, 650, 818, 829, 1109, 1134 and 1165
[30] This spell also has the only certain example of *ḫr=f sḏm=f* from the Coffin Texts.
[31] Using Faulkner's (2015) numbering
[32] Faulkner's (2015) divisions added to those of Allen's supplementary volume (2006). Other writers divide the spells up differently.
[33] There are also two examples from Spell 160 (Exx. 17) and Spell 404 (Exx. 5) which contain rare examples of *sḏm.ḫr=f* being used to express results (See section I.5.5)
[34] See section I.11. for the similarity between epistemic *sḏm.ḫr=f* and instructions.

I.3.6 *sḏm.ḫr=f* IN THE APPEAL TO THE LIVING

The example of the *sḏm.ḫr=f* form (Exx. 77) that appears in the tomb of Sobekemkhent (Drioton & Lauer 1958: 240) in the appeal to the living also falls into the category of procedural texts. It is an instruction to passers-by which is designed to achieve a particular aim, in this case sustenance for the deceased, in the afterlife. This is also the only example of the *sḏm.ḫr=f* form from an appeal to the living; all the others use the imperative, the subjunctive or the *sḏm.k3=f* form[35] in the same position.

I.3.7 GENRES IN WHICH THE *sḏm.ḫr=f* FORM IS ABSENT

WISDOM TEXTS

One might ask why the Wisdom Texts[36], which are similar to the procedural texts in that they have a stated aim and describe the means for achieving it, contain no examples at all of the *sḏm.ḫr=f* form. This absence of instructions framed in the *sḏm.ḫr=f* can be explained if we take into consideration from whom the instructions issue and their purpose. The Wisdom Texts are all ascribed to specific authors such as Ptahhotep, Kagemni or Hardjedef; the authority for the instructions is specified and is human. Although the word of the great sages obviously carries considerable weight, they are offering their own advice; the authority behind them is *personal* and there is no obligation to follow it, the reader can choose to accept the advice given or not. The instructions are expressed with prospectives and subjunctives and are therefore milder (See Introduction, p. 8); one doesn't have to listen to the advice given but it will improve one's situation if one does. In contrast to this, in the medical, mathematical and coffin texts, no one person is ever named as an authority[37]; the obligation to carry out an instruction framed in *sḏm.ḫr=f* comes from centuries of tradition and the desire for an *exact* outcome. Ignoring that instruction, or doing anything else, would result in the wrong outcome; the patient would not be cured, the sum would be wrong or the deceased would not reach the afterlife. These are exact sciences, in the Egyptian mind at least, and have measurable outcomes. The reason for which *sḏm.ḫr=f* forms are not used in the Wisdom Texts could therefore be seen in terms of consequences and penalties; listening to advice is beneficial but ignoring it has less serious consequences whereas listening to *sḏm.ḫr=f* instructions is essential and ignoring them has catastrophic consequences. This has in fact been mooted as the difference between "*should/ought to*" and "*must/have to*" in English and between *sollen* and *mussen* in German[38].

LETTERS

Letters also contain many instructions but the *sḏm.ḫr=f* form does not appear in them either; like the Wisdom Texts, the imperative or the *sḏm=f* is virtually always used to express

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[35] For the *sḏm.k3=f* forms see Shubert 2007: 37; 48; 49.

[36] Although there is one example of a *ḫr sḏm=f* form (Exx. 125) and two other constructions preceded by *ḫr* (Exxs. 144 and 146)

[37] Although their composition is occasionally ascribed to Thoth.

[38] See Bybee et al (1994:186) and, for an overview of various MLL views on "weak" necessity, Portner (2009: 79-82)

instructions and in the eight cases where *ḫr* does appear it is the *ḫr=f sḏm=f* construction that is used. This can be explained by the fact that letters nearly always deal with specific circumstances rather than general ones, making *sḏm.ḫr=f*, as a generic construction, unlikely to appear. [39]

NARRATIVE

The Stela of Harwerre from Serabit el-Khadim (Gardiner et al 1952: Pl. XXVA) is included by nearly all commentators in their corpus as the only Middle Kingdom example of *sḏm.ḫr=f* used in a past narrative context but, as will be seen in section I.15, labelling that example as a *sḏm.ḫr=f* form is erroneous and there are in fact no examples of narrative usages before the 18th dynasty.[40]

I.4 CHRONOLOGICAL DISTRIBUTION OF *sḏm.ḫr=f*

The earliest examples of the form come from the Old Kingdom, the first being from the Pyramid texts of Teti in a spell addressing the goddess of the *ḥdn* plant (PT 696g (Spell 400) (Exx. 20). The spell reoccurs in exactly the same form within the same sequence of spells as that of Teti in the pyramids of Pepi I and Pepi II and for this reason all three will be treated as one example in this study. There is a further example of *sḏm.ḫr=f* from the sixth dynasty that appears in the appeal to the living written on the door lintel of the royal seal-bearer Sobekemkhent (Drioton and Lauer 1958: 240) (Exx. 77).

There are several groups of texts that physically date from the Middle Kingdom containing examples of *sḏm.ḫr=f*. The largest number of examples come from the Coffin Texts (53 instances)[41] followed by the Lahun Gynaecological Papyrus (47 examples), the Lahun Mathematical Papyri (15 examples), the Berlin Mathematical Papyrus 6619 (12 examples), and the Lahun Veterinary text (10 examples). In addition, there is one occurrence of the form in the Tale of the Eloquent Peasant (B1, 219).

The remaining examples of *sḏm.ḫr=f* are from texts written in Middle Egyptian (See Introduction, p. 1 for the definition used here) but physically dating from after the middle Kingdom. They come from the Second Intermediate Period or the eighteenth dynasty and are in Papyrus Ebers (162 examples), the Moscow Mathematical Papyrus (142 examples), Papyrus Rhind (135 examples) and Papyrus Edwin Smith (97 examples).

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[39] The difference between *sḏm.ḫr=f* and *ḫr=f sḏm=f* is addressed in detail in chapter II

[40] There are several examples from égyptien de tradition of *sḏm.ḫr=f*, all constructed with *wn* which can be said to be in a narrative context but have no inherent time value. They are presented in Appendix A.1.4.1.

[41] Although dating to the Middle Kingdom, it is debatable whether the Coffin Texts are written in 'Classical" Middle Egyptian or not; they contain many examples of Old Egyptian constructions, pronouns and demonstratives. As they are included in most standard Middle Egyptian Grammars they have been classed as Middle Egyptian for the purposes of this study.

The form continued to be used throughout the 18th dynasty in égyptien de tradition and beyond (See Appendix A)

I.5 CHARACTERISTICS OF *sḏm.ḫr=f*

The majority of the examples of *sḏm.ḫr=f*, which is about 70%, have a second person subject and all of these are instructions intended to achieve a particular aim (See section I.9). Most of the examples with a third person subject, of which there are 168, also have a teleological conversational background but eleven are results (see section I.5.5.2). There are a further six examples where *sḏm.ḫr=f* expresses epistemic conclusions regarding the internal workings of the body or mind (See section I.11). First person examples are also very rare, only four examples in total are found (See section I.8) and passives are not particularly common either with twenty examples attested (See section I.7). It can also be seen from the table that only third person forms are attested with circumstantial, deontic and epistemic conversational backgrounds.

	1st person	2nd person	3rd person	*sḏm.ḫr + tw* + subject [42]	*sḏm.ḫr + tw* (without a subject) [43]	Total
Teleological	4	448	175	5	16	648
Circumstantial			11			11
Deontic			13			13
Epistemic			6			6
Stereotypical						
Total	4	448	205	5	16	**678**

Fig. 6 Person/conversational background distribution of sḏm.ḫr=f

I.5.1 THE TEMPORAL ASPECT OF *sḏm.ḫr=f*

All but two of the Earlier Egyptian occurrences of *sḏm.ḫr=f* appear in the medical, mathematical or Coffin/Pyramid Texts[44]; there are no narrative examples of *sḏm.ḫr=f* and no examples from letters. Unlike letters, which specify an exact time at which an action is being, was, or is to be carried out and deal with matters of a specific rather than a general nature[45], a cure, a calculation or a spell may be needed at any time and more than once.

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[42] See I.7 and Stauder (2014)

[43] This construction is treated in this study as an impersonal one ("*someone has to hear*") for ease of translation rather than on morphological grounds. Stauder has valid objections to treating the *tw* of the *sḏm.tw=f* form as an impersonal pronoun (2014: 16-19) and refers to *sḏm + tw* for transitive verbs without a following subject as "*subjectless passives*". He says that an active impersonal with *tw* by itself exists after the 12th Dynasty (2014: 18) but doesn't appear to provide any convincing evidence to eliminate this reading for earlier "*subjectless passives*".

[44] The two exceptions are from the Tale of the Eloquent Peasant B1, 219 (See section I.14) and an Appeal to the Living (Exx. 77)

[45] See section II.5

Furthermore, whenever it is needed, the procedure is always the same; seeing a man suffering from a particular set of symptoms or being asked to work out the answer to a particular problem by a scribe always triggers the same reaction, namely the *sḏm.ḥr=f* clause, which happens whether the man is seen, or the scribe asks, today, tomorrow or at any other time. The procedure may be repeated as many times as needed, whenever needed and in relation to any patient or client; the time at which the instruction framed by the *sḏm.ḥr=f* form is valid is not confined to a particular point in time, it has to be done *whenever* or *every time* the circumstances specified in the text are true. For instance, Papyrus Ebers §189 (Exx. 50):

ir ẖ3=k s ḥr mn r-ib=f iw ꜥt nbt dns.ti r=f mi bsw n wrdt rdi.ḥr=k ḏrt=k ḥr r-ib=f

"Whenever you examine a man suffering stomach-pain and all his limbs are heavy because of it, like the swelling from fatigue, you have to put your hand on his stomach"

That the procedures are not confined to a specific moment in time is further demonstrated by the fact that none of the procedures expressed with *sḏm.ḥr=f* can be tied to a specific person. Unlike letters or narrative, which always specify the actor, no names of doctors, patients, mathematicians or students are ever given and the person carrying out the procedure expressed by *sḏm.ḥr=f* is never named; in the medical and mathematical texts the subject is virtually always the indeterminate "*you*", or occasionally the impersonal *tw*, and in the Coffin texts *s* "*a man*"[46]. The only named subjects of *sḏm.ḥr=f* forms in the procedural texts come from the Coffin Texts and are gods, goddesses and guardians of gates who are equally not tied to an exact moment in time; their presence is constant, and they are always there at whatsoever time any dead person encounters them, just like the gate to which they are attached. For instance, in example 102[47]:

> *spr.ḥr=f r=f r ky sb3 gmm=f snwy im ꜥḥꜥ ḏd.ḥr=sn n=f m sn=n ṯw*

> *"He has to approach another gate and it is there that he finds the Two Sisters waiting. They have to say to him 'Come, so we may kiss you'*

Furthermore, *sḏm.ḥr=f* appears very frequently alongside the *iw=f sḏm=f* form, which already has a well-established use for making statements of a general nature, as well as alongside non-verbal constructions, which have no inherent tense. For instance, Exx. 5 where the *sḏm.ḥr=f* forms are bracketed by *iw=f sḏm=f* forms:

> *ir rẖ r pn*
> *iw=f h3=f r sẖt-j3rw*
> > *iw di.tw n=f […a long list of cereals…..]*
> > *in šms [ḥr] 3sẖ st*
> > *wšꜥ.ḥr=f nn n it nn n bd[ty]*
> > *sin.ḥr=f ḥꜥ=f im*
> > *wn.ḥr ḥꜥ=f [w3ḏ] mi nn n nṯrw*

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[46] Stauder, although without reference to its appearance in the Coffin Texts, concludes "*Constructions with s 'a man' thus provide one way to leave the identity or reference of a participant unspecified'* (2014; 189).

[47] See section I.10 for more gods associated with *sḏm.ḥr=f* forms.

iw=f pr=f m sḫt-iȝrw m ḫprw nbw mrr=f

"As for the one who knows this spell he goes down to the field of rushes and […a long list of cereals…] is given to him. It is the Followers of Horus who reap it. He has to chew the barley and the emmer, he has to rub his body with it and his body has to be green like the gods. He leaves the Field of Rushes in whatever form he wishes"

Or, in Exx. 14, in the description of the illness, the *sḏm.ḫr=f* form is parallel to a *iw=f sḏm=f* form, a non-verbal construction and three *n sḏm.n=f* forms; the negative equivalent of the *iw=f sḏm=f* form.

ir m33=k ḫry stt m nkw nḫt ḫt=f ḫr=s
iw=f mn=f r-jb=f
wnn stt=f m ḫt=f
n gm.n=s wȝt nt prt
n grt wȝt prrjj=s jm=f
ḥwȝ.ḫr=s m ḫt=f n pr.n=s ḫpr sy m ḥsbwt

Whenever you see someone who has *stt*, consisting of sharp pains and his belly is stiff because of it, who is sick to his stomach and his *stt* is in his body and it does not find a way of going out and there is no way by which it may go out, it has to rot in his body and, being unable to go out it turns into worms.

To bring out the generic nature of *sḏm.ḫr=f*, it seems therefore sensible to translate it with a general present and, where *ir* is present to translate it as "*whenever*".

It might be said then, because it only appears in contexts with no fixed time and never has time-specific actors that the *sḏm.ḫr=f*, as far as "tense" is concerned is a generic verb form. This had already been pointed out by Junge who said that the *sḏm.ḫr=f* form, was used for making statements of "*gnomischer und allgemein-gültiger Aussagen und zeitstellenwertloser Mechanismen*" (1972: 133) and was therefore especially useful for the "*procedural*" texts. Vernus though (1990: 82) says that "*generic tense*", as put forward by Junge, does not sufficiently account for the uses of *sḏm.ḫr=f* and in support of his argument refers us to examples of *ḫr* constructions that are case specific but are, in fact, all *ḫr=f sḏm=f* or *ḫr sḏm=f* forms, which he regarded as developments of the *sḏm.ḫr=f* form. Vernus's arguments against the *sḏm.ḫr=f* being a generic tense, is therefore predicated on *sḏm.ḫr=f* and other *ḫr* constructions being variants of one another so, if we were to abandon this idea and separate the forms into a generic *ḫr* construction (*sḏm.ḫr=f*) and other *ḫr* constructions (*ḫr=f sḏm=f* and *ḫr sḏm=f*), as the present study has done, Vernus' objection to Junge's argument is invalidated. Equally, Junge's argument is actually strengthened by separating the *ḫr=f sḏm=f* and *ḫr sḏm=f* forms, the majority of which do not come from the procedural texts and are therefore unlikely to be generic.

I.5.2 THE *sḏm.ḫr=f* AS AN "AORIST"

The *sḏm.ḫr=f* has often, and erroneously, been described as an "*aorist*" [48], a term that is usually applied to a very specific Greek verb form which has several different usages. *sḏm.ḫr=f* does have a superficial similarity with the Greek aorist in that both may be used to make statements of a "*gnomic*" nature about events which generally happen but, unlike the *sḏm.ḫr=f*, which, in Middle Egyptian at least, never refers to episodes that take place in the past, the Greek aorist is nearly always used for telling stories and is usually classed with the perfect tense by linguists. Its generalising use is confined to very few and very specialised contexts, indeed Goodwin, in *A Greek Grammar*, one of the most widely used reference grammars for Classical Greek, says only that "*The aorist corresponds generally to the indefinite or historical perfect in Latin*" (1963: §450) and classes it among the "*historical*" tenses (1963: §448), without even mentioning what its other uses are [49]. Koschmieder had compared the Coptic ϢⲀⲢⲈ pattern, which is the descendant of the *sḏm.ḫr=f* form, with a Turkish verb form [50] which was used in "*Sätzen, deren Inhalt allgemeingültig ist und keinen individuellen Platz im kalendarisch chronometrischen System, d.h. keinen "Zeitstellenwert" hat*" (1945; 35). He used the term '*ausserzeitlichkeit*' to describe it and, as long as the *sḏm.ḫr=f* form is distinguished from the *ḫr=f sḏm=f* and the *ḫr sḏm=f* forms, this is a much more fitting comparison with the *sḏm.ḫr=f* than the Greek aorist and avoids the connotations of past narrative inherent in that form. Koschmieder's analysis of the ϢⲀⲢⲈ pattern was then applied by Junge to the *sḏm.ḫr=f*, *ḫr=f sḏm=f* and *ḫr sḏm=f* constructions, which he saw as one and the same, but, despite Koschmieder's explicitly stating the unsuitability of an identification of the *sḏm.ḫr=f* with the Greek aorist, Junge used it anyway as a point of comparison (1972: 136). The innapropriate designation "*aorist*" entered general Egyptological writing, not just for the *sḏm.ḫr=f* but the *iw=f sḏm=f* form, and eventually formed the basis of Depuydt's argument that *sḏm.ḫr=f*, and for that matter any other *ḫr* construction, were "*contingent aorists*" (1993) (see section I.5.4).

I.5.3 *sḏm.ḫr=f* AS A MARKER OF MODAL OBLIGATION

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[48] Green (1987; 1-6) wrote extensively on the history of the use of the term "*aorist*" in Egyptology, especially as used by Coptologists, and the confusion it has engendered. He came to the conclusion that the description is wholly unsuitable for the *sḏm.ḫr=f*, or indeed any other *ḫr* construction. See section I.5.2.

[49] It could actually be said that the *sḏm.in=f* form, which is used as an episodic narrative form in Egyptian as well as appearing in generalising contexts in the medical texts (I.9.1.4), has muchmore in common with the Greek aorist than the *sḏm.ḫr=f* does.

[50] Also sometimes known as an "*aorist*" although Koschmieder rejected any association with the Greek aorist.

Being a generic verb form is one of *sḏm.ḥr=f*'s characteristics but not, as Junge thought, its sole function. The *iw=f sḏm=f* form is also used to make generic statements[51] and, as Depuydt had pointed out, either that form or the *sḏm.ḥr=f* must be a "*marked aorist*" (1993: 212), meaning that it was generic in nature but had a special nuance. The obvious candidate was the *sḏm.ḥr=f*, which appears only in very specialised contexts, namely procedural texts, and, on this basis, Depuydt surmised that the *sḏm.ḥr=f* was the specialised "*aorist*" form. However, he thought the particular nuance carried by *ḥr* was "*contingency*", a hypothesis for which he failed to make a convincing argument (See I.5.4). Vernus, who did not believe that the *sḏm.ḥr=f* was generic, was working on the basis that *sḏm.ḥr=f*, and all the other "*ḥr* headed constructions*", were "*marked sequentials*" and, for him, the wider contexts in which *sḏm.ḥr=f* appeared were the key to understanding its meaning. He came to the conclusion that all the examples of *ḥr* are governed by an "*external norm or necessity*" and went on to describe, in a roundabout way, modal obligation. This conclusion is undoubtedly broadly correct but Vernus makes no explanation as to how he reached it apart from saying that "*external norm or necessity fits*" (1990: 80).

The following reasoning process may be advanced to demonstrate that the *sḏm.ḥr=f* form is associated with modal obligation: The type of texts in which *sḏm.ḥr=f* appears most frequently are the procedural texts, which have a clearly defined procedure that leads to a clearly defined result; a correct sum, a cure for a sickness or survival in the afterlife. The standard way of issuing an instruction in these texts is the *sḏm.ḥr=f* form and not the imperative or the subjunctive. The fact that the procedural texts rely on the *sḏm.ḥr=f* means that the force behind the instruction is different to that of an imperative and must be either weaker than the speaker, or transcends him. Considering what is at stake; a man's life or his afterlife, it is almost certain that the force behind the instruction is stronger than the speaker; the instructions are therefore both external to a speaker and carry more weight than he.

That the force behind the instruction which is expressed with the *sḏm.ḥr=f* form is modal obligation, can be shown by the mathematical texts. The instruction *ḫpr.ḥr* # is very common in the mathematical texts and means that a certain number has to appear when a certain calculation is done correctly (See I.5.5.1). For instance, Papyrus Rhind problem 40:

ir.ḥr=k wȝḥ-tp *m 1* $\frac{2}{3}$ *r-sp 23* **ḫpr.ḥr** *38* $\frac{1}{2}$

*"**You have to multiply** 1* $\frac{2}{3}$ *by 23 and 38* $\frac{1}{2}$ ***has to appear***

If the student following the instructions were to arrive at any other number than 38 $\frac{1}{2}$, he would be defying inviolable laws of nature; there is only one possible answer to multiplying 1 $\frac{2}{3}$ by 23 and that is 38 $\frac{1}{2}$ or, in terms of modal logic it is not possible that the answer to 1 $\frac{2}{3}$ x 23 is not 38 $\frac{1}{2}$ therefore the student is instructed, via the *sḏm.ḥr=f* form to make it so. No matter what authority the speaker has, or the student has, he cannot change the fact that the answer

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[51] For instance: Coffin Texts V 200b (Spell 404) *iw=f pr=f m sḫt-iȝrw m ḫprw nbw mrr=f* "*He leaves the Field of rushes in any form he might wish*" (Exx. 5) or The Eloquent Peasant B2, 98 *ir šm grg iw=f tnm=f* "*Whenever Falsehood moves it goes out of control*"

to the sum $1\frac{2}{3}$ x 23 is $38\frac{1}{2}$; there is no alternative answer whatsoever. The removal of alternatives is not only an essential characteristic of correct sums but also the defining characteristic of modal obligation (see Introduction, p. 4) and this provides a strong link between *sḏm.ḫr=f* and modal obligation. The notion that there is a lack of alternatives is also a characteristic of all the procedural texts; all the steps must be completed to achieve the desired result and every step is necessary. A remedy for a patient cannot be made until he has been correctly diagnosed, a final sum cannot be done until the right answer is obtained for each individual stage of the problem and a dead man cannot pass to the next gate until he has overcome the guardian of the one he is at. This could be expressed by using imperatives or subjunctives but there would not be the (theoretical at least) guarantee that the procedure would be carried out properly. As a point of comparison, the Wisdom texts, which never use the *sḏm.ḫr=f* are divided into topics but not steps; one could dip in and out of them in no particular order and one does not have to carry out a particular piece of advice before acting on the next, there is also a choice about the order in which they are read and whether the advice is followed or not. On the other hand, with mathematical, medical or Coffin Texts one cannot skip any of the steps and still reach the next one, an alternative course of action will result in the wrong outcome, hence the need to narrow the course of action down to one alone and hence the use of modal obligation in the form of a *sḏm.ḫr=f* form.

I.5.4 *sḏm.ḫr=f* AS A "CONTINGENT AORIST"

Depuydt (1993) accepted Junge's argument that *sḏm.ḫr=f* was an "*aorist*", the unsuitability of which term is dealt with above in section I.5.2, but hypothesised further that its very function is to express contingency, a concept which he defines as being dependent on conditions but not caused by conditions[52]. Firstly, as Polis (2005: 1) has already said regarding "*contingency*": "*d'un point de vue strictement linguistique, une telle catégorie constituerait, à ma connaissance, un véritable hapax typologique*". Secondly, Depuydt's definition is actually contradicted by the texts that involve *sḏm.ḫr=f* when its occurrences are examined closely; the only time the presence of a *sḏm.ḫr=f* form is dependent on what immediately precedes it, in that it has a circumstantial conversational background, is in direct cause and effect sentences where the *sḏm.ḫr=f* form is a result (See section I.5.5), the very kind of sentences in which he says it isn't employed (1993: 203)

His argument that *sḏm.ḫr=f* is "*contingent*" was based on the fact that it often appears following conditional clauses. The best indicator of a conditional clause in Egyptian is *ir* and it is true that a good proportion of *sḏm.ḫr=f* forms follow *ir* clauses. The connection between *ir* and the *sḏm.ḫr=f* form is in fact nothing like as strong as Depuydt supposes and the examples of *sḏm.ḫr=f* where it is not preceded by *ir* vastly outnumber those where it is. The impression of them appearing together very often is given only because *ir* starts many of the

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[52] Junge (1972: 135) also says that conditions are a prerequisite for the use of the *sḏm.ḫr=f* form but does not develop this argument.

consultations in Papyrus Ebers, the longest of the medical texts, as well as introducing the examination section of all the cases of Papyrus Edwin Smith. However, the Lahun medical papyrus never uses *ir* at the beginning of a consultation, only where an alternative treatment is specified. The frequency of *ir* in Papyrus Ebers and Papyrus Edwin Smith can be explained by the variety of different diseases or injuries of different parts of the body with which they deal; practising as an all-round doctor or surgeon gives rise to a large number of different encounters with different patients sporting different diseases or injuries. The lack of *ir* in the Lahun Gynaecological Papyrus may be explained in the same way; it only deals with a specific branch of medicine and the potential ailments are much fewer in scope. In all the medical texts, their step by step structure also gives rise to different *potential* outcomes for stages of the treatment that require *potentially* different ways to proceed, hence the use of *ir* for alternative courses of treatment.

On the other hand, the mathematical texts contain many *sḏm.ḥr=f* forms but hardly any examples of *ir*, in fact, in Papyrus Rhind, out of eighty-seven problems only four (Problems 30; 47; 68; 80) start with the conditional construction *ir ḏd n=k sš "If a scribe says to you"*, all the rest just launch into the problem and the vast majority of them start with *tp n irt/ḥsb/wȝḥ* "*Instruction for doing/reckoning/calculating*". In the Moscow Mathematical Papyrus all 45 problems begin with the *tp n irt/ḥsb/wȝḥ* formula as do the problems in the Lahun Mathematical Papyri, at least where the beginning of a problem survives.

Depuydt, to test his hypothesis, says that conditions, which trigger the use of *sḏm.ḥr=f* have to be supposed, saying:

> "*It may be conjectured that dependency on conditions is not just a feature of contexts in which sdm.hr=f typically appears, but perhaps its very function. As a contingent aorist, sdm.hr=f could be distinguished from the general aorist jw=f sdm=f. Verifying this hypothesis involves showing that sdm.hr=f, when not preceded by an explicit protasis, depends on conditions that can be implied from the context. What follows is a representative selection of such instances.*" (1993: 214)

He then uses Coffin Texts Spell 404 (Exx. 5) to demonstrate this idea:

jr <r>ḫ r pn

jw=f hȝ=f r Sḫt-jȝrw
   jw dj.tw n=f [……..]
   wšꜥ.ḥr=f *nn n jt …*
   [s]jn.ḥr=f *ḥꜥ=f jm*
   wn.ḥr ḥꜥ=f *[wȝḏ] mj nn n nṯrw*
   jw=f pr=f m Sḫt-jȝrw m ḫprw nbw mrr=f[53]

He translates it as follows: "*Whoever knows this spell enters the Field of Rushes and (all sorts of food) is given to him. If so, he chews (these foods), rubs his flesh with it, and his body is*

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[53] This is Depuydt's (1993: 217) transliteration

healthy like that of these gods. (Whoever knows this spell) leaves the Field of Rushes in all transformations he desires.".

It seems at first that Depuydt is treating "*whoever*" as a conditional despite the section being introduced with *ir rḫ*, which is not strictly a conditional and Depuydt himself has not translated it as one. *ir rḫ* (without a following subject) is used here to specify a particular person; it refers to any man who *does* know the spell and *which* man is in question, not whether he knows the spell or not. If Depuydt were right about *sḏm.ḫr=f* expressing "*contingent*" tenses, entering the field of rushes and being given food should also be expressed by *sḏm.ḫr=f* as they are also dependent on knowing the spell, according to his explanation anyway. It transpires though that he regards the *sḏm.ḫr=f* forms (chewing the foods, rubbing the flesh and being healthy) as being dependent on the conditions of entering the field and being given the food (1993: 218); the fulfilment of neither of the conditions for which seems to be put into the slightest question by the context.

Depuydt (1993: 218) then uses an example from the Coffin Texts Spell 404 (Exx. 43):

> **spr.ḫr=f** *r=f r ky sbꜣ gmm=f snty im ꜥḥꜥ* **ḏd.ḫr=sn** *n=f m sn=n ṯw ḫr=sn šꜥ=sn šrt ḥnꜥ spt nt ḫm rn=sn*

He explains it in a similar way by saying that the two guardians of the gate speaking is dependent on the condition that "*all went well at the previous gate*". This is also his explanation for all the occurrences of *sḏm.ḫr=f* in the mathematical papyri; one can only proceed if all went well with the previous sum. If this were the case, the "*contingent*" properties that he claims for the *sḏm.ḫr=f* would apply equally to any sequence of imperatives, which also have no time designation and have to be carried out before one can proceed with the next one; the same would apply to a chain of prospectives. Depuydt continues his argument by presenting the Stela of Harwerre as an example of the *sḏm.ḫr=f* having implied conditions. Although the Stela of Harwerre is not actually an example of a narrative *sḏm.ḫr=f* (See section I.15), if, following Depuydt, we were to include it and expand the definition of contingent to include anything following a generic statement we would cover nearly every part of speech. He also posits conditions for the example from the Eloquent Peasant B1, 219 and translates: "*Then the son of Meru errs,*" noting "*that is, if this is how he typically reacts to petitioners asking for help, namely having them whipped*" (1993: 220). This example is addressed in detail later on in this paper (section I.14) but Depuydt's interpretation is beset with the same problem as his other examples with implied conditions; the parameters for what constitutes contingent have been expanded so far as to be nearly meaningless.

Furthermore, if *sḏm.ḫr=f*'s function is to explicitly mark an action dependent on conditions it is hard to see how it would differ from any other verb form that appears as an apodosis to an *ir* protasis. If the conditions are already marked by *ir*, than which a more explicit marker of conditions it is hard to think of, it is extremely unlikely that the "*contingent*" nature would have to be further marked.

By Depuydt's reckoning, any sequence of events, expressed in any verb form at all is rendered "*contingent*", whether it takes place in the past[54], present or future or is generic. Depuydt actually says this at one point:

> "*Although, logically speaking, every event depends in one way or another on the occurrence of previous events, the specific flow of discourse only occasionally creates a need to make this dependency explicit. Whenever this need arises, a contingent tense is used in Middle Egyptian.*" (1993: 202-3)

The proposition that everything is contingent on something is one that may be argued convincingly, although it is one for philosophers to debate, but if *sḏm.ḥr=f* were to be a "contingent" verb form, with the parameters that Depuydt gives it, one would expect to see it an awful lot more often. Depuydt also fails to demonstrate why the examples with *ḥr* are so especially contingent that the "*need to make this dependency explicit*" arises. It would seem more likely that if the contingent nature of an event was made doubly explicit by using both *ir* and *sḏm.ḥr=f* it would mean "*if, and only if, this is the case you would….*", a possibility that Depuydt does not consider.

In all the examples that lack *ir* Depuydt has imposed an extra, and wholly unnecessary condition, on the analysis. It seems a fair assumption that anyone reading a mathematical papyrus, or a medical papyrus wants to be able to do the sum or to cure the patient; they would not otherwise be consulting it. There is no condition implied in the straightforward title *tp n ḥsb*; what follows *is* the method of doing it for *whenever* you want to do it and *because* you want to do it not *if* you want to do it. In the example from the Eloquent Peasant B1, 219 it is not *if* Rensi acts in this way, we are specifically told he *does* act like this and, in that particular case, Depuydt's analysis suffers from being both contrived and not fitting the context.

Conditionals preceding *sḏm.ḥr=f* are only restrictors as to when the modal expressed by *sḏm.ḥr=f* is valid, just as is the case for any other verb form dependent on conditions, and the use of a *sḏm.ḥr=f* form is triggered by the presence of a particular conversational background (See Introduction, p.5).

I.5.5 *sḏm.ḥr=f* AS A RESULT

According to several eminent scholars, one of the main functions of *sḏm.ḥr=f* is to introduce results. Gardiner (GEG §431.1) says that the *sḏm.ḥr=f* is common in "*statements of result*" and quotes Papyrus Rhind Problem 62: *ḥpr.ḥr 4* "*it will become 4, i.e. 4 will be the result*" as evidence. He also refers us to Papyrus Ebers §589 (Exx. 13 in this study) where *snb.ḥr* [*=f*] occurs. Green writes "*These patterns* [*sḏm.ḥr=f, ḥr(.f) sḏm=f* and ⲱⲁⲣⲉ] *are suited for either for the expression of intermediate stages in a given procedure or for the expression of the*

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[54] Depuydt goes on to say that events that happen in the past are contingent on other events in his section on the *sḏm.in=f* form (1993: 247-248).

overall result(s) of the procedure" (1987: 10) but does not explicitly label any of his Middle Egyptian examples as results. Westendorf (1962: §273.bb) describes one of *sḏm.ḥr=f*'s functions as "*Bezeichnung das Resultats*" and divides his examples into:

1. "*nach ir 'wenn'"* Papyrus Edwin Smith IX, 19-20 (Exx. 5. in this study)
2. "*nach ir-m-ḫt 'nachdem'"* Lahun Veterinary Papyrus Col. 5 (Exx. 7 in this study)
3. *"Folgeleistung einer Aufforderung"* Papyrus Edwin Smith XVII, 17 (Exx. 7 in this study),
4. "*verschiedene Reaktionsvorgange*" Papyrus Edwin Smith VIII, 11 (Exx. 9 in this study), Papyrus Edwin Smith VIII, 2 (Exx. 8 in this study)
5. "*Krankheitserscheinung resultiert aus einer anderen"* Papyrus Edwin Smith II, 1
6. *"Gesundung als Folge der behandlung"* Ebers §855k (Exx. 84 in this study), Papyrus Ebers §251 (Exx. 11 in this study), Papyrus Ebers §756 (Exx. 11 in this study) and Edwin Smith III,7

Vernus, although he shows that *sḏm.ḥr=f* can be used in results, doesn't anywhere describe its function as expressing results saying "*sḏm.ḥr=f/wn.ḥr=f and ḥr headed constructions are all the more likely to elicit such an effect* [a "statement of result"] *since they are marked sequential constructions………. It is obvious that an event or state, when stated as (chrono)logically subsequent in its linguistic expression, will often be seen as a result*" (1991:77). He quotes Papyrus Ebers §756 (Exx. 11 in this study) to demonstrate this. Like Gardiner, he uses an example from the mathematical texts involving *ḫpr.ḥr* 10 (Moscow XI, 2-3, 8) and Coffin Texts spell 405 (V, 199g-200b (Exx. 5 in this study)) to illustrate how *sḏm.ḥr=f* can be used for both "*prescription*" and *"description"*, as he terms the different usages of *ḥr* constructions. His translations of both these passages indicate that he understands them as expressing an inevitable result: *ḫpr.ḥr 10* "*Then 10 (necessarily) results*" and "*Then his body will (inevitably) turn out fresh*" (1991:77). Malaise and Winand (1999: §624) follow him, translating *ḫpr.ḥr* 10 from the Moscow Mathematical Papyrus XI, 2 as "*alors résulte (nécessairement) 10*". Allen (2010 §22.7) writes that "*Like the ḥr sḏm=f construction, the sḏm.ḥr=f can also denote the inevitable (i.e. necessary) result of some action or situation*" and quotes Exx. 6 below. On the topic of *sḏm.ḥr=f* as a result, Depuydt (1993; 216) says "*The verb form [sḏm.ḥr=f] has often been defined as an expression of results. This definition is largely inspired by examples in which a mathematical result is expressed by sḏm.ḥr=f.*". He then goes on to use the same example as Gardiner from Rhind 62,7 *ḫpr.ḥr 4*, and translates "*Then it becomes 4".* He goes on to reject the notion that *sḏm.ḥr=f* refers only to results saying "*It can be concluded that sdm.hr=f refers as commonly to operations as to results in mathematical texts. And it follows from this conclusion that the theory that sdm.hr=f is a verb form expressing results must be abandoned."* (1993; 216). Despite the fact that this conclusion is broadly correct the statement that *"sdm.hr=f refers as commonly to operations as to results in mathematical texts*" cannot be substantiated when the occurrences of *ḫpr.ḥr* # are examined more closely, there in fact being no examples of *sḏm.ḥr=f* expressing a result in the mathematical texts.

When one looks in detail at the examples of *sḏm.ḥr=f* it is found that direct results, in the sense of A results in B, or A causes B are in fact extremely rare; out of the 678 examples of *sḏm.ḥr=f* only twelve examples, or less than 1.5% are actually results. The vast majority of

apparent results are not results, but instructions; the preceding statement does not cause the action expressed with *sḏm.ḥr=f* that follows but designates when that action is valid (See I.5.4). Before looking at the examples it is also worth noting that Egyptian has no specialised form of expressing consequences or results, indeed, Uljas (2015: I 284) goes as far as saying "*There existed no preposition-conjunction that would have carried even approximately the meaning 'with the result that'...... they mostly seem to have* [been] *formally no different from coordinated clauses*" (2015: I, 284). In all the examples where *sḏm.ḥr=f* does express a result, the identification as such comes not by virtue of it being a *sḏm.ḥr=f* form but by its position in the text and the general context. In other words, the *sḏm.ḥr=f* form is not necessary to designate a clause as a result, indeed, as pointed out by Uljas, co-ordinated clauses are the norm for expressing results. The situation in the scholarly literature regarding *sḏm.ḥr=f* as an expression of results is further complicated by the fact that when Green, Vernus, and Depuydt make general statements regarding results, they do not regard *sḏm.ḥr=f*, *ḥr=f sḏm=f* and *ḥr sḏm=f* as distinct forms so it is not clear to which particular form they are referring. The distinction is important as the *ḥr sḏm=f* form, while not being specialised for expressing results, introduces them in the majority of its cases (see section III.7).

I.5.5.1 INSTANCES OF *sḏm.ḥr=f* THAT RESEMBLE RESULTS

1. *ḥpr.ḥr* **followed by a number**[55]

ḥpr.ḥr followed by a number (hereafter designated *ḥpr.ḥr* #) is very common in Papyrus Rhind and the Moscow Mathematical Papyrus[56] and is quoted by all as evidence of how the *sḏm.ḥr=f* can be used for results[57]. That this is not actually the case had already been pointed out by Junge who said:

"*Zur Beschreibung der Ergebnisse einer genau fixierten Zwischenrechnung findet sich ebenfalls sḏm.ḥr.f (und zwar von ḥpr), üblicherweise interpretiert als zur Angabe eines Resultats verwendet, was eben nur zum Teil richtig ist, weil die 'echten Resultate', nämlich die ganzer Aufgaben, mit Hilfe von Nominalsätzen mit -pw- ausgedrückt werden, so daß die Form ḥpr.ḥr.(f) genaugenommen mit zum Text des Rechenweges gezählt werden sollte.*" (1973: 134)

When one looks closely at the examples though it is discovered that it is, in fact, as well as being a "*Rechenweges*", an instruction to arrive at the correct result, which is used where a

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[55] Because they are so numerous, and identical in nature, all the examples have been grouped together and treated as a bloc.

[56] In Papyrus Rhind there are 71 instances; Cases: 4; 5; 26(x2); 40; 41(x3); 42(x3); 43(x4); 44(x4); 45; 46(x2); 50; 52(x2); 55; 56(x2); 59; 59B; 60; 62(x3); 63(x2); 64; 65(x2); 66(x3); 68; 71(x2); 72(x4); 73; 74(x2); 75; 77. From the Moscow Mathematical Papyrus there are 74 examples: I 3; VI 5,7; VII 2, 5; VIII 3,4,5; IX 3, 4; X 6, 7; XI 1, 3; XIII 2,3; XV 1,2,3,4; XVI 3; XVII 2; XVIII 6; XIX 3,5; XX 2; XXI 5,6; XXII 2; XXIII 8; XXIV 2; XXV 3,4,5; XXVI 2,3; XXVII 4,5,6; XXVIII 3,4,5; XXX 6; XXXI 6,7; XXXII 1,2; XXXIII 4,5,6; XXXIV 1,2; XXXV 4,5; XXXVI 3,4,5; XXXVII 4(x2), 5; XXXVIII 4,5; XXXIX 1; XL 7; XLI 1, 2; XLII 6; XLIII 5,6, 7(x2); XLIV 2; XLV (x2). From Papyrus Berlin 6619 there are seven examples; six in Problem 1 and one in Problem No. 4. It does not appear in any of the Lahun Mathematical Papyri.

[57] Except Westendorf, who was dealing only with the medical texts, in which *ḥpr.ḥr* # does not occur.

fairly complicated calculation is needed to arrive at a specific number but the steps to achieve it are not shown. It is always the counterpart to an instruction to make a calculation, which is nearly always expressed with $ir.ḥr=k$[58]. The following example illustrates this:

2. Papyrus Rhind Problem 40 (Plate M)

$ir.ḥr=k\ wꜣḥ\text{-}tp\ m\ 1\frac{2}{3}$ $r\text{-}sp\ 23$	$ḫpr.ḥr\ m$		$38\frac{1}{2}$
$r\text{-}sp\ 17\frac{1}{2}$	"	"	$29\frac{1}{2}$
$r\text{-}sp\ 12$	"	"	20
$r\text{-}sp\ 6\frac{1}{2}$	"	"	$10\frac{2}{3}+\frac{1}{6}$
$r\text{-}sp\ 1$	"	"	$1\frac{2}{3}$ "

"You have to multiply $1\frac{2}{3}$:	by 23	it has to turn into	$38\frac{1}{2}$
	by $17\frac{1}{2}$	" "	$29\frac{1}{2}$
	by 12	" "	20
	by $6\frac{1}{2}$	" "	$10\frac{2}{3}+\frac{1}{6}$
	by 1	" "	$1\frac{2}{3}$ "

$ḫpr.ḥr$ # could therefore be interpreted as a signal that the writer is entertaining the possibility of the student getting the calculation wrong but making sure that he comes to the right answer by issuing a, theoretically at least, undefiable instruction (See I.9) to do the calculation right. Although regarded as an expression of "weak modality" (See n. 38), the auxiliary "should", as used by mathematics teachers, is a suitable translation to bring out the instructional nature of $ḫpr.ḥr$ #.

In the texts where all the steps are shown, pw is used to present the answer. This is demonstrated particularly well by the following problem where the student is firstly told what calculation to do using $ir.ḥr=k$ and then what answer he has to arrive at using $ḫpr.ḥr$ #. He is then shown exactly how to do it but this time the answer is presented with pw.

3. Papyrus Rhind, Problem 4 (Plate F)

$irt\ t\ 7\ n\ s\ 10$

$ir.ḥr=k\ [m]\ \frac{2}{3}+\frac{1}{30}\ sp\ 10\ ḫpr.ḥr\ 7$

$irt\ mi\ ḫpr$

1	$\frac{2}{3}+\frac{1}{30}$
2	$1\frac{1}{3}+\frac{1}{15}$

$$4 \qquad 2\frac{2}{3} + \frac{1}{10} + \frac{1}{30}$$

$$8 \qquad 5\frac{1}{2} + \frac{1}{10}$$

dmḏ t 7 nt pw

"Doing 7 loaves for 10 men:

You have to do $\frac{2}{3} + \frac{1}{30}$ *ten times. 7* **should appear.**

The doing as it occurs:

$$1 \qquad \frac{2}{3} + \frac{1}{30}$$

$$2 \qquad 1\frac{1}{3} + \frac{1}{15}$$

$$4 \qquad 2\frac{2}{3} + \frac{1}{10} + \frac{1}{30}$$

$$8 \qquad 5\frac{1}{2} + \frac{1}{10}$$

Total 7 loaves; it is this"

In order to do the sum right you have to multiply $\frac{2}{3} + \frac{1}{30}$ by ten and 7 has to appear. Like any other *sḏm.ḥr=f* instruction, doing this calculation is regarded as the only way of achieving a particular aim, in this case to reach 7, but it still requires input from the person addressed (see section I.9). 7 is the correct answer to the calculation but it only appears when the addressee actually does the sum *and* gets it right. Where the sum is broken down into its constituent parts the answer is given with *pw*; there, that the answer is 7 is a statement of fact, it does not depend on the student getting it right, the student can't fail to do the calculation right because the calculations have already been done for him.[59]

A final figure of a calculation is followed by a *sḏm.ḥr=f* form in three problems from the Moscow Mathematical Papyrus: XIII;4, XVII;4 and XXVI,3. The following example is representative, all three follow exactly the same wording.:

4. Moscow Mathematical Papyrus XXVI,3

ḫpr.ḥr sp 12
ḏd.ḥr=k n=f ḥnḳt iry pw gm=k nfr

*"**12 times should appear**
You have to say to him 'this is [the quantity of] beer thereof' when you get it right"[60]*

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[59] In this problem *irt t 7 n s 10 ir.ḥr=k [m]* $\frac{2}{3} + \frac{1}{30}$ *sp 10 ḫpr.ḥr 7* in itself would give you the answer but wouldn't tell you how to arrive there so it is interesting that out of the six problems classed under "division of loaves" only this one and number 5 have *ḫpr.ḥr #*; the others do not state the expected answer in the first line but state only the problem, the calculation to be done and then "*the doing as it occurs*". Peet's notes indicate that various operators are missing in each problem so it is possible that the fact that the answer in these two is given first is relevant to the way the problem is solved; this demands further investigation by a mathematician.

[60] Lit. "*when you find the good one*". All translators have gone for something along the lines of "*You have done it well*". To form a completely independent sentence with the perfective *sḏm=f* would be

In this example *ḏd.ḫr=k* , like the *ḫpr.ḫr sp 12* that precedes it, is again an instruction. Here it is explicitly stated that the sum needs to be done correctly before it can be said.

The example from the Coffin texts (Spell 404) quoted by Vernus (1990; 62) and Depuydt (1993; 217) is also not so much a result as an instruction. The title of this particular section is "*Leaving the field of rushes in any form*" and the spell is a set of instructions to achieve this aim.

5. Coffin Texts 404 (V 200b (B10c))

ir [r]ḫ r pn
iw=f h3=f r sḫt-i3rw
iw di.tw n=f [...a long list of cereals.....]
in šms [ḥr] 3sḫ st
wšꜥ.ḫr=f *nn n it nn n bd[ty]*
sin.ḫr=f *ḥꜥ=f im*
wn.ḫr ḥꜥ=f *[w3ḏ] mi nn n nṯrw*
iw=f pr=f sḫt-i3rw m ḫprw nbw mrr=f

"*As for the one who knows this spell he goes down to the Field of Rushes and [...a long list of cereals...] is given to him*
It is the followers of Horus who reap it.
He has to chew *this barley and emmer,*
He has to rub *his body with it,*
His body has to be *green like the gods.*
He leaves the field of rushes in whatever form he pleases"

The man is given a list of plants and the instructions of what has to be done with them are framed in *sḏm.ḫr=f* forms. The first two are instructions on how to make the man's body green[61] and the third is the instruction to make sure that after he has chewed and rubbed the cereals he is green like the gods, or, to make sure that he has done the job properly because, only by being green can he leave the Field of Rushes in any form he wishes. The actual result of chewing, rubbing and being green, which is being able to leave the Field of Rushes in any form, is the same as the title and is expressed with a *iw=f sḏm=f* form.

The example from Papyrus Edwin Smith IX, 19-20 quoted by Westendorf (1962: §273.bb.1) and Depuydt (1993; 213) would be one of the few examples where the *sḏm.ḫr=f* form

a very unusual usage for Middle Egyptian although not so strange in Old Egyptian. It makes much more sense in the context to take it as a *sḏm=f* used adverbially (see Allen 2010 §20.10)

[61] This may refer to being green in a metaphorical sense, as in "*healthy*", but it may equally well refer to physically being green. Green colour can be produced by mashing up nearly any plant and adding water (https://recyclenation.com/2015/04/how-to-make-dyes-paints-from-plants/, accessed 14/07/17) so green dye could be produced, on the same principle, by chewing up the green barley and emmer mentioned in the spell. The chewed-up plant could then be rubbed on the body. It is doubtful though whether it would be a strong enough dye to actually change the colour of an individual's skin significantly but, in principle at least, the person would be covered in the green dye.

expresses a result if it could be shown that *stp* does mean "*choke*", as Breasted (1930: 313-4), followed by Depuydt had translated it.

6. Papyrus Edwin Smith IX, 19-20 (Case 28)

If you examine a man with a wound in his throat, which pierces through to his gullet

*ir swri=f mw **stp.ḥr=f***
prr m r n wbnw
iw=f nsry ʿšȝ
šdd=f srf ḥr=s
***nḏr.ḥr=k** wbnw pf m idr*

At first this seems to be a straightforward A results in B sentence but whether this is actually the case or not depends heavily on the meaning of *stp*. This word only occurs twice with the man with his hand to his mouth 𓀃 (A2) as a determinative; here and in Papyrus Ebers §855k (Exx. 84) in this study). Breasted says "'*he chokes' is really a guess*" (1930; 314) and seemed to be unaware of the other example. Depuydt (1993; 213) accepts Breasted's translation and Ghalioungui (1987: 225) gives without explanation, and seemingly without foundation, "*capricious*" for *stp* in his translation of Papyrus Ebers. The Worterbuch gives the definition of *stp* in both its occurrences as "*to refuse or resist*" (Wb 4, 338.8) and cross-references the entry with *stp* "*to choose*" (Wb 4, 337.5-338.7); two quite disparate meanings if they are indeed linked at all. There is, though, a translation for *stp*, which isn't so speculative and fits well both here and in the example from Papyrus Ebers §855k.

In Papyrus Ebers §855k (Exx. 84), *stp* relates to a symptom of depression brought on by heart disease and follows "*His appetite is small*". Bardinet (1995; 104) translates *stp* there as "*L'homme ne fera que goûter (= n'aura pas faim)*". Although he provides no explanation for this translation he had presumably arrived at it on the basis of the well-established meaning of *stp* "*to choose*" and extended it to meaning that he only chooses certain bits therefore he only tastes his food, which fits well with the preceding statement that "*his appetite is small*". If we relate *stp* to choosing in its most basic sense, picking out specific bits of a whole, and take into account the A2 determinative it would mean something like "*Only choosing specific bits for one's mouth*". In English we do in fact have exactly the same expression "*picking at one's food*"[62] which fits perfectly in the Ebers example "*His appetite is small and he picks at his food*". This meaning also fits very well with the example from Edwin Smith in question; the man has to "*pick at*" his water, in other words he only takes specific bits from the whole amount. The translation "*he has to sip it*" would therefore be appropriate where water is concerned.

The general argument in this Chapter is that *sḏm.ḥr=f* refers to a general action and that *ir* should be translated "*whenever*" when *sḏm.ḥr=f* appears in the apodosis (see section I.5.1). If we accept Breasted's translation, or indeed Westendorf's it would seem rather odd that if every time the man tries to drink water he chokes (or, in the Worterbuch's interpretation,

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[62] Also related are the nouns "*pick*" and "*pickaxe*", both tools that are designed to target only a very narrow point.

resists), it comes out of the hole, he gets fever and has to be stitched up again. If he couldn't drink at all he would be dead in a matter of days and treating the symptoms rather than the cause would make little sense. This makes it much more likely that *stp.ḥr=f* is something he has to do every time he drinks rather than a result of him drinking. If this is the case the rest of the section would be the explanation as to why the man *has to* sip his water carefully. The whole section would then read as follows:

> *Whenever you examine a man with a wound in his throat, which pierces through to his gullet and whenever he drinks water,* **he has to** *sip it [because] coming out from the opening of the wound it gets greatly inflamed and he develops fever from it and you have to stitch it up [again].*[63]

Westendorf's example from the Lahun Veterinary Papyrus, Col 5 also seems, at first glance, to contain a result but again, whether this is so or not depends very strongly on the exact meaning of the vocabulary used. It concerns removing a "*nest of worms*" (*šš n ḏdft*) from a bull. [64]

7. Lahun Veterinary Papyrus UC32036, Col 5

ir m-ḫt ptḫ=f itn r tꜣ **ḫr.ḥr=f r=f**

ptḫ (Wb 1, 565.16-566.3) is a transitive verb that means "*to let something go*" or "*to drop something*" so it seems almost certain that the "*itn*" is what has been dropped and that the implication is that the bull has to follow whatever the *itn* might be to the floor. Unfortunately, the dictionaries reveal no other examples of *itn* with 𓀢 (A2) as a determinative and no suitable meanings for the context with any other determinative. This lack of a definition for *itn* makes it difficult to say whether this is a result or not. If dropping an *itn* were something that made it impossible for the bull to stay on his feet, something irresistible to him on the floor, or perhaps something very heavy attached to him perhaps this should be classified as a result. On the other hand, this could be an instruction to be carried out after he has dropped the *itn*, similar to the use of *ḫpr.ḥr* # in the mathematical papyri; it has to be brought about that the bull falls over, the procedure is not explained but the end result has to be that the bull goes down to the floor in the direction of the *itn*, whatever that may be.[65] On balance, only because this is part of the symptoms and not of the cure, it would seem more likely, but still very uncertain, that the bull falling to the ground is a result of it dropping the *itn*, whatever that might be, to the floor.

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[63] See also section I.9.1.3
[64] It is assumed here that this case also deals with a bull because the next two cases do.
[65] Using the verb *ḫr* as an instruction has parallels in the use of the imperative "*Fall!*" from the Pyramid Texts. For example, Spell 233 (§237b) *ḫr sbn* "*Fall, door-bolt!*".

Papyrus Edwin Smith XVII, 17, is classed by Westendorf as an example of the *sḏm.ḫr=f* form expressing a result. There are in fact two *sḏm.ḫr=f* forms present here, and it is not clear whether he is referring to both forms or not.

8. Papyrus Edwin Smith XVII, 17 (Case 48)

> *If you examine (a man) with a sprain in a vertebra of his spine, you then say to him "Please straighten your legs and retract them"*

> **m3ꜥ.ḫr=f** *sy* **krf.ḫr=f** *sy ḥr ꜥwy n ḳsn ir=f m ts n psd=f mny=f*

> **He has to straighten** *them out and* **he has to retract** *them immediately because of the pain that it causes in the vertebra of his back that hurts.*

Here, *m3ꜥ.ḫr=f* is quite clearly an instruction and not a result; the doctor merely saying, "*Stretch out your legs*" does not automatically result in the man stretching them out. For the man to stretch out his legs requires his participation. What governs the use of the modal here is the necessity of finding out what is wrong with the man and eventually curing him, the conversational background is teleological.

krf.ḫr=f though, is not a result of the man stretching out his legs; it happens when he stretches his legs out but it is specifically stated that it is the pain in his vertebra that causes him to retract his legs. The man's stretching his legs out designates when the modal is valid but is not the cause of him retracting them.

Edwin Smith VIII, 2 is a result, but of the illness rather than the preceding clause.

9. Papyrus Edwin Smith VIII, 2 (Case 20)

> *If you ask about the illness that he has he does not speak to you.*
> *Great tears have fallen from his eyes.*

> **iṯ.ḫr=f ꜥ=f** *r ḥr=f ꜥš3 sin=f ir.ty=fy m s3 n ḏrt=f mi irt ḫrd n rḫ=f irt=f*

> **he cannot help snatching/taking his hand** *to his face often and he rubs his eyes with the back of his hand as a child does and he does not know what he does*

The only condition expressed in this sentence is if you ask about the illness and the result is that he says nothing. The action, being regarded by all who have examined it as the result of a brain injury, is clearly not a result of asking the man about it but a description of the effects of the injury itself.

I.5.5.2 CLEAR EXAMPLES OF DIRECT RESULTS

There are a few examples from the medical texts though, that are to be classed as results of the type A results in B. For example, Edwin Smith VIII, 11 (Case 22), quoted by Westendorf, is possibly an instruction but seems to be a genuine example of an A results in B construction..

10. Papyrus Edwin Smith VIII, 11 (Case 22)[66]

   "If you see a man with a smash in his temple and you have to press your thumb on his chin and a finger on the end of his ramus

   ḥ33.ḥr snf *m šrty=fy m imyw msḏrwy=fy ḥr sd pf*

   *and the blood **cannot help coming down** from his nostrils by way of the inside his ears where the smash is"*

If this were the other way around: "*The blood has to come down from his nostrils and from his ears where the smash is. You have to press your thumb on his chin and a finger on the end of his ramus*" *ḥ33.ḥr snf* would certainly be an instruction, followed by details on how to achieve this but, as it stands, it looks fairly certain that it means that pressing down on the jaw results in the blood being released in order that the splinters may be extracted. This is also the line taken by Sanchez and Meltzer who say that "*mobilization of the mandible by the examiner produces active bleeding through the nostrils, ears and mouth.*" (2016: 159)

Another clear example of a result comes from Papyrus Ebers §756, quoted by both Vernus and Westendorf, which is an alternative cure for driving out an illness called "*nsyt*" from the eyes.

11. Papyrus Ebers §756

   Another [remedy]: testicles of a ḳm3y[67]-ass, ground, put into wine and drunk by the man

   rwi.ḥr=s *ḥr-ʿwy*

   ***It** [the nsyt illness] **cannot help departing** immediately*

Drinking the remedy results in the illness being driven out, which is a direct cause and effect relationship. There is also a further clear example of a *sḏm.ḥr=f* form expressing a result from Papyrus Ebers:

12. Papyrus Ebers §251

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[66] See also the *sḏm.ḥr=f* form in the description of the illness (Section I.9.3.2)
[67] The word, otherwise unknown, appears to be a colour or type of skin from the determinative.

The roots are crushed into water and placed upon the head of the one who is afflicted

snb.ḫr=f ḥr-ꜥwy

and **he cannot fail to be healthy** *immediately*

Like Exx. 10 above, the remedy results in the patient being cured. Another example from Papyrus Ebers §589 uses exactly the same phrase *snb.ḫr=f ḥr-ꜥwy* and is also certainly a result. The ingredients and the administration of the cure are detailed in the preceding section and it continues:

13. Papyrus Ebers §589

    It is a recipe for driving out swelling in all a man's limbs.

    snb.ḫr[=f] *ḥr-ꜥwy*

    He cannot fail to be healthy *immediately*

The following case, also from Papyrus Ebers, contains a clear example of a result:

14. Papyrus Ebers §296

    Another: Whenever you see someone who has stt, consisting of sharp pains and his belly is stiff because of it, who is sick to his stomach and his stt is in his body and it does not find a way of going out and there is no way by which it may go out

    ḥwꜣ.ḫr=s m ẖt=f n pr.n=s ḫpr=sy m ḥsbwt

    it can only rot in his body *and, being unable to go out, it turns into worms.*

The *stt*[68] rots *because* it is unable to leave the man's belly. It is possible, but unlikely, that this is an instruction to the doctor meaning that he has to leave the *stt* to rot but the use of the *n sḏm.n=f* form directly following the *sḏm.ḫr=f*, and the fact that this is part of the description of the illness not the cure, makes it almost certain that this is not an instruction. There is also the outside possibility that this is an epistemic usage of the *sḏm.ḫr=f* "*It must be rotting in his belly*" but again, the fact that this is not the conclusion of the diagnosis, nor of a gloss, argues against this. Exx. 19 "*It cannot turn into worms*" directly follows this and is also circumstantial (See section I.6).

There are also two examples of *sḏm.ḫr=f* results following *sḏm.ḫr=f* forms with an epistemic conversational background:

15. Papyrus Ebers §855l

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[68] Bardinet (1995: 296) translates this word as "*contractions douloureuses*" although it is hard to see how a contraction could rot. Nunn (1996: 62-3) discusses it without coming to a conclusion but points out that the Grundriss translates *stt* as "*Schleimstoffe*" and that Ebell translated it with "*Phlegm*" in his 1937 translation. Walker (1996) consistently uses "*mucus/phlegm*".

"As for "Kneeling of the mind because of suffering" it means his mind is troubled inside his belly and the suffering affects his heart.

*i3r.ḫr=f **m3s.ḫr=f***

*It must be fading, and **it cannot help kneeling"***

Here, the mind kneeling (getting depressed, see Section I.9; Exx. 85) is the only possible result of it fading; there is no alternative for the mind.

16.   Papyrus Ebers §855n

"*As for Movement-of-the-heart it means that it is getting moved away from the left-hand side of his chest.*

*twn.ḫr=f ḥr mkt=f **rwi.ḫr=f** m st=f*

*It must be[69] pressing on its "protection" and **cannot help moving** out of place.*

The only possible course of action for the heart is to move because it is being pushed aside by something stronger than it[70].

Another example of something caused by what precedes it, which was in this case carrying out an instruction, is from Papyrus Edwin Smith:

16.5 Papyrus Edwin Smith III, 7-8 (Case 7)

*rdi.ḫr=k ir.tw n=f ḫt šm r nḏm=f **wn.ḫr r=f***

"*You have to cause something warm to be made for it* [the jaw muscle which has gone stiff] *so it relaxes and his mouth **cannot help opening***"

Here, the warmth inevitably causes the mouth to open by relaxing the muscle holding it closed.

From outside the medical texts, there is an example from the Coffin Texts, that is almost certainly an A results in B phrase. The passage concerns a serpent that has to be overcome so the boat can proceed through to the afterlife.

17.   Coffin Texts Spell 160 (II 379b)

*ir r=f m tr n mšrw pnꜥ.ḫr=f [71]irt=f r rꜥ **ḫpr.ḫr ꜥḥꜥw** m ist sg3t ꜥ3t m-ḫnw sḳdwt*

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[69] See Exx. 86 for this epistemic modal.
[70] This is a good example to be illustrated with Force Dynamics (See Introduction, n.1)
[71] This is an example of deontic necessity and is discussed elsewhere (Exx. 80)

> *For his part, at suppertime, he* [the serpent] *has to roll his eye towards Ra.* ꜥḥꜥw **cannot help occurring** *in the crew and great confusion is inside the boat.*

Whether ḫpr.ḥr ꜥḥꜥw is a result of, or a reaction to, the serpent rolling his eye towards Ra depends on the meaning of ꜥḥꜥw, which has no determinative. If ꜥḥꜥw were something that needed to be started or to happen to stop the ill-effects of the eye of the serpent and to continue the voyage into the afterlife this would be an instruction and ḫpr ꜥḥꜥw would perhaps be a nautical phrase meaning to pull up hard or something similar but, in the absence of any remotely parallel phrases, this is unlikely. It seems much more likely that ꜥḥꜥw is some sort of bad occurrence, the parallel phrase "*great confusion*" would certainly point to this and more evidence is provided later in the passage directly following this one, where Seth says a magic spell to put the voyage back on course after subduing the snake. It seems likely then that ꜥḥꜥw is derived from the verb ꜥḥꜥ (Wb 1, 220.4-6) used in its sense of "*to wait*" and meaning perhaps "*delay*" or "*hesitation*".[72] It seems then that this is a result, or ill-effect, directly attributable to being glared at by the snake.

The following is the only example where a sḏm.ḥr=f form comes close to being described as a result of what precedes:

18. Coffin Texts Spell 818 (VII 17t)

"*I will grasp the available ropes[73]and I will tie the stays with the great strength of Shu. I will see the forms behind Ra,*

wnm=i ḏd=i m [...] **ḏd.ḥr=f** pw rn=f imy-ꜥ=f

I will eat, and I will speak in [....] and this means that **he cannot help saying** *his name, which he has in his possession.*"

This example actually explains that the sḏm.ḥr=f form is very closely connected to what went before, pw being used here in the same way as in many places, both here and in the medical texts, to explain what the preceding passage entails.

In all the examples of clear results above, what happens next does not just take place in the circumstances stated but happens *because* of those circumstances; all have a *circumstantial conversational background* (See Introduction, p.6). Without ḥr, any of the above examples would still be results and could still be regarded as being caused by what precedes but the use of ḥr demonstrates to the reader that the preceding circumstances make the result the only one possible, in other words, inevitable.

It is important to note here that out of all the examples of the sḏm.ḥr=f where it expresses a result, only the man and the god are sentient subjects. However, despite a man being normally sentient and having a degree of choice over whether he carries out a sḏm.ḥr=f

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[72] This meaning is presumably where Faulkner got "*stoppage*" from in his translation (2015: 138)

[73] dbḥw with a rope determinative has been understood here as a noun formed from a passive participle of dbḥ (Wb 5, 439.6-440.1), literally "*ropes that may be claimed*".

action, in Exxs. 12 and 13 without the remedy he is quite unable to make himself better even if he wanted to and is thus a passive participant in the process. The same could be said of Exx. 9 where the man snatching his hand to his face is a general result of having a brain injury; it is specifically stated in the text "*the man does not know what he does*" (Edwin Smith VIII,2 (Case 20)) so he is again a passive participant. In Exx. 16, presumably Ra normally has free will but has lost it owing to the powerful magic used on him. It might then be said that, in practice, the *sḏm.ḫr=f* results, like those expressed by *ḫr sḏm=f* (see section III.8), do not have subjects, not ones that are capable of defying an external force anyway, if indeed circumstances can be overcome at all. The result is therefore a foregone conclusion or an inevitable outcome. In the case of the injured man where the subject is normally sentient but in this particular case unable to resist the external force, a translation such as "*he cannot help snatching his hand to his face*" is suitable[74]. Translated this way, unlike "*it has to (do something)*", there is less implication that the subject somehow has a choice or the possibility to do something else.

It can be said then that *sḏm.ḫr=f* can be used to represent inevitable results with a circumstantial conversational background and is used when the subject upon which the irresistible external force, which in all the *sḏm.ḫr=f* cases is circumstances themselves, is acting needs to be specified. It can also be said that there is a significant overlap in usage with the *ḫr sḏm=f* construction.

Interestingly, in view of the paucity of examples where *sḏm.ḫr=f* expresses a result, it is also the case in English that it is rare to use modal auxiliaries without a sentient subject and that modals with purely circumstantial conversational backgrounds are very rare. Talmy writes "*A notable semantic characteristic of the modals in their basic usage is that they mostly refer to an Agonist that is sentient and to an interaction that is psychosocial, rather than physical*" (1988: 79). In fact, the only common use of a modal auxiliary with a circumstantial conversational background is in phrases that emphasise the inevitability of a result, such as "*What goes up must come down*".

I.6 NEGATIVE EXAMPLES OF *sḏm.ḫr=f*

There are only three examples of negated *sḏm.ḫr=f* forms from Old and Middle Egyptian and all three are negated with the verb *tm*. Green has a brief section on the negation of *sḏm.ḫr=f* and attributes the Egyptians' use of *tm*, rather than any other construction, to a desire to leave the "*dependency chain*" unbroken (1987: 14-15) although it is not clear at all what he means by this.[75] Vernus (1990) doesn't specifically address the negation of *sḏm.ḫr=f*, or of that of any other *ḫr* construction, although Depuydt (1993: 221) uses the example from the Pyramid Texts below (Exx. 20) for general illustrative purposes. The examples are as follows:

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[74] This may well also be the case in example 15 but depends on whether the mind is classed by the Egyptians as sentient or not. The discussion of *ỉb-ib* in I.14. touches upon this topic.
[75] He doesn't mention a "*dependency chain*" anywhere else in his book, nor does he refer us to any other author.

19. Papyrus Ebers §296

"Another: If you see someone who has stt, consisting of sharp pains and his belly is stiff because of it. He is sick to his stomach and his stt is in his body and it does not find a way of going out and there is no way by which it may go out. It has to rot in his body and, being unable to go out it turns into worms.

tm.ḫr=f *ḫpr m ḥsbwt r ḫpr m wn-n-m(w)t*

It cannot *turn into worms until it turns into dead-matter"*

Gardiner discusses this example and treats it as negative whereas Westendorf (1962: §275) says that "*grundbedeutung von tm [ist] "zu ende kommen""*. There seems to be no strong objection to reading a negative *tm* (Wb 5, 301.4-302.3) here and the lack of a determinative cannot be used to favour Westendorf's interpretation because negative *tm* never has the arms determinative in Papyrus Ebers. Furthermore, it would seem that *tm*'s basic meaning, when it is not a negative ("*to (be) complete*" (Wb 5, 303.12-304.16)), is not in the sense of "*coming to an end*" as Westendorf would have it but of "*being in one piece*"[76]. Depuydt (1993: 221, n. 17) follows Westendorf in interpreting this as the verb "*to complete*" and Green (1987: 15, n. 45 and 58, n. 101) notes that there is a discussion over whether it is a negative or not but makes no judgement either way. When the context is taken into consideration it seems certain that this is a negative, the sense being that it can only turn into worms when it has rotted down into dead matter and only then can it be purged with an excretion draft.

The conversational background here is circumstantial; the circumstances of the *stt* not yet having rotted means that the only thing that it can do is to stay as it is for the time being. Also relevant here, is that because *stt* is a non-sentient subject it means that there is no possibility of it defying circumstances and turning into worms before it has rotted (See section I.5.5.2 end).

20. Pyramid Texts Spell 400 (696g)

This spell is concerned with Horus giving bread and beer to the dead king Teti and replenishing his offering table and butcher's block.

"When Teti is hungry, the Dual-Lion is hungry; when Teti is thirsty, Nekhbet is thirsty

hdn hdn m in sṯ hdn=ṯ r tti **tm.ḫr=ṯ** *in sṯ hdn=ṯ r tti*

"Heden-plant goddess, Heden-plant goddess, do not bring the smell of your heden-plant to Teti. **You must not/cannot** *bring the smell of your heden-plant to Teti."*

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[76] It seems unlikely that the references given in the Belegstellen to the king's body being *tm* refer to it coming to an end.

Allen (2005b: 91) translates "*you don't have to fetch the scent*" but there are objections to this translation. Firstly, it is parallel with the vetitive so is unlikely to be weaker[77]; Allen's translation would give a meaning similar to: "*Do this... but you don't have to*". Secondly, when the phrase is analysed in terms of the attributes given to *sḏm.ḥr=f* as an expression of modal necessity in this study *tm.ḥr=ṯ in st* would be rendered "*It is necessary that you do not bring the heden plant smell*" or "*It is not possible that you do not not bring the heden plant smell*". Allen however, has analysed it as "*it is not necessary that you bring the scent*" switching the positions of the obligation and the negative thereby making the negative scope over the obligation rather than the other way round. Although there are no examples of the construction in Egyptian, one might expect "*You don't have to bring the scent*" to be rendered in Egyptian as **n in.ḥr=ṯ st*.[78]

Without any further information it is difficult to say what the conversational background of this example is. It could be deontic, in that there is a rule in place that forbids anyone bringing a heden plant to Teti but it could equally be teleological; there is a particular aim that will be achieved by not bringing the heden plant. A lot depends on what the properties of a heden plant, as understood by the Egyptians at least, might be and it would appear here that it was regarded as some kind of appetite suppressant which, if it were brought to Teti, would make him grow hungry or thirsty and by extension the god and goddess would go hungry or thirsty. In this case the conversational background would be teleological with the aim of stopping Teti going hungry and the vetitive is being reinforced by a stronger, theoretically undefiable, instruction to make sure that Teti doesn't get hungry or thirsty.

21. Coffin Texts Spell 554 (VI 153j)

   *mkt/// šw ḥꜥ wrw ḥtp imyw-bꜣḥ **tm.ḥr wrw** ꜥḥꜣ m iwnw mꜣ.n=sn šw ḥr ḫḏt*

   "[His?] protection is [the mace?] of Shu. When the Great-Ones rejoice Those-who-are-in-the-presence are at peace. **The Great-Ones cannot** fight in Heliopolis when/because they have seen Shu carrying the mace."

This is the whole spell and so we are lacking in context. It is difficult to say whether seeing Shu carrying the mace is a restrictor for when the modal is valid or whether it is the reason for which they cannot fight. The act of seeing Shu with a mace is unlikely to *physically* stop the gods fighting, although a circumstantial conversational background based on the mace being magic is a possibility in the context of the Coffin Texts. This would mean that the mace's magic power makes the Great-Ones unable to fight. However, if we also take into account that the Great-Ones are, presumably, sentient and there are no examples of *sḏm.ḥr=f* with a circumstantial background with a sentient subject (See the end of section I.5.5.2) it is likely that we are not dealing with one here. Regarding it as having a deontic conversational

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[77] Edel (1967: 550) describes this with "*wo die ḫr-Form einen Imperativ steigernd fortführt*".

[78] For a similar construction to this hypothetical one, where *ḫr* scopes under a negative, see Exx. 137 from Heqanakhte which has *n ḫr nfr ṯw*

background seems preferable; there is a rule in place that no one is allowed to fight when Shu carries his mace.

I.7 PASSIVE EXAMPLES OF *sḏm.ḥr=f*

There are only twenty-one cases where *sḏm.ḥr=f* is a passive. Two of them being rendered with *sḏm.ḥr* followed by *tw* and then a suffix pronoun (Exxs. 22 and 24), four with *sḏm* followed by *tw* and a noun (Exxs. 23, 26,27 and 29) and the remaining fifteen with *tw* alone (Exxs. 28 and 30 to 43.5). The fact that twelve of the fourteen examples with *tw* alone come from one prescription in Edwin Smith, which may even be a later addition to the main body of the texts , show that passives of the *sḏm.ḥr=f* are fairly rare in the corpus. One could speculate, although it might just be an accident of fate that the proportion is so small, that the reason for this is that a *sḏm.ḥr=f* action, being dictated by an external power is not dissimilar from a passive, in which a state is also dictated by a power external to the subject[79]. It this were the case one might say that all the examples of *sḏm.ḥr=f* with *tw*, apart from those with a suffix pronoun subject (of which there are only two; Exxs. 22 and 24) should be interpreted as active impersonal usages (See I.5, n.43) and translated as "*Someone has to hear*".

 The examples of *sḏm.ḥr.tw=f* are as follows:

22. Papyrus Ebers §308

    Another: flour of dates 1 hin made into a dough. Put into two bowls and place over the fire. Cause it to become dough thereby

    šd.ḥr.tw=f m-ḫt ir.t(w) nn

     it must be squeezed out *after this is done.*

This is a straightforward instruction to make sure that the remaining moisture is removed from the dough.

23. Papyrus Ebers §571

        ir m-ḫt whn=f rdi.ḥr.tw sd im=f

        "After it falls off the last bit[80] *has to be put into it"*

This is again an instruction

24. Papyrus Ebers §294

    *ḥȝt-ꜥ pẖrt nt shȝyt stt m npḥw sm snwtt rn=s rd=s ḥr ḫt=s mi ḳȝdt iw ir=s ḥrt mi sšn r gmt wgȝbt=f mi ḫt ḥḏ **int.ḥr.tw=f sin.ḥr=f** ḥr npḥw ꜥḥꜥ.n shȝy.ti ḥr-ꜥ(wy)*

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[79] Junge (1972: 135) had already noted that impersonal passives and infinitives may come close to being interchangeable with the *sḏm.ḥr=f*.
[80] Literally "*The tail*" (Wb 4, 363.4-364.2)

Beginning of a recipe for driving out stt in the groin. A plant called snwtt, it grows on its belly like a qadet plant while producing a flower like a lotus until its petal is found, like white wood. **It must be brought**[81] and **he must rub [it]** *upon the groin and then it (the stt) will be reduced immediately.*

Here, it is difficult to know to what the suffix pronoun refers as there are no masculine nouns preceding *in.tw=f*. It seems likely that the suffix pronoun here refers to the plant (*sm*), which the scribe originally wrote as masculine but referred back to as feminine to agree with its name (*rn=s rd=s ḥr ḫt=s*). *sin.ḥr=f* also invites a passive translation but probably refers to the patient despite there being no object for *sin* (Wb 3, 425.8-426.8) which is transitive in every other occurrence in Egyptian. If this is not the case and it is to be classed as a passive this would be a unique example of an inflectionally passive (See Stauder 2014: 21 on V-passives) *sḏm.ḥr=f* form.

25. Lahun Veterinary Papyrus, Col. 22a

This concerns the treatment for a bull that has some kind of respiratory problem.

Examination of the eyes of a bull suffering from "Bad air"
If I see a bull [suffering from] "Bad air", his eyes are (constantly) running with heavy tears and the roots of its teeth are red while its neck is strained, it ["the bad air"] should be extracted for him.

rdi.ḥr.t(w)=f *ḥr gs=f*

He [the bull] **has to be placed** on his side

Examples with *sḏm.ḥr.tw* followed by a nominal subject are as follows:

26. Ramesseum Medical Papyrus III, plate 10, Col 11

This is unfortunately surrounded by lacunae so context is lacking:

….]?[82]*=f* ***rdi.ḥr.tw šn*** *r nn* [……..]

" ….] *its ? and* **the hair has to be placed** *with regard to this [.......]"*

27. Ramesseum Medical Papyrus III, plate 14, Col 32

in.ḥr.t(w) *mnt imyt sš=s*

---

[81] Bringing ingredients, although a seemingly superfluous instruction occurs in several other medical texts Papyrus Ebers 325 (Exx. 64), Ramesseum Medical Papyrus III; 32 (Exx. 27) and Papyrus Edwin Smith XXI, 9 (Exx. 30)

[82] This ideogram is clearly drawn but what it represents is far from clear.

"*A swallow which is in its nest **has to be brought***"

The treatment for "*bad air*" (*nft*) from the Lahun Veterinary Papyrus contains examples of both *sḏm.ḫr.tw* followed by a noun and *sḏm.ḫr=tw*. The two examples follow one another:

28. Lahun veterinary papyrus, Col. 22b (See also Exx. 91)

   wn.ḫr.t(w)[83] *ḥr ntš=f m mw ḳb*

   [He] has to be continually sprinkled *with cold water*

29. Lahun veterinary papyrus, Col. 23

   sin.ḫr.t(w) irty=f(y) *ḥnꜥ ḏrw=f ḥnꜥ ꜥt=f nbt m* [a concoction made up from various plants]

   His eyes have to be rubbed *along with his sides and all its limbs with* [a concoction made up from various plants]

Here, the *sḏm.tw(=f)* form is used for general procedures that have to be carried out before the vet himself gets to work. Getting the bull on its side, sprinkling it with water and rubbing its entire body with an ointment is a time consuming and not very skilled job. The text only switches back to referring to the doctor by using a second person suffix pronoun when the skilled work, of making a notch in the bull's nostril and tail and diagnosing whether it will live or die, begins (Line 28a). In the case that precedes this, the removal of a "*nest of worms*" (Lines 1-15) the unskilled work of massaging the bull, presumably to keep it calm, is done by a "*a man*", another impersonal subject, while the vet does the skilled work of extracting something from its anus (See Exx. 44 below)[84].

This is also the case in the "*Prescription for turning an old into a young man*" in Papyrus Edwin Smith, Plate XXI Line 9 to Plate XXII Line 7 the subject who is responsible for carrying out the instructions is consistently rendered with *tw*. This is unusual, certainly for Papyrus Edwin Smith where there are no other examples of *sḏm.ḫr=f* with *tw* as a subject; the person who is to carry out the procedure is always expressed with *=k*[85]. However, this prescription deals entirely with the preparation of an ointment, no instructions for its application are given and, unlike the complicated diagnoses, surgery and application of remedies in the rest of the papyrus, the procedure for making the ointment does not require the particular skillset of a doctor hence no specific subject is supplied. The examples are as follows:

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[83] See section I.13 for the unachieved extensive formed with *wn.ḫr=f ḥr sḏm*.
[84] Although there it may be the case that the man has to do this because the vet is unable to massage the bull when needed because he has his hand inside the bull's rectum
[85] The incongruity of this prescription may be explained by the fact that it is grouped with a selection of incantations on the verso of the Papyrus and may never have belonged with the treatments on the recto. See also n. 258 on this subject.

30. Papyrus Edwin Smith XXI, 9-10 *in.ḫr=tw ḥmȝyt* "*ḥmȝyt has to be brought*"[86]
31. Papyrus Edwin Smith XXI, 10 *ḳnḳn.ḫr=tw rdi n šw* "*It has to be beaten and placed in the sun*"
32. Papyrus Edwin Smith XXI, 11-12 *ḫȝḫȝ.ḫr=tw* "*It has to be winnowed*"
33. Papyrus Edwin Smith XXI, 15 *smn.ḫr=tw* "*It has to be left*"
34. Papyrus Edwin Smith XXI, 16 *rdi.ḫr=tw m sbḫ mȝ* "*It has to be placed in a new jar*"
35. Papyrus Edwin Smith XXI, 18,19 *šd.ḫr=tw* "*It has to be extracted*"
36. Papyrus Edwin Smith XXI 19 *iʿw.ḫr=tw r mn* "*It has to be thoroughly washed*"
37. Papyrus Edwin Smith XXII, 1 *rdi.ḫr=tw n šw* "*It has to be placed in the sun*"
38. Papyrus Edwin Smith XXII, 2 *nḏ.ḫr=tw ḥr bnwt* "*It has to be ground on a grindstone*"
39. Papyrus Edwin Smith XXII, 2 *smn.ḫr=tw ḥr mw* "*It has to be left in water*"
40. Papyrus Edwin Smith XXII, 3 *rdi.ḫr=tw m sbḫ ḥr ḫt* "*It has to be put in a jar on the fire*"
41. Papyrus Edwin Smith XXII, 7 *rdi.ḫr=tw m ḥnw n ʿȝt* "*It has to be put in a jar of costly stone*"

42. Ramesseum Medical Papyrus III, plate 14, Col 31

   ḫtm.ḫr.t(w) m mḥ 5

   "*It has to be sealed with 5 mḥ plants*"

There is another example of *sḏm.ḫr=tw* from the Coffin Texts that may well be a corruption of an original text:

43. Coffin Texts Spell 404 (V 184c. Text B5c)

   "*He has to arrive at another portal, by which the air enters and is cut off*

   ḏd.ḫr=t(w) n=f nḏ-ḥr=k pḫrrw sȝ pḫrrw rn=k

   It has to be said to it/him "*Hail to you runner, whose name is "Son of a runner"'*

Here the text diverges from the formula used in this spell for when a man approaches the other gates. All the parallel texts have *ḏd.ḫr s* "*the man has to say*" or *ḏd.ḫr=f* "*he [the man] has to say*" directly followed by the speech to be given. Here we have *ḏd.ḫr=t(w) n=f* but there is no antecedent for *n=f*, except the gate itself. These factors point strongly towards the text being corrupt but it could conceivably be said that the use of *tw* was regarded by the writer as an impersonal subject, acceptably similar to the generic usage of *s* "*a man*", which represents all, or any, men in the Coffin Texts.[87] It is also possible that the following example has an active impersonal usage:

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[86] It is possible that this is a *sḏm.ḫr.tw=f* form but, on the basis that none of the other examples in this prescription have a subject after *tw*, it seems unlikely.
[87] See I.5.1, n.46

43.5. Coffin Texts Spell 818 (VII 18a)

ḏd.ḫr=t(w) n wr=ṯn pw imy kꜣr=f

"*Someone/One has to say to this great one of yours who is in his shrine*"

I.8 FIRST PERSON EXAMPLES OF *sḏm.ḫr=f*

There are only two examples of the *sḏm.ḫr=f* form where the first person suffix pronoun is actually written, both are from the Lahun Veterinary Papyrus and one of these is not absolutely certain. There are two further examples of *sḏm.ḫr=f* forms from the Coffin Texts where it is likely that the Old Kingdom practice of not writing the first person suffix has been followed.

44. Lahun Veterinary Papyrus, Col. 8

This treatment concerns a bull[88] suffering from a "*nest of worms*". The text is quite broken at the beginning but it seems clear that the "*nest of worms*" needs to be extracted:

> *[examination] nest of worms [……….] of worm*
> *After he lets the iṯn fall to the ground he cannot help falling towards it[89]*
> *One says "Hidden benders"[90] about it and they should be extracted for him*
>
> > ***st.ḫr=i drt=i** r ḫn ḥmw[91]=f*
> > *hnw n mw r gs=i*
> > *iw drt nt s ḥr sḫr iꜣt nt psd=f*
> > ***sḫr.[ḫr =i][92]** drt=f m hnw pn n mw r ṯnw sp*
> > *iw ḳmiw[93] r ḏrt r šdd=k snf kfn im*
>
> > "***I have to thrust** my hand into the interior of its ḥmw, a cup of water beside me*

---

[88] See note 34 above on the identification of the animal as a bull.
[89] See Exx. 7 above for this sentence.
[90] This is presumably the name of the worms that are nesting in the bull
[91] *ḥmw* (Wb 3, 81.19) is some part of an animal, the TLA says "*Körperteil (Kehle oder Darm)*" but Bardinet (1995: 282) suggests, more plausibly, that the rectum is intended.
[92] The only sign that is certain in the lacuna is a seated man ⌐ (A1) and the third person suffix pronoun on *ḏrt* would point towards *s* being intended. However, the context means it is much more likely that a first person suffix pronoun was intended; it seems unlikely that the doctor would put a cup of water next to himself then repeatedly thrust his hand in a bull's rectum only for the man who is massaging the bull to dip his fingers in the water. It seems much more likely that the man is only there to keep the bull calm, that the doctor washes his hands at each insertion and that *ḏrt=**f*** is a scribal error for *ḏrt=**i***.
[93] The Worterbuch (Wb 5, 38) gives *ḳmi* as a variant spelling of *ḳmꜣ* (Wb 5, 34.3-36.5). Here *ḳmꜣ* is taken in its sense of metalworking (Wb 5, 36.16-37.6) and is translated as "*hammer*" although it is probably a specialised medical term here. The word is probably also related to the illness of the uterus *ḳmiwt* (Wb 5, 39.2)

while the hand of a man rubs the ridge of his back.
I have to rub *[my] hand in the cup of water each time*
while [you]⁹⁴ "hammer" with the hand until you extract hot blood from it.

The other two substantially preserved cases from the Lahun Veterinary Papyrus start off with the first person *"If I see a [bull]"* followed by the symptoms and switch to the second person for the treatment. One gets the impression that there are actually three people present; the master veterinarian who takes the case and identifies the illness, the trainee who carries out the actual treatment and an assistant. The case above is different in that the writer carries out the first part of the treatment. It might be inferred that there is a hierarchy of duties here: the master who writes the instructions and does the diagnosis and the very difficult procedures, such as internal examination and is referred to in the first person; the student who does the skilled but less difficult procedures and is referred to in the second person and an assistant, *"the man"*, or the unnamed agent to which *tw* refers, who does the unskilled and time-consuming tasks.⁹⁵

45. Coffin Texts Spell 829 (VII 30k)

This is part of a spell for *"Entering into the earth and taking the form of […………]"* each section starts with *ink*:

"I am the one who did the burial after the storm

ink st [..] *sy m-ẖnw bit-ḥ3t* **sḏm.ḥr** **(=i)** *mi idn gg*

"I am Isis who [….ed] herself inside Chemmis, and **(I) have to listen** like the one who replaced the one who stared(?)⁹⁶"

The conversational background here is probably deontic and the person who is playing the role of Isis, is explaining her duty⁹⁷ but it is also possible that the conversational background is teleological; the speaker has to listen in order to achieve a particular aim, which isn't stated but is probably to enable the dead man to be protected in the afterlife.

46. Coffin Texts Spell 1134 (VII 476g)
The spell starts thus:

wn n [=i] **sḏr.ḥr** **[=i]** *wn n*[=i] *smk.t*[w=i] *m-ꜥ=sn*

---

⁹⁴ The verb has no subject here and it makes sense to restore *=k* to agree with *r šdd=k*, which is subordinate to *ḳmi*.

⁹⁵ See section I.7 for impersonal examples of *sḏm.ḥr=f*.

⁹⁶ *"The one who replaced the one who stared"* is probably a circumlocution for one of the participants in the Osiris myth

⁹⁷ For the Deontic conversational background see section I.10

"*Open for me and **I have to lie down**. Open for me and I will be protected by them*"

The first person suffix is actually written out fully in the continuation of all three copies of this spell[98], which counts against restoring it here but it is hard to make any sense whatsoever of the spell without doing so. The meaning of the passage is obscure, as are most of the spells in the Coffin Texts and, without any further context or information, it is impossible to say why the only possible course of action for the speaker is to lie down, or perhaps to sleep. It is possible though that *sḏr.ḥr=f* has a deontic or teleological conversational background and that lying down is part of some ritual known to the speaker but not to us. There is also the possibility that this is an adverbial use of a *sḏm.ḥr=f* form, although it would be the only example of it, and that the imperative is addressed to some feature of the tomb or coffin that would open when the ba needed to rest after being abroad. This would give the meaning: "*Open for me when I have to lie down*"

I.9 EXAMPLES OF *sḏm.ḥr=f* WITH A TELEOLOGICAL CONVERSATIONAL BACKGROUND

This is the biggest group of *sḏm.ḥr=f* forms by far, approximately 70% of the examples of *sḏm.ḥr=f* are second person instructions and another 25% are third person instructions. All of them are intended to make sure a particular end is reached by invoking an external power which forces the subject to follow a set of instructions. All the examples are addressed to sentient beings and, owing to the concept of free will, instructions issued with *sḏm.ḥr=f* are only *theoretically* undefiable; the addressee could refuse to carry out an instruction. However, the likelihood of an instruction expressed with a *sḏm.ḥr=f* form not being carried out is practically non-existent where the medical, mathematical and Coffin Texts are concerned because the speaker and the addressee's interests coincide completely; the aim of both the speaker and the addressee is to cure the patient, come to the correct answer or to safely survive the journey to the afterlife therefore, were the reader to choose to defy the external power, which is tradition, logic and centuries of proven results, he would be acting against his own interests by endangering a successful result. It has to be borne in mind though that the external power invoked here is not the laws of nature, which cannot be defied, but the way of achieving the result; a modern doctor or modern mathematician almost certainly wouldn't use the same method to get the same result and some brilliant young Egyptian doctor or mathematician may come along and realise that this is not the only way of achieving the required aim. One could therefore argue that the instructions in the medical and mathematical texts have a deontic conversational background as well as a teleological one; there are rules that have been set down by the ancestors and even the gods[99] that dictate

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[98] This is the grouping of the Coffin Texts according to de Buck (1961), which is also used by Faulkner (2015), but it is possible that this section does not belong with the others as two out of the three versions of this part of the spell are written in the seldom encountered horizontal retrograde.

[99] Papyrus Ebers §1 says *ḏḥwty iw=f di=f mdwt drf ir=f dmdt di=f ꜣḫ n rḫw-ḫt n swnw* "*Thoth, he gives the words of the documents, makes the collections (of cures) and gives enlightenment to wise-men and to doctors*"

how you cure a patient or how you obtain the right result. These examples illustrate well how an expression of modal obligation can, and usually does, have more than one conversational background.

I.9.1 INSTRUCTIONS IN THE MEDICAL TEXTS

The medical texts that start with *šs3w* in Papyrus Edwin Smith and the Lahun Gynaecological Papyrus and with *pẖrt* in Papyrus Ebers, with few exceptions, contain at least one *sḏm.ḥr=f* form[100]. All have most, or all, of the following elements in common and differ only slightly in their presentation:

a.	The description of the illness including symptoms and how to make an accurate diagnosis.
b.	The diagnosis
c.	The procedure to cure the patient
d.	The secondary diagnosis and cure
e.	The glossary
f.	Alternative treatments

Fig. 7. Medical Texts constituent parts

I.9.1.1 *sḏm.ḥr=f* IN THE DESCRIPTION OF THE ILLNESS

All the Lahun Gynaecological Papyrus cases, except one (Case 12), start off with a single rubricised word *šs3w* "*Treatment*" and the symptoms of the illness follow directly on from the title; only one (Case 2, (Exx. 47)) contains a *sḏm.ḥr=f* form in the description. In Papyrus Edwin Smith, the description of the illness is introduced by rubricised *ir ẖ3=k ś* "*Whenever you examine a man….*". In Papyrus Ebers cases are introduced in the same way as in Edwin Smith or by *ir m33=k ś* … "*Whenever you see a man….*". In both texts a list of symptoms of various lengths, and sometimes how to detect them then follows. The *sḏm.ḥr=f* forms that appear in the description of the illness fall into two categories: necessary actions to make an accurate diagnosis and necessary actions that form part of the description of the illness.

I.9.1.2 NECESSARY ACTIONS TO MAKE AN ACCURATE DIAGNOSIS

The *sḏm.ḥr=f* is sometimes used to describe a necessary procedure to make sure that the diagnosis is accurate. In all these examples, what is wrong with the patient is not immediately obvious and one cannot proceed straight to the diagnosis, and therefore the cure, without obtaining further information. Examples are as follows:

47. Lahun Gynaecological Papyrus Case 2

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[100] Cases 31 and 33, 44, 45, 46 of Papyrus Edwin Smith contain no *sḏm.ḥr=f* forms at all

šs3w st mr idt=s m ḫp ḏd.ḥr=k r=s ptr ssnt=t ir ḏd=s n=k iw=i ḥr ssnt 3šr ḏd.ḥr=k r=s nmsw pw n idt ir.ḥr=k r=s…..

"*Treatment of a woman whose uterus is suffering from "movements"[101]. You have to say to her "What do you smell?". When she says to you "I am smelling roast meat" you have to say about it that it is "wrapping" in the uterus. You have to treat it by…."*

"*Movements*" in the uterus is the basic symptom of the disease but the only way to give an accurate diagnosis so you can administer an appropriate cure is to find out whether she smells roast meat or not. Similar to this are Lahun Gynaecological Papyrus Cases 26 and 28, which are entirely diagnostic in that they are pregnancy tests:

48. Lahun Gynaecological Papyrus Case 26:

si3 ntt r iwi r ntt n iwr
[ir].ḥr=k mrḥt m3t ḥr [….]*.ḥr=k sy*
ir gm[=k] mtyw n k3bt=s ḫ3š3 ḏd.ḥr=k r=s mst pw
ir gm=k st knkn ḏd.ḥr=k r=s iw=s r mst wdf

"*Distinguishing a woman who will conceive from one who will not:*
You have to [do] *fresh oil on […..] and* **you have to […….]** *it.*
When you find the vessels of her insides distended **you have to say** *that there is a birth.*
When you find it [the vessel] limp **you have to say** *that she will give birth late.*"

49. Lahun Gynaecological Papyrus Case 28

*ky sp **rdi.ḥr=k** t3 n ḥdw r m ḫt* [….]*=f im* […..]*=s*
*ir gmy=k sw im=f **ḏd.ḥr=k** r=s iw=s r mst*

"*Another method:* **you have to put** *a bundle of onions, the edge on [….] belly, its [….] there when she [……]. If you find it in it* **you have to say** *that she will give birth*".

50. Papyrus Ebers §189

ir ḫ3=k š ḥr mn r-ib=f[102] iw ˁt nbt dns.ti r=f mi bsw n wrdt rdi.ḥr=k ḏrt=k ḥr r-ib=f gmm=k r-ib=f srw iw šm iw ḥr ḏbˁw=k ḏd.ḥr=k r=s nniw pw n wnm tm rdi wnm=f ḫnt ir.ḥr=k…..

---

[101] Obviously *ḫp* is a *specific* way of moving that is used to identify the particular problem.
[102] Walker (1996: 127-146) makes a case for *r-ib* meaning "*thorax*" or "*chest*", rather than stomach, but there are several objections to this identification. The *r-ib* is very often associated with eating disorders and faeces are mentioned in section Papyrus Ebers §193 (Exx .51). The lungs are never mentioned in association with it and there is only one reference to coughing; Walker's translation of *kḥ* as "*breathlessness*" (1996: 142) seems to be speculative and furthermore, breathing complaints and illnesses affecting the chest are dealt with in a separate section: §183-187. Walker makes much

> *"Whenever you examine a man suffering stomach-pain and all his limbs are heavy because of it, like the swelling from fatigue, **you have to put** your hand on his stomach and when you find his stomach taut(?)[103]but moving under your fingers, you have to say about it that it is sluggishness because of food that does not let him eat further. You have to treat it…."*

Again, a set of basic symptoms are given but in order to properly identify what is wrong with the man it is necessary to find out whether his stomach is taut or not. Only then can you give the proper treatment. Papyrus Ebers 193 also has an instruction to find out exactly what is wrong with the man by laying a hand on him:

51. Papyrus Ebers §193

*ir ḫȝ=k s ḫr šnꜥ n r-ib=f **rdi.ḫr=k** ḏrt=k ḥr=f gmm=k ḫȝyt=f swmt=f ȝwr.ti spd ḏbꜥw ḥr=f **ḏd.ḫr=k** r=f sḫn pw n hȝs n ṯs=f **ir.ḫr=k** n=f …*

"*Whenever you examine a man suffering from an accumulation in his stomach **you have to put** your hand on it. You find its problem when its thick part trembles when fingers are poked on it. **You have to say** about it that it is a settling of faeces and it hasn't bound together. **You have to treat** him by….."*

The following case is similar to this but involves putting the fingers on the abdomen of the patient in order to check that what you deemed to be the case actually is.

52. Papyrus Ebers §864

*ir wp=k ꜥȝt nt ḥbsw ḥr wpt nt ḫt=f m ḥry n ḥpȝ=f **rdi.ḫr=k** ḏbꜥ=k ḥr=s **ḏꜥr.ḫr=k** ḫt=f **šꜥ.ḫr=k** ḥr ḏbꜥ=k*

"*When you deem it to be[104] a swelling of the covering of the "horn" of his belly above his navel **you have to put** your finger upon it and **you have to probe** his belly **and you have to separate** [it] with your fingers*"

Similar cases that necessitate a physical examination to confirm the diagnosis are Edwin Smith VI, 4 (Case 13) where the reader has to put his hand on the patient's nose in the area covered by the smash (***wd.ḫr=k** ꜥ=k ḥr fnḏ=f m hȝw sd pf*) to see whether it crepitates or not and Edwin

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of the *r-ib* having a left and right side, saying that the stomach, which is in the middle of the body does not have a left and right side, but this is not an objection if the stomach is used merely as a reference point for its relation to the liver and other organs. If we translate *r-ib* as "*thorax*" or "*chest*" we also have the rather weighty problem of what the stomach was actually called by the Egyptians if not *r-ib*; Walker (1996: 213) suggests *mnḏr* but there are only two mentions of this word in the medical texts, which seems rather unlikely for such a major cause of medical woes. Nunn (1996: 54) follows the traditional line and also provides a convincing etymological argument for *r-ib* meaning stomach.

[103] This translation is based on the examples of words involving drums and stretching that have the root *srw* (Wb 4, 191.6-9)

[104] Literally "*judge*"

Smith VIII, 23 (Case 24) where one has to place the fingers on a broken jaw to see whether it crepitates or not (*wd.ḥr=k ˁ=k ḥr=f gmm=k ḥsb pf ḫbḫb ḥr ḏbˁw=k*). Edwin Smith VII, 1-2 (Case 17) is similar and the doctor is instructed to touch a cheek injury to see whether it crepitates or not (*rdi.ḥr=k ˁ=k ḥr mndt=f m h3w sd pf*)

In the following case, circumstances compel the doctor to make the diagnosis with the patient lying down:

53. Papyrus Ebers §188

*sš3 n mn r-ib ir ḫ3=k ś ḥr šnˁ r-ib=f dns=f r wnm t iw ḫt=f ḥns.ti ib=f ḥs=f r šmt mi ś ḥr mn t3w nw pḥt **m33.ḥr=k** sw sṯy gmm=k ḫt=f t3[.ti] šnˁ m r-ib=f **ḏd.ḥr=k** r=f spw pw n mist **ir.ḥr=k** sp n sšt3…..*

"Treatment for Stomach Pain: *When you examine a man whose stomach is obstructed and too heavy to eat bread while his belly is constricted and his mind is sensitive to movement* [105] *like a man suffering from "Burnings-of-the-anus"* **you have to observe him** *lying down and when you find his belly hot the accumulation is in his stomach*[106] **you have to say** *about it that it is a case belonging to the liver.* **You have to use** *a secret method….."*

Here the patient cannot be examined while standing up because one of the symptoms of his illness is that he gets dizzy or light-headed therefore, in order to make any kind of diagnosis at all, the doctor has to examine him lying down. *m33.ḥr=k* is also used in another example where the doctor has to observe the wound when the patient looks down in order to see whether his eye is affected:

54. Edwin Smith VII, 15 (Case 19)

*ir ḫ3=k ś thm gm3=f wbnw ḥr=f **m33.ḥr=k** wbnw=f ḏd=k n=f dg3 n kˁḥwy=k iw ksn irt=f šry pḫr.n=f nḥbt=f*

"*When you examine a man with a puncture in his temple with a wound over it* **you have to observe the wound** *when you tell him to look at his shoulders. His eye will be a little painful when he has turned his neck*"

Similar to this example is of Edwin Smith XI, 2 (Case 32) where a patient suffering from a back injury is asked to look at his chest and shoulders (*ḏd.ḥr=k n=f dg3 n šnb=k ḥnˁ kˁḥ=k*) to see whether he is able to do it or not.

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[105] Literally "*his mind is weak with regard to movement*", perhaps meaning light-headedness or dizziness when he moves. Walker (1996: 139) translates "*his mind, it is disinclined for walking*".
[106] The implication being that you find the accumulation causing the obstruction from the outside by the difference in temperature.

The phrase *ḏʕr.ḥr=k wbnw*, "*you have to examine the wound carefully*" or "*you have to probe the wound*" appears eleven times in Papyrus Edwin Smith[107] and once in Papyrus Ebers[108] in the description of various physical injuries that may be more complicated than their outer appearance suggests, especially cuts where the bone is visible or head injuries. For instance:

55. Papyrus Edwin Smith IX, 14 (Case 27)

*ir ḫ3=k ś n wbnw n kft m inʕt=f ʕr n ḳs **ḏʕr.ḥr=k** wbnw=f ir gm=k ḳs=f wḏ3 n wnt pšn thm im=f ḏd.in=k r=f ḫry wbnw n kft m inʕt=f ʕr n ḳs mr iry=i **wd.ḥr=k** n=f irwy ḥr kft iptf…..*

"*If you examine a man with an open wound in his chin which penetrates to the bone **you have to probe** his wound. If you find the bone intact, there being no split or puncture in it and* *you have said that someone who has an open wound in his chin which penetrates to the bone is an illness that I can treat* **you have to put** *two strips of plaster on the gash for him…..*"

When you see a man with a gash where the bone is visible, before you go ahead and just stitch up the wound, as is the usual procedure with open wounds (see Papyrus Edwin Smith Cases 22 and 26) it is necessary to check whether the bone is intact or not and on the basis of what you see, if you have then decided that it is curable, you continue to the necessary treatment.

There is also the oft-cited example of "*Seeing bad milk*" where, to make a diagnosis regarding the badness or not of breast milk, there is a necessary procedure:

56. Papyrus Ebers §788

*m33 irtt bint **m33.ḥr=k** sty=s mi šni n mḥyt*

"*Observing bad milk. **You have to observe** whether its smell is like the šni of a mḥyt fish*"

I.9.1.3 *sḏm.ḥr=f* AS PART OF THE DESCRIPTION OF AN ILLNESS OR INJURY

In these examples, all from Papyrus Edwin Smith, the *sḏm.ḥr=f* forms part of the description of the injury. In three examples (Cases 10, 23 and 26), the wound in question is distinguished

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[107] I, 13 (Case 2); I, 19 (Case 3); II, 3 (Case 4); II, 12 (Case 5); II, 19 (Case 6); III, 2 (Case 7); IV, 5-6 (Case 8); V, 6 (Case 10); VII, 8 (Case 18); IX, 14 (Case 27); XVI, 18 (Case 47) [written as *ḏd.ḥr=k*]. The example from case 10 is odd in that it asks the doctor to probe the wound but, unlike the others, doesn't tell him what he is looking for.

[108] Ebers §864 (Exx. 52)

from a less serious one that only needs a plaster[109] by the fact that the two sides need to be drawn together with stitches. For example:

57. Papyrus Edwin Smith IX, 7-8 (Case 26)

*šs3 wbnw m spt=f ir ḫ3=k ś n wbnw m spt=f isdb n m-ḫnw r=f **ḫ3.ḥr=k** wbnw=f r-mn m iwn n fnḏ=f **nḏr.ḥr=k** wbnw pf [m] idr*

"*Treatment for a wound in his lip: Whenever you examine a man for a wound in his lip which pierces through to the inside of his mouth and **you have to examine** his wound as far as the column of his nose and **you have to draw together** the wound with stitches*In this example the wound is further distinguished by how far it extends.

The other examples involve a cut in the eyebrow (Case 10) and a cut in the ear (Case 23). Other types of injuries are distinguished by what needs doing to them:

57.5 Papyrus Edwin Smith VIII, 11 (Case 22)

*ir ḫ3=k ś n sd m gm3=f **wd.ḥr=k** ḏbꜥ=k ḥr inꜥt=f ḏbꜥ=k ḥr pḥwy 3mꜥt=f h33.ḥr snf m šrt=f m imy msḏr ḥr sd pf sk n=f m sšm n ḥsb r m33=k wšt=f m ḫnw msḏr=f*

"*When you examine a man with a smash in his temple and **you have to place** your finger upon his chin and upon the end of the ramus so the blood has to descend from the nostril and ear affected by the smash and clean [it] for him with a piece of cloth until you can see its fragments inside his ear*"

A "*smash in the temple*" alone is not very specific but here it is distinguished as the type of fracture in which bits of bones, which need to be removed immediately, have been shattered into the ear. For another example of *sḏm.ḥr=f* being used in the description of the illness see Papyrus Edwin Smith Case 28 (Exx. 6); a man who has a hole in his throat. There it is used twice: once to say that the man has to sip his water to stop it coming out from the hole and once where the wound has to be stitched up as a result of him not drinking his water carefully enough.

The following example also distinguishes the injury by what needs to be done to it before proceeding:

58. Papyrus Edwin Smith IX, 2-4 (Case 25)

*ir ḫ3=k ś wnḫ m ꜥrt=f gmm=k r=f wn n ḫtm.n n=f r=f rdi.ḥr=k ḏbꜥ=k ḥr pḥwy 3mꜥty nty ꜥrty m ḫnw r=f ꜥnty=k ḥr inꜥt=f **shr.in=k d m st=f ḏd.in=k***

"*When you examine a man with a dislocation in his jaw and you find his mouth is open, his mouth not being able to close by itself and **you have to place** your fingers on the ends of the two rami of the jaw inside his mouth and your thumbs under his chin and you have caused it to fall back and stay in its place and you have said…. *"

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[109] Or perhaps to distinguish it from a more serious wound for which a more complicated procedure is needed; for instance, Exx. 55 above.

The injury is described in detail along with what has to be done to stabilise it. It is of note that putting the jaw back into place is expressed with the *sḏm.in=f* form, which is case specific (see I.9.1.4) and provides a natural separation between the description, which is expressed in general terms with *sḏm.ḥr=f*, and the specific actions of the surgeon himself with regard to a specific patient. One can only treat the wound if one has managed to put the jaw back in place and the cure, expressed with *sḏm.ḥr=f* because it is a generic treatment, follows the declaration of whether the surgeon has decided, in this particular case, that the injury is treatable at all.

I.9.1.4 *ḏd.ḥr=k r=s* IN THE DIAGNOSIS

Diagnoses framed with *ḏd.ḥr=k r=s* nearly always appear after the description of the illness in the Lahun Gynaecological Papyrus and often in Papyrus Ebers too[110]. However, it never appears in alternative treatments that start with *kt*[111], which rely on the diagnosis of the original presentation of the case, nor in Papyrus Edwin Smith, which instead includes a statement regarding whether the injury is curable or not[112]. The *sḏm.ḥr=f* forms in the treatment (see section I.9.1.5 below) are clearly teleological with the aim of curing the patient but the situation with *ḏd.ḥr=k r=s*, which appears in the Lahun Gynaecological Papyrus and Papyrus Ebers, and in one case in Papyrus Edwin Smith, to introduce a diagnosis is slightly more complicated. The question with *ḏd.ḥr=k r=s* is whether the writer is issuing an undefiable instruction to force the reader to come to a particular conclusion based on particular symptoms or whether, while examining the patient, the reader has already come to a conclusion himself and this is part of the description of the illness, which is to be used to determine the cure. If the latter were the case *ḏd.ḥr=f* would have an epistemic conversational background and would form part of the description of the symptoms and the resumptive pronoun after the *r* in *ḏd.ḥr=k r=s* would point towards the whole phrase being a virtual relative clause. In that case we could translate, for instance, Papyrus Ebers §194 as follows:

> *ir ḫꜣ=k s̀ mn r-ib=f iw=f mn=f gꜣb=f mnd=f gs n r-ib=f iw ḏd.tw r=f wꜣḏ pw ḏd.ḥr=k r=s ꜥḳ m r pw mwt pw ḫns n=f ir.ḥr=k n=f ….*

> "*Whenever you examine a man whose stomach is painful, whose upper arm, chest and side of stomach hurt* and it is said about him that it is *wꜣḏ* disease, *about which you have to say* that it is something that has entered via the mouth and it is death that is coming for him *then you have to make……."*

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[110] Papyrus Ebers §188-206; 207(x2); 617; 831-833; 856d; 856e; 876b; Papyrus Edwin Smith, XX, 14; Lahun Gynaecological Papyrus, Cases 1-17; 26(x2); 28; Lahun Veterinary Papyrus. Col 28b
[111] Except in one instance; Lahun Gynaecological Papyrus Case 28 (see above Exx. 29)
[112] There is one exception to this; XX on the verso which closely follows the format of the Lahun Gynaecological Papyrus

This is a possible but not very convincing interpretation because here, where a diagnosis has been made as part of the description of the illness, in this case that he is suffering from the *w3d* disease, the *sḏm.ḥr=f* form is not used. Moreover, all the cases in Edwin Smith and several of the cases in Papyrus Ebers[113] include a statement as to whether the injury is treatable, which appears in the same position as *ḏd.ḥr=k r=s*; at the end of the symptoms and before the cure. There, though, the *sḏm.in=f* form is used to express the diagnosis[114], for instance the continuation of Edwin Smith Case 26, which was cited above (Exx. 57):

> *šs3 wbnw m spt=f ir ḥ3=k ś n wbnw m spt=f isdb n m-ḥnw r=f ḥ3.ḥr=k wbnw=f r-mn m iwn n fnḏ=f nḏr.ḥr=k wbnw pf* [*m*] *idr ḏd.in=k r=s ḥry wbnw m spt=f isdb n m-ḥnw r=f mr iry=i ir m-ḥt id=k sw wt.ḥr=k sw ḥr iwf w3ḏ hrw tpy*

> *"Treatment for a wound in his lip: When you examine a man for a wound in his lip which pierces through to the inside of his mouth as far as the column of his nose and you have to draw together the wound with stitches and* ḏd.in=k r=s *"Someone who has a wound in his lip which pierces through to the inside of his mouth is an illness which I will treat"*

The *sḏm.in=f* form is a case specific past tense sequential form which is very common in narrative; it introduces the next episode in a past narrative sequence and its usage as such is consistent everywhere it appears. As far as the present writer is aware it appears nowhere outside the medical texts with a second person subject and is never an instruction, as Breasted and others have taken it, which means it is highly unlikely to be one here. As a case-specific construction it is much more likely to be a declaration by the doctor regarding a specific case as to whether he has decided, before proceeding to the cure, that the injury can actually be cured or if it needs further attention at all. The procedure necessary to cure the patient, which is generally applicable to all patients who *are able* to be cured and is therefore expressed with *sḏm.ḥr=f*, follows. The example above would be translated as follows:

> *"Treatment for a wound in his lip: When you examine a man for a wound in his lip which pierces through to the inside of his mouth as far as the column of his nose and you have to draw together the wound with stitches and* you have said about it *"A wound in his lip which pierces through to the inside of his mouth is an illness which I will treat"*

ḏd.ḥr=k r=s appears in Papyrus Ebers and the Lahun Gynaecological Papyrus but not in Papyrus Edwin Smith and one might argue that the reason for this is the nature of the illnesses in the former. Most of the examples of *ḏd.ḥr=k r=s* from Papyrus Ebers come from maladies of the stomach and gullet and their causes are many and varied, their cures dependent on what has caused the upset in the first place and, most importantly, the doctor cannot see inside the stomach or the gullet and has to rely on other symptoms to find out what exactly is wrong. In the rest of the examples from Papyrus Ebers, the Lahun Gynaecological Papyrus and the Ramesseum Medical Papyrus, the same applies; all the diagnoses deal with internal

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[113] Papyrus Ebers §857-862, 864 and 867-877. It is also of note that all of them start with *ir wp=k* "*If you judge/suspect*", the connection demands further investigation.

[114] There is, however, one occasion in Papyrus Ebers §617 in which *ḏd.ḥr=k* is used to introduce the statement about whether the illness is treatable or not (*mr iry=i*)

medicine[115]. On the other hand, Papyrus Edwin Smith deals with clearly recognisable physical injuries such as breaks, fractures and cuts and the injury only needs to be described; what caused it is not relevant to the cure. The other sections of Papyrus Ebers, which don't use *ḏd.ḥr=k r=s* to make a diagnosis also fall into that category; the symptoms are clearly visible, the problem is obvious and they launch straight into the cure. It might therefore be said that in Papyrus Ebers, *ḏd.ḥr=k r=s* is telling the reader exactly how to interpret the symptoms, and the diagnosis adds information which is essential for how to proceed, whereas in Papyrus Edwin Smith, where the *sḏm.in=f* form is used, the symptoms are easily interpreted and the important thing is whether it can be cured or not. If *ḏd.ḥr=k r=s* in Papyrus Ebers, the Lahun Gynaecological Papyrus and the Ramesseum Medical Papyrus were a diagnosis made by the reader before proceeding to the cure, like the statement in Papyrus Edwin Smith regarding whether the injury is curable or not, we might expect the *sḏm.in=f* form.

It therefore seems much more likely that *ḏd.ḥr=k r=s* is an instruction to the reader to come to the right conclusion about the set of symptoms that the patient presents. An exact list of symptoms, such as is found at the beginning of a case in the Lahun Gynaecological Papyrus and Papyrus Ebers, is known as a syndrome and a syndrome is used to diagnose a specific illness. In Papyrus Ebers the symptoms are very detailed in all the cases containing *ḏd.ḥr=k r=s*, as can be seen in the examples above. They often make reference to other diseases, which presumably have their own set of symptoms, as well as providing procedures to pinpoint the exact disease (see I.9.1.1). In the Lahun Gynaecological Papyrus, although the descriptions aren't as detailed as those in Ebers, having three symptoms at the most, no two are the same and, because all of them deal with the uterus, certain symptoms, such as pregnancy, may well be assumed. The connection between an accurate diagnosis and a cure is demonstrated clearly by the example from Papyrus Ebers §194 which, when *ḏd.ḥr=k* is taken as an instruction, would be rendered as follows:

59. Papyrus Ebers §194

*ir ḫ3=k š mn r-ib=f iw=f mn=f g3b=f mnd=f gs n r-ib=f iw ḏd.tw r=f w3ḏ pw **ḏd.ḥr=k r=s** ꜥḳ m r pw mwt pw ḫns n=f ir.ḥr=k n=f spw ḏdb n smyt [a list of ingredients then follows and is drunk by the man] rdi.ḥr=k ḏrt=k ḥr=f ḳꜥḥ.ti nḏm g3b šw m ih ḏd.ḥr=k iw ih h3y r ḳ3b m3ꜥ n pḥyt n wḥm sp r-sy*

*"Whenever you examine a man whose stomach is painful, whose upper arm, chest and side of stomach hurt and it is said about him that it is w3ḏ disease, **you have to say about it** that it is something that has entered via the mouth and it is death that is coming for him. You have to use the method of "sting of smyt-plant" [116] [a list of ingredients then follows and is drunk by the man] you have to put your hand on him bent, so his "g3b"[117]*

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[115] See note 110 for the list.

[116] *ḏdb"Sting"* (Wb 5, 632.7-12) might actually be part of a stinging plant but is probably used metaphorically.

[117] It seems to have been generally assumed that this is a writing of *gb3* "arm" (Wb 5, 163.4-12), or *g3bt* "arm" (Wb 5, 154.1-5), neither of which is an exact match for the word here. This section seems to be dealing with manipulating the man in order that whatever he has swallowed is dislodged with

gets better and is free from the pain. You have to say that the pain has descended to the straight intestine of the anus when it doesn't happen any more.

The first set of symptoms is fairly general but taken in conjunction with the fact that it is a variety of *wȝḏ* disease, which presumably has its own set of symptoms, they mean that the illness can only be due to something he has eaten. The treatment then continues with the preparation of a draught that causes whatever it was that he has eaten, described as an *iḥ* "*pain*, *suffering*" (Wb 1, 12.4), in combination with some physical manipulation, to descend through the intestines and out of the anus.[118]

It can thus be said that *ḏd.ḥr=k r=s* is an undefiable instruction to make the only possible diagnosis from a clearly defined syndrome. The procedure that follows would not be valid without a correct diagnosis to start from and the patient would not be cured; were the reader not to make the diagnosis given in the text after seeing a patient presenting the syndrome, he would not be defying the writer but be both acting against his own interests by jeopardising the outcome of the cure and going against centuries of proven medical experience.

ḏd.ḥr=k r=s is also used elsewhere to present a secondary diagnosis after a medicine has been administered. For instance:[119]

60. Papyrus Ebers §189

*ir hȝ=k sw m-ḫt irt nn gmm=k[120] ḏrw=f šm ḫt=f ḳbb.ti **ḏd.ḥr=k** iw nniw=f hȝy rdi.ḥr=k m k=f r=f r ḏȝf nb*

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the help of a purgative. It therefore seems unlikely that the arm is involved and much more likely that *gȝb* is an anatomical term for some part of the digestive system.

[118] The second occurence of *ḏd.ḥr=k* is interesting in that it doesn't have a resumptive pronoun, presumably because the clause that determines when the modal is valid comes afterwards in the shape of an adverbial *sḏm=f*. The sense of this seems to be that you can *only* say that whatever is causing his illness has exited his body when he doesn't have the pain any more. An emphasis on the impossibility of doing anything else, which is just one aspect of modal obligation, is not a permissible interpretation from a strictly modal logic point of view (on the principle of *modus ponens*) but seems plausible in the context of natural language. This interpretation also seems plausible in Moscow Medical Papyrus Problem 13 *ḏd.ḥr=k ḥnḳt iry pw gm=k nfr* (See commentary on examples 111-113 in section II.6) which also has an adverbial restrictor clause which could perhaps be rendered "*You can only say that this is the [quantity of] beer thereof when you do it right*"

[119] See also Papyrus Ebers §188, 191 and 207.

[120] *gmm=k* is probably an emphatic construction which lays the emphasis on how you find his flank and belly. "*And it is that his flank is hot and his belly is cold is what you find*" would be a clumsier but more accurate way of bringing out the emphasis in English.

"*When you examine him after doing this and you find that his flank is hot and his belly is cold* **you have to say** *that his sluggishness is leaving then you have to make him protect his mouth from any roast meat[121]*"

I.9.1.5 *sḏm.ḫr=f* IN THE PROCEDURE TO CURE THE PATIENT

The majority of *sḏm.ḫr=f* forms in the medical texts appear in procedures to treat the patient after a diagnosis has been made and are undefiable instructions which are issued to make sure that the patient is cured. Various procedures are used to effect these cures and making concoctions out of various substances is very common, although the actual ingredients are, in the vast majority of cases, just listed with no introduction. In Papyrus Ebers in the sections which have well defined syndromes, especially those regarding stomach troubles and the section on throat tumours, *ir.ḫr=k* is used to introduce a specific cure and the list of ingredients follow[122].

61. Papyrus Ebers §190

    ir.ḫr=k n=f spw sšmw nw swri [the ingredients follow]

    "**You have to make** *for him an effective method of drinking*"

62. Papyrus Ebers §296

    ir.ḫr=k n=f spw nw wšš r nḏm=f ḥr-ꜥ

    "**You have to make** *for him an excretion medicine, so he feels better immediately*"

63. Papyrus Ebers §313

    ir.ḫr=k sw m ꜣmꜥt ḥr bit ꜥḏ

    "**You have to make** *it* [a dough] *into a porridge with honey and fat*"

The first seventeen cases of the Lahun Gynaecological Papyrus also contain *ir.ḫr=k* but there it is always followed by *r=s* and is not only used to introduce a specific concoction that needs to be made but as a general introduction for the cure, which can take several forms. It could could be taken as "*You have to do for it*", with a noun, a string of nouns or an infinitive as its object. It is followed by:

A list of ingredients in Cases 3, 4, 6, 10, 12, 13, 14, 15 and 16;

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[121] The ailment is indigestion so presumably this means that you have to stop him from eating any roast meat, which is listed in Papyrus Ebers §207 as a cause of constipation.
[122] Ebers cases §188-193, 196-197, 198(x2), 199-202, 203(x3), 204(x3), 207(x2), 501, 522, 565, 831-833, 857-862, 867-8 and 871-7 and Papyrus Edwin Smith Cases 9 (x2), 14, 23, 41 (x3), 48 and XX, 15

"*Fumigation*" (*kʒp*) in Cases 1, 2 and 5;

 "*Massage*" (ʿ*mʿm*) in Case 7;

"*The same as the treatment for driving out detritus of the uterus*" (*mitt n tfʒ pḫrt nt dr sḥʒw n idt*) in Case 8;

"*Eating oil*" (*wnm mrḥt*) in Case 9;

"*Smearing the ground for it, putting the dregs of sweet beer on it*" (*sḫr n=s sʒtw rdi tʒḥt ḥr=f nt ḥnḳt nḏmt*) in Case 17.

In all the medical texts, *sḏm.ḥr=f* is also used with other verbs to instruct the reader in the exact way in which the ingredients for the cures are to be prepared. For instance *nḏ* "*grind*" (Papyrus Ebers §312, Papyrus Edwin Smith XXII, 2), *sšmm/šmm* "*heat*" (Papyrus Ebers §325 and 864), ʿ*tḫ* "*sieve*" (Papyrus Hearst §25), *šd* "*extract*" (Papyrus Ebers §308, Papyrus Edwin Smith XXI, 18), *snwḫ* "*boil*" (Papyrus Ebers §733, Papyrus Hearst §159), *ḥʒ* "*thresh*" (Papyrus Edwin Smith XXI, 12), *smn* "*put aside*" (Papyrus Edwin Smith XXI, 15, XXII, 2), *iʿ* "*wash*" (Papyrus Edwin Smith XXI, 20)

Many *sḏm.ḥr=f* forms also deal with applying or taking those concoctions, and in those *rdi* is the most common verb used with 42 examples[123]. For instance, the following, which is an alternative method of driving out a cough:

64. Papyrus Ebers §325

> *kt ʒwt-ib 1 mny 1 ʿʿm 1 nḏ m ḫt wʿt in.ḥr=k inrw 7 sšmm.ḥr=k st m ḫt in.ḥr=k wʿ im rdi.ḥr=k m nn pḫrt ḥr=f ḥʒp.ḥr=k sw m sbḫ mʒ whb kfʒ=f rdi.ḥr=k šbb n nbit m whb pn rdi.ḥr=k r=k r šbb pn r ʿm=k ḥty iry mitt n inr nb wnm.ḥr=k nkt ḳn ḥr-sʒ iry m iwf ḏḏʒ mrḥt r-pw*

> "*Another: ʒwt-ib 1, mny 1, ʿʿm plant 1 ground together. **You have to bring** 7 stones and you have to heat them over a flame. **You have to take** one of them and **you have to place** some of this remedy on it and **you have to** cover it with a new pot with a hole in its base. **You have to** put a pipe of reed into the hole and **you have to put** your mouth to the pipe until you swallow the smoke therefrom, likewise with every stone. You have to eat a piece of fat afterwards; meat, fat or liquid fat*"

wd "*put, apply*", which is used of bandages and remedies, is another commonly used verb used for administering a cure as far as the *sḏm.ḥr=f* form is concerned, with fifteen examples,[124] all from Papyrus Edwin Smith. *wt* "*bind*" which has twenty-five examples, also

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[123] Papyrus f §448; 295; 189(x2); 191; 194; 204; 307(x3); 312; 325(x3); 571; 789; 794; 786 (x2); 833; 864, Papyrus Edwin Smith: Cases 2; 3; 4; 7(x3); 9; 25; XX, 18; XXI, 2; XXI, 16; XXI, 19; XXII, 1; XXII, 3; XXII, 7, Lahun gynaecological Papyrus: Cases 13; 17; 25; 26; 27; 28, Lahun veterinary Papyrus: Col. 26; 39

[124] Papyrus Edwin Smith: Cases 1-3; 11 (x3); 12 (x2); 13; 19; 21; 24, 27

occurs very frequently in, and only in, Papyrus Edwin Smith[125]. Other verbs used are: *wšꜥ* "*chew*" (Papyrus Ebers §314), *wnm* "*eat*" (Papyrus Ebers §325), *srwḫ* "*apply*" (Papyrus Ebers §872), *ntš* "sprinkle" (Papyrus Ebers §786, Lahun Veterinary Papyrus: Col. 22[126]), *ḫtm* "*seal*" (Ramesseum Medical Papyrus, pl. 14 Col. 32), *wꜣḥ* "*apply*" (Papyrus Edwin Smith: Case 28, secondary cure), *wḥꜥ* "*loosen*" (Papyrus Edwin Smith: Case 32), *sš* "*spread*" (Papyrus Edwin Smith: Case 35; 36) *šꜣm ḥr* "*burn over*"(Papyrus Edwin Smith: Case 39), *nḏr* "*draw together*" (Papyrus Edwin Smith: Case 10; 14; 23; 26; 28; 47. Lahun Gynaecological Papyrus: Case 29) *nsr* "*anoint*" (Papyrus Edwin Smith: Case 6), *kf* "*uncover*" (Papyrus Edwin Smith: Case 9), *ḳbb* "*cool*" (Papyrus Edwin Smith: Case 9), *sk* "*wipe clean*" (Papyrus Edwin Smith: Case 14), *iṯ* "*take*" (Papyrus Edwin Smith: Case 20), *kꜣp* "*fumigate*" (Lahun Gynaecological Papyrus: Case 20)

There are only two cases in the medical texts involving an incantation that has to be spoken. The first case deals with curing a patient of blindness and the second is apparently to avoid being robbed by a kite, or perhaps some other bird of prey:

65. Papyrus Ebers §356

ḏd.ḥr=k m ḥkꜣt in.n=i nn rdi m st nn ḏbꜣ ꜥh ꜥdw sp-sn

"**You have to say** *as a magic spell:* "*I have taken this away, putting this instead, which replaces the suffering which attacks*" *twice.*""

66. Papyrus Ebers §848

kt nt tm rdi ḫnp ḏrwyt ḏꜥꜥ n šndt rdi ꜥḥꜥ=f ḏd.ḥr s ḥr tꜣ.n=f m niwt m šꜣ ibt=f n mr pꜣyt ps=f wnm=f

"*Another for not letting a kite steal. A branch of acacia placed so it stands up.* **A man has to say** "*Horus! He who has stolen from the town and from the river, whose thirst is for the river and birds, may he burn when he eats*"

I.9.2 INSTRUCTIONS IN THE MATHEMATICAL TEXTS

The *sḏm.ḥr=f* forms in the mathematical texts are used to issue instructions which are a necessary part of a stage in a longer calculation although it is not used where the step by step

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[125] Papyrus Edwin Smith: Cases 1; 2; 7; 14 (x2); 15; 16; 17; 19; 23; 25; 26; 27; 28; 29; 30; 32(x2); 35; 36; 37; 38, 40; 42; 47

[126] The Lahun veterinary papyrus example (Exx. 28) is constructed with *wn* (*wn.ḥr=tw ḥr ntš*)

working for a particular sum is shown in detail (see section I.5.5.1 Exss. 1 to 4). The typical way of introducing a calculation is to use $ir.ḥr=k$[127]. For instance:

67. Lahun Mathematical Papyri UC 32134A, lines 2-3

ir.ḥr=k [*1*] *r-s3 ½ ¼*

"**You have to do** *1 minus ½ and ¼*"

This is a fairly simple calculation to do in one's head, but others are much more complicated such as:

68. Papyrus Rhind Problem 40 (Plate M)

ir.ḥr=k *w3ḥ-tp m 1* $\frac{2}{3}$ *r-sp 23*

The fact that the calculation is expressed with $ir.ḥr=k$ $w3ḥ-tp$ m and not simply $w3ḥ.ḥr=k$, which appears in both the Lahun Mathematical Papyrus UC32118B *x+3* and Berlin 6619 *x+2*, is interesting in terms of the didactic nature of the mathematical texts. The presence of the preposition *m* suggests that it should be understood literally as "*You have to do the multiplication consisting of 1* $\frac{2}{3}$ *x 23*" and implies that the reader is being referred to a different procedure, one that had its own set of calculations and which the student was expected to know. That this is the case is shown more clearly in the Moscow Mathematical Papyrus where the construction $ir.ḥr=k$ $ir=k$ appears sixty-one times[128]; there are only ten other examples where a calculation is expressed another way[129]. A typical example of a problem that utilises $ir.ḥr=k$ $ir=k$ is the following:

69. Moscow Mathematical Papyrus Problem 6 (VIII, 3)

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[127] Moscow Mathematical Papyrus VI 6; VII 1, 3; VIII 3, 4, 5; IX 3, 4; X 5, 6; XI 1; XIII 1, 2; XV 1-5; XVI 4; XVIII 4; XIX 1-4; XX 1; XXI 5, 6; XXII 1, 2, 3; XXIII 6; XXIV 1; XXV 2-4; XXVI 2; XXVII 4, 5, 6; XXVIII 3-5; XXX 5; XXXI 4, 6, 7; XXXIII 4, 5, 6; XXXIV 1; XXXV 3, 5; XXXVI 3, 4; XXXVII 3, 4, 5; XXXVIII 3, 4, 5, 6; XXXIX 1; XL 6, 7; XLI 1,2; XLII 5, 6, 7; XLIII 4, 5, 7; XLIV 2; XLV 2, 3. UC32124A 2; 3; 5; UC32162 Col II 4; 5; 7; 8; 10 (x2); Col III 9; 10; UC 32118B x+3; x+4, Papyrus Rhind 1, 2, 3, 4, 5; 26; 40-42(x2); 43; 44(x2); 45(x3); 46(x3); 50; 51(x2); 52(x2); 55(x2); 56(x2); 57(x2); 58(x4); 59(x2); 59B(x2); 61-62; 63(x2); 66(x2); 68; 69(x2); 70(x2); 71(x2); 72(x3); 73(x2); 74(x2); 75-76; 77(x2); 78, Berlin 6619, 1: 4; 5; 6(x2). There are a few examples where different verbs are used in the $sḏm.ḥr=f$ form; $dmḏ$ "total" (MMP XV, 4, Papyrus Rhind 52; 62; 63; 65), $w3ḥ$ "*Add*" (UC32118B *x+3*; Berlin 6619 *x+2*; Papyrus Rhind 72), $ḥb$ "*subtract/divide*" (Papyrus Rhind 41; 43; 50; 64)

[128] VI 6; VII 1, 3-4; VIII 3; X 5, 6; XI 1; XIII 1, 2; XV 5; XVIII 4-5; XIX 1, 2, 3-4; XX 1; XXI 5, 6; XXII 1, 2, 3; XXIII 6; XXIV 1; XXV 2, 3; XXVI 2; XXVII 4, 5, 6; XXVIII 3, 4-5; XXX 5; XXXI 4-5, 6, 7; XXXIII 4, 5, 6(x2); XXXIV 1; XXXV 3, 5; XXXVI 3, 4, 4-5; XXXVII 3, 4, 5; XXXVIII 3, 4, 5; XL 6, 7; XLI 1, 2; XLII 6; XLIII 4, 5, 7; XLIV 2

[129] XV 1, 2, 3; XVI 4; XLII 5 have only $ir.ḥr=k$ and XV 4 has $dmḏ.ḥr=k$. IX 3 has $ir.ḥr=k$ $k3b=k$, XXV 1 has $ir.ḥr=k$ $nis=k$, XXVIII 1 has $ir.ḥr=k$ $dmḏ=k$ and XXII 3 has $ir.ḥr=k$ $ḏd=k$.

> *"Instruction for doing a rectangle as if it were said to you "A rectangle with an area [of 12[130]] has a width ¾ of the length"*
>
> ***ir.ḫr=k*** *ir=k ½ ¼ r gmt wᶜ* ***ḫpr.ḫr*** *(ḫr[131]) 1* $\frac{1}{3}$

The Moscow Mathematical Papyrus is, in general, more didactic in nature than the other mathematical papyri; the problems are better laid out and explained in more detail, they also make reference to getting the sum right more often. It might then be said that here *ir=k* plays a similar role to the infinitive *irt* "*doing*", which appears very often in the titles of mathematical problems or at the start of a detailed exposition and refers to the procedure or calculation for obtaining a result. In the example above, how to arrive at the answer of one and a third is not shown but the student is expected to know how to do it and is told what the answer should be (*ḫpr.ḫr 1* $\frac{1}{3}$), *ḫr* being used to make sure he has got it right (see section I.5.5.1 Exxs. 1 to 4). In the Moscow Mathematical Papyrus, it could be said that the writer, by using *ir=k* is explicitly, rather than implicitly, as is the case in Papyrus Rhind, referring the student back to a procedure that he should know. This is confirmed by the appearance of *ir.ḫr=k* followed by other types of calculations such as *ir.ḫr=k k3b=k* "*doubling*"(IX 3), *ir.ḫr=k nis=k* "*reckoning*" (XXV 1), *ir.ḫr=k dmḏ=k* "*totalling*"(XXVIII) and *ir.ḫr=k ḏd=k* "*saying*" (XXII 3). In this case *ir=k* would be a subjunctive of purpose and *ir.ḫr=k ir=k* would be literally translated as "*You have to act so that you do*". It could be paraphrased as "*You have to do the calculation (relating to the following)*". The above example would therefore be translated:

"**You have to do** the calculation for dividing 1 by $\frac{3}{4}$ and *1* $\frac{1}{3}$ **has to appear**".

As far as the answers to the calculations are concerned, those whose method is expressed with *ir.ḫr=k* are presented in one of two ways, either *ḫprt im pw* # in the Lahun mathematical Papyri or *ḫpr.ḫr* #[132] in Papyrus Rhind, The Moscow Mathematical Papyrus and Berlin mathematical Papyrus 6619 . As discussed in section I.5.5.1 *ḫpr.ḫr* # is an instruction to make sure that the student has got the calculation correct before proceeding to the next stage so it might be said that the author of the Lahun Mathematical Papyri, by using *ḫprt*, which is a *fait accompli*, had slightly more faith in his students' abilities, or just a different teaching style.

I.9.3 INSTRUCTIONS IN THE COFFIN TEXTS

Firstly, out of the whole body of the Coffin Texts, instructions expressed with the *sḏm.ḫr=f* form appear in only twelve spells, most of those having only one occurrence each. The more

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[130]The number 12 does not appear in the original but Gillings (1972: 137) supplies it with no comment despite it not being necessary because it is written in the diagram supplied. The fact that 3 and 4 are used for the width and the length show that it is the principle that is being explained.

[131] *ḫr* appears to be superfluous.

[132] There is also an impersonal variant: *ḫpr.ḫr m* # in Papyrus Rhind Problem 40 (Exx. 2): *"It has to turn into #"*

than a thousand other spells do not contain it at all and have only the words to be spoken and occasionally dialogues between gods. The spells which do contain *sḏm.ḥr=f* all involve interactions between the dead man and a god and are all aimed at either passing a god to get somewhere else or enlisting a god's aid; all have a general aim, which is to get through to the afterlife or to survive there, but each spell also has a very specific aim, which is usually stated in the title. As is the case in the medical and mathematical texts, there is also a weaker deontic conversational background in that there are rules that have to be followed on the way to the afterlife. All the instructions are third person and all, except those with a god as a subject[133], have "a *man*" (*s*) or "*the spirit*" (*ꜣḫ pn*) as their subject. Instructions which have the dead man as their subject total twenty-eight and appear over only five spells, the vast majority of them in the "*Guides to the Hereafter*"; Spell 404 and Spell 405, which contain twelve and ten examples respectively[134]. Those examples where the man has already been transformed into a spirit number six and are all from Spell 405[135].

The very beginning of Spell 404, of which we have three different versions from Coffins B5c, M2c and B7c[136], shows an interesting comparison of the different ways of expressing, what is essentially, the same thing; to arrive at the field of rushes you start by saying "*Clear the reeds, Reed-clearer (is your name)*"[137]

70. Coffin Texts Spell 404 (V181 a-b, i) (B5c)

r n spr r sbꜣ tp(y) n sḫt iꜣrw ḏdt n iry ꜥꜣ wn gš wn-gš rn=k

Spell for arriving at the first gate of the Field of Rushes. What is said to the gate-keeper "Clear the reeds, Reed-clearer is your name"

71. Coffin Texts Spell 404 (V181 c-e, i) (B7c)

r n hꜣ(t) r sḫt iꜣrw ḏd ḥr=sn m=tn [.............................] *wn gš wn-gš rn=k*

Spell of going down to the Field of Rushes. Say to them "Look! [...........] "Clear the reeds, Reed-clearer is your name"

72. Coffin Texts Spell 404 (V181 g-h, i) (M2c)

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[133] 19 of the examples that are instructions have deontic conversational backgrounds and involve gods (See section I.10)

[134] Spell 343 (IV 359c), Spell 373 (V 36c); (V 36e), Spell 402 (V 176h); Spell 404 (V 181g); (V 181h); (V 182b); (V 184a); (V 184c); (V 184f); (V 185b); (V 181d); (V 186c); (V 186h); (V 199g); (V 200a); (V 200b), Spell 405 (V 209c) (V 209h); (V 209i); (V 209j); Spell 1165 (VII 508c)

[135] Spell 405: V 203a; V 204a; V 207d; V 208d; V 208e and V 210f

[136] B7c is the outer coffin of *ḏḥty-ḥtp* from El Bersheh (Cairo J 37567) and B5c is his inner coffin (Cairo J 37566), both date to Senwosret II-III. M2c is the Coffin of *ḫnm-ḥtp* from Meir (Cairo J 42947) and cannot be dated more accurately than the 12th Dynasty.

[137] It seems that the gatekeeper's name is derived from his job. It is taken here that *gš* is a variant spelling of *gꜣš* (Wb 5, 156.8-12) which is some sort of aquatic plant. "*Reed*" has been used for convenience.

spr.ḥr=f r iry ꜥꜣ tpy ḏd.ḥr=f n=f wn gš wn-gš

He has to approach the keeper of the first gate and **he has to say** to him *"Clear the reeds, Reed-clearer"*

Coffin B5c (Exx. 70) has an implicit instruction and assumes that the man wants to get the Field of Rushes and that he knows that saying the spell will get him past the Gatekeeper. Coffin B7c (Exx. 71) has an explicit instruction formed with an imperative plus the preposition *ḥr* with a third person plural suffix[138] or possibly an infinitive as a variant of *ḏdt* ("*What is said*") and the writer is telling the dead man what to say to the gods who are there. Coffin M2c (Exx. 72) is much more detailed and contains exact instructions, making it clear that approaching the god and saying the words is the only way to proceed and that the instructions come not from the writer himself but from an external power; the need to get to the Field of Rushes, which in the context of Egyptian religion is the same as self-preservation, as well as the need to adhere to a set of well-established rules made by gods. The first two coffins, B5c and B7c, may well also have this authority behind them but only coffin M2c makes it clear that this is so. There are also versions of this spell from three more coffins that are even more abbreviated, launching straight into "*Clear the reeds, Reed-clearer is your name*" (M2c, B9c and B10c). Spell 405 also starts with these words, being, in general, more concise than Spell 404.

Spell 404, but not its shorter version (Spell 405), introduces each of four new gates and their descriptions with *spr.ḥr=f r ky sbꜣ* "*He has to approach another gate*"[139], thereby emphasising that before he can arrive at the Field of Rushes it is necessary for him to pass these gates. This is an immediate goal to be achieved to accomplish the overall aim. One can phrase this differently by using the formula from modal logic*; [In order to reach the Field of Rushes] he has to approach another gate ↔ [In order to reach the Field of Rushes] it is not possible that he doesn't approach another gate* or, he cannot achieve his aim of reaching the Field of Rushes without going through the three gates. There are also other *sḏm.ḥr=f* forms with teleological backgrounds that have an immediate aim; to pass specific gods by saying specific words in order to reach the Field of Rushes. These are usually introduced by *ḏd.ḥr=f* [140], or sometimes *ḏd.ḥr š* [141], for instance:

73. Coffin Texts Spell 404 (V 185b), B5c only

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[138] This is a much more likely reading than *sḏm.ḥr=sn*; nowhere else in the Coffin Texts are there plural dead men (*=sn*) wanting to get to the afterlife and the plural form *m=tn* at the beginning of the direct speech confirms that multiple persons, or in this case gods, are being addressed, it is parallel in meaning to the other texts and there is also quite a large lacuna following it, which gives space to single out the Reed-clearer for attention. *ḏd ḥr* with a suffix pronoun is the same construction as found in the stela of Harwerre line 9 and Himmelskuh 29 (See section I.15).

[139] Spell 404: V 181d (B5c) and 181g (M2c) (see above); V 182b (B5c only); V 184a and 184f (B5c only); 186c (B5c only)

[140] Spells 404 (V 181h); (V 184c); (V 186h) and 405 (V 203a); (V 204a); (V 207d); (V 208e); (V 210f); There is also one incidence of a passive, *ḏd.ḥr.tw* "*It has to be said to the great one of yours who is in his shrine*" in Spell 818 (VII 18b)

[141] Spells 404 (V 185b) and Spell 1165 (VII 508c)

> *"He will find its gate-keeper standing with a corn-measurer's bag and with a corn-measure in his hand to measure a man's excrement with.*

> *ḏḏ.ḥr n=f s nḏ-ḥr=k twt-š twt-š rn=k*

> *The man has to say to him "Greetings to you, symbol of the garden, Symbol-of-the-garden is your name"*

Spell 373, the B2l version of which continues into Spell 374, illustrates two examples of *sḏm.ḥr=f* instructions with teleological conversational backgrounds which are designed to achieve a more immediate aim:

74. Coffin Texts Spell 373 (V 36c-e) (B2l)

> *"To breathe air among the waters. The discharge(?) of this wife of his is put into a new bowl surrounded by earth and the man digs it up on the day of shaking the earth.*

> ***gs.ḥr sw*** *s im=s [   ]¹⁴² ḥr ḫpr gmmw ḥr iṯṯ ḥmt=f m ḥs iwtyw ntf im=s* ***sn.ḥr=s*** ‖ *ḫpr k3 nˤw*

> ***The man has to anoint*** *himself from it* [the bowl] *[   ]¹⁴³ in the form found while taking* [the discharge of?¹⁴⁴] *his wife from the excrement which isn't his from it* [the bowl]. ***He has to smell it*** ‖¹⁴⁵ *Becoming a bull-snake or a nˤw-snake"*

The *sḏm.ḥr=f* forms have the immediate aim of giving the power to breathe underwater and the spell which follows deals with becoming a bull-snake or a *nˤw*-snake, which confers the powers of the gods upon the dead man. Both these special powers are part of an overall aim, which is the purpose of the Coffin Texts in general; to reach and survive in the afterlife.

The same can be said of the following spell. The section presented here is the title and is rubricised. The whole of the rest of the spell is what needs to be said to ensure that the god comes to prepare the spirit for him.

75. Coffin Texts Spell 469 (387h)

> *"Words for preparation [for] a god whose name is He-of-the-dawn. He will be between the two great gods when they are in the sky, one of them in the west of the sky and one of them in the east of the sky; they live by all the spirits of the land.*

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¹⁴² There is a blank space of about three groups here.

¹⁴³ Faulkner (2015: II; 10, n. 10) regarded the section from here to *im=s* as "*incomprehensible*". The translation offered here is a tentative one.

¹⁴⁴ Assuming an omission and inserting a noun makes slightly more sense out of a very difficult passage.

¹⁴⁵ At this point the text continues with a break into Spell 374, which is classed as a different spell by Faulkner (2015: II; 10).

ỉw.ḥr=f ḥḏ-tȝ pn[146] r=s sḫrt=f ꜥpr=f ȝḫ nb n=f im m pt m imnt

*He, the one of the dawn, **has to come** for it, his sacrifice, so he might prepare every spirit for him[147] there, in the sky in the west."*

In this example *ꜥpr=f* is interpreted as a subjunctive of purpose (Allen 2010: §19.8.1); the only way to make sure that the spirit is prepared for the dawn is if the god comes for his sacrifice.

Coffin texts V 200b (Spell 404), (Exx. 5), which has already been discussed in section I.5.5.1, has the immediate aim, expressed in the spell's title, of "*Leaving the field of rushes in whatever form he pleases*" and the way this is achieved is to be green like the gods. This can be expressed with the modal logic formula [[To achieve the goal of being able to leave the Field of Rushes]] it is not possible to not be green like the gods. Otherwise expressed as *he cannot leave the Field of Rushes in whatever form he pleases unless he is green like the gods*. This instruction is interesting in that it also has two preceding *sḏm.ḥr=f* forms that have the immediate aim of making the man green and are dependent on each other. They are "*He has to chew the barley and emmer*" (*wšꜥ.ḥr=f*)*,* which was given to him and *"He has to rub his body with it*" (*sin.ḥr=f*).[148] The dead man therefore:

has to chew the barley and emmer so he can rub his body with it

has to rub his body with it so he can be green

has to be green so he can leave the Field of Rushes in whatever form he pleases.

I.10 EXAMPLES OF *sḏm.ḥr=f* WITH A DEONTIC CONVERSATIONAL BACKGROUND

The difference between an instruction with a teleological conversational background and one with a deontic conversational background is the motivation behind issuing it. The former is used to make sure that a particular goal is accomplished but the latter is used to make sure that someone behaves in a particular way. With a deontic instruction the obligation to act in

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[146] The foregrounding of the subject here is interesting; both a suffix pronoun and the noun to which it refers are written. It is possible that the rules in place specify which god has to do the sacrifice rather than just a rule making sure it is done. However, it might well be merely a stylistic device because the indirect object also has a suffix pronoun with the noun to which it refers placed directly afterwards.

[147] This must refer back to He-of-the-dawn, which is the only masculine singular noun preceding it. As the god is a personification of the dawn, this probably means that the spirits are prepared for the dawn, which is when they enter the Field of Rushes after all the rituals have been finished.

[148] Spell 405, the abbreviated version of this spell uses the construction *wn.ḥr=f ḥr sḏm* instead of *sḏm.ḥr=f* here for both *wšꜥ* and *sin* but not *wȝḏ* and is discussed in section I.13

a certain way comes not from a need to reach a goal but from the need to conform to a particular set of rules. The external force at work is the duty to obey certain laws, uphold particular standards or traditions or to conform to set ways of behaviour, or perhaps the fear of retribution if you don't. There is only one certain example of *sḏm.ḥr=f* from Middle Egyptian (Exx. 77) and one from Old Egyptian (Exx. 78) where an obligation is imposed by a set of rules or a moral code in force[149]. The examples are as follows:

76. Coffin Texts Spell 405 (V 208d)

"*This means coming out into the presence of the Great Ennead, the one that is in Heliopolis, which comes in joy to meet[150] the spirit.*

wn.ḥr ȝḫ pn sḫwt[151] *ḥr ḫt=f m-ḫn[w]-ˁ =sn*

*The spirit **has to be** spread-eagled on his belly among them*"

and he has to say to them "I have come here to greet you, masters of existence in eternity"

This could be regarded as having a teleological conversational background; being spread out on his belly is part of an obscure but necessary ritual to achieve the aim of entering the field of rushes and leaving in any form that he wishes but a deontic interpretation seems much more appropriate. Being spread-eagled on the floor is certainly a gesture of deference and suggests that there are rules about how one behaves in the presence of the Ennead just like the rules for behaviour in the presence of a king, for instance in Sinuhe B 252-253: *wn.k(wi) r=f dwn.kwi ḥr ḫt=i* "*I was stretched out on my belly*"[152] and as depicted in countless pictorial representations of people grovelling before the king.

77. Appeal to the Living of Sobekemkhent; Door Lintel, line 7 (Drioton and Lauer 1958; 240)

i ˁnḫw tp-tȝ mi mr=tn ˁnḫ nsw ḏd[153] *[.......]*
　　ir nfr n wnn m-ˁ=tn ḏd.ḥr=tn [......[154]*]*

"*O! Living ones who are on earth, as you want the king to live [....] say [......]*
When there is nothing in your hands you have to say [........]"

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[149] There is another potential Old Egyptian example which was discussed above (Exx. 20).

[150] *m ḫsf*; Literally "*going the opposite way*"

[151] Taken as a writing of *sš* "*to spread out*" (Wb 3, 482.16-483.1)

[152] The verb used there is *dwn* "*to stretch*" (Wb 5, 431.1-432.13) which has a similar meaning.

[153] Drioton and Lauer (1958: 240) have restored *=tn* here although there is no trace of it on the photographs (1958: Pl XXIV). It is possible that this is parallel to the following phrase and was also *ḏd.ḥr=tn*

[154] Edel (1967: nachträge LXXVI, §550) restores [*m r=tn*] following *ḏd.ḥr=tn*.

In all except three of the other Old Kingdom examples of the appeal to the living[155], when the passer by has no physical offerings to give, the position which is occupied by the *sḏm.ḥr=f* here is occupied by an imperative.[156] It is also the case that in all the others the tomb occupant only asks bread and beer from the passer-by whereas in this one the life of the king is mentioned. This reference to the king is probably the reason for which the *sḏm.ḥr=f* form is used here. When an imperative is used the passers-by would only be beholden to the man in the tomb and whether they said anything in his favour or not would depend on their respect for him or whether it was in their interests. On the other hand, in this example the life of the king is at stake and the obligation to give an offering or say an invocation is much stronger; one has an over-riding moral duty to preserve the life of the king. Religious or moral rules expressly prohibit letting the king die therefore the only possible course of action is to say the formula, hence the *sḏm.ḥr=f* form.

The following examples involving the guardians of the gates or provinces in the Coffin Texts could also be regarded as having a deontic conversational background. Here, everything has the air of a fixed ritual with specific rules and boundaries and clearly defined roles; the man approaches a gate or a particular area, the guardian demands something of him, the man replies in a particular way and the guardian lets him pass. Some exchanges involve repeated demands and responses, such as the ones with the Captain-of-the-ferry-of-Chemnis in Spell 405[157] and the River-of-fire in Spell 650[158]; both parties have a set speech, the god demands something and the man replies. The generic nature of the *sḏm.ḥr=f* [159], with the presence of *ḥr* ruling out alternative courses of action[160], shows that this always has to happen with every dead man and thus gives consistency to the afterlife; the ritual is always *exactly* the same for every man and nothing is dependent on the individual caprices or whims of gods.

As discussed above in section I.9.3, the dead man is obliged to say what he does for both teleological reasons and, to a certain extent, deontic ones, but the obligation on the guardian is unlikely to be teleological in nature; it is hard to even guess what a guardian's aim might be in speaking to the man. We could speculate that his interests may coincide with the man's in that he wants the man to get to the Field-of-Rushes but the only information we have is that he guards the gate or his particular province and that he lets through the people who say the right words. It is therefore very likely that here is where the obligation lies; guarding the gate or a particular province is the god's job and it is his duty to demand something of the man[161] and to let those who respond correctly continue. It might even be said, as nearly all these beings appear nowhere else in Egyptian, that a guardian's job is his *raison d'être* so dealing with the dead man is a *sine qua non* for him; his duty defines his existence therefore he *has to* ask the questions. The examples of *sḏm.ḥr=f* with a deontic conversational background

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[155] According to Shubert's list of appeals to the living (2007).

[156] For the three exceptions, in which the *sḏm.k3=f* form is used, see Shubert 2007: 37; 48; 49..

[157] V 202j; V 203f; V 203k; V 207a; V 207f; V 207j

[158] VI 272i; VI 272k; VI 272m

[159] See above, section I.5.1

[160] See Introduction, p. 4

[161] The guardians' speech is usually phrased with an imperative that demands a particular response from the dead man.

that involve Afterlife guardians, in addition to those involving the Captain-of-the-ferry-of-Chemnis in Spell 405 and the River-of-fire in Spell 650 mentioned above, are as follows:

78. Coffin Texts Spell 1109 (VII 438c) (Coffin B1c)

This is the only example involving a verb other than *ḏd* and the subject is the guardian of the middle gate who is called "*He who eats maggots*":

> *ir ḫpr=f m fnṯ* **wnm.ḫr=f st** *ḏr tm=f rḫ r n sw3 ḫr=f*

> "*If he* [the dead man] *turns into maggots, he* [the guardian] **has to eat** *them because he* [the dead man] *did not know the spell for passing him*"

The guardian's job is specified; the guardian has to eat the man if he turns into maggots because he doesn't know the spell. He has no alternative but to eat him because the "rules" say so.

The following example is interesting in that it has a short term teleological conversational background as well as an overall deontic one.

79. Coffin Texts Spell 404 (V 182d)

"*He has to approach another gate and it is there that he will find the two sisters waiting.*

> **ḏd.ḫr=sn** *n=f m sn=n ṯw*

> **They have to say** *to him "Come so we may kiss you"*

> *and they have to cut off*[162] *the nose and lips of any man who does not know their name.*

Here, the sisters' job is to mutilate any man who does not know their name but, to get the man close enough to them to carry out this task, they have to entice him to them first.

The aim of the spell from which the excerpt below comes is stated at its beginning and is *"Not dying because of a snake"*. At the beginning of a new section it says:

80. Coffin Texts Spell 160 (II 379b)

> *ir r=f m tr n mšrw* **pnˁ.ḫr=f** *irt=f r rˁ*

> "*At evening time,* **he** [the snake] **has to roll** *his eye towards Ra*"

The presence of *ḫr* shows that it he has no alternative but to roll his eye towards Re so, unless this is something that the evening forces him to do, the obligation must lie elsewhere. The

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[162] See Exx. 102 for the *ḫr=f sḏm=f* form here.

most likely explanation is that this is the snake's duty or job[163]. In the same section, after the crew are forced to stop rowing by the snake[164], Seth, who is known from many other sources as a guardian of celestial boats and magic snake-killer, is named as the one who has to deal with the snake.

81. Coffin Texts Spell 160 (II 379b)

ḳꜥḥ.ḥr sw stš m ḏr=f

"**Seth has to push it** [the snake] *away with his hand*"

Here the connection between a duty or job and the action described with a *sḏm.ḥr=f* form seems fairly clear and both these examples seem to show that Seth and the snake work in opposition to each other.

82. Coffin Texts Spell 404 (V 186d)

spr.ḥr=f r nn[165] sꜣwt[166] **ḏḏ.ḥr n=f nn n sꜣwt** *nn di=n ḫnd=k ḥr=n*

*He has to approach The-Dykes and The-Dykes **have to say** to him "We will not let you walk on us"*

Examples involving other gods are: "*The great Ennead*" Spell 405, (V 209a); (V 209e) and (V 209k), "*The great tribunal*" Spell 405 (V 209o), Spell 818 (VII 18b) "*The great one of yours who is in his shrine*" and "*Isis*" Spell 829 (VII 30k)

The following example from the medical texts is also probably deontic:

83. Papyrus Edwin Smith XVIII, 17 (Case 48)

Whenever you examine (a man) with a sprain in a vertebra of his spine, you then say to him "Please straighten your legs and retract them"

m3ꜥ.ḥr=f sy

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[163] Vernus (1990; 79) translates this as "*And at eventide he (a snake demon) (unfailingly) turns his eye against Re*", which is a possible translation, but one would expect the sentence adverb *ḫr* (See chapter III) rather than the *sḏm.ḥr=f* if that were the case.
[164] See Exx. 17
[165] *nn* is probably a demonstrative as part of a name here; no *sꜣwt* have been mentioned previously.
[166] Faulkner (2015:51, n. 19) has taken *sꜣwt* as "*grounds*"; presumably he assumes that it is a writing of *sꜣṯw* "*earth*" (Wb 3, 423.7-424.12). He dismisses a suggestion from Mueller of "*(boarding) planks*" (Wb 3, 419.14-17) and, although the land determinative counts against "*boarding planks*", it seems that some sort of waterside feature is required here because the ferryman is the next guardian encountered. The meaning of *sꜣwt* is bound to be more specific but "*dykes*" has been used here to represent a possible derivation from *sꜣw* "*to guard against*" (Wb 3, 416.12-417.21) with a land determinative, literally "*A guard made of earth*"

*"He **has to** straighten them out."*

This is a response to the doctor's request; the patient has a duty to listen to the doctor but fulfilling that duty is also part of the cure and without the co-operation of the patient the doctor cannot make a proper diagnosis and therefore cannot cure the patient.

I.11 EXAMPLES OF *sḏm.ḫr=f* WITH AN EPISTEMIC CONVERSATIONAL BACKGROUND

The epistemic *sḏm.ḫr=f* is used when the speaker has a body of knowledge that leads him to a conclusion that, according to the evidence that he possesses *at the time of speaking*, is the only one possible. However, in the same way as an instruction issued with modal obligation does not become reality until it is carried out by the subject, a conclusion framed in the *sḏm.ḫr=f* form is not actually true until confirmed by the subject. An illustration of an epistemic modal in English that is often used by linguists is:

"The lights are on in John's office, so he must still be working"[167].

Although the speaker is more-or-less certain at the point of speaking that John is working, having made a conclusion based on a combination of evidence and logic, the truth of whether John is working or not is still subject to doubt; it still has to be confirmed or proven. In this case, there might have been several other possible situations such as "*the cleaner is in there*" or "*John has forgotten to turn the lights off*" but the speaker, having eliminated all those other possibilities, has chosen the only *possible* explanation based on the facts at his disposal[168] therefore, *based on the evidence he has at that moment*, the only possible conclusion is that John is in his office. However, only when he actually goes to the office and sees John, or has sufficient other evidence to unequivocally confirm that John is indeed still working, can the speaker say: "*John is undoubtedly still working*".

In Egyptian, *sḏm.ḫr=f* is used for epistemic assertions or propositions of the "*he must still be working*" type and the attached subject is held responsible by the speaker for confirming whether the statement is true or not. The situation in English is summed up nicely by Heyvaert but applies equally to Egyptian.

 "*The subject is **speech functionally** responsible: it is the entity which the speaker picks out as being responsible for the plausability/truth of the proposition or for the success of the obligation*" (2003: 92)

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[167] Another very common example is "*People are coming in with wet umbrellas, so it must be raining*" but this has the disadvantage for illustrative purposes of it being virtually impossible to draw any other sensible conclusion from seeing people with wet umbrellas and so an observer is much more likely to just say "*It's raining*".

[168] This is known by modal logicians as "*ordering semantics*" and is the ranking of a set of possible worlds according to which is the most accessible. See Portner (2015: 67)

In other words, *on the basis of what is known*, the proposition is necessarily true but not all the facts are always at the disposal of the speaker; whether the proposition is *actually* true or not depends on confirmation from the subject.[169] The subject does not have to confirm it personally, the proposition can be confirmed by further observation of the subject, by subsequent events or by someone else but he is responsible. He may or may not confirm it and in some cases, such as the medical examples from Egyptian, the proposition can never be confirmed. All the examples of *sḏm.ḫr=f* epistemic conclusions from the medical texts appear in glosses explaining the connection between diseases or injuries and particular symptoms, known medically as the physiology. All the examples deal with conclusions about the internal workings of the body (the heart, the mind and the brain) and are based on external symptoms, much like the lights being on in John's office. Unlike the case of John though, without the benefit of modern technology, no Egyptian doctor could say that a conclusion regarding the heart or the brain of a living patient was beyond doubt, or proven, because it could not be verified without opening up the patient or reading his mind.

All the Egyptian examples of epistemic *sḏm.ḫr=f*, except one[170], come from the medical texts and all deal with internal problems. Those from Papyrus Ebers are all from the section that deals with the action of the heart and and are concerned with how the physical heart affects the mind or vice-versa[171]. The examples from Papyrus Edwin Smith are both concerned with invisible and intangible phenomena; one with transferred pain and the other with a brain injury. The example from the Tale of the Eloquent Peasant deals with the workings of somebody else's mind. In all the examples a conclusion regarding the physiology of the condition is drawn from the evidence at the doctor's disposal.

The glosses in which the *sḏm.ḫr=f* forms appear all follow more or less the same pattern:

i.   The name of the condition, which is rubricised
ii.   The definition of the condition, which is presented with *pw* "*This means...."*
iii.   The physiology of the condition framed with *sḏm.ḫr=f*
iv.   An observation that supports the conclusion (In Exxs. 84, 85, 86 and 89 only)

The first two examples from Papyrus Ebers are counterparts; the first deals with what is probably depression *("Kneeling of the mind*"[172]) due to cardiovascular trouble and the second is cardiovascular trouble caused by depression.

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[169] The same principle applies to instructions, which are always expressed with an attached subject; an instruction requires the participation of the subject to put it into effect (See section I.9) just as an epistemic conclusion requires a subject to confirm it.

[170] That of the Eloquent Peasant B1, 219 which is dealt with separately in section I.14. See also the examples of from égyptien de tradition in Appendix A.1.6.

[171] Although the matter of the difference between *ib* and *ḥȝty* has been much discussed by Egyptologists, the understanding here is that *ib* refers to the mind, which deals with thought and emotions, and *ḥȝty* refers to the physical heart, where the *ib* was thought to be located. Walker (1996: 182-186) came to much the same conclusion.

[172] The mind is "*kneeling*", in the sense that it is not standing upright as it should. That *mȝs* has a metaphorical sense is demonstrated by Papyrus Bremner-Rhind 26,13 and by a Prophylactic statue

84. Papyrus Ebers 855k

ir m3st-ib gw3 ib=f pw ḥ3ty=f ḥr[173] st=f m snfw nw sm3 prr kt ḫr=s t3 ḥ3ty pw **wrd.ḥr ib=f** *ḫr=s nds wnm=f stp=f*

As for "Kneeling of the mind" it means constriction of his mind.
His heart is above where it should be in the blood of the lungs,
which results in it being weak because of it, which means hotness of the heart.

His mind **must be weary** *because of it and so he eats little and picks at his food[174].*

The writer explains the physiology of the condition with the following train of reasoning:

The physical evidence is:

> *The mind is "kneeling"*
> *His heart is not where it should be*
> *The heart is weak and hot*

This evidence leads him to say that the mind must be weary. He cannot say that this is undoubtedly the cause of the condition because he has no way of knowing exactly how the heart is affecting the mind, or of measuring it, because he can't see inside the patient or read minds. However, on the basis of the evidence he has, everything points towards the cause of the mind's "*kneeling*" being tiredness due to a heart condition. He then provides an extra piece of evidence as to how his conclusion is connected to the original condition by pointing out that the patient eats little and picks at his food, the symptom par excellence of depression.

85. Papyrus Ebers 855l

ir m3s-ib-n-wḫdw ktt-ib=f pw m-ḫnw ḫt=f ḥr wḫdw ḥr ḥ3ty=f **i3r.ḫr=f** *m3s.ḫr=f*

"As for "Kneeling of the mind because of suffering" it means his mind is troubled inside his belly and the suffering affects his heart.

It must be fading *and so cannot help kneeling[175]"*

The writer's chain of reasoning here is that:

The physical evidence is:

(KRI V; 265, 10) in both of which kneeling is specifically associated with weakness and is applied to snakes, who, of course, have no knees.

[173] *ḥr* must be used in its physical sense of "*over*" here; if we were to translate as Bardinet does with "*Son coeur-haty est à sa place dans les masses sanguines....*" (1995: 103) the bad results that ensue don't make sense unless we insert both "*mais*" and ignore *prr*, as Bardinet did.

[174] See Exx. 6 for the meaning of *stp*

[175] See Exx. 15 for "*cannot help kneeling*"

His mind is "kneeling" (because it is weary, according to the physiology expressed in the previous example)
His mind is troubled
The suffering is affecting his heart

The doctor concludes on the basis of the physical symptoms that the mind is growing weak ("*fading*"). Again, he cannot say that this is definitely the case because he has no way of seeing or measuring the mind but, on the basis of what he can see, he concludes that the mind is weakening. He then links it back to the condition by stating that the the mind cannot help kneeling because it is weakening.

86. Papyrus Ebers 855n

ir rwt nt ḥ3ty rww=f sw pw ḥr mnd=f i3by **twn.ḥr=f** *ḥr mkt[176]=f rwi.ḥr=f m st=f wnn ꜥdt=f pw m šwt=f i3bt r dmḏ m ḳꜥḥ=f*

"*As for Movement-of-the-heart* it means that it is moving itself away from the left-hand side of his chest.
It **must be pressing on** its "protection" and so cannot help moving out of place.
There is [his] fat on his left side to the whole of his shoulder"

The doctor makes draws a conclusion as to why the heart is moving on the basis of what he knows. The reasoning goes as follows:

The physical evidence:
> *The heart is moving itself away from where it should be*
> *(There is something pushing it)[177]*

The doctor concludes from this that the evidence points towards the "*protection*", whatever it might be, being the culprit. He cannot be absolutely certain because he cannot see this happening without being able to see inside the patient, but the evidence he has makes him nearly certain that this is the case. He then adds some extra evidence linking it to the condition by stating that there is fat to the left-hand side of the patient's shoulder. That fat in the left-hand side is linked to movement of the heart can be seen in the next example where it is mentioned in connection with a downward movement of the heart. It also seems almost certain, on the basis of the doctor's reasoning, that the "*protection*" is closely associated with, if not the same thing as, the fat.

87. Papyrus Ebers 855q

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[176] This could mean "*protection*" derived from the verb *mk(i)* (Wb 2, 160.1-21) or the noun "*proper place*" (Wb 2, 161.9-12). *twn* implies that it needs to be something physical for it to push against, so the former seems preferable although what the "*protection*" actually is is difficult to say. Walker (1996:197) assumes that this is the same word as *mk3t* "*support, pedestal*" (Wb 2, 162.13)

[177] This is not actually stated but can be inferred from the use of the *sḏm.ḥr=f* as opposed to any other verb form when it states, "*It* [the heart] *has to move out of place*" (See Exx. 16). This means that the heart doesn't just move by itself but is being forced to by circumstances (see section 1.5.5.2).

*ir ḥȝty=f npȝ=f ʿȝ ʿdt ẖr mnd=f iȝby irt nhy pw n ḥȝt r-ẖrw in ḥȝty=f **sš.ḥr ḥȝyt=f***

"As for "His heart flutters and a large amount of fat is under the left side of his chest", it means that a bit of movement downwards is done by the heart.

*His disease **must be spreading**."*

The reason for this conclusion may run as follows:
The physical evidence is:

> *There is a large amount of fat under the left side of his chest*
> *His heart flutters/sinks*

On this basis the physician concludes that the disease is spreading or getting worse. A sinking feeling in the chest ("*fluttering of the heart*" defined in the text as "*a bit of movement downwards*") is often a precursor to a heart attack and a symptom of a worsening of cardiovascular trouble. In the light of this evidence: the external symptoms that have been reported by the patient and the doctor's experience, the only possible conclusion in the circumstances is that the cardiovascular disease is getting more serious. Because the doctor cannot see inside the body, he cannot be 100% sure that the disease is spreading but, on the evidence that he does have he is certain that this is the case.

88. Papyrus Edwin Smith II, 1 (Case 3, Gloss C)

*ir mn=f tsw m nḥbt=f tst pw m pȝ=f ih nw nnm m nḥbt=f **mn.ḥr nḥbt=f** ḥr=s*

As for "He suffers stiffness in his neck" it means stiffness from what he has already suffered and this has strayed into his neck.

His neck must be hurting because of it

This example is discussed in detail in section III.9 where the epistemic *sdm.ḥr=f* is compared with *ḥr sdm=f* with an epistemic conversational background.

89. Papyrus Edwin Smith II, 24 (Case 6, Gloss A)

*ir sd dnnt=f ngȝy[178] ȝis n dnnt=f sd wr wbȝ.n ḫnw dnnt ntnt[179] ʿrf[t] ȝis=f **sd.ḥr=f** nḫ[180]=f m ḫnw dȝdȝ=f*

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[178] Allen (2005a: 75) translated *ngȝy* as "*exposed*" on the basis that it is a variant of *ngi* (Wb 2, 348.6-14) which does have a well-established meaning of "*to rip*" or "*break open*" but it is just as likely that *ngȝ* has its usual meaning of "*to cut*" (Wb 2, 348.16-19).

[179] *ntnt* is actually a masculine word, as would be expected from a reduplicated root, further shown by the Papyrus of Nu which has *ntnt n rʿ* (Lapp 1997: Plate 19, 2). Breasted (1930: 172) notes that it must be feminine because *ʿrft* has a *t* but the fact that he notes something so obvious at all would indicate that he too saw it as unusual that the scribe regarded *ntnt* as a feminine word.

[180] *nḫ* has been translated "*dribbled*" here as the noun derived from it, *nḫ* (Wb 2, 318.15), is applied to spit, mucus and snake poison.

As for "A fracture of his skull, which has cut the brain of his skull" (it means) a serious fracture the interior of his skull having opened up

*The membrane that encloses his brain **must be broken**[181] and so it dribbles out from inside his head.*

The physical evidence that leads the doctor to his conclusion is that:

The interior of the skull has been broken open
"Ripples of pus", which were mentioned earlier in the diagnosis (II, 20) are visible

On this basis, the physician concludes that the membrane that surrounds the man's brain has broken. He cannot be absolutely sure that this is the case because he can't see inside the skull and anyway doesn't know what the inside of the man's head looked like before it was stoved in. On the basis that there is some liquid that looks like ripples of pus that is now visible he concludes that there must have been something holding it in place before the injury. He adds, as further information to support this conclusion, that the the liquid is now dribbling out of the man's head. On the basis of the evidence, this is the only possible conclusion.

The following example, which comes from the description of the role of one of the *mtw* "*vessels*" (Wb 2, 167.9-14) connected to the ears, is probably epistemic in nature.

90. Papyrus Ebers §854e

ky-ḏd ir nw iddw msḏry ḥr=s nꜣ pw wnn tp mꜣꜥwy n s ḥr nššw[182] ḏd ḥsḳ pw m ś šsp.ḥr=f n=f ṯꜣww=f

*"In other words, as for this deafness from which the ears suffer, this means that the top of the temples of a man are clogged up with mucus(?) and it means that the ḥsḳ-demon puts [it] into the man and **he** [the demon] **must be taking** for himself his [the man's] breath"*

Again, this example involves the physiology of a disease but of a less scientific kind; the reasoning may go as follows:

The man is bunged up[183]
The ḥsḳ demon has put the mucus into the man
The man has trouble breathing
The demon must be taking his breath

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[181] *ntnt ꜥrf[t] ꜣis=f sd.ḥr=f* has been taken as a subject first construction because it has a long subject. See Eloquent Peasant B1, 219 (Section I.14) for a similar construction with an epistemic *sḏm.ḥr=f*
[182] This perhaps means "*producing mucus*", if we take *nšw* as a passive doubled form of a verb related to *nšw* "*spit, mucus, discharge*" (Wb 2, 338.10-11). Literally "*he is on being continually/intensively snotted*"
[183] Breathing being associated with the ears by the Egyptians. See Ebers §854f

The connection between the demon and the shortness of breath is obvious to the writer but how the mucus deprives the man of breath is what concerns him. The writer is certain that the breath has gone somewhere and the demon, who is the only other factor in this ailment, is the only candidate; he cannot be absolutely sure that this is the case because he can't see the demon or the breath and, even if he could, he wouldn't be able to measure it but, on the evidence he has, the only possible conclusion is that the demon is taking the breath.

I.12 EXAMPLES OF *sḏm.ḫr=f* WITH A CIRCUMSTANTIAL CONVERSATIONAL BACKGROUND

These types of necessity modals are direct results or actions that have been forced upon the subject by prevailing circumstances and have already been covered in section I.5.5.2

I.13 UNACHIEVED EXTENSIVE (*wn.ḫr=f ḥr sḏm*)

There are three examples where *wn.ḫr=f* is used as converter to form a modally necessary unachieved extensive which takes place in a generic context:

91. Lahun Veterinary Papyrus, Col. 22b

wn.ḫr.t(w) ḥr ntš=f m mw ḳb

*"Someone **has to keep on sprinkling** him with cold water/he has to be continually sprinkled with cold water"*

The unachieved extensive (See Allen 2010: §15.3) with no modal nuance, "*someone is sprinkling him*" or "*someone was sprinkling him*", would be rendered with **iw=tw ḥr ntš=f m mw ḳb* but, as this action is obligatory, *iw=tw* has been replaced with *wn.ḫr=t(w)*. This would appear to be the only way to phrase this as a generic instruction using *ḫr*; were the author to write *ḫr=tw ḥr ntš=f* he wouldn't be giving an instruction, only describing a situation (see section III.12.6) and the translation would be "*Inevitably, somebody is sprinkling him*". [184]
The other two examples of *wn.ḫr=f ḥr sḏm* come from the same spell in the Coffin Texts:

92. Coffin Texts Spell 405 (V209g-j)

The dead man has been given all kinds of plants by the great Tribunal and the text continues thus:

*in šmsw ḥr šꜥ n=f st rnpt tpt **wn.ḫr=f ḥr wšꜥ** im **wn.ḫr=f** ḥr sin ḥꜥ=f im*

*"It is the followers of Horus who reap them for him the first year. **He has to keep on chewing** them and **he has to keep on rubbing** his flesh with it"*

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[184] See also Appendix A.1.4 for examples of *wn.ḫr=f* being used as a converter in égyptien de tradition.

These two examples have parallels in Spell 404, which has *wšꜥ.ḫr=f* and *sin.ḫr=f* in place of the *wn.ḫr=f ḥr wšꜥ* and *wn.ḫr=f ḥr sin* here, a substitution which can be explained by the difference in the immediate contexts of the examples. Spell 404 has the specific aim of gaining the ability to leave the field of reeds in any transformation which the man desires (see Exx. 5); the man only has to chew the food and rub his flesh with it once to change his state permanently from a man without this ability to one with this ability, hence the straightforward *sḏm.ḫr=f* form. In the example above no specific aim is given and this passage is followed by a list of things that the man is allowed to do in the afterlife, such as playing senet or inspecting his children and house, *for ever and ever (ḏt r nḥḥ* (V 210b)), in other words, these are actions which are repeated ad infinitum, hence the unachieved extensive. There is a further example of *wn.ḫr*[…] *ḥ*[*r sḏm*] from Lahun poem UC32117C Vso Col. 2, an unknown literary text, which is too broken to use or to even be sure that it is an unachieved extensive.[185]

I.14 THE TALE OF THE ELOQUENT PEASANT B1, 219

Fig. 8 The Tale of the Eloquent Peasant B1, 219, hieroglyphic transcription.

[185] ..] *prr ḫpy(w) ḥr-ꜥwy* **wn.ḫr** [... "[......] who end up dead immediately [.....] have to ke[ep on ....]"

This example of a *sḏm.ḥr=f* is particularly important firstly because it is the only instance of the *sḏm.ḥr=f* form in Middle Egyptian that is not from the "*procedural*" texts and secondly because it has a clear context in which to examine by what the necessity modal is informed.

Some recent translations are:

"*The son of Meru is in error, for his face is blind to what he should hear, and his heart neglects what has been brought to his attention*" (Simpson et al. 2003: 36)

"*So this marsh dweller said: The son of Meru is a man astray, His face blind to what he should see, deaf to what he should hear, Without care for what he should remember*" (Quirke 2004: 159)

"*And this peasant said "So shall Meru's son still err, his face blind to what he sees, and deaf to what he hears, his heart straying from what is recalled to him*" (Parkinson 2012: 183-4)

"*This peasant said, 'Then the son of Meru errs'.*" (Depuydt 1993: 220)

 "*Statement by this peasant: 'The son of Meru, he acts wrongly'* Green (1987:51)

et Khounanoup dit: << Le fils de Merou s'égare encore. Son visage (reste) aveugle à ce qu'il voit, sourd à ce qu'il entend, oublieux (même) de ce qu'on rappelle....>>" (Lalouette 1984: 205)

"*so irrt der Sohn Mrw's denn*" (Junge 1972: 136)

"*The son of Meru, he must then go astray*" (Vernus 1990: 81)

It can be seen from the above that all the translators but Vernus have taken the *sḏm.ḥr=f* as meaning that Rensi is in the habit of behaving badly but, in the light of the attributes of necessity or obligation given to the form here, a reassessment of this passage needs to be made. Before examining how the verb-form itself fits into the context, it is important that a more precise meaning for the vocabulary used and more accurate meanings for the phrases surrounding the *sḏm.ḥr=f* form are established.

The verb *tnm* is not common. In Middle Egyptian there are only five attestations of it[186] as well as one of its causative *stnm*. It is used once in the Pyramid Texts Spell 606 (§1695c) and six more examples are provided from egyptien de tradition of the XVIIIth dynasty, including two identical examples from Books of the Dead and two from the Ramesside Satirical Letter Papyrus Anastasi I.

The Tale of the Eloquent Peasant B1, 162 has *tnm* in the form of a negatival complement.

"*Make a shelter so that your riverbank might be safe. Look! Your landing place is surrounded by crocodiles*

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[186] Faulkner's Dictionary lists another example of *tnm* from the Tale of Eloquent Peasant B1, 148 (B1, 179 in the version used here (Parkinson 1991)) but on examination of the hieratic the word is clearly *nnm*. This is confirmed by a close parallel from the Tale of Eloquent Peasant B1, 127; See Parkinson (2012: 153).

ꜥḳꜣ ns=k imy=k tnmw

"Straighten your tongue so that you do not **tnm**"

Here there is an obvious contrast with *ꜥḳꜣ* "*to be correct, straight or accurate*" (Wb 1, 233.5-12), the stated consequence of the tongue being straight is that Rensi does not *tnm*. This would strongly point towards *tnm* being a result of not going or being straight or not being correct. The metaphor of Rensi's speech, represented here by his tongue, controlling the boat of Maat runs through this whole petition, indeed it reoccurs throughout the whole text. This section, by continuing the metaphor, implies that if Rensi does *tnm* he will miss his landing place and end up amongst the crocodiles. It could be concluded then that, for the metaphor to work properly, *tnm* has to have a physical sense as well as a moral one. The physical aspect of *tnm*, is shown by Sinuhe B 96 where it appears as a perfect participle[187] used as a noun:

"*I gave water to the thirsty,*

rdi.n=i tnm ḥr wꜣt

and placed the one who had **tnm**ed on the road"

Here Sinuhe is undoubtedly speaking of aid to those in physical, and not moral, trouble and the *tnm* should clearly be taken as a person who had to be put back on an actual road. The theme of *tnm*ing from a road turns out to be repeated elsewhere, with the variant spelling *ṯnm*, in the XVIIIth Dynasty prayer of Djehuty (Urk IV: 445,7).[188]

di=k [wi] ḥr wꜣt nt nb ḥḥ nn ṯnm[.i][189] n sšm=k

"*May you place [me] on the road of the Lord of Eternity without my tnming, because of your guidance*"

This example also attributes not *tnm*ing to the guidance of a god, in this case Amun. The connection between *sšm* also occurs in the Tale of Eloquent Peasant B1, 144 where the agent noun of *sšm*[190] "*to guide, lead or instruct*" (Wb 4, 285.7-287.20) is contrasted with *stnm*, the causative of *tnm*.

"*It turns out that the watchman is blind, the judge is deaf and*

sšmw ḫpr m stnmw

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[187] The presence of *rdi.n=i* all but rules out reading *tnm* as an imperfect participle. The Ashmolean ostrakon, which makes little sense in general in this particular section, has *tnmt*.

[188] Other examples of *tnm* being associated with roads are Papyrus Bremner Rhind (Faulkner 1933: 7,21), written in reasonable Egyptian de tradition but of much later date, which states "*When I travelled the roads I tnmed on account of my brother abandoning [me]*" and the same text (7,8) seems to show the roads themselves having *tnm*ed; "*When the hills are turned over the roads tnm*" *ꜥḏ jꜣty tnm wꜣwt*. The XVIIIth dynasty Papyrus of Nu (Lapp 1997: Pl 79, line 2) also contains an obscure reference including the causative of *tnm* in relation to protecting a tomb "*I have stnmed the ways*" *jw stnm.n=j wꜣwt*

[189] Of note here is the reversed legs determinative.

[190] In The Tale of the Eloquent Peasant B1, 96 Rensi himself had been described as a *sšmw* "*a guide*"

the guide has turned into a causer of tnming"

Another example where there is a clear contrast between *sšm* and *tnm* is in the XVIIIth Dynasty copy of the Wisdom of Ptahhotep; Papyrus British Museum Papyrus n° 10409 (Zaba 1956: §D218)

nn tnm.n[191] *sšm.n=sn*

"The one who they [the gods] guide, cannot tnm

and the one that they have made boat-less can find no way to cross."

Papyrus Prisse, the Middle kingdom edition of Ptahhotep, to which this text is nearly identical has *nnm* in this position (Zaba 1956: §D218) so, unless this was a purely orthographic error due to the similarity between the two words, it indicates that, at least by the XVIIIth Dynasty, *nnm*, meaning "*to go astray or wander*" (Wb 2, 276.15)[192] and *tnm* were sufficiently similar for the two to be either confused with, or substituted for, one another.

This passage is also of note owing to the association of *tnm* with being unable to cross in a ferry. There is an obvious contrast between those who are guided by the gods and those who are forsaken by them by having their boat taken away; the first cannot *tnm* and the second cannot cross. This implies that those who *tnm* are in the same category as those who are unable to cross, which is exactly the same situation that is found in The Tale of the Eloquent Peasant B2, 98 where falsehood, who (always) *tnm*s, cannot cross in a ferry.

ir šm grg iw=f tnm=f

*"Whenever falsehood starts out it **tnm**s,*

it cannot cross [even] in a ferry and [cannot ?]. As for the one who is rich with it, he has no children and no living heirs. As for the one who sails with it, he cannot land, his boat cannot moor in its landing place"

The use of the *iw=f sḏm=f*, a verb form used to express generalisations, shows that *tnm* is a characteristic of Falsehood, something that it always does. Parkinson (2012:193), emphasising its moral aspect, says "*The verb **tnm** summarises the previous descriptions and denunciations of misconduct (see B1 145, 162, 219)*". As in The Tale of the Eloquent Peasant B1, 162 *tnm* is again associated with sailing and failing to reach a landing place. Also to be noted here is that *grg* is often contrasted with *mꜣꜥt* (Wb 2, 18-20.9)[193], which is closely related to *mꜣꜥ* "*to be straight*" (Wb 2, 12-14.19; 22.1-4) implying that being crooked is a characteristic of Falsehood

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[191] Gunn (1924:129) states that *nn sḏm.n=f* is used for negating gnomic statements and on contextual grounds quite reasonably treats it as identical to the more common *n sḏm.n=f* form.

[192] *nnm* is even rarer than *tnm*; the TLA gives only three examples from Middle Egyptian.

[193] For instance, in The Tale of the Eloquent Peasant Peasant B1, 98; 189-90; 272; B2 96-7 and Ptahhotep §D532

and in The Tale of the Eloquent Peasant B1, 89 Falsehood is described as *sḫm*ing, a verb used elsewhere for a ship buffeted by high winds (see Parkinson 2012: 73).

There is one more example from egyptien de tradition in which *tnm* has an association with divine guidance, in this case an order; the west side of Hatshepsut's obelisk inscription (Urk IV, 363, 13):

"*He was the one giving instruction, I not sleeping because of his chapel*

n tnm.n=i[194] *ḥr wḏt.n=f*

and not tnming, because of what he had decreed"

Two further examples of *tnm* from égyptien de tradition are provided by the Satirical Letter Papyrus Anastasi I. The first is at 16,2:

"*Let us marshal the troops for the occasion, my mind is present and correct*[195],

ḏbꜥ=i ḥr sḏm sšsꜣ.w mi tnm.k~w~i

my fingers are listening and trained[196] *to the same extent that you tnm*"

Gardiner (1911:18*) and Wente (1990: 105) both emended the text to *ssšꜣ mi tnm=k*, which, in the context is the most plausible option for making sense out of the passage. Here *tnm* is the antithesis of order and restraint; qualities that are essential in any successful army.

The other attestation from the Satirical Letter Anastasi I is at 19,9, which is damaged and consists of a description of somebody who is bruised and battered after a difficult and dangerous journey:

"*When you are able to relax in the evening your whole body is crushed,*

tw ꜥwt=k wšꜣwšꜣ ṯnm.tw[197]*m-di ḳdy*

your limbs are bruised and tnmed with fatigue"

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[194] Of note here is the reversed legs determinative.
[195] Translated as such to keep up the military metaphor; literally "*my mind has been counted*"
[196] Literally "*caused to be skilled/competent*"
[197] Gardiner (1911: 31a, n. t) restored *=k* on the basis that the legs determinative was not big enough to fill the lacuna by itself, having presumably restored it in the first place on the basis that this is the usual determinative of *tnm*. The lacuna is, however, the right size to fit *m* and the legs determinative, as would be consistent with the way *tnm* was written earlier in the same text (see Ex. 8). This would render *tnm.tw*, which is a plausible writing of a stative in 19th Dynasty Late Egyptian and fits in the context, but at this earlier stage seems much less likely. See also Gardiner (1911: 31a, n. q) for the spelling *ṯnm* instead of *tnm*

On the basis of the information provided by the texts above it can be ascertained that those who *tnm*:

1. Have a tongue that isn't straight
2. Are false(hood)
3. Have no guidance
4. Have been misled by someone
5. Have taken a ride with falsehood
6. Are not obedient or trained
7. Are very tired

The results of *tnm*ing are:

1. Going off a road or being lost
2. Being unable to cross
3. Being unable to moor where one should

From a grammatical point of view *tnm* is an intransitive verb[198]. It occurs once in the general present form *iw=f sḏm=f*. There is a negatival complement, a negated infinitival noun and two general negatives. There is also an agent noun formed from the causative and a perfect participle. In addition, there is one example of what is possibly an impersonal imperfect *sḏm=tw* but more likely a stative and one of the "*nominal*" *sḏm=f*. Although the sample is too small to draw any definite conclusions as to the *aktionsart* of the verb, there is a tendency towards ex-temporal forms and negatives; there are no punctive examples. The legs determinative implies that it is a verb of motion and the occasional use of the reversed legs implies backward or chaotic motion although none of the examples actually involve any kind of voluntary movement on the part of the subject and show no indication of being dynamic. All this would point towards *tnm* being a verb that describes a state.

"*Err*", as used by Parkinson (2012: 183) and Depuydt (1993: 220) in their translations of Peasant B1, 219, has two senses in English; "*to be or go wrong*" or "*to do wrong*". None of the examples of *tnm* quoted above has the second sense; that of a wrong action, which the subject has made a conscious decision to do. "*To go astray*" used by Vernus (1990: 81) seems closer in meaning, bringing out the concept that one does not *tnm* through choice[199] although Quirke's (2004: 159) "*to **be** astray*" is preferable.

According to the texts, the predominant characteristic of *tnm*ing is that the subject is, physically or metaphorically, without guidance or direction. A ferry with no-one, or an unsuitable person such as falsehood, at the helm would be very unlikely to travel straight and land where it is supposed to; it would be at the mercy of the current and the wind, along with any of its passengers. Likewise, a traveller without anything or anybody to guide him could easily end up off the road. A project with no-one directing it would not go as planned. Extreme

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[198] Although in Papyrus Bremner-Rhind, in the section concerning the overthrow of Apophis (Faulkner 1933: 72, 10), there is a dubious example of a transitive usage.

[199] Although, like err, it can also have the sense of deliberately doing wrong, as well as being wrong, but not as strongly.

tiredness would mean that one's body does not respond as it is supposed to and neither would an untrained army that did not listen. Lies quickly spiral out of control.

As discussed in this chapter, the *sḏm.ḫr=f* form expresses a modal proposition that is not confined to a particular time, the proposition is always valid; it was valid yesterday, is valid today and will still be valid tomorrow. If Rensi, like Falsehood in in the example above, is *always* without guidance or direction it might be said that he has nothing at all to tell him where to go, what to do or what not to do. Without translating the modal aspect of the verb until it has been examined further, *s3 mrw tnm.ḫr=f* might therefore be rendered "*The son of Meru is out of control*".[200]

Having examined the other occurrences of *tnm* we can now turn to seeing how it should be translated in The Tale of the Eloquent Peasant B1, 219. The immediate context in which it appears is bound to have an effect on how the modal necessity of *tnm.ḫr=f* should be translated so the rest of the passage will be addressed first.

The two clauses that immediately follow *tnm.ḫr=f* present no particular problems as far as translation is concerned.[201]

> *ḥr=f šp r m33t=f sḫ r sḏmt=f*

> "*His face is blind with regard to what he sees and deaf with regard to what he hears*"

Of note though is the doubled form of *m33*, indicating a repeated or continual action. This suggests that his face being blind to what he sees is a general characteristic, or tendency, of Rensi or something he does frequently or repeatedly. Although it cannot be seen in the morphology, one might expect, on stylistic grounds, the parallel relative form, *sḏmt=f*, to also be imperfect.

These two phrases reflect the themes of the Peasant's second and third petitions. Although both contain elements of each other the former concentrates on Rensi ignoring what he sees, namely officials doing wrong all around him, and the latter on Rensi not acknowledging the moral imperative, as laid out by the Peasant, to act; "*Hearer you do not hear. Why then do you not hear?*" (B1, 211). The Peasant has, in fact, already used this theme for the first two parts of a triplet in B1, 145 "*It turns out that the watchman is blind, the judge is deaf*"

tẖ ib

The third clause switches from the stative to the *sḏm=f* form. The fact that the Peasant is still speaking in the third person shows that *tẖ ib* is undoubtedly related to the preceding two clauses and not the following ones; he reverts to the second person in the next clause. Although *tẖ(i)*, (Wb 5, 319.3-320.23) whose basic meaning is "*to overstep*", is very common it

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[200] This is not dissimilar to Quirke's translation; "*The son of Meru is a man astray*" (Quirke 2004: 159)
[201] See Parkinson (2012:123) for parallels and details.

only occurs with *ib* as its subject in three places; here, Sinuhe B202 and Ebers §855u. The Ebers example is as follows:

ir ȝḳ ib mḥt ib in ṯȝw n rꜥ ẖry-ḥbt ir st ꜥḳ=f m smȝ m spw prr ib tḥ ẖr=s

"As for perishing of the mind and forgetfulness of the mind, it is the breath of the mouth and the hand of the lector-priest that has done it. It gets into the lungs gradually[202]. It results in the mind overstepping under it[s influence]".

Perishing of the mind and forgetfulness of the mind is a very good description of someone suffering from dementia. This is the only reference to a lector priest in the medical texts and Nunn ascribes evil motives to him (1996: 99) but here this is probably a euphemism for approaching death, when dementia occurs most frequently; the Egyptian equivalent of hearing St Peter calling one's name. Although dementia is a life-shortening illness in itself, pneumonia, or "*getting into the lungs*", is listed as the ultimate cause of death in two thirds of people suffering from it (Alzheimers Society 2013:10). "*The mind overstepping*" is a result of the disease (*prr*) and therefore very likely to be a description of somebody with late stage dementia who has completely lost control of their mental faculties. That *tḥ ib* is connected with losing one's mind is confirmed by Sinuhe B202 where the eponymous hero describes himself as someone whose mind had "*overstepped*"

ir.tw nn mi mi n bȝk-im tḥ.n ib=f r ẖȝswt ḏrḏrywt

"How is this done for a servant whose mind had overstepped to barbarian lands?"

Later, in his reply to the king (B223-229), Sinuhe describes the mental state that led to him ending up in a foreign land; the process of his mind "*overstepping*".

 "I had not planned it and it was not my intention. I had not thought of it. I do not know what separated me from my place, it was like the nature of a dream, like a delta man seeing himself in Elephantine, a marsh-man seeing himself in Upper Egypt, I had no cause to be afraid; no one had chased me. I had not been accused and my name had not been heard in the mouth of the herald. The only thing was the shuddering of my limbs, my feet hastening and my mind controlling me *(ib=i ḥr ḥrp=i)".*

This is again a description of somebody who has lost control of his mental faculties. Sinuhe here is somebody who did not know what he was doing; his mind was controlling him, not he controlling his mind. *tḥ(i)* is used of subordinates overstepping orders[203] and it might be said that Sinuhe's mind had overstepped, or transgressed, its subordinate role.[204] Based on the two examples above, suitable English equivalents of *tḥ ib* might be "*losing one's mind*", "*taking leave of one's senses*" or even something as strong as "*going mad*".

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[202] Literally "*in doses*"

[203] Parkinson (2012:184) gives an example from the stela of Khnumhotep but to be added to this are; Ptahhotep §D207; Florence Stela 2540, C19; Pyramid Texts Spell 484 (§1024c); Tjetji, line 9.

[204] This is perhaps expressed more clearly in the generally less reliable Ashmolean Ostracon version of Sinuhe, which adds *ḏs=f*; "*whose mind has overstepped itself*" or perhaps even *"by itself"*.

ḥr sḫꜣyt n=f

sḫꜣyt is ostensibly a nominal passive past participle from *sḫꜣ* "*to call to mind, remember*" (Wb 4, 232.12-233.26). "*What has been brought to his attention*" as used by Simpson et al. (2003: 36) [205] seems an appropriate translation in view of the fact that the peasant has spent the second and third petitions reminding Rensi, more and more disrespectfully, that he is neglecting his duties. As *sḫꜣyt* is not a physical object *ḥr* must be used here in its sense of "*on account of*" or "*because of*" (GEG §165.7).

The whole phrase, *th ib ḥr sḫꜣyt n=f* should be taken as a backgrounding, or bare, *sḏm=f* laying emphasis on the adverbial phrase; "*It is because of what has been brought to his attention that he loses his mind*". Taken this way the Peasant would be emphasising what, in his opinion at least, has caused Rensi to lose his mind, namely being reminded how unfit for his job he is; it is the answer to the question "*Why has Rensi lost his mind?*"[206]. This forms the third part of one of the triplets that the Peasant is so fond of and for this reason it reads less clumsily in English to leave it the same way round as it is in the Egyptian but bear in mind that it is emphatic: "*He loses his mind because of what has been brought to his attention*". Just as the preceding two phrases are summaries of the second and third petitions, Rensi losing his mind can only refer to the episode of the Peasant being beaten. Losing one's mind when told something one doesn't want to hear then savagely beating the person who said it is surely a description of somebody violently losing his temper; a similar expression in colloquial English is "*going mental*".

The text then switches back to the second person and continues with what is essentially a list of four groups of people whose common characteristic is that they are without guidance or control; in other words, they *tnm*.

> "*You are a city without its mayor,*
>
>> *like a group of men without its chief,*
>
>> *like a boat with no-one in charge in it,*
>
> *A gang of men without its leader*". (B1, 220-222)

The Petition then concludes on a final memorable rhetorical flourish.

> "*You are an upholder of the law who steals and a mayor who takes bribes.*

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[205] In their translation "*what has been brought to his attention*" refers to the Peasant's complaint, they having taken *th ib* as "*to neglect*",.

[206] It could also be taken as an imperfect adverbial *sḏm=f* ", *losing his mind because of what has been brought to his attention*.

The district overseer who punishes robbery has become the most prominent of those who do [it]” (B1, 223-224)

As far as translating *s3 mrw tnm.ḥr=f* as an expression of modal obligation is concerned, circumstantial or epistemic interpretations and all their subdivisions must be examined.

If *tnm.ḥr=f* were to be circumstantial, "In view of the circumstances*, it is inevitable that the son of Meru is out of control*", then we should be able to see a set of circumstances that had forced Rensi out of control. The circumstances leading up to the Peasant's statement, as he describes them, can be ruled out; listening to petitions, being insulted and then beating an innocent man does not inevitably result in Rensi being out of control. The picture that the Peasant gives us of Rensi's actions is in fact more akin to a description of the conduct of somebody who has nothing to guide them, or somebody who is *already* out of control, rather than a sequence of events that lead to Rensi going out of control.

It is possible then that the circumstances that lead to Rensi's being out of control are stated immediately after the *sḏm.ḥr=f*. Being blind and deaf could make it inevitable that Rensi is out of control, being unable to see where he is going or listen to any guidance, losing his mind could also result in him being out of control, just like Sinuhe was above. If this were the case though, one might expect a preposition[207] a particle or even adverbial *sḏm.n=f* forms which would make the cause and effect relationship clearer. Furthermore, as pointed out above, this triplet refers back to previous events; the first and second petitions and the beating. None of these inevitably lead to Rensi being out of control and, as also noted earlier, are more suited to descriptions of somebody who is already out of control than a catalogue of events that have forced Rensi out of control.

So far, the evidence is pointing away from circumstantial modality but, before assuming that the modal here is epistemic, we must first see whether any other types of circumstantial modality; deontic, teleological or bouletic fit into the context.

A deontic reading of *tnm.ḥr=f* "*The son of Meru has to be out of control*" can be ruled out here, it is hard to see what rules might be in force that would compel a chief steward to be out of control and beat an innocent man; in fact the opposite is true, as the Peasant has spent the last three petitions, and will spend the next six, reminding Rensi. Another important objection to this reading is that in all its other occurrences *tnm*ing is caused by a lack of guidance or control, moral or physical; in none of the attestations could, or would, the subject decide to *tnm*; the modal would be unfulfillable. The same objection, of being unable to *tnm* by choice, applies to a teleological interpretation of the modal, it would also be very difficult to find any situation at all in which a goal could be achieved by telling Rensi to be out of control. A Bouletic reading based on the peasant's desires can be rejected outright; the Peasant is extremely unlikely, in the context of the Tale anyway, to have any kind of desire that would be fulfilled by Rensi being out of control. If it were the case that the Peasant was saying that Rensi was forced to be out of control by his own nature; "*The son of Meru cannot*

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help being out of control" it would be hard to say exactly why the $iw=f\ s\underline{d}m=f$ form, which is used in Middle Egyptian to make a statement of general validity or truth, is not employed[208]. A clear example describing something that is inherently without guidance, falsehood, is provided by the example quoted above ($ir\ \check{s}m\ grg\ iw=f\ tnm=f$), which uses both tnm and the $iw=f\ s\underline{d}m=f$ form; one might expect the same construction here.

If then, as seems likely, the Peasant is making an epistemic statement "*The son of Meru must be out of control*" it must be based on what he knows of Rensi and so there should be a trail of evidence that has led the Peasant to this conclusion. This is quite clear in the text leading up to his statement; in the second petition Rensi ignored the wrongdoing on the part of his subordinates, in the third he ignored his conscience and then, most importantly, as it provoked the Peasant's statement, he beat an innocent man.[209] This provides the Peasant with the evidence that he needs to come to the conclusion that Rensi is not guided by duty or morality or that he has nothing to guide him at all. The Peasant then summarises and reiterates this evidence immediately afterwards; Rensi is not guided to act justly by what his eyes see nor the arguments that his ears hear and loses his temper when he is reminded of how bad he is. He isn't guided by any sense of propriety or shame or the dignity of his office but loses his temper and beats the messenger. Violently losing his temper when confronted by the "truth", as laid out by the Peasant anyway, is surely a final and damning piece of evidence against Rensi, leaving the Peasant only one conclusion; that Rensi is out of control[210].

The whole passage would then read:

"*The Son of Meru must be out of control. His face is blind to what he sees and deaf to what he hears and he loses his temper because of what has been brought to his attention*".

This is not intended for Rensi to hear but for the Peasant to explain his reasoning to the audience, hence the shift to the third person. He is not addressing Rensi directly but describing his internal logical thought process in answering the question, which has been provoked by his being beaten, "*Why is Rensi behaving like this?*".

The Peasant now has a satisfying explanation for Rensi's behaviour, supported by evidence. It should be noted here though that the Peasant's explanation is actually wrong. He explains the beating as the guilty response of somebody who has been reminded of something of which he doesn't want to be reminded; he thinks that he has touched a raw nerve. The reader can see a different picture; the Peasant started off respectfully, with logical and sensible appeals, but in the last half of the third petition descended into a savage *ad hominem* attack

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[208] Depuydt (1993; 220) says that if a $iw=f\ s\underline{d}m=f$ form were to be used this "*would portray Rensi as a person who perpetually and unconditionally errs, as Khun-Anup must hope is not the case*", which would not actually be out of place in the context.

[209] Rensi's job description, according to the peasant anyway, is stated in many places in the text; to look after people, to listen to them and to guide them. He has done the opposite of these things.

[210] Green (1987:51) had already, more or less, identified $tnm.\underline{h}r=f$ as an epistemic statement although had not labelled it, or translated it, as such, saying "*What the peasant means is that no other verdict can reasonably be passed on the behaviour of the son of Meru, when all facts are considered*". Vernus (1990: 81), although his argument is not stated very clearly, had also come to the same conclusion.

against a social superior. An eminently more likely explanation for his beating is that the Peasant has insulted and calumnised a high-ranking official viciously and at length to his face.

Now that he has made his conclusion the Peasant then addresses Rensi directly, telling him in no uncertain terms of his conclusion; *"You are a city without its mayor, like a group of men without its chief, like a boat with no-one in charge in it. A crew without its officer".* It is of note here that the Peasant's proposition, that Rensi is out of control, is no longer expressed in terms of an epistemic modal, but in terms of objective "truth".

tnm.ḫr=f is therefore a necessary conclusion based on the evidence at the Peasant's disposal; more evidence could change it and in fact the reader, who, as well as the Peasant himself, is the addressee here could easily dispute the Peasant's conclusion by virtue of having much more information than the Peasant. The reader knows that Rensi isn't out of control, he doesn't see or listen because he is under orders to let the Peasant complain and the Peasant is beaten because he has gone too far. The whole section could be regarded as an aside by the Peasant, it is also a turning point in the text; now he has made his conclusion he doesn't temper his language at all, there is none of the flattery or politeness that marked the first two petitions and the beginning of the third.

I.15 *sḏm.ḫr=f* IN THE STELA OF HARWERRE FROM SERABIT EL-KHADIM

All who have written at any length on *sḏm.ḫr=f*, except Junge (1972) who does not mention it at all, treat line 9 of the stela of Harwerre from Serabit el-Khadim, Sinai No. 90 (Cerny et al 1952a; Pl. XXVA) as an example of a narrative *sḏm.ḫr=f* form[211] but there are actually several grounds upon which its identification as such should be called into question. Gardiner had already noted that this was the only example of a *sḏm.ḫr=f* form with past reference from Middle Egyptian (GEG §431.3)[212] and furthermore, in all the occurrences where a construction involving *ḫr* occurs in past narrative in Middle Egyptian, the form employed is (*i*)*ḫr* with the falling man determinative. This already makes the identification of the *sḏm.ḫr=f* form in Harwerre's stela as a past-narrative suspicious but when the context in which it appears is examined carefully, an analysis that takes *ḫr* not as part of a *sḏm.ḫr=f* form but as the preposition *ḫr* seems much more attractive.

The stela starts as follows:

"Dispatching of his majesty the god's seal-bearer, the overseer of the audience chamber, leader of the gangs, Harwerre to the mining country. Arriving at this land in the third month of summer while it was not the season for coming to the mining country.

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[211] Gardiner (GEG §431.3), Lefebvre (1955: §289), Green (1987; 51), Allen (2010: §22.7), Vernus (1990; 83) and Depuydt (1993; 219)

[212] There are several examples from égyptien de tradition, however, all are constructed with *wn.ḫr=f ḫr sḏm* rather than *sḏm.ḫr=f* (See Appendix A.1.4.1).

The seal-bearer of the god says to the officials who will come to the mining country at this season:

'You should not be disheartened about it, it is in exchange for enthusiasm[213] that Hathor is provident. Look at me, for my part, I having done the same thing myself. When I was coming from Egypt I was disheartened, the difficulty ahead of me being to find the skin when the mountains burn in summer, the hills are branding [men's] skins and the blistering is brighter than [that of] a man at the mouth of a furnace[214]." (lines 1-8)

The passage that concerns us here follows:

wn=i wšd=i ḥmww ḥr ssbḳw nty m biꜣ pn **ḏd.ḥr=sn**

Cerny, Gardiner and Peet (1955: 97) translated:

> "*I kept on addressing the craftsmen concerning it: "Successful is he who is in this mining country". And they said...*".

Parkinson (2004: 98) renders it:

> "*and I was addressing the craftsmen about this: 'Prized is he who is in this mining region!' and so then they said:*"[215]

and Depuydt (1993: 219) has:

> "*I would address the craftsmen concerning this as follows: 'How fortunate is he who is in this mining region.' But then (that is, if I would address them), they would say...*"

Green (1987: 51) translated:

> "*I kept on addressing (wn.i wšd....) the craftsmen concerning it (saying) 'How lucky is he who is in this mining region. But they said*"

If we lay aside for the moment the problem of the *sḏm.ḥr=f* not being used in past narrative anywhere else in Middle Egyptian, there is another important objection to these translations. Harwerre specifically states that he is speaking to "*the officials who shall come to the mining country at this season*" (line 5) and throughout the stela he concerns himself with giving advice on how they should make themselves as successful as he was. This advice is delivered with a combination of subjunctives, imperatives and anecdote; "*Look at me, for my part, I having done the same thing myself*" (*mꜣ n=i r=i ir.n=i mnt im=i*) in line 6 sums up his

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[213] *wꜣḏ*, literally "*greenness*" or "*flourishing*", it is the opposite of *bdš*, "*wilting*" or "*drooping*" which is how the future expedition leaders are told not to let their faces be in line 6, translated here as "*disheartened*".

[214] literally "*a man at the mouth of a glowing-house*"; *ꜣht* being taken to be the same as the *ꜣhyt* building mentioned in the Amarna dockets (Pendlebury 1951: 171-172), where roasted, toasted and melted goods as well as perfume were produced, all processes requiring a great deal of heat.

[215] Also, Blackman (1931a: 98) "*And thereupon they said*", Pantalacci (1996: 88) "*Ils reponderait*". All translators have gone for the past narrative with the craftsmen doing the talking.

approach. The stela describes the tactics for success that future expedition leaders should emulate and at the same time glorifies Harwerre's own success against the odds.

Given the overall tone of the stela, and of expedition stela from Sinai in general, it seems unlikely in the extreme that Harwerre would record on his own stela that he made a rather banal and almost meaningless statement such as "*Prized/Successful is he who is the mining country*", to which his subordinates replied with a balanced and eloquent reply that openly contradicted him and bordered on mutiny. It seems much more likely that the longer speech that is recorded on the stela would have been either the address given by Harwerre himself or offered by him as a model speech for "*the officials who shall come*", perhaps even both at the same time:

> *iw mfk3t m ḏw r nḥḥ inm pw wḫ3 r tr pn iw p3=n sḏm mitt bi3 ii r tr pn inm pw g33 r=s m tr pn ḳsn n šmw*

The speech above, with a very slight change of emphasis brought about by taking into consideration the contrast between *r tr pn* (denoting a general state of affairs) and *m tr pn* (denoting the present state of affairs), can be read not as an eloquent complaint but as a subtle way for Harwerre, or one of the future officials, to encourage his craftsmen by putting them into competition with those who have gone before, a tactic common in ancient Egypt, the most prominent Middle Egyptian example being Sesostris III's Boundary Stela (Sethe 1983: 84, 12-16), where the royal descendants are exhorted to outdo their ancestor in expanding Egypt's borders. The speech would be rendered as follows:

> "'*Mefkat is always in the mountain, [a tough] skin is what is needed at this season. We have heard in the past the like of the ore that has come **at**[216] this season but the skin is lacking for it in **this**[217] wretched season of summer*'"

By implying that the craftsmen are too wimpish to emulate their predecessors would, in theory, make them work harder, either out of professional pride or to prove their leader wrong. Furthermore, describing the summer as "*wretched*" (*ḳsn*) and using the common plural (*p3y=n*) would show a certain amount of solidarity with one's subordinates. The speech could be paraphrased as "*There is no excuse for not getting large amounts of mefkat. If you don't, it is because you are not as tough as your predecessors*".

If one therefore proceeds on the basis that this piece of of oratory was delivered by Harwerre to the craftsmen, *ḥr=sn* of the preceding passage would not be part of a *sḏm.ḥr=f* form but the preposition followed by the third person suffix pronoun referring to the craftsmen. *ḏd* could then be taken as an imperative. Read in this way a verb meaning "*to say*" (*ḏd*) and an indirect object, the craftsmen, is provided. Harwerre had in fact used *ḥr* in exactly the same way earlier on in the text (line 3); "*This seal-bearer of the god, he says to/before the officials who shall come to the mining country at this season*" (*sḏ3wty-nṯr pn ḏd=f **ḥr** srw iw.t(y)=sn r bi3 pn r tr pn*). This is also a parallel construction to that of *Himmelskuh* 29 and Coffin Texts

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[216] Here the preposition is *r*, indicating a general state of affairs in summer

[217] Here the preposition is *m*, fixing the action in a specific summer

Spell 404 (V181 c-e, i) (B7c) which also have imperatives followed by *ḫr*; in both those cases it is gods who are being addressed.[218] The whole section would then be rendered:

> "*I used to address the craftsmen about the valuable thing[219] that is in the mining country. Say to/before them*:
> '*Mefkat is always in the mountain, [a tough] skin is what is needed at this season. We have heard in the past the like of the ore that has come out at this season, but the skin is lacking for it in this wretched season of summer'*"[220]

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[218] It is interesting to note that Allen (2010: §22.7) groups the example from the *Himmelskuh* with Harwerre as the only examples of *sḏm.ḫr=f* that are not "*normative*"

[219] lit. "*What is caused to be treasured*"

[220] Alternatively, but fairly improbably in view of the gap between the last mention of them and the fact that Harwerre usually refers to them in the second person, *sn* could be taken as referring all the way back to "*those officials who shall come*", to whom the advice on the stela is generally addressed. In this case the phrase could be taken as an instruction framed in a *sḏm.ḫr=f* form and would be rendered "*They [*those officials who shall come*] have to say*:"

Chapter II

ḫr=f sḏm=f

In all treatments of the *sḏm.ḫr=f* form, all commentators have regarded *ḫr=f sḏm=f* form as a variant of, or a development from the *sḏm.ḫr=f* form and attributed it with more or less the same values of that form. Here it is argued that the *ḫr=f sḏm=f* form is neither a development of nor a variant of the *sḏm.ḫr=f* form but, unlike that form, which expresses generally valid modal necessity, it expresses case-specific modal necessity. What is understood by *ḫr=f sḏm=f* here is *ḫr + subject + verb + resumptive pronoun* and, in line with the general methodology employed in this study, it has been separated from the *ḫr + sḏm=f* form, which is dealt with in the next chapter.

II.1 ORTHOGRAPHY OF THE *sḏm=f* THAT FOLLOWS *ḫr* + SUBJECT

Class	Form	Transliteration	Reference	Example No.
3lit		*stp*	Papyrus Reisner II; Pl. 5A, 15	95
		hꜣb	Berlin Letter P10073	96
		tmt	Eb. §522	101
		tḥb.tw=f	Eb. §128	
		wrḥ.tw	Eb. §712	104
		wꜣḥ	Eb. 252	105
		sfn	Tale of the Eloquent Peasant B1, 182	114
		gsꜣ	Tale of the Eloquent Peasant B1, 193	115
		hꜣꜥ	Horus and Seth Col. 2 line 7	108
		šm	Heqanakhte I rt 8-9	98
		wt	Eb. §522	101

2lit		*gs*	Eb. §717	
		iꜥ.tw	Eb. §368	
		nḏ.tw	Eb. §368	
		šꜥ	Coffin Texts Spell 404 (V182f)	102
		ḏd	Moscow Mathematical Papyrus Column XI, 3 (Problem No. 8)	111
			Moscow Mathematical Papyrus Column XXXII, 4 (Problem No. 16)	113
			Satire of the Trades §XXb	110
			Horus and Seth; Col. 2 line 5	107
		ḏd.tw	Ipuwer 4.7	109
		gm	Moscow Mathematical Papyrus Column XVII, 4 (Problem No. 9)	112
		ḏn	Sm. XXI, 11	106
		ḥꜣ	Sm. XXI, 12	106
3ae infermiae		*in*	Letter BM 10549 XVI Rt. 6	94
		iṯ	Lahun Letter UC32202 fragment ii, 3	99
rdi		*di*	Heqanakhte *II*, vso, 40	93
			Heqanakhte *II rt. 35-36*	97
			Lahun Letter UC32113B rt. 2-4	100
		di.tw	Eb. §215	103

Fig. 9 *Orthography of the sḏm=f that follows ḥr + subject*

There are no examples of 3ae geminating verbs, nor are there any examples with *wn*.

The data are not extensive enough to make a definitive pronouncement on which form of the *sḏm=f* follows *ḥr=f* but in all four examples where *rdi* occurs the form is *di* and, if the writing

is to be taken at face value, the form that *ini* takes is *in*. There is also the writing of *iti* with no phonetic complements.

Westendorf (1962: §276) says "*Die nach ḥr-f stehende Form ist bei den Fallen des 277 das pros. sḏm-f, erkenntlich vor allem an der r-losen Form von rdi*". He refers to it as a prospective although his understanding of the prospective differs from his contemporary Gardiner and that of Allen, and, like Gardiner and Vernus, he does not recognise the subjunctive as a separate category. He also notes that, in comparison with the *sḏm.ḥr=f* form, the *ḥr=f sḏm=f* shows "*einige Abweichungen*". Vernus (1990: 66) describes the construction as "*subject + sḏm.f*". He doesn't discuss with what form of *sḏm=f* we are dealing but refers us to GEG §239 p. 181, which in turn refers us to GEG 450, 5, c, a section on the "perfective" *sḏm=f* and to Westendorf (1962: §277) (see above). Allen writes "*the ḥr=f sḏm=f construction, with the imperfective, is quite common in Middle Egyptian texts*." (2010: §20.9.1)

II.2 THE STATE OF PLAY REGARDING *ḥr=f sḏm=f*

Those who have written on *ḥr=f sḏm=f* can be divided into two camps regarding its relationship with *sḏm.ḥr=f*; those who regard it as a variant of *sḏm.ḥr=f* with the same meaning and those who regard it as later development of *sḏm.ḥr=f*. In terms of its meaning, like the *sḏm.ḥr=f* form, it is divided into those who endow it with attributes of inevitability and those who don't. Gardiner discusses the constructions containing *ḥr* in GEG §239 saying:

> "*The construction ḥr śḏm.f expresses what will be found to happen, what may be anticipated, or the like, and is often best rendered by the English future*"

He treats *ḥr=f sḏm=f* as a variation of *ḥr sḏm=f*[221] and the difference between the two is for him a question of emphasis; the element *ḥr* is employed as a '*sentence adverb*' (GEG §427) and the subject of the *ḥr=f sḏm=f* form has been placed in '*anticipatory emphasis*' (GEG §239). He describes the *ḥr(=f) sḏm=f* form as being '*closely parallel in meaning*' to the *sḏm.ḥr=f* form although he waits until §427 to discuss the nature of this relationship.

He also derives the form from *iḥr*, with the falling man determinative but, although the particle *iḥr* is almost certainly related to the *ḥr* of the *ḥr=f sḏm=f* form, it is unlikely that it is the ancestor of the *ḥr* that appears in that form. In the Old Kingdom, *iḥr*, with the falling man determinative appears exclusively in past narrative contexts. The fact that *ḥr=f sḏm=f*, as acknowledged by Gardiner himself, never has past reference in Middle Egyptian would indicate that the *ḥr* in this construction is not the descendant of *iḥr*. Furthermore, in the Middle Kingdom, *ḥr*, written with the falling man determinative is still attested in past narrative contexts in literary texts[222]; it is in fact the case that every single extant example in literary narrative has the falling man determinative. The converse is also true; *ḥr* with the falling man determinative appears nowhere in Middle Egyptian outside past narrative

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[221] The difference between the *ḥr sḏm=f* form and the *ḥr=f sḏm=f* form will be discussed in chapter III.

[222] Gardiner, when dealing with *ḥr-m-ḫt*, quotes several examples of this, all with the falling man determinative. (GEG §178)

examples (See also IV.1.2). It seems fairly safe then to conclude that *ḥr* with the falling man determinative in Middle Egyptian, by appearing in exactly the same contexts and having a very close orthography, is the counterpart to the Old Egyptian *iḫr* and that the *ḥr* of *ḥr=f sḏm=f* is not. The consistency in the writing would indicate that the falling man determinative is a deliberate device to distinguish two different kinds of *ḥr*.[223]

In §427 of his grammar Gardiner discusses the relationship between the *ḥr(=f) sḏm=f* form and the *sḏm.ḥr=f* form including a discussion of the origin of the element *ḥr*, outlining Lexa's (1922: 45-48) argument that *ḥr* is derived from a verb meaning "*to say*". In §431 on 'The uses of the *sḏm.ḥr=f*' form he says that "*Unless [Lexa's theory] be adopted, this verb form will be akin to the constructions ḥr.f sḏm.f and ḥr sḏm.f (§239), into which the particle ḥr enters*". From his use here of "*unless*" and the fact that he goes on to say "*If, **as we supposed**, that particle indicates what comes next in order*" (my emphasis) shows that he was not entirely convinced by Lexa's argument. Significantly, in the examples of *sḏm.ḥr=f* that he provides here there are instances that he regards as past, present and future whereas the examples he had provided of the *ḥr=f sḏm=f* form in §239 related only to the future, something that he reiterated later "*ḥr sḏm.f......likewise having future signification*" (§427). Gardiner had thus shown a potential difference in usage between the two forms but had attached no particular importance to it.

Green (1987: 9) describes the *sḏm.ḥr=f and ḥr(.f) sḏm=f* forms as "*the ancestor patterns of coptic ϢⲀⲢⲈ*" and writes in his summary that "*The basic function ascribed in this study to ϢⲀⲢⲈ, to sḏm.ḥr.f and to ḥr(.f) sḏm.f is the expression of a 'fact', in the form of a modally neutral ('indicative') statement which expresses the logical consequence or deduction stemming from the premise(s) expressed in the preceding statement(s)*" (Green 1987: 89). He specifically discusses the difference between the *ḥr=f sḏm=f* and *sḏm.ḥr=f* forms in a three page section entitled "*The functional differences between the patterns sḏm.ḥr.f and ḥr.f sḏm.f* "(1987: 21-23). He starts off by asserting that:

> "*The choice made by the writer between these two constructions cannot be shown to have been determined by the type of context, by time reference criteria or by aspectual factors*".

Despite the confidence with which this statement is delivered Green makes no attempt to justify these claims, nor refers us anywhere else. He in fact, a few lines later, severely weakens his comment about the context not determining the form by saying "*ḥr.f sḏm.f is hardly found in 'expository discourse' but is the form found outside this type of text*". He continues thus:

> "*It is proposed here that the ḥr element serves, in addition to its specific semantic properties in connection with 'indicative' statements, to shift the focus of attention between the actor and the action. In the case of ḥr.f sḏm.f the focus of attention is on the actor.....where sḏm.ḥr.f is employed, the focus is on the action*"

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[223] This was also suggested by Green (1987; 18)

Most of Green's argument is taken up by a rather long digression on focus in Egyptian (1987: 22) but his position on *ḥr=f sḏm=f* is essentially the same as that of Gardiner; that the subject is in '*anticipatory emphasis*' (GEG §239). Green's interpretation of the *sḏm.ḥr=f* form could also be seen as fundamentally the same as that of Gardiner who suggested in his analysis of *sḏm.ḥr=f* that the *ḥr* it contains is the particle *ḥr*, which '*indicates what comes next in order*' and that its original meaning was "*he proceeds to hear*" (GEG §431). This implies that Gardiner had analysed it literally as "*the hearing next for him*", and interpreted it, as did Green, as a construction focused on the action. Borghouts (2015: §57) also took this view, writing that the difference between *sḏm.ḥr=f* and *ḥr=f sḏm=f* is that "*the latter is pragmatically privileged to put the subject into focus: it is topicalised*". Vernus raised a valid objection to Green's hypothesis, which also applies to Gardiner's and Borghout's, by pointing out that there are examples where *tw*[224], a subject that is highly unlikely to be emphasised, is the subject of *ḥr=f sḏm=f* forms (1990: 70, n.56). Although this weakens Green's hypothesis considerably it doesn't necessarily invalidate it. A more important objection though to the idea that *ḥr=f sḏm=f* is an indicator of '*anticipatory emphasis*' is raised when The Tale of the Eloquent Peasant B 219, *sꜣ mrw tnm.ḥr=f* (See I.14) and Papyrus Edwin Smith II, 24 (Exx. 89), are taken into account. There, the subject is placed in '*anticipatory emphasis*' yet the form used is *sḏm.ḥr=f*. This shows that '*anticipatory emphasis*' is also compatible with the *sḏm.ḥr=f* form, which makes it very unlikely that this is the only way in which the *ḥr=f sḏm=f* form differs from the *sḏm.ḥr=f*.

Junge (1972), in his extensive discussion of the *sḏm.ḥr=f* form, makes no distinction between *sḏm.ḥr=f* and *ḥr=f sḏm=f* and groups them together for the purposes of his research, confining himself to saying that it is "*Zusammenhang mit sḏm.hr.f zu bezweifeln kein Anlaß besteht*" (1972; 133). Like Lexa (1922: 29) and Westendorf (1962: §276), he treats both constructions as having essentially the same meaning but goes on to describes *ḥr=f sḏm=f* as a more recent form, writing: "*Die Konstruktion ḥr-f śḏm-f als optativisch-futurische Form ist die analytische Bildung zu śḏm.ḥr-f, stellt also offenbar nur eine jungere Bildung dar, die sich in ihren Gebrauchsweisen von śḏm.ḥr-f nicht unterscheidet*". On the subject of *ḥr=f sḏm=f*, Vernus, after listing the texts in which only *ḥr* headed constructions occur, follows Westendorf by writing:

> "*ḥr headed constructions are the diachronical successors of sḏm-ḥr.f/wn-ḥr.f*" (1990; 71)

He does not, however, make a separate category for *ḥr=f sḏm=f* constructions and lumps them together with other constructions preceded by *ḥr*; *ḥr sḏm=f*, *ḥr sḏm.n=f* and *ḥr + stative*, treating them all as the "*message auxiliary*" *ḥr* followed by a particular construction. Like Vernus, Stauder regards *ḥr=f sḏm=f* as a pre-New Kingdom construction that is replaced by *ḥr sḏm=f*. He writes:

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[224] There are only a handful of examples: Ipuwer 4.7(Exx. 109); Papyrus Ebers §128, 215 (Exx. 103), 368, 712 (104); Papyrus Edwin Smith XXI, 11, 12 and 13 (Exx. 106) and The Abydite Stela of Neferhotep (Randall-McIver and Mace: 1902; Pl. 29).

"*In the Middle Kingdom and Second Intermediate Period, ḫr-headed constructions with dynamic events in correlative systems are always based on the unmarked (/'unextensive') synchronous pattern N(P) sḏm=f, not on the subjunctive (ḫr-sḏm=f)*" (2013: 229).

He does not mention necessity or inevitability but some, although not all, of his translations of passages containing ḫr=f sḏm=f would indicate that he also follows Vernus in regarding it as indicating necessity. Allen also follows Vernus in his analysis of the ḫr=f sḏm=f form and describes it as "*The SUBJECT-imperfective construction after ḫr*" and writes:

 "*When used with the SUBJECT-imperfective construction, ḫr denotes necessity. The construction ḫr.f sḏm.f can usually be translated as 'he must hear' or 'he has to hear'*". (2010: §20.9.1)

He also follows Vernus in regarding ḫr=f sḏm=f as a descendant of sḏm.ḫr=f, saying that it, along with ḫr sḏm=f, "*replaced the sḏm.ḫr=f in standard Middle Egyptian, but religious and scientific texts seem to prefer the older verb form, and it shows up occasionally in other Middle Kingdom texts as well*". (2010: §22.7)

Depuydt (1993; 208 n.1), regards ḫr=f sḏm=f in the same way as he regards the sḏm.ḫr=f, as a "*contingent aorist*"[225] and writes:

 "*The difference between sḏm.ḫr=f and ḫr=f sḏm=f will be ignored; they behave alike with regard to the feature discussed here; sḏm.ḫr=f will be used for convenience's sake to refer to both*".

Later in the same note he quotes Vernus saying that ḫr=f sḏm=f is a development of sḏm.ḫr=f (1993; 208 n.1), which, although he does not explicitly say so, is possibly what he regarded as the difference between the two forms. In an earlier article Depuydt (1988), had attempted to deny the existence of ḫr=f sḏm=f, especially in those examples that he was having trouble justifying as aorists, by analysing ḫr=f as a marker of direct speech (GEG §436). This led to convoluted and contrived translations which failed to gain general acceptance amongst scholars[226]. He wrote in a later article (1995: 84), while discussing ḫr constructions in general, that: "*One consideration I feel I have not stressed sufficiently is that, throughout Egyptian, the verbal component ḫr/ⲱⲁ never refers to individual, concrete occurrences*". Brose (2014: 269-70) follows Depuydt in regarding the ḫr=f sḏm=f form as a "*kontingenter aorist*"; he too does not distinguish it from the ḫr sḏm=f, and uses the notation ḫr(=f) sḏm=f [227]

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[225] A critique of this term can be found in this study (section I.5.2).

[226] See Collier (2005: 22 n.38) for a strong argument against these translations and a list of other objecting scholars.

[227] It should also be noted that two of his examples (2014: 270) of the writing of the sḏm=f that follows ḫr + subject (ꜣw in the Contracts of Hapydjefa (Griffith 1889: Pl. 7, Col. 297) and iiw in Lahun Letter UC 32190A rto. col. 3 (Collier and Quirke 2016: 9) have been rejected as ḫr=f sḏm=f forms by this study. The first example is too damaged to be sure that it reads ḫr and, if it were a ḫr=f sḏm=f form in a text full of instructions expressed with subjunctives and imperatives it would seem out of place being the only one, furthermore, the preposition ḫr would fit just as well in the context. The second is almost certainly an example of the preposition ḫr: ir wnt ntf irw [….] mdw ḫr=f iiw=f r-pw

In summary, as can be seen from the diagram below (fig. 10), all who have written *post* Vernus (1990), except Depuydt and Borghouts, had accepted his conclusion that *ḥr=f sḏm=f* is both a marker of necessity and a development from the *sḏm.ḥr=f* form. Prior to Vernus (1990) the only commentator to imbue *ḥr=f sḏm=f* with any attributes of necessity was Green, who never actually used the words modality or necessity but essentially described various attributes of modal necessity. Gardiner and Junge didn't regard *ḥr=f sḏm=f* as a development of *sḏm.ḥr=f* nor did they attribute any notions of necessity or inevitability to it. Westendorf and Depuydt regarded *ḥr=f sḏm=f* as a development from *sḏm.ḥr=f* rather than a variant of it as well as having a different idea of its meaning.

INEVITABILITY

Gardiner	Green	Vernus	Brose Westendorf
Junge	Borghouts	Stauder	Depuydt
		Allen	Lexa

VARIANT OF
sḏm.ḥr=f

DEVELOPMENT OF
sḏm.ḥr=f
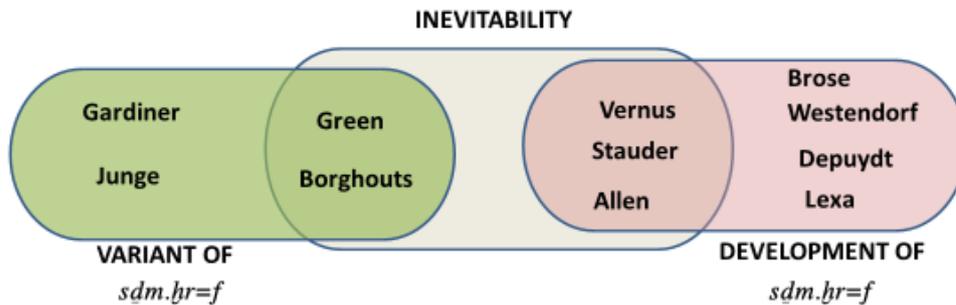
Fig. 10 ḥr=f sḏm=f State of Play diagram

In order to see whether previous commentators are justified in their claims that the *ḥr=f sḏm=f* is either a variant of or a development from the *sḏm.ḥr=f* it is necessary to find out whether or not there is a noticeable difference in usage between these two forms, and if so what that difference may be. In order to do this the distribution and context of these constructions must be examined.

II.3 DISTRIBUTION OF *sḏm.ḥr=f* AND *ḥr=f sḏm=f* FORMS BY GENRE

The first thing to state, although obvious, is that we only have a small fraction of all the texts actually written in Ancient Egypt, so any kind of statistical analysis cannot be definitive in terms of how frequently particular verb forms appeared in Middle Egyptian as a whole. The extant texts, analysed on a purely numerical basis, show that *sḏm.ḥr=f* is by far the most common construction of the two; a total of 689 instances are attested. By contrast the *ḥr=f sḏm=f* form appears only 29 times. By this reckoning the *sḏm.ḥr=f* form is 23 times more common than the *ḥr=f sḏm=f* form; a strikingly weighted result that appears, at first glance, to point towards the Egyptian writers having used the *sḏm.ḥr=f* form much more frequently. This seems to be the assumption of most philologists who have written on the subject; the *sḏm.ḥr=f* has always been regarded as the archetypal construction containing *ḥr*. All who have written on the subject put the *sḏm.ḥr=f* form first in headings and whenever it is mentioned in conjunction with *ḥr=f sḏm=f*. As noted above, Junge (1972; 133) and Depuydt (1993; 208 n.1) only mention *ḥr=f sḏm=f* in passing, choosing *sḏm.ḥr=f* as representative of both.

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p3 mdw i3w [……] *"If it is the case that he is the one who does [.......] the matter is for him. He, or the staff of old age will come [……]"*

However, if the range of genres over which *sḏm.ḫr=f* and *ḫr=f sḏm=f* occur, rather than the actual number of instances, is taken into consideration the distribution statistics can be used to draw some useful conclusions about the nature of both forms.

Genre	*ḫr=f sḏm=f*	*sḏm.ḫr=f*	Ratio of *ḫr=f sḏm=f* to *sḏm.ḫr=f*
Medical	12	316	1:29
Mathematical	3	306	1:102
Coffin/Pyramid Texts	1	54	1:28
Literature	6	1	6:1
Appeal to the living	0	1	0:1
Letters	8	0	8:0
Total over all genres:	30	678	1:23

Fig. 11. Distribution of sḏm.ḫr=f and ḫr=f sḏm=f forms by genre

As can be clearly seen in the table above, the instances of *sḏm.ḫr=f* forms outnumber by far those of *ḫr=f sḏm=f* but when their distribution is examined carefully it is found that out of those 689 instances 337 are from the medical texts and nearly all the rest are from mathematical texts: Papyrus Rhind has 138, The Moscow Mathematical Papyrus 147, the Lahun mathematical fragments 10 and the Coffin Texts 56. It can be seen that an overwhelming majority of instances of the *sḏm.ḫr=f* form is confined to just four types of text; medical texts, mathematical texts, the Coffin Texts and literature, the penultimate category containing only 8% of the examples and the last only 0.1%. What is significant though, in terms of its relationship to *ḫr=f sḏm=f*, is that, apart from the single example from the Eloquent Peasant and the one from Sobekemhent's door lintel (Exx. 77), the *sḏm.ḫr=f* form, does not occur outside these types of texts.

On the other hand, the distribution of the *ḫr=f sḏm=f* form over the genres is different. There are twelve examples from the Medical texts, which is a very small number when compared with the 316 *sḏm.ḫr=f* forms attested there[228]. The mathematical papyri contain three examples, which all appear in The Moscow Mathematical Papyrus among 147 *sḏm.ḫr=f* forms; Papyrus Rhind has no *ḫr=f sḏm=f* forms but two *ḫr sḏm=f* forms balanced by 138 *sḏm.ḫr=f* forms and the Lahun Mathematical Fragments contain only *sḏm.ḫr=f* forms. The letters contain nine examples of the *ḫr=f sḏm=f* form and no *sḏm.ḫr=f* at all, literary texts have six *ḫr=f sḏm=f* forms alongside only one *sḏm.ḫr=f* form and the Coffin Texts just one *ḫr=f sḏm=f* form alongside 54 *sḏm.ḫr=f* forms.

It can therefore be seen then that as far as the Medical, Mathematical and Coffin Texts are concerned the *sḏm.ḫr=f* is, by a very long margin, the most common form of the two but in the letters and the literary texts, also by a very long margin, the *ḫr=f sḏm=f* is the predominant form of the two. Green had already pointed this out saying:

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[228] the ratio is in fact 18:1

"ḫr.f sḏm.f is hardly found in 'expository discourse' but is the form employed outside this type of text.... sḏm.ḫr=f is associated almost exclusively with 'expository discourse' or procedural contexts" (1987; 22)

II.4 CHRONOLOGICAL DISTRIBUTION OF *ḫr=f sḏm=f*

The earliest securely dateable examples of the *ḫr=f sḏm=f* form are the examples from the Eloquent Peasant and those on the fragment of The Tale of Horus and Seth from Lahun (12th dynasty), there are a further eight examples from 12th dynasty letters and another from a 12th Dynasty coffin. The Abydene Stela of Neferhotep from the 13th Dynasty contains the last accurately dateable attestation of the form. The remainder of the examples come from manuscripts that are from the second intermediate period onwards in date but are otherwise written in Middle Egyptian[229] : The Moscow Mathematical Papyrus (three examples), Papyrus Ebers (nine examples), The Edwin Smith Surgical Papyrus (two examples), Ipuwer and the Lord of All (two examples) and The Satire of the Trades (one example).

Vernus, although he extended his study forward to égyptien de tradition, used more or less the same data set as this study uses and came to the conclusion:

"The distribution is very coherent: ḫr headed constructions are common in administrative letters and juridical records[230] from the beginning of the Middle Kingdom onward. They are also resorted to [231] in literary works written since the first half of Dynasty XII.
It now becomes obvious that ḫr headed constructions are the diachronical successors of sḏm-ḫr.f/wn-ḫr.f . As often, however, the succession was not a straight linear one. ḫr headed constructions coexisted as the marked forms with sḏm-ḫr.f/wn-ḫr.f" in religious, medical, mathematical and ritual texts, the core of which may have been written in the end of the Old Kingdom and during the First Intermediate Period. They wholly superseded the sḏm-ḫr.f/wn-ḫr.f" in Middle Kingdom standard language and literary language. Far from disappearing altogether, however, sḏm-ḫr.f/wn-ḫr.f remained in use either as a feature of a "langue de genre" or as archaic-flavoured constructions."(1990: 71)*

As can be seen from the dates presented above it seems that Vernus's claim that the distribution is diachronically coherent is not backed up by the evidence. If we look at constructions containing *ḫr* diachronically and we start from the beginning we find only two attestations of a *sḏm.ḫr=f* form from the Old Kingdom, one from the Pyramid Texts (Exx. 20) and one from a private tomb at Saqqarah (Exx. 77), which are balanced by the single *ḫr* headed construction attested from the Old Kingdom; the *ḫr sḏm.n=f* form that appears in the

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[229] On the subject of the date of the literary texts see the discussion on the Satire of the Trades in section III.4.1

[230] Here he is referring to the Karnak Juridical Stela (Lacau: 1949, 25-6) dating to the XVII Dynasty, which is outside the scope of this work; there are no juridical records containing *ḫr* from the Middle Kingdom itself.

[231] It is unclear what is meant by "*resorted to in literary works*"; it may just be an over-zealous way of saying "*employed in literary works*", which is a valid point, but as it stands it implies that literary works, as a rule, employ the *sḏm.ḫr=f* form, a statement that does not tally with the evidence.

Autobiography of Djau (Exx. 135) from the reign of Pepy II. On the basis of this, admittedly meagre, evidence "*ḥr* headed constructions" and *sḏm.ḥr=f* could be said to be of a similar age.

As far as the specific construction *ḥr=f sḏm=f* is concerned, we are simply lacking the evidence to make any kind of meaningful statement about its antiquity because all the contexts in which it most frequently appears in Middle Egyptian; administrative letters and literature, are almost completely lacking for Old Egyptian. Although we do have letters from the Old Kingdom, they do not deal with mundane administrative tasks as do the Middle Kingdom ones that contain *ḥr=f sḏm=f*.

What is more, the *ḥr=f sḏm=f* form is only sparsely attested after its appearance in the Abydene Stela of Neferhotep in the 13th dynasty (Randall-McIver and Mace: 1902; Plate 29); the only places in which it appears in texts which are dateably later than then is the Duties of the Vizier, which may even be a copy of an earlier text[232], and the seventeenth dynasty Karnak Juridical Stela. On the other hand, *sḏm.ḥr=f* appears in many more contexts in *egyptien de tradition* and at a later date than *ḥr=f sḏm=f* does[233]; it could in fact be said, if one were to divide the constructions chronologically, that *ḥr=f sḏm=f* died out in Middle Egyptian before *sḏm.ḥr=f* did. Vernus argued that the later examples of *sḏm.ḥr=f* from the eighteenth dynasty onwards are archaizing forms or "*archaic-flavoured constructions*" as he put it above but, as shown in Appendix A, its usage in that period is consistent with that of earlier periods and it is no more archaic than any other Middle Egyptian constructions used in égyptien de tradition. As the argument for a chronological division between the two forms is weak, it therefore seems that it would be productive to start the investigation into the particular properties of *ḥr=f sḏm=f* by working not on the basis that it is a development of *sḏm.ḥr=f* but on the basis that *sḏm.ḥr=f* constructions and *ḥr=f sḏm=f* constructions can be clearly divided along the lines of the contexts in which they appear.

II.5 CHARACTERISTICS OF THE *ḥr=f sḏm=f* FORM

Putting aside the particular modal nuance of *ḥr* for the moment, on the basis that it has a consistent value in both forms, we can address the questions of why there is such a clear divide in the distribution between *ḥr=f sḏm=f* and *sḏm.ḥr=f* and what, if anything, governs a writer's choice of one form over the other.

In the first chapter, the *sḏm.ḥr=f* form was shown to be generic from its lack of specified actors and the non time-specific contexts in which it appears. On the other hand, in letters, in which the *ḥr=f sḏm=f* form but never the *sḏm.ḥr=f* form is found, the opposite can be shown. Unlike the procedural texts, they do not usually concern themselves with generalisations or

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[232] See Boorn (1982: 333-352) for a long discussion of the dating of the text, in which he rejects a Middle Kingdom composition date.
[233] See Appendix A; nearly all the texts from égyptien de tradition that contain *ḥr* constructions, with the exception of the Duties of the Vizier which contains only *ḥr=f sḏm=f* and *ḥr sḏm=f*, only employ the *sḏm.ḥr=f* form.

situations that occur repeatedly or could occur at any time. It is taken for granted that normal procedures and regulations are known and sending a letter is only necessary when a departure from these is needed or a new situation arises; letters virtually always deal with individual situations, real or hypothetical. All eight instances of *ḫr=f sḏm=f* forms from letters[234]appear in contexts where instructions are being given for a specific purpose by a superior to a subordinate and, of those in which the context is sufficiently well preserved, all are strongly linked to a one-off situation rather than a generic one. Moreover, the person carrying out the procedure is always clearly individuated.

Collier (2005: 20-26), in a criticism of Depuydt's "*contingent aorist*" while not specifically discussing the difference between the two forms, provided six examples of *ḫr=f sḏm=f* forms from letters that were highly unlikely to be interpreted as being of a general nature and had already concluded that "*case-specific examples* [of *ḫr=f sḏm=f* forms] *would seem to require a different approach*" (Collier 2005: 26). None of Collier's examples were *sḏm.ḫr=f* forms, which, while leaving unaffected the argument for the *sḏm.ḫr=f* of the procedural texts being generic, adds weight to the hypothesis that the *ḫr=f sḏm=f* form should not be regarded as being the same as the *sḏm.ḫr=f*.

All the examples of the *ḫr=f sḏm=f* form from letters are presented below and it can be seen that, *contra* Depuydt and Junge, the first six certainly cannot in any way be attributed with being "aorist"; all are "*case-specific*". In the remaining two, owing to their fragmentary nature a generic interpretation cannot be ruled out, but a case-specific reading is more likely. As what interests us at this point is not the modal nuance but whether *ḫr=f sḏm=f* is generic or not, *ḫr=f sḏm=f* will be translated for convenience as "*should*"[235] and *sḏm.ḫr=f* as a general present, with "*always*" inserted when necessary for the purposes of clarity.

93. Heqanakhte II, vo. 40 (Pl. 30)

Here the *ḫr=f sḏm=f* appears after a perfect indicative verb form;

n grt mr=k s(y) ḫr=k di=k in.t(w) n=i iwtnḥb

"*However, you (Merisu) did not want her so **you should have Iutenhab sent to me**"*

Here, the conditions in which the proposition is valid have already been fulfilled by a specific person so there is no question of the *ḫr=f sḏm=f* being triggered by circumstances that could happen at any time; "*You didn't want her, so you should always have Iutenhab sent to me*" makes little sense. Even if we accept the interpretation of Allen (2012: 16) or James (1962: 33) who understood a conditional here "*if you do not want her*" both the perfect nature of *n grt mr=k* and common sense rule out interpreting it as a "*whenever*" condition, one that could

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[234] Heqanakhte; I rt 8-9; I rt. 35-36; II, 40; Letter BM 10549; XVI Rt. 8; Lahun letter UC32113B; Rt. line 2-4; Lahun letter UC32202; Fragment ii, line 3; Berlin Letter P10073. Papyrus Reisner II; pl. 5, 13-15 is not strictly a letter, more of an archival record, but has been included here in that it contains instructions related to a shipment.

[235] For the third person examples "*will*" will be used.

be fulfilled at any time or more than once; "*When(ever) you don't want her you should send Iutenhab to me*" would also make little sense.

94. Letter BM 10549 XVI Rt. Col. 6, (Pl. 24A)

Here, the context is indicative:

"*It is N son of NN together with NNN who brought it in the cargo boat*

[*rdit.n=i n?]=sn ḫr=tn in=tn s(y) ky-sp*

" *[that I gave to?]*[236] *them and* **you should bring it back again**"

Prior to the *ḫr=f sḏm=f* form, an actual state of affairs is described, in which the perfect participle of the verb *ini* [237] is used. This shows firstly, that the circumstances that have triggered the use of *ḫr=f sḏm=f* are indicative and secondly, that this is certainly not a description of an ongoing state of affairs, which might be the case if we were to have the imperfect participle, *inn*. The use of *ky-sp* makes it even less likely that we are dealing with a situation that happens, or could happen, frequently. Although there is little room in the broken section for *ir and* a verb, restoring a conditional here is a possibility but it would not affect the conclusion; the *s(y)* clearly refers back to the cargo boat (*t3 wsḫt*), which is linked to a specific situation in conjunction with specific people and is therefore extremely unlikely to refer to a general procedure. The usual situation regarding bringing back the boat can in fact be ascertained from the context; the use of the participial statement laying the stress on the actor rather than the action "*It was N son of NN and NNN who brought the boat*" shows that *who* it was who brought the boat is important in this particular case. This would indicate in turn that a different group of people normally bring it and take it back; the recipient of the letter bringing it back being a departure from the norm.

95. Papyrus Reisner II, pl. 5A, 13-15.

The *ḫr=f sḏm=f* form occurs in the context of a shipment with a date on it:

ir grt r-s3 ʿ3[238]*=k p3 imw ʿpr*[239] *m ḫʿw=f nb* **ḫr=k stp=k** *šps 10 m ḳn nb n ḥmwwt iw m-ʿ=k m ḫnt r niwt*

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[236] Wente writes "It was NNN who fetched it with *the barge [that I had put at] their [disposal(?)]*" (Wente 1990; 65) and James (1962; 90) suggests "*have not come*".

[237] One might perhaps expect doubling if this denoted an imperfect: "*who bring*".

[238] This is a verb with unknown meaning, Simpson (1965; 28) translates "*plane*", Jones (1988; 208) describes it as "*relating to constructing a ship*". Here it has been taken as a variation of *3ʿ* (Wb 1,2.13) a verb relating to plastering or painting.

[239] *ʿpr(w)* is written with plural strokes and has been taken here as a plural imperative.

> "Now after you paint(?) the boat equip [it] with all its decorative materials[240]. **You should choose** ten shepes men; all the best ones of the craftsmen who have come[241] south with you to Thebes."

The record starts off with a date then continues with "*received at the hand of the overseer of the audience-chamber Sa-Sopdu. List of the decorative materials (rḫt ḫꜥw):*". There follows a list of said materials then the passage above. The list of decorative materials is tied to a specific date, and then expected to be used on a particular boat *pꜣ imw*. The use of *pꜣ* and the stative referring to the craftsmen (*ḥmwwt iw*), in conjunction with a designation of where they have come from, with whom they came and where they went, argue strongly against this being a general or recurring situation. "*After painting the boat equip [it] with its decorative materials. You always/normally choose ten shepes men; all the best ones of the craftsmen who have come south with you to Thebes*" is not a convincing rendering of the passage. It is also of note that as no reason for choosing ten good men follows this, one cannot help thinking that the instruction expressed with *ḫr=f sḏm=f* is an afterthought and that the ten men are for equipping the boat.

96. Berlin Letter P10073, line 5

Concerning absentee corvee workers:

"*The servant of the Estate of eternity Senebni says:
It is a communication for the lord to the effect that the mayor has sent yours truly to The Settlement with regard to the registration of the workers that he placed under the charge of yours truly saying:*

*ir nhw gmy=k ḫnt im **ḫr=k hꜣb=k** ḥr=s n imy-r pr ḥr-m-sꜣ=f*

'*As for the missing persons that you find down there **you should write about it** to the steward Horemsaf*'.

Yours truly has sent a list of missing persons to the pyramid village in writing"

Here the mayor has sent a specific person, (Senebni), to a specific place, (The Settlement), for a specific job, (to check for missing persons on the register for which he is responsible) at a specific time (That of writing the letter). Furthermore, *iw rdi.n ḥꜣty-ꜥ iwt bꜣk-im* ("*The mayor has sent yours truly...*".) provides a start point and *iw rdi.n bꜣk im int* ("*Yours truly has sent...*") an end point, showing that the instructions were limited to a specific situation; it is a one-off order rather than a general procedure and again the usual procedure might be worked out from the context. The use of *hꜣb* and *m sš* indicates that a particular stress is being placed on the list being in writing and the fact that Senebni feels it necessary to state that he has been told to come to "*The settlement*" and to report to a specific individual would indicate that it was not usual for him to be there in person nor was Horemsaf the usual person to whom

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[240] Literally "*Things that shine*"
[241] The form *iw*, as opposed to a variation on *ii*, makes this much more likely to be a stative than a participle.

absentees were reported. It might be said that the usual procedure was to report missing men to someone else or not in writing and that Senebni stays where he is or delegates.

97. Heqanakhte II rt. 35-36 (Pl. 30)

Heqanakhte is issuing instructions regarding his favourite son (Mer)-Sneferu.

*ir grt wnn mr-snfrw ḥr mrt wnn m-sꜣ nꜣ n kꜣ **ḥr=k di=k** sw m-sꜣ iry*

*"If it is the case that Mer-Sneferu still wants to look after the bulls **you should let him look after them.***
He did not want (n mr=f) to be with you ploughing up and down nor did he want (n mr=f) to come here with me."

The context in which the instruction is issued is tied to a a specific point in time by the use of the negative perfect, which relates back to the unachieved extensive in the protasis; Sneferu's wanting to be in charge of the bulls was triggered by his not having wanted to do anything else. Again, the usual state of affairs can be worked out from the context; Sneferu ploughs or goes to stay with Heqanakhte, Sneferu wanting to look after the bulls is a departure from this.

Collier has discussed this example in detail and writes that: "*The reference would indeed seem to be to a specific instance- the situation at the time of ploughing and not a general instruction*" (2005: 22, n.38).

98. Heqanakhte I rt 8-9 (Pl. 26) (Already mentioned in the Introduction, p. 8)

The situation is that Heqanakhte needs Merisu to lease Khepshyt land on his behalf:

"Do not farm the land everyone else does; y*ou should ask Hau the younger.*

*ir tm=ṯn gm m-ꜥ=f **ḥr=ṯn šm=ṯn** tp-m ḥrw-nfr ntf dd ṯn ḥr ꜣḳt ḳbt nt ḫpšyt*

*If you do not find (any) with him **you should go before Herunefer**, he is the one who can give you irrigated khepshyt land"*

Here, going before Herunefer is certainly not a general procedure but part of a detailed and very specific plan. Rather complicated instructions have been issued by Heqanakhte; the "*khepshyt*" land is to be paid for by '*money*' he is owed, providing a debt can be collected, and, if not, by a sheet that Heqanakhte owns but hasn't had valued. If there is enough left over after paying the rent in Perhaa Merisu is to go to Hau with this payment and then, if Hau doesn't have any land for sale he is to go to Herunefer. The situation outlined above, in which the instruction expressed in terms the *ḥr=f sḏm=f* form is issued, can in no way be regarded as a recurring or usual one. The fact that Heqanakhte tells Merisu to go to Hau Junior first shows that going to him was the normal procedure therefore obtaining land from Herunefer would be an ad hoc measure.

Another two examples of *ḥr=f sḏm=f* from letters that are fragmentary but cannot be definitively regarded as of a general nature are:

99. Lahun Letter UC32202 fragment ii, 3

> *.....] r int n=s{t} ˁkw m ẖnw*

> *...]=sn ḥr imw iṯ=f st*

> *....] in order to bring to it provisions from the residence*

> *....] the cargo boat **should bring** it"*

Here we have a specific purpose and a specific place mentioned, which, combined with the fact that a letter has been written at all makes it very likely that this is case-specific. There is also, in an earlier fragment of the text (UC 32202 fragment i, 7), a reference to land being ploughed for a particular person which also makes case-specificity more likely.

100.   Lahun Letter UC32113B rt. 2-4

> *"..] which I mentioned to you, saying*: (*sḫꜣ.n=i n=k r-ḏd*)

> *ir gꜣ nꜣ n tp(w) r mḥy **ḥr=k di=k** di.tw[....*

> *If the personnel is short for the flax **you should let** [......] be given [.... "*

The use of the perfect relative form on its own does not fix the action quoted in a specific time but it does it make it more likely.

Given the usage of the *ḥr=f sḏm=f* form in the letters and the *sḏm.ḥr=f* form in the procedural texts, a hypothesis that explains the clear division in distribution between the two forms might be advanced:

The *sḏm.ḥr=f* , as a generic tense is used for expressing what is always or normally done **whenever** or **every time** the relevant circumstances arise (See I.5.1) whereas the *ḥr=f sḏm=f* form is used to express an *ad hoc*[242] measure taken **if** or **when** specific circumstances, or situations that depart from the norm, arise; it does not have general application.

If this hypothesis is then tested against those types of texts that use both *sḏm.ḥr=f* forms and *ḥr=f sḏm=f* forms, we find that considerable weight is added to it. This is best shown in the medical texts where there are several spells that use both *sḏm.ḥr=f* and *ḥr=f sḏm=f* forms in close proximity; for instance:

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[242] Here and henceforth "*ad hoc*" is used in its original latin sense; "*for a specific purpose*", as opposed to the modern colloquial sense; "*On the spur of the moment*"

101.   Ebers §522[243]

"Remedy for a sore: on the first day: fat of cattle, until it rots, or flesh of cattle, if it is not too rotten. You have to bandage it (wt.ḥr=k) with rotten barley bread until it dries out under it. You have to repeat (wḥm.ḥr=k) the bandaging with the grease while it rots. When it closes over the damaged part you have to bandage (wt.ḥr=k) it with goat fat, pine-oil and crushed peas.

*ir ḥḳ [=f] ḥr=f **ḥr=k tmt=k** sw m ḳꜣw*

*If it (?)es under it **then you should sprinkle it** with grains of green glass sand.*

*ir m-ḫt **ḥr=k wt=k** sw m ftt n dbyt ḥr ꜣbḫt*

*and afterwards **you should bandage it** with fibres of dbyt plant over the mixture.*

After it has scabbed over, you have to [make?] ([ir].ḥr=k) an ointment for strengthening the vessels and bandage with it until it is healthy. After it closes up over its damaged part, you have to make (ir.ḥr=k) fat of djajs plant, and bandage with it until the scar clears or until it rots."

Here the procedure, expressed in *sḏm.ḥr=f* forms, is interrupted by two *ḥr=f sḏm=f* forms. The verb used in the conditional preceding the first one is *ḥḳ*, which, although a precise meaning cannot be attached to it, is undoubtedly something bad as is shown by Papyrus Chester Beatty V; Vso 6,5; 6,7 and 6,9 where three spells to deal with *ḥḳ* illness are listed. Catching a different disease is without doubt not a normal part of a cure so it seems certain that this section is a reference to what to do in a situation where something goes wrong. According to this recipe, when the procedure expressed by the *sḏm.ḥr=f* forms (but not those expressed with *ḥr=f sḏm=f* forms) is followed successfully, this is the sequence:

1. *The sore dries up[244] (after a poultice is applied)*
2. *The sore closes up (after a poultice is applied)*
3. *The sore scabs over[245] (after a poultice is applied)*
4. *The scab heals up[246] (after an ointment is applied)*
5. *The scar disappears[247] (after a poultice is applied)*

This sequence is an excellent description of the course of a successful healing process. On the other hand, if we were to add the circumstances in which the *ḥr=f sḏm=f* forms come into play there would be a salient anomaly between the first and second steps; "[*The man] catches hq disease*". This is clearly not part of the normal healing process and, by extension, the *ḥr=f sḏm=f* forms attached to it are not part of the normal cure. Catching *ḥḳ* disease is a potential, but not usual, part of the procedure, hence the use of the *ḥr=f sḏm=f* form. *Whenever* you

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[243] The examples from Papyrus Ebers are numbered by section as per Grapow (1958)

[244] lit. "*closes over the damaged part*"

[245] lit. *"is cloaked"*

[246] lit. "*closes*"

[247] lit. "*the hole clears*"

see a man with a sore[248], you always do the sequence of poultices *but* only in the out of the ordinary event that he catches *ḥḳ* disease do you sprinkle the sore with green glass sand and bandage it with *ḏbyt* plant.

The same contrast between the two forms is also found in

102.   Coffin Texts Spell 404 (V182f):

spr.ḫr=f r=f r ky sbꜣ gmm=f snwy im ꜥḥꜥ ḏd.ḫr=sn n=f m sn=n.tw **ḫr=sn šꜥ=sn** *šrt ḥnꜥ spt nt ḫm rn=sn*

*"He approaches (spr.ḫr=f) another gate and it is there that he finds the two sisters waiting. They have to say (ḏd.ḫr=sn)[249] to him 'Come, so we may kiss you' and **they will cut off the nose and lips** of the one who does not know their names. He has to say (ḏd.ḫr=f) while approaching them: [their names]"*

The normal procedure, expressed by *sḏm.ḫr=f* forms, when carried out successfully goes thus:

1.   The man approaches their gate
2.   The two sisters speak to him
3.   He replies with the correct words (including their names)
4.   He passes through to the next gate.

The clause containing the *ḫr=f sḏm=f* form expresses a departure from the normal sequence of events;[250] the two sisters cut off the nose and lips of a man because he does not know their name. *Whenever* a man makes his way through the guardians of the gates, he always approaches the gate, the two sisters always speak to him and he always replies; this is the normal sequence of events. But, the two sisters cut his nose off in the unexpected and specific circumstances of him not knowing their name.

The same can be seen in cures from the medical texts that use the *ḫr=f sḏm=f* but not the *sḏm.ḫr=f*. Here the *ḫr=f sḏm=f* form again indicates what should be done if, or when, a situation, which is out of the ordinary arises. For instance:

103.   Papyrus Ebers §215

Another [remedy]: Honey 2, grains of mjmj flour 2, earth-hair plant 1. Make into four cakes for four days.

ir r-sꜣ ps bit ḫr-ḥꜣt **ḫr=tw di=tw** *hꜣ ḳꜣw n mm šni-tꜣ 1 wnm r hrw 4*

---

[248] Although there is no *ir* protasis here it may be assumed, from the presence of *sḏm.ḫr=f* forms and the fact that the title "*remedy for a sore*" has no specific time reference, that the remedy is for use when(ever) a man with a sore is to be cured.

[249] See Exx. 79 for *ḏd.ḫr=sn* here.

[250] Vernus (1990; 69) had already noticed that the *ḫr=f sḏm=f* form here "*functions as a kind of parenthetic notation in the succession of sḏm-ḫr.f statements*"

That the *ḥr=f sḏm=f* clause is not part of the normal remedy is shown by the fact that the the *ir-s3....ḥr=f sḏm=f* clause is apparently superfluous; the recipe is complete without it and would go as follows:

Make the ingredients into four cakes for four days……………..Eat for four days.

It seems certain, from the way the *ir-s3....ḥr=f sḏm=f* clause refers back to the ingredients and the cooking process and the instructions for use are given after it, that it is a comment regarding a potential situation that is somehow different from the normal one, that might arise regarding the cake making process. It can be rendered:

> "If[251] the honey is pre-cooked[252] the amount of grains of mimi flour and earth hair **should be reduced** by 1[253]"

This implies that using honey for making cakes is the normal procedure but using pre-cooked honey is not, although that might be all you have. You would normally make this recipe with 2 measures of each ingredient but in the specific, and out of the ordinary, circumstances that the honey you have is pre-cooked you halve the measures.

Another example that displays this feature; the *ḥr=f sḏm=f* being used for departures from the normal procedure, is:

104.   Papyrus Ebers §712:

> "*Remedy for eliminating tp3w disease on the head: barley flour, crushed and burnt 5 ro; flour of mjmj grains, burnt 5 ro; softened fat 5 ro.*
>
> *Mix together and anoint (the head) with (it), his head is to be lightly covered and his skull is to be left alone without putting any medicine on it.*
>
> *ir m-ḫt pḥw hnn=f m wrḥ m nn pḫrt **ḥr=tw wrḫ.tw=f** m mrḥt rmw 2-nw hrw*
>
> *If, afterwards[254], the skull is reached by the ointments from the remedy, **it should be anointed with fish fat on the second day,** ointments of hippo fat on the third day and ointment of ibr on the fourth day. Ointments of crumbs of rotten wheat bread are to be placed on the skull every day."*

Here a recipe is given and followed by its mode of application. Strong instructions to the effect that the man's skull is to be avoided when the remedy is applied are then given. The phrase *rdi r t3* "to put to one side" or "leave alone" [255], which would suffice on its own, is reinforced by a negative adverbial adjunct *nn rdit pḫrt nbt ḥr=f*. The double injunction against the ointment reaching the patient's skull implies very strongly that there will be unwanted consequences if the ointment is allowed to soak through. The instructions that follow,

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[251] Lit. "*As for after*". See Westendorf 1962: §259b
[252] Literally "*the honey is baked previously*"
[253] Lit. "*one mimi flour measure and one earth-hair measure should be caused to go down*"
[254] Westendorf (1962: §259b) translates: "*Wenn danach*", "if, afterwards"
[255] See Griffith 1889: Pl. 7, 293

expressed as *ḫr=f sḏm=f* forms are what to do in the out of the ordinary circumstances that, despite you having been strongly warned not to let it happen, the skull is reached by the ointment. The actual cure for *tp3w* disease is the application of the mixture to the man's head (but not to let it penetrate the skin to his skull), the situation in which it reaches his skull is a potential situation but not a usual one[256].

The other four remedies from Papyrus Ebers that contain *ḫr=f sḏm=f* but not *sḏm.ḫr=f*[257] contain no instructions other than the *ḫr=f sḏm=f* forms and the circumstances that trigger it. All four are headed by *kt "Another (remedy)"* so, in other words, the procedures expressed by *ḫr=f sḏm=f*, are not the normal way of curing a patient, they are ad hoc measures; alternatives for use in a situation where the normal recipe, expressed by *sḏm.ḫr=f*, hasn't worked. One of them contains a *sḏm.ḫr=f* form after the *ḫr=f sḏm=f* form:

105.   Papyrus Ebers §252

kt nt dr d3wt m tp ir d3 tp n ś ḫr=k w3ḫ=k drt=k ḥr tp=f n šn=f sy

*An alternative [remedy] for driving out trembling in the head: If the man's head trembles, **you should rest your hand on his head** and he will not suffer it.*

You have to make for him (ir.ḫr=k): soda, crushed in oil, honey, wax, mix it together, bandage it.

Placing the hand on the head is an alternative cure in the possible event that the man's head trembles. If this cure works the usual way of continuing the treatment is to make (*ir.ḫr=f*) the poultice that follows.

The last place in the medical texts where *ḫr=f sḏm=f* occurs is Papyrus Edwin Smith XXI, 11; XXI, 12 and XXI, 13 in a recipe for turning an old man into a young man[258].

106.   Papyrus Edwin Smith XXI, 11; XXI, 12 and XXI, 13

"A very large amount of ḥm3yt has to be brought (in.ḥr.tw) and likewise 2 sacks. [It] has to be beaten (knkn.ḥr=tw) and put out to dry

ir m-ḫt šw.w ḥr-ḳd ḥr=tw ḏn=tw mi ḏn it

*When it is has completely dried out **it should be threshed** like threshing barley*

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[256] It might be inferred from this that *tp3* is some kind of disease of the scalp, something that will be irritated or inflamed if the mixture penetrates the skin and that the action expressed by *ḫr=f sḏm=f*, to anoint it with a series of emollients, is an ad hoc remedial action to rehydrate the scalp. Another cure for *tp3* (Ramesseum Medical Papyrus Plate 12, Col. 8) mentions a burning feeling in the flesh in relation to it.

[257] Papyrus Ebers, §717, 368 (x 2), and 128

[258] This particular recipe is on the verso of the papyrus and has many odd writings of common words, a large number of nonce words and several words with apparently very different meanings from their occurrences elsewhere in Papyrus Edwin Smith. The large number of incongruities with the rest of the papyrus may well indicate that this recipe was not an original part of the papyrus from which Edwin Smith was copied and had been added at a later date.

[It] has to be winnowed (ḫꜣḫꜣ.ḫr=tw) to separate the remainder of the seeds therein[259]

ir ḫprt nbt im ḫr=tw ḫꜣ=tw

*As for everything that comes out therefrom **it should be gathered**[260]*

and the overflow of the excess that comes out is to be sieved with a sieve. Gather likewise everything that comes out from the seeds.

Make into two portions, one with seeds the other with the overflow. Make them equal"

The stative by virtue of denoting a completed action, further reinforced by the use of *ḥr-ḳd*, fixes the action at a single point in time; the moment when the herb has dried out completely. "*When it has completely dried out it should always be threshed*" is not a viable translation. After the winnowing the emphasis is on not wasting any part of the plant because everything is needed for the recipe but, when threshing and winnowing, this is not a normal procedure; the chaff is usually carried away by the wind. Hence the instruction to gather it, or perhaps examine it, is framed as a *ḫr=f sḏm=f*.

The next three examples come from literature and again confirm the hypothesis that *ḫr=f sḏm=f* is case-specific. The first two appear in the context of direct speech in narrative, in which generalisations wouldn't be expected anyway, and both are intended to bring about a specific result at a specific time:

107.   Horus and Seth UC32158 Col. 2 line 5

"...] *Seth to have sex with me. Then she (Isis) said to him 'Don't give in[261] when he has come in (ꜥḳ.n=f) for it and*

m-ḫt ḏd=f n=k sy k[y] sp ḫr=k ḏd=k n=f iw ḳsn r=i ḥr-ḳd

*when he says it to you again **you should say** to him 'it is much too painful for me"*

108.   Horus and Seth UC32158 Col. 2 line 7

"*That is what you should say to him.*

ir m-ḫt rdi.n=f n=k pḥty ḫr=k ḫꜣꜥ=k ḏbꜥw=k imyt ny ḫpdw=k

*after he has given strength to you **you should push** your fingers between your buttocks"*

---

[259] Lit. "*as regards the remainder of the seeds therein*"
[260] *ḫꜣ* looks like the verb "*to measure*" (Wb 3, 223.4-16) but it does not fit here because no amounts are given anywhere. It is possible that *ḫꜣ*, like "*measure*" does in English, has a similar further meaning of "*to count*" or "*to encompass*" hence the translation "*gathered*". It is also possibly a writing of *ḫꜣ* "*examine*" as found commonly in Papyrus Edwin Smith.
[261] Literally "*Fight yourself*"

Both of these examples take place in the context of a story that is told mostly in *sḏm.in=f* forms and the instructions given in both places are specific to the moment; for Horus to avoid being sodomized by Seth. The instructions also appear to be part of a bigger plan to steal Seth's semen. The presence of both a *sḏm.n=f* form *(ꜥḳ.n=f)* and the adverb *ky-sp* in the first and *m-ḫt rdi.n=f* in the second further confirm that the *ḥr=f sḏm=f* forms that follow them are confined to a specific moment in time and do not have general application.

The following example does not appear in direct speech but is still clearly case-specific.

> 109.   Ipuwer 4.7

> *"Alas! The entire Delta is unseen, there is a longing in the marshland for treadable paths*[262]

> *ptr nty tw r irt n ḫpr w*[...] *m st nbt ḥr=tw*[263] *ḏd=tw wꜣ r st štꜣw*

> *What will be done when [.....] hasn't happened anywhere? It **will be said** 'Stay away from*[264] *the secret places'"*

Although the meaning of this passage is complicated by the missing word[265] it seems to refer to the lack of some activity, probably important to the Egyptian way of life, that happens in the marshes. The important thing here for our purposes is that the *ḥr=f sḏm=f* form is the answer to a question, which is expressed in terms of a pseudo-verbal future, thus making it case-specific. "*It is (always) said 'Stay away from the secret places'*" is a possible but unlikely answer to a question asking about the future.

II.6 *ḥr=f sḏm=f* AS AN INDICATION OF LIKELIHOOD

In a conditional clause in English the way one brings out the difference between something that one is sure is going to happen at some point and something that is not certain to happen, or unusual, is to use "*when*" for the former and "*if*" for the latter. In Egyptian there is usually no distinction between "*when*" and "*if*", *ir* being used for both, but a difference can be seen when an apodosis contains either *ḥr=f sḏm=f* or *sḏm.ḥr=f*. As seen above, when it is preceded by an *ir sḏm=f* clause, the best way to bring out the case-specific nature of *ḥr=f sḏm=f* is to translate with "*if*" in the protasis, thereby showing that the event is not something that is likely to occur often, on a repeated basis, or even at all. On the other hand, with the *sḏm.ḥr=f* form, *ir sḏm=f* might be rendered "*whenever he hears*", or sometimes "*when he hears*", in order to show the general nature of the form and that it is likely to happen at some point.

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[262] Literally "*the mind is filled with the marshland consisting of paths that are trodden*"

[263] Enmarch (2008: 97) takes this as the ellipsis for *ḏd; ḥr=tw* "*one says*" (GEG §436) followed by *ḏd=tw* as the start of another sentence "*It is said*". His rejection of the *ḥr=f sḏm=f* form seems to rely on his acceptance of Depuydt's 'contingent aorist' and he writes ""*this topic does not seem to follow on from the previous verse*" (2008: 98).

[264] Literally "*Be far from!*"

[265] *wꜥrt* as Gardiner and Enmarch restored begins with *w* (assuming that the *w* isn't part of *ḫprw*, which is possible) and ends with the legs (D54) as required by the text but otherwise doesn't fit the context which seems to be describing the inaccessibility of the Delta.

The choice of form employed can also be used to denote a scribe's assessment of how likely an event is to happen or not; *sḏm.ḥr=f* for reference to events that generally happen or are certain to happen at some point and *ḥr=f sḏm=f* for events that are not so likely to happen. This can be demonstrated by the sole example of a *ḥr=f sḏm=f* form from the Satire of the Trades:

110.   Satire of the Trades §XXb (Sallier II); The Bird-catcher:

ir sw3(w) ḫnmw m ḥr=f²⁶⁶ ḥr=f ḏd=f h3nr n=i i3dt

*"If a flock of birds passes in front of him **he will say** "If only I had a net"*

As the Satire of the Trades deals with the constant misery of manual labour it seems more likely that a flock of birds passing right in front of the bird-catcher, which would be a stroke of luck for any hunter, would be depicted as an unusual event, hence the use of *ḥr=f sḏm=f* in the apodosis. The context certainly seems to demand "*if*" as a translation of *ir* and this is in fact what all commentators have done²⁶⁷. If *sḏm.ḥr=f* were to have been used it would imply that it was generally or always the case that flocks of birds fly right in front of the bird-catcher, which would make his job easy and therefore be incongruous in the text as a whole.

Even when there is no *ir* clause preceding the *ḥr=f sḏm=f* the principle can still be applied. The difference between *sḏm.ḥr=f* and *ḥr=f sḏm=f* forms can be shown by the Moscow Mathematical Papyrus which displays instances of both forms in exactly the same position at the end of a problem²⁶⁸. The actual calculation is always expressed with the *sḏm.ḥr=f* form; the method of solving a particular problem is always done the same way, it is the usual way of dealing with the problem whenever the need arises. All three examples of *ḥr=f sḏm=f* and their parallel *sḏm.ḥr=f* occur at the very end of *pesu* problems after the answer:

111.   Moscow Mathematical Papyrus Column XI, 3 (Problem No. 8):

ḥr=k ḏd=k n=f m=k ḥnḳt=f pw gm=k nfr

*"**you should say** to him 'Look! this is its [value in] beer', when you do it right"*

112.   Moscow Mathematical Papyrus Column XVII, 4 (Problem No. 9):

***ḥr=k sit²⁶⁹=k** sw gm=k nt-pw irt mi ḫpr gm=k nfr*

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²⁶⁶ Only one text (BM 29550) out of four has *m ḥryt* "*overhead*", all the others have *m ḥr=f* "*in his face*". The latter is certainly the correct reading; a flock of birds flying overhead is useless whether one has a net or not, making the irony redundant.

²⁶⁷ Helck (1970; 114) translates *ir* with '*wenn*' and and Hoch (1991; 96), Quirke (2004;124) and Parkinson (1997; 279) all have "*if*". Lichtheim, by using "*when*" (2006; 189), is the notable exception.

²⁶⁸ The other mathematical papyri contain either neither form or the *sḏm.ḥr=f* form only; Papyrus Rhind is the exception and contains three examples of the *ḥr sḏm=f* form in addition to a very large number of *sḏm.ḥr=f* forms.

²⁶⁹ Peet discusses this term at length (1923; 22)

> "**you should prove it**; how you found the method of doing it as it occurs, when you do it right" [270]

113.   Moscow Mathematical Papyrus Column XXXII, 4 (Problem No. 16):

ḥr=k ḏd=k n=f m=k n3 pw gm=k nfr

"**you should say** to him [271] 'Look! It is this', when you do it right"

Although all three examples containing *ḥr=f sḏm=f* end with the phrase *gm=k nfr* "*when you do it right*" [272] this cannot be seen as relevant to the choice of *ḥr* construction because nearly all the problems have this, whether it is preceded by a *ḥr=f sḏm=f* construction or not. These three problems and problem thirteen, are the only ones in the Moscow Mathematical Papyrus that finish with any reference to doing anything after the calculation is complete [273]. Problem thirteen also finishes with *gm=k nfr* but immediately preceding it seems [274] to be *ḏd.ḥr=k ḥnḳt iry pw* "*you have to tell him that this is the amount of beer thereof*". At first glance it seems difficult to discern what governed the scribe's choice of form; the two problems are practically identical in the way they are laid out. This could be explained though in the light of the values attributed to the *ḥr=f sḏm=f* and the *sḏm.ḥr=f* above. *gm=k nfr*, as an imperfective used adverbially, implies a condition; you only say "*Look! This is [the answer]*" *when* you get the answer right, which you might not. The use of the *sḏm.ḥr=f* , as a general present, might therefore imply that it is usual to get the answer right "*you have to say this to him **when** you get it right*" and the *ḥr=f sḏm=f* might imply that it is out of the ordinary to get the answer right; "*you should say this to him **if** you get it right*" [275]. By this reckoning the scribe is making a judgement on how likely a student is to solve the problem correctly.

II.7 *ḥr=f sḏm=f* AS AN EXPRESSION OF MODAL NECESSITY

In the previous chapter, the *sḏm.ḥr=f* was translated using the expression of modal obligation equivalent to the general present, "*he has to hear*", in order to bring out its generic nature. For the *ḥr=f sḏm=f*, a translation which brings out its case-specific nature but differentiates it from the *sḏm.ḥr=f* form is one that uses a future tense of modal obligation: "*He will have to hear*". This is, to a large extent, an artificial device, as both the general present and the

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[270] Lit. "*You should demonstrate it; your finding the method of doing, like what happens when you find it well*"

[271] "*Someone who said/says to you [what is...?]"*, which is the designation of the person who asked the question at the beginning of the problems.

[272] See Section I.5.5.1, n. 52

[273] The difference is also briefly discussed by Green (1987; 26, n.66)

[274] The writing, as in many places in this papyrus, is almost unreadable here.

[275] Although the difference in Egyptian is between the *ḥr=f sḏm=f* and the *sḏm.ḥr=f* form, the best way to bring it out in English is by adapting the translation of *gm=k nfr*.

future can be used after both "*if*" and "*whenever*" in English but, in the favour of this device, the future cannot be used in general or habitual situations.[276]

II.7.1 *ḥr=f sḏm=f* AS AN INSTRUCTION

As can be seen in the preceding examples the vast majority of *ḥr=f sḏm=f* forms appear in instructions and have either second person or impersonal suffixes. As with instructions expressed with *sḏm.ḥr=f*, the speaker's intention is to shift the authority for an instruction from himself to an external force; one that the addressee cannot, should not or would not want to, or dare to, argue with. The use of the *ḥr=f sḏm=f* is intended to theoretically guarantee that the procedure is carried out and thereby ensure a cure. In terms of Kratzerian analysis, instructions have a circumstantial modal base and a teleological conversational background. For example:

II.7.1.1 *ḥr=f sḏm=f* INSTRUCTIONS IN THE MEDICAL TEXTS

Ebers §128 (a recipe for the shin)

> *ḥr=tw wḫb=tw m bit*

> "**It will have to be moistened** with honey"

Ebers §252 (Exx. 105)

> *ḥr=k wꜣḥ=k drt=k ḥr tp=f n šn=f sy*

> "**you will have to put** your hand on his head and he will not suffer it.**"**

Ebers §368 (a recipe for the eye)

> *ḥr=tw iꜥ.tw=s m irtt……. ḥr=tw nḏ.tw=s….*

> "**It will have to be washed** with milk….**it will have to be rubbed**"

Ebers §522 (Exx. 101)

> *ir ḥḳ [=f] ḥr=f ḥr=k tmt=k sw m ḳꜣw ir m-ḫt ḥr=k wt=k sw m ftt n dbyt ḥr ꜣbḫt*

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[276] For instance: "*Normally, you have to pick the keys up from the porter but if he is not there you'll have to come and see me.*"If the general present and the future were to be reversed here, we would have: *"Normally, you will have to pick the keys up from the porter but if he is not there you have to come and see me".* The second part of the sentence still reads well, despite giving the impression that getting the keys from me is a usual occurrence, but the first part makes little sense. An argument could almost certainly be made, and may already have been made, for the case-specific nature of "*will*" in English but, in this study, rendering *ḥr=f sḏm=f* with the English future is used only as a way of distinguishing it from the *sḏm.ḥr=f* in translation and not for making any kind of judgement about whether it is anything other than "*case-specific*" in Egyptian.

"If it (?)es under it **then you will have to sprinkle it** *with grains of green glass sand. Afterwards,* **you will have to bandage it** *with fibres of dbyt plant over the mixture.*

Ebers §712 (Exx. 104)

ir m-ḫt pḥw ḥnn=f m wrḥ m nn pḫrt **ḥr=tw wrḥ.tw=f** *m mrḥt rmw 2-nw hrw*

"If, afterwards, the skull is reached by the ointments from the remedy, **it will have to be anointed with fish fat on the second day"**

Ebers §717 (A recipe for smoothing the face)

ḥr=s gs=s *ḥr=s im*

"She will have to rub *her face therewith"*

Ebers §215 (Exx. 103)

ḥr=tw di=tw *ḥȝ ʿḳ n mm šni-tȝ 1:*

"The amount of Mimi grass and Earth-hair **will have to be reduced** *by 1"*

Edwin Smith XXI, 11-12 (Exx. 106)

ir m-ḫt šw.w ḥr-ḳd **ḥr=tw ḏn=tw** *mi ḏn it…….. ir ḫprt nbt im* **ḥr=tw ḫȝ=tw**

"When it is has completely dried out **it will have to be threshed** *like threshing barley……. As for everything that comes out therefrom* **it will have to be gathered**

II.7.1.2 *ḥr=f sḏm=f* INSTRUCTIONS IN THE MATHEMATICAL TEXTS

Moscow Mathematical Papyrus Column XVII, 4 (Exx. 112)

ḥr=k sit=k *sw gm=k nt-pw irt mi ḫpr gm=k nfr*

"you will have to prove *how you found the method of doing it as it occurs, if you do it right"*

II.7.1.3 *ḥr=f sḏm=f* INSTRUCTIONS FROM LITERATURE:

Horus and Seth UC32158 Col. 2 line 5 (Exx. 107)

m-ḫt ḏd=f n=k sy ḳ[y] sp **ḥr=k ḏd=k** *n=f*

"when he says it to you again **you will have to say** *to him 'it is too painful for me'"*

Horus and Seth UC32158 Col. 2 line 7 (Exx. 108)

ir m-ḫt rdi.n=f n=k pḥty **ḥr=k ḫȝʿ=k** *ḏbʿw=k imyt ny ḫpdw=k*

"after he has given strength to you **you will have to push** *your fingers between your buttocks"*

II.7.1.4 *ḫr=f sḏm=f* INSTRUCTIONS FROM LETTERS

Papyrus Reisner II; Royal Dockyard Records pl. 5, 13-15 (Exx. 95)

ir grt r-s3 ꜥ3=k p3 imw ꜥpr.w m ḫꜥw=f nb ḫr=k stp=k šps 10 m ḳn nb n ḥmwwt iw m-ꜥ=k m ḫnt r niwt

"Now after you paint(?) the boat, equip [it] with its decorative materials; **you will have to choose** ten shepes men; all the best ones of the craftsmen who have come south with you to Thebes."

II.8 DEONTIC EXAMPLES OF *ḫr=f sḏm=f*

Other examples may be regarded as having a deontic conversational background; there are rules in place that make a specific course of action the only possible way to act.

Coffin Texts Spell 404 (V182f) (Exx. 102)

It is the Two-Sister goddesses' job to cut off noses and lips[277]:

ḏd.ḫr=sn n=f m sn=n.tw **ḫr=sn šꜥ=sn** *šrt ḥnꜥ spt nt ḫm rn=sn*

They have to say to him 'Come, so we may kiss you' and **they will have to cut off the nose and lips** of the one who does not know their names

Also, The Abydene Stela of Neferhotep (Randall-McIver and Mace: 1902; Pl. 29)

ir rf nty ṯw nb r gmt=f [….] **ḫr.t(w) wbd.t(w)=f**

"As for anyone who shall be found […….], **he will have to be burnt**"

This is the penalty for trespass according to the rules.

In the following two examples, the rules, adapted or interpreted by the writer for a particular situation, say that this is the correct procedure:

Berlin Letter P10073, 10 (Exx. 96)

ir nhw gmy=k ḫnt im **ḫr=k h3b=k** *ḥr=s n imy-r pr ḥr-m-s3=f*

'As for the missing persons that you find down there **you will have to write about it** to the steward Horemsaf'.

Lahun Letter UC32113B rt. 2-4 (Exx. 100)

ir g3 n3 n tp(w) r mḥy **ḫr=k di=k** *di.tw*[....

If the personnel is short for the flax **you will have to let** [.....] be given [.... "

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[277] See also section I.10 regarding gods' jobs.

II.9 CIRCUMSTANTIAL EXAMPLES OF *ḥr=f sḏm=f*

Satire of the Trades §XXb (Exx. 110)

The circumstances of not having a net, yet being in the perfect position to use one, force the bird-catcher to say: *"If only I had a net",* rather than actually catching the birds with the missing net.

*ir swȝ(w) ḫnmw m ḥr=f **ḥr=f ḏd=f** hȝnr n=i iȝdt*

*"If a flock of birds passes in front of him, **he will only be able to say** "If only I had a net"*

Ipuwer 4.7 (Exx. 109)

Because there are no paths and something vital is missing, there will be no choice but to tell people to avoid the area.

ḥr=tw ḏd=tw wȝ r st štȝw

It will have to be said: *'Stay away from the secret places'"*

II.10 EPISTEMIC EXAMPLES OF *ḥr=f sḏm=f*

There are no examples that have an epistemic modal base.

II.11 BOULETIC EXAMPLES OF *ḥr=f sḏm=f*

The desires of Heqanakhte to please his favourites, Iutenhab and Mer-Sneferu, are behind the following two examples:

Heqanakhte II rt. 35-36 (Exx. 97)

*ir grt wnn mr-snfrw ḥr mrt wnn m-sȝ nȝ n kȝ **ḥr=k di=k sw** m-sȝ iry*

*"If it is the case that Mer-Sneferu still wants to look after the bulls **you will have to let him** look after them.*

Heqanakhte II, vo. 40 (Exx. 93)

*n grt mr=k s(y) **ḥr=k di=k** int n=i iwtnḫb*

*"However, you (Merisu) did not want her so **you will have to have Iutenhab sent to me"***

II.11.1 EXAMPLES OF *ḥr=f sḏm=f* WITH MORE THAN ONE CONVERSATIONAL BACKGROUND

Heqanakhte I rt 8-9 (Exx. 98)

This has both teleological (the need to obtain grain) and circumstantial (the grain being only obtainable from one source) conversational backgrounds:

ir tm=ṯn gm m-ꜥ=f ḥr=ṯn šm=ṯn tp-m hrw-nfr

If you do not find (any) with him, you will have to go before Herunefer

Lahun Letter UC32202 fragment ii, 3 (Exx. 99)

Here, there is a teleological conversational background, as shown by *r int*, but the use of the *ḥr=f sḏm=f* form implies that it was not usually the cargo boat that did this task so, there is perhaps a circumstantial conversational background too.

.....] r int n=st ꜥḳw m ḫnw [… ...]=sn ḥr imw iṯ=f st

*[....] in order to bring to it provisions from the residence [….. ....] the cargo boat **will have to bring** it"*

Letter BM 10549 XVI Rt. 8 (Exx. 94)

Apart from getting the boat back (a teleological conversational background) there is also an element of circumstances influencing the instruction here, in that the people who usually do the task are not available.

ḥr=ṯn in=ṯn s(y) ky-sp

"**you will have to bring** it back again"

Moscow Mathematical Papyrus Column XXXII, 4 (Problem No. 16) (Exx. 113)[278].

The rules say that you can't claim to have got it right unless you actually have got it right (Deontic) and the laws of nature tell you that the sum is right (Circumstantial):

ḥr=k ḏd=k n=f m=k nꜣ pw gm=k nfr

*"**You will only be able to say** to him: 'Look! It is this', if you do it right"*

II.12 COUNTERFACTUAL EXAMPLES OF *ḥr=f sdm=f*

The following two examples appears in situations which are not only unusual but are known to not be the case. The examples below from the Tale of the Eloquent Peasant (Exxs. 114 and 115) have traditionally been regarded as examples of an "*aorist*" (see section I.5.2), in fact Collier (2005:22) presents the second as as a non-case-specific example of *ḥr=f sḏm=f*; the

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[278] Moscow Mathematical Papyrus Column XI, 3 (Problem No. 8) (Exx. 111) is almost identical.

only example of the form he supplies that might support Depuydt's argument that *ḥr=f sḏm=f* is an '*aorist*'. Whether these two examples, which are exactly parallel in meaning but with different vocabulary, are case-specific or not depends on how one interprets the verbs *sfn/gs3*. If they are understood as they are in the rest of the text and elsewhere, it is seen that neither of them refers to the normal action of a balance and both are therefore case-specific. Furthermore, both examples appear after a counterfactual conditional. In both these examples the Peasant, with a demonstration of logic, shows that Rensi is crooked *by choice*:

114. Eloquent Peasant B1, 182

After comparing Rensi to a god, the peasant proceeds as follows (B1, 179-181):

in-iw iwsw nnm=f

in-iw mḫ3t ḥr rdit ḥr gs

in-iw ḏḥwty sfn=f iḫ ir=k iyt

Does the balance move erratically?
Is the balance stand leaning to one side?
Is Thoth himself corrupt (sfn) so[279] you can do wrong?

Before proceeding, it is necessary to establish a meaning for *sfn* (Wb 3, 443.2-11), as this verb is central to the meaning of the whole passage. Parkinson (2012: 154) correctly points out *sfn*, although it can have good connotations elsewhere, is here a euphemism for "*corruption*" but uses *"lenient"* in his translation, which doesn't seem to bring out the meaning his notes suggest he wants. Furthermore, *sfn* is clearly parallel to *gs3*, which undoubtedly only has bad connotations (see below, Exx. 22). *sfn*'s literal meaning is probably "*caused to be weak*" (causative *s* + *fn* '*to be weak*'(Wb 1, 576.10-12)) so a term such as "*flexible*", which has both positive and negative connotations is appropriate as a general translation but "*pliable*", which only has bad connotations with regard to a person might be better here. Even so, '*corrupt*' has been used here to make it clear that *sfn* is a bad thing.

This example is undoubtedly case-specific, hence the use of *ḥr=f sḏm=f*; "*Whenever the three are corrupt*", which would imply that the divine balance is often or usually corrupt, is an extremely unlikely, if not impossible, translation.

The Peasant starts with three rhetorical questions, which are designed to establish whether or not the divine scales and their administrator, Thoth, are corrupt or not. The answer to all three is quite clearly "*no*": the balance of justice does not move erratically, its stand is not leaning, and its administrator, Thoth, is not crooked and therefore does not allow Rensi to do wrong. The three are therefore *not* corrupt. The Peasant continues thus (B1, 181-182):

m=k[280] tw snw 3 pn

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[279] As Vernus (1990: 104) points out, *iḫ* is fairly rare in initial position and so is more likely to be part of the same phrase

[280] The group is damaged. Parkinson (1991: 28a n.11a) reads *rdi=k tw snw 3 pn* although *m=k tw* seems a preferable reading as this is what we have in the parallel passage B1, 193 (Exx. 115)

You are the reflection[281] of these three

Here we are informed, as in so many places throughout the text, that Rensi is, or should be, the same as a set of scales, the symbol of justice. Here, he is described by the Peasant as the reflection of the three components of the divine scales: the balance itself, the balance stand and its administrator, Thoth. This means that, as their reflection, Rensi cannot act independently; whatever the three do, he must do, whether he wants to or not. Rensi has no choice in the matter, he *has to* do what the three do. The conversational background could be taken as circumstantial if *sn* is taken in a literal sense; the Peasant is the same as the balance and therefore does exactly what the balance does. It could also be deontic; the Peasant has a duty to behave as the scales do, or the rules say that an official has to behave as the balance does.

ir sfn 3 ḫr=k sfn=k

The conditional can be fulfilled in two ways; either the three are crooked or they are not. The use of the *ḫr=f sḏm=f* form, as it does everywhere else, marks that the responsibility for an action or state comes from somewhere other than himself and, in this case, it comes from the fact that Rensi is the reflection of the scales; what they do he is obliged to do.

Let us suppose for the moment that the three are crooked. Fulfilling the conditional would thus give us: "*The three are corrupt so you have to be corrupt*". In this case, Rensi would have an obligation to be crooked because he is a reflection of the three and they are corrupt; he would have no choice in whether he is corrupt or not, he would have to follow them. To excuse his corruption, he could say "*It is not my fault that I am corrupt, I am obliged to do what the scales do and they are corrupt*"

We already know though, as has been established by the earlier three questions, that the three are certainly not corrupt so fulfilling the conditional would give us: "*The three are not corrupt so you do not have to be corrupt*". *ir sfn 3 ḫr=k sfn=k* must therefore be rendered in English as a counterfactual:

"*If the three were corrupt, **you would have to be corrupt***"

If there were no *ḫr*, or it had no modal qualities, this phrase would be rendered "*If the three were corrupt you would be corrupt*" and it would be difficult to say what point the Peasant was making especially because we know, as the Peasant has already explained at great length, that Rensi *is* corrupt. Parkinson translates this "*If the three are lenient, then you can be lenient*" (2012: 156) and in a rather stretched interpretation takes this as "*an ironic formulation of* imitatio dei" (2012: 154).

This must mean that the Peasant's choice of the *ḫr=f sḏm=f* form is relevant to, if not the main thrust of, his argument. As the *ḫr=f sḏm=f* form is a marker of modal necessity it seems clear that the point that the peasant is making here is whether Rensi *has* to be corrupt or not, in other words, whether Rensi has a choice in the matter. Rensi, as a reflection of the divine

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[281] literally "*second*" or "*double*"

balance, is obliged to do what it does but, because it isn't corrupt, he has no obligation to be corrupt yet still is. Rensi therefore has nothing to blame for his being corrupt; he cannot say "*It is not my fault that I am corrupt, I am obliged to do what the scales do, and they are corrupt*" because it has already been established that the scales are not corrupt. The Peasant thus proves that Rensi has no obligation to be corrupt and that the authority for Rensi's actions comes from nowhere other than himself; Rensi chooses to act the way he does and has no excuse for doing so.

115.   The Tale of the Eloquent Peasant B1, 193

m=k tw m tp wꜥ ḥnꜥ iwsw
ir gs3=f ḥr=k gs3=k

As Parkinson (2012: 164) points out this passage is parallel to the previous example and it does in fact work in exactly the same way as that one but with *gs3*, another word for corruption or wrongness[282], replacing *sfn* and *iwsw* '*balance*' replacing 'the '*three*' (parts of the balance).

Rensi's actions are again described as being governed by the balance "*Lo! You are as one head with the balance*". Just as in the last example, Rensi cannot act independently; he is part of, or even the same as, the balance and is therefore obliged to do what the balance does, hence the use of *ḥr=f sḏm=f* in the next line.

        *if it were bent then **you would have to be bent***

It has already been established at the beginning of the petition by the three rhetorical questions that the balance is not bent and, in the story so far, that Rensi is. Just as in the last example, the Peasant is making the point that Rensi has no obligation to be bent but that it his personal choice to be so.

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[282] Most commentators, by translating *gs3* as "*tilt*" have apparently taken it, in this expression at least, as referring to the normal movement of the scales (Parkinson 2012: 164, Collier 2005: 22, Green 1987: 51, Lichtheim 2006: 176, Lalouette 1984: 204). Junge (1972: 137) uses "*neigen*" and, although he qualifies it with "*auf die siete*", seems to be referring to the normal movement of a scale. Quirke, however, takes *gs3* as something much more unusual and uses "*collapse*" (2004: 158), Simpson et al have something similar, but not as drastic, and use "*waver*" (2003: 35). Parkinson writes when discussing Peasant B1, 123 "*gs3 is the antithesis of ꜥk3 'to be right, exact*' (2012: 100) but in this passage translates it: "*If they tilt then you can tilt*" and provides an uncharacteristic lack of notes justifying this translation (2012:164). His translation here with a modal of possiblity implies that it is a good thing which is not only the opposite of the way he has understood *gs3* everywhere else but is a *non sequitur* in the context.

Chapter III

ḥr sḏm=f

The *ḥr sḏm=f* form, understood here as *ḥr* followed directly by a verb then a subject, has traditionally been regarded as an orthographic variant of the *ḥr=f sḏm=f* form, most who have written about it transcribing it as *ḥr(.f) sḏm.f*. It is argued here that the *ḥr sḏm=f* form is not a specific verb-form but a *sḏm=f* form preceded by the particle *ḥr*, which is a sentence adverb that marks that whatever follows it is *necessarily* true and cannot, in theory at least, be otherwise. It is also seen that this sentence adverb *ḥr* can stand in front of not just *sḏm=f* but a variety of constructions.

III.1 ORTHOGRAPHY OF THE *sḏm=f* THAT FOLLOWS *ḥr*

Class	Form		
3 Lit		*ḏb3w*	**Satire of the Trades;** §IId (Ch.B. and DeM 1176)
		ḏbb	(Gol. and Wils.)
		smi.tw	**Satire of the Trades;** §XXVIa (S. II and DeM 1025)
		si3	**Lahun Gynaecological Papyrus;** Col. 3, 28
		dbḥt	**Hymn to the Nile** IXb (SII) (An VII)
2lit		*km*	**Rhind Mathematical Papyrus;** Problems 21 and 22
2ae geminating		*m3.tw*	**Edwin Smith Surgical Papyrus**: V,1
		sn	**Ramesseum Wisdom Papyrus II**: vso i, Line 4

3ae inf.		*s3*	**Hymn to the Nile** XIIa: (An. VII; DeM 1176)
		s3.tw	(S. II)
		s33	(Ch.B.)
		s33.tw	(DeM 1050)
		s3y	(M 30)
		sš33	(GC 94,3)
wn		*wnn*	**Satire of the Trades:** §VIIId (GC 94,1 and R 93) §Xb (S. II; An. VII; DeM 1022) §XIIIc (S.II; An.VII; R81; K25217; DeM 1029) §XXIe (S. II; An. VII) §XXIIa (S. II; An. VII)
		wn	**(Satire of the Trades:** §VIIId (Sal. II)[283] **Ankhtifi:** I, α. 2

Fig. 12. Orthography of the sḏm=f that follows ḥr

The orthography of each *sḏm=f* form will be discussed under the individual examples.

III.2 STATE OF PLAY REGARDING THE *ḥr sḏm=f* FORM

Gardiner (GEG §239) categorises *ḥr sḏm=f* as having the same function as *ḥr=f sḏm=f*, the only difference between them being that the latter has "*anticipatory emphasis*" and says of it**:**

"*The construction ḥr śḏm.f expresses what will be found to happen, what may be anticipated, or the like, and is often best rendered by the English future*"

When contrasting the *ḥr=f sḏm=f/ḥr sḏm=f* with the *sḏm.ḥr=f* form he uses *ḥr(.f) sḏm.f* to represent both. He also classes *ḥr* as a particle, which he defines elsewhere (GEG §235) as a '*sentence adverb*', and notes that it is probably descended from the particle *iḥr* (See IV.1.2)

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[283] This is almost certainly a scribal error; both parallel texts have *wnn* and all three are otherwise identical.

and is "*obviously closely related to the preposition*" (GEG §239). Junge classes $ḥr$ $sḏm=f$ with $ḥr=f$ $sḏm=f$ and, although he sees no difference between either form and the $sḏm.ḥr=f$ form, uses the notation $ḥr(.f)$ $sḏm.f$ to represent both forms (Junge 1972). Westendorf (1962: §276) likewise uses the notation $ḥr(.f)$ $sḏm=f$ and relates it to the $sḏm.ḥr=f$ form.

Allen (2010 §16.6.13) does not go into detail, as might be expected in a teaching grammar, but regards the $ḥr$ $sḏm=f$ form as a proclitic particle, saying it was "*Originally*   " and that it is followed by $sḏm=f$. As far as its meaning is concerned, he writes that $ḥr$ is used "*to indicate the inevitable result of an action described in some preceding clause*". He describes $sḏm.ḥr=f$ as its ancestor (2010: §22.7) and distinguishes it from $ḥr=f$ $sḏm=f$. In his view the $sḏm=f$ of $ḥr$ $sḏm=f$ is usually the subjunctive (2010: §19.6.2) and the $sḏm=f$ of the $ḥr=f$ $sḏm=f$ is the imperfective (2010: §20.9.1).[284]

Green, although he does not directly address the issue of any difference that there may be between $ḥr=f$ $sḏm=f$ and $ḥr$ $sḏm=f$, seems to start off working on the assumption that they are one and the same and refers to both forms as $ḥr(.f)$ $sḏm.f$. He abandons this notation quite quickly, using only $ḥr.f$ $sḏm.f$ between pages 18 and 48, thereafter returning to $ḥr(.f)$ $sḏm.f$. He gives the impression, without explicitly saying so that the $ḥr$ of the Middle Egyptian construction $ḥr$ $sḏm=f$ is the particle $ḥr$, as defined by Gardiner[285]. When describing his "*emphasising $ḥr$*", which he regards as different from the particle $ḥr$ and which he only discusses with reference to Late Egyptian, he says:

"*This $ḥr$ morpheme* ['emphasising' $ḥr$] *does not occur in any marked or consistent association with statements in which 'deductive' or 'consecutive' sense is expressed, this being broadly the sense with which the $ḥr$ morpheme of the 'indicative' $sḏm.ḥr.f$ pattern is associated. Likewise, it does not occur in association with statements of gnomic nature.*" (1987; 18)

He thus seems to describe, in an oppositional way, what he believes the $ḥr$ of the $ḥr$ $sḏm=f$ to be, despite not having defined it earlier. In other words Green thinks that $ḥr$, the particle, like that which he terms the 'indicative $sḏm.ḥr.f$ pattern' , occurs in association with statements in which '*deductive*' or '*consecutive*' senses are expressed as well as those of a gnomic nature. The only time he specifically mentions $ḥr$ $sḏm=f$ is later where he describes a passage as "*one of the rare examples of 'indicative'/'consecutive' $ḥr$ $sḏm.f$ (indicating a logical consequence)*" (1987:20) but this is again with reference to Late Egyptian only[286].

Both Vernus (1990) and Depuydt (1993) regard $ḥr$ $sḏm=f$ as a later development of $sḏm.ḥr=f$. Vernus (1990) groups $ḥr$ $sḏm=f$ under the umbrella term "$ḥr$ *headed constructions*", including in this term everywhere that $ḥr$ appears when it is not part of the $sḏm.ḥr=f$ form and regards it as a derivative of the $sḏm.ḥr=f$. He does not separate it from the $ḥr=f$ $sḏm=f$ form or any other construction involving $ḥr$ but refers to the $ḥr$ of $ḥr$ $sḏm=f$ as a 'message auxiliary' saying

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[284] In the third edition of his grammar Allen is much more succinct, gathering all this information together in one place and grouping $ḥr$ + $sḏm=f$ with $ḥr=f$ $sḏm=f$ (2014: §18.11). However, he does not mention what kind of $sḏm=f$ he believes it is that follows $ḥr(=f)$. He also moves his comments on its origin to §15.6.13 in the 2014 edition.

[285] Although disagreeing with Gardiner on its origin.

[286] He frequently mentions the Demotic $ḥr$ $sḏm=f$ form but is not clear on what he thinks the connection between that and the Late or Middle Egyptian $ḥr$ $sḏm=f$ might be.

"it shares both the syntagmatic and paradigmatic properties of this category" (1990; 67). Winand (2006: 376), folowing Vernus, describes it as an "auxiliare" and says that it conveys "séquentialité contingente, émanant d'une norme extérieure ou d'une obligation". Depuydt (1993; 208 n.1) states that *ḥr sḏm=f* appears after Middle Egyptian although he is not clear about what exactly his parameters for classifying a text as Middle Egyptian are. He regards *ḥr sḏm=f* as an "*aorist*", equivalent to the Middle Egyptian *iw=f sḏm=f* form, and writes:

"The gradual intrusion of ḥr forms in the domain of jw=f sdm=f can be observed in the syntactic slots following jr + sdm=f and jr + noun syntagm. As indicated in §2, Middle Egyptian jr + sdm=f tends to be followed by jw=f sdm=f but jr+ noun syntagm by sdm.ḥr=f. But after Middle Egyptian, both jr + sdm=f and jr + noun syntagm are followed ḥr sdm=f" (1993: 227)

Furthermore, while discussing a particular passage in the Installation of the Vizier Rekhmire, he says:

"In Middle Kingdom texts, one expects jw=f rwd=f instead of ḥr rwd=f" (1993: 228)

Despite the assurance with which he delivers this statement he provides no comparative data to explain what "*ir + sḏm=f **tends** to be followed by iw=f sḏm=f but jr+ noun syntagm by sdm.ḥr=f* "[my emphasis] means. Without a comprehensive survey of the frequency and typology of every verb form that follows *ir sḏm=f* the meaning of "*tends to*" in these circumstances is not clear at all.[287]

III.3 DISTRIBUTION OF THE *ḥr sḏm=f* OVER DIFFERENT GENRES OF TEXT

The distribution patterns of *ḥr sḏm=f* show that it is not confined to one genre of text although most examples come from literature; The Satire of the Trades has six instances, The Hymn to the Nile has three and there is a further example from Ipuwer as well as the fragmentary one from the Ramesseum Wisdom Papyrus. Mathematics provides two more examples and medicine another two. There is also the example from the autobiography of Ankhtifi. The letters contain no examples of *ḥr sḏm=f*. The following table shows the distribution by genre of the *ḥr* constructions examined so far, doubtful examples being in brackets:

Genre	*ḥr sḏm=f*	*ḥr=f sḏm=f*	*sḏm.ḥr=f*
Medical	2	12	316
Mathematical	2	3	306
Coffin Texts	(1)	1	54
Literature	11	6	1
Autobiography	1	0	1
Letters	-	8	-
Total	16(17)	30	678

Fig. 13. Distribution of the ḥr sdm=f over different genres of text

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[287]It might also be said that that Depuydt's conclusion applies as much to the nature of the different protases as the nature of the *ḥr* construction in the apodoses.

It might then be said, on the basis of its distribution, that literature is where *ḥr sḏm=f* is most at home; it is, after all, used there more than any other *ḥr* construction. However, even setting aside the always present question of how many texts overall have been preserved, this conclusion would be very doubtful because, when the data is examined in more detail, we find that the eleven literary instances of *ḥr sḏm=f* appear over only four literary texts and two of those have only one example each. Six of the the eleven instances come from the same text, The Satire of the Trades, and in four of those six instances there it appears with *wnn=f*; a refrain that sums up various sections. This means that with only six distinct examples from different literary contexts, the number of occurrences in literature is not significantly higher than those in other genres, even when the vagaries of transmission are allowed for. In fact, as far as the distribution is concerned it can only be said with confidence that the *ḥr sḏm=f* form, like the *ḥr=f sḏm=f* form, does not seem to be particularly suited for use in procedural texts, being outnumbered there to the tune of 170 to one by *sḏm.ḥr=f* forms.

III.3.1 CHRONOLOGICAL DISTRIBUTION OF *ḥr sḏm=f*

Contra the assertions of Vernus and Depuydt there are in fact three early examples of a *ḥr sḏm=f* form[288], two of which, while not being broken themselves, are in broken contexts. All of them can be securely dated.

The first is from the First Intermediate Period and occurs in the autobiography of Ankhtifi at Mo'alla (I, α. 2) and is written on his tomb wall. The second early example is from the Lahun Gynaecological Papyrus (Case 34), which has an excavation provenance, as does the third; the Ramesseum Wisdom text. The majority of the surviving examples of the *ḥr sḏm=f* form occurs in literary manuscripts dating to the New Kingdom: the Satire of the Trades (six examples), The Hymn to the Nile (three examples) and The Dialogue of Ipuwer and the Lord of All (one example). There are three more examples of the *ḥr sḏm=f* form, all dated to the late Second Intermediate Period; one from Papyrus Edwin Smith and two from Papyrus Rhind.

Although the manuscripts of the literary examples all date to the New Kingdom, it cannot be said with any confidence whatsoever that the *ḥr sḏm=f* form is contemporary with the manuscripts on which it is written, nor can it be definitively said that it is not[289] . The same can be said of the medical and mathematical texts; these could be, and probably are, copies of earlier texts. On the other hand, at the risk of stating the obvious, the examples from Kahun and the Ramesseum could be said to be copies of an older text but not a text from the future. This leaves us with the situation that the only securely dated examples of the *ḥr sḏm=f* form come from the First Intermediate Period and, at the latest, the late Middle Kingdom. These

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[288] There is also a potential further example that is almost certainly not a *ḥr sḏm=f* form but can be securely dated to Middle Egyptian; Coffin Texts Spell 343 (IV 359c) which is discussed below (Exx. 132). In addition, if we are to use Vernus' wider categorisation of "*ḥr* headed constructions" there is an example of a *ḥr sḏm.n=f* form from as early as the sixth dynasty; Urk I; 147,4 (Exx. 135).

[289] See below under "*The Satire of the Trades*" (section III.4.1) and "*The Hymn to the Nile*" (section III.4.2). Their composition date has been challenged recently by Moers et al (2013) but they are still classed by most Egyptologists as texts written in Middle Egyptian and are included in the standard grammars.

three are supplemented by six texts that, even though written in Middle Egyptian, cannot be securely dated.

III.4 IS THE *ḥr sḏm=f* FORM ACTUALLY A VARIANT OF THE *ḥr=f sḏm=f* FORM?

Gardiner, Green and Allen all put forward the idea that the *ḥr sḏm=f* form is a variant of the *ḥr=f sḏm=f* form or the *sḏm.ḥr=f* (See III.2). If this were the case, we might expect to find that *ḥr sḏm=f* has a similar usage to the other two constructions. For this reason, the individual occurrences of the *ḥr sḏm=f* form must be examined in the same way as were the *ḥr=f sḏm=f* and the *sḏm.ḥr=f* forms in order to see how, if at all, it differs in usage from either of those forms.

In the previous chapters the *ḥr=f sḏm=f* form was shown to be a way to express an obligation that appears in a case-specific situation or an obligation that occurs on an ad hoc basis. The *sḏm.ḥr=f* form was shown to be a way to express a generic obligation. In examining those constructions, the modal nuance was initially set aside and the contexts in which those forms appeared was analysed. Useful results were obtained in this way and it is for this reason that the same methodology will be employed with the *ḥr sḏm=f* constructions.

III.4.1 *ḥr sḏm=f* IN THE SATIRE OF THE TRADES

The first group of examples to be looked at will be those from the Satire of the Trades, the text in which most of the examples of *ḥr sḏm=f* occur[290]. All the Satire of the Trades examples are difficult to translate because multiple copies exist and most are either corrupt, incomplete or both, moreover, there is a wealth of obscure vocabulary to contend with. As far as the Satire of the Trades is concerned, the earliest extant texts are Papyrus Amherst and the Louvre writing board from the early eighteenth dynasty, neither of which preserve any examples of *ḥr*, although it should be noted that at one point (§Xb) in Amherst the text is broken where *ḥr* occurs in several other texts. This is also the case for the Louvre writing board in two places (at §XXIe (Exx. 119) and §XVIIIa (Exx. 148.5)), so it cannot be definitively said that *ḥr* was never present in either text. On the other hand, though, at two points (§XXIIa (Exx. 120) and §XVIIIa (Exx. 148.5)), two of the later texts (Anastasi VII and Sallier II for the former and Sallier II and Bodmer for the latter) have *ḥr* and the Louvre Writing Board does not, despite being complete. This may indicate that *ḥr sḏm=f* is a later construction which is in fact the line taken by Stauder (2013: 224-231) but, as the versions differ considerably from one another in many respects, this could just as easily be put down to different scribal traditions or even scribal error.

For the purposes of this study we are not so much interested in the original date of the composition but as to whether the text is so different from dateable Middle Egyptian

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[290]The only other *ḥr* construction that appears in The Satire of the Trades is a single *ḥr=f sḏm=f* form (Exx. 110)

literature, such as the Tale of the Eloquent Peasant or Sinuhe, that the data on *ḥr sḏm=f* it provides should be discounted.

As far as the Satire of the Trades is concerned, Parkinson writes that "*The date of composition is uncertain ...... although the work is usually assigned to the beginning of the twelfth dynasty, on the basis of its supposed author, it may be later*" (1997: 274). Quirke states that "*The composition is in the Middle Egyptian phase of the Egyptian language and probably dates to the Middle Kingdom*" and suggests the text may be earlier (2004: 121) and, in the most recent study on the dating of Middle Egyptian literary texts, Stauder treats the Satire of the Trades in detail (2013: 469-476) and concludes that "*A dating to the early eighteenth dynasty is significantly more likely than an earlier dating within the temporal range defined* [mid-Dynasty 13-early Dynasty 18]" (2015: 510). His basis for saying this rests on several arguments, some, by his own admission, stronger than others. The first concerns the use of *ist* in the eighteenth dynasty and he argues (2015: 471) that the very beginning of the Satire of the Trades provides evidence for a later dating:

Sallier II; 1a-d (Stauder's transliteration and translation (2015: 470))

> *ḥȝt-ꜥ m sbȝyt irt.n s n ṯȝrt dwȝ=f sȝ ḫty rn=f n sȝ=f ppi*
>
> *ist rf sw m ḫntyt r ẖnw r rḏt=f m ꜥt-sbȝt nt sšw*
>
> "*Beginning of the teaching made by a man of Sile(?), Duaf's son Kheti by name, to his son Pepi.*
>
> "*Now, he was travelling upstream to the Residence to put him into the school of scribes*"

Stauder's first argument for a later dating for the text is that "*ist rf directly follows the title: it does not provide a textual pivot with respect to some preceding segment, as there is none*" (2015: 471), which he regards as an eighteenth dynasty usage. Oréal, who has written extensively on *ist*, sees no objection to it following a title in a Middle Egyptian text (2011: 235) [291] and Stauder's argument can easily be discounted if one takes *ist* in its common Middle Egyptian usage, as found in Sinuhe and the Tale of the Eloquent Peasant and numerous other texts, where it marks "*a situation or concomitant fact*" (GEG §231) or is "*usually an adverb clause*" (Allen 2010: §16.6.5). This way it could be taken as part of the title; only the first few groups are rubricised anyway, so it is rather arbitrary to assume that the title finishes after *ppi*.

Stauder's second point regarding this passage is that all the dateable Middle Egyptian examples of *ist rf* are followed by subject + *sḏm=f* whereas eighteenth dynasty examples of *ist rf* are followed by subject + *ḥr* + *sḏm*. It is on this basis that he uses this passage as possible evidence for a late compositional date for the Satire of the Trades although he classes his conclusion as "*slightly uncertain*" (2015: 475). A strong objection to his interpretation is his

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[291] Stauder (2015: 472 n. 135) dismisses this by saying that she does not relate *ist* to later texts and "*Oréal's classification may have been based on types of written discourses, treating literary texts as a group*". Oréal is, however, quite clear about how she classifies them; it is hard to say anyway how Stauder sees her classification system as a relevant objection.

assumption that the pseudo-verbal constructions in question, *subject* + *ḥr* + *sḏm*, *subject* + *m* + *sḏm* and *subject* + *sḏm=f*, all mean exactly the same thing. There is good evidence for the first and the last overlapping over time but Vernus (1990: 148), who Stauder often quotes for a variety of reasons, makes a good case for subject + *m* + *sḏm* being a way of expressing what he calls "*the ingressive*", meaning "*to be about to*" or "*to be on the point of*" doing something. This reading would in fact fit much better in the context and the whole title might be rendered thus:

> "*Beginning of the teaching which* a man of Sile called Duaf's son Kheti made for his son Pepi when he was about to travel upstream to the Residence to put him into the school of scribes".

Stauder brings to bear other evidence for a date later than the Middle Kingdom but admits that it is not strong; for instance, the orthography of *ḥꜣ*, which is written *hl*. As Stauder himself notes (2015: 469, n. 126) it is also written in exactly the same way in the Dispute between the Man and his Ba, which has a manuscript firmly dated to the Middle Kingdom.

 He also mentions two lexical items (2015: 474); *ḳnḳnw* "*beatings*" and "*ꜥꜣgsw*" "*belt(?)*" but says that the first is "*somewhat uncertain in its appreciation for dating*" and, after a discussion says of the second, which is possibly a Semitic loanword, "*the date of its borrowing therefore remains unclear*". There is in fact another Semitic loanword from the Satire of the Trades, which Stauder does not take into consideration, which may actually point towards an earlier date for the text; the word for a washerman's stick or perhaps a washboard. This appears in Section XIXg of the Satire of the trades and is written in the various manuscripts as *mꜥḳnt*, *mꜥgꜣwt*, *mꜥgꜣyt* and *mꜥgꜣt* but appears in the Ramesside Papyrus Harris I 34b, 3 written as *mꜣḳꜣr*. Hoch (1994: 167) writes that "*The variants without r or n, rather than miswritings, may preserve the authentic ME orthography, in which Semitic /l/ was represented by ＼ *". All the examples from the Satire of the Trades, except one, fall into the category with no *r* or *n*. and would therefore be potentially authentic Middle Egyptian spellings.

Stauder also uses *ḥr wnn* itself to date the text saying it is "*linguistically late*" because *ḥr* is "*routinely before wnn in most Ramesside witnesses*" (2015: 469), he then refers us in a note (2015: 469 n.127) to Neveu's work (2001) for more detail on this construction. Firstly, he is assuming that *ḥr wnn* is a bound construction, when, as we shall see below (section III.6) this is not the case. Secondly, if we go to Neveu as directed we find "*Si le predicat est une syntagme prépositionnel exprimant un état, selon que cet état est realisé ou non, on traduira par <<tant que, aussi longtemps que + futur >> ou <<dès que, lorsque + futur>>*" (2001: 69). In all the examples of *ḥr wnn* from the Satire of the Trades a state is described but if we were to follow this translation guide, which works perfectly well for all the Ramesside examples quoted by Neveu, the Satire of the Trades examples are rendered nonsensical as, unlike the Ramesside examples they all end, rather than start a section.

Stauder's argument that the presence of the *tw sḏm* form "*implies a terminus ante quem non by mid-Thirteenth Dynasty*" (2015: 475) is stronger but, as the author himself says "*cannot be proved beyond doubt*" (2015: 475), admitting that the construction is "*highly specific*" (2015: 470). Furthermore, it only occurs twice in quick succession in the Satire of the Trades at §IIIe

and §IIIf. Eyre in his review of Stauder's book makes a perceptive general point which is relevant here: "*an updating of constructions can only serve to date the particular manuscript – the individual version – and not an original date of composition*" (2015: 326).

It has to be concluded, whether the date of composition is early or late, and despite the late orthography of the extant manuscripts, that the language in which the Satire of the Trades is written does not differ significantly from the Middle Egyptian such as is found in dateable twelfth dynasty texts. The text is included in all the standard grammars of Middle Egyptian and all the constructions found in the Satire of the Trades, except the two examples of *tw sḏm*, appear in both Sinuhe and the Tale of the Eloquent Peasant. It should not therefore be discounted for the purposes of this study.

Before looking at the examples from the text it is worth noting that it is unlikely that where the text deals with stereotypes of tradesmen that any of the *ḥr sḏm=f* constructions would be case-specific. The picture that the narrative paints of each profession can be regarded as a universally, or always true, description and the *ḥr sḏm=f* constructions form part of that description. Although a job may be specified, the descriptions cannot be tied to any particular point in time, nor are they departures from the norm; they *are* the norm for each worker. Each job, and its concomitant hardships, would be the same yesterday, now or tomorrow.

116.   Satire of the Trades §VIIId, Sallier II; the reed-cutter

"*The reed-cutter goes north to the Delta in order to bring for himself arrows. When he has filled his arms with more than he should.*

*sm3.n sw ḫnms ḫnmsyw sfd[ḳ].n sw snny **ḥr** wnn=f wḏꜥ*

 the mosquitos and mosquito-like things have butchered him and the cutter has chopped him to pieces; he is carved up"

In this particular instance the *sḏm.n=f* forms are subordinate to the general present in the first line of the section "*The reed-cutter goes north to the Delta*" *bity ḥd=f r idḥw*. Every time he goes to the Delta, the same actions are completed; the context is thus a generic one. Following *ḥr* is a stative[292] that has been converted with a geminating form of *wn* which, morphologically speaking, could either be an imperfective or a prospective. The former seems preferable by virtue of being the logical counterpart to the general present at the beginning of the section.

117.   Satire of the Trades §Xb, Sallier II; the builder

*ḏd=i n=k mi ḳd inbw mr dpt[293] **ḥr** wnn=f m rwty n sm3ꜥt iḳd=f m d3iw*

Let me tell you all about the builder of walls; the experience is painful, he is outside in the howling wind, building in (only) a loincloth.

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[292]None of the other versions have any kind of preposition between *wnn=f* and *wḏꜥ* making a stative the most likely option.

[293]taking *mr dpt* as a sentence with an adjectival predicate as did Hoch (1991; 92) and Quirke (2004; 122)

Again the description on which *ḥr wnn=f* depends is non verbal and cannot be fixed in a particular point in time; the experience is always painful and so the description is expressed in general terms.

118. Satire of the Trades §XIIIc, Sallier II, the field-worker

"The farm-labourer complains endlessly, making the noise of a "boaster-bird", his fingers are turned into arms; being all stuck together[294] because of the howling wind and

*wrd=f sw r mtrt r idḥw **ḥr** wnn=f m stpw*

he wears himself out for the bounty[295] of the marshes; he is shredded[296]"

This section again starts with a general present and *wrd=f sw* resumes it, putting it firmly in the general domain.

119. Satire of the Trades §XXIe, Sallier II; the fisherman

Let me tell you about the fisherman, he is more vulnerable than any (other) job; there is no other tax-payer on the river who mixes with crocodiles.

*ir ḫb3.tw dmdyt nt{y} p3 ipw **ḥr** wnn=f m nḫwt*

When(ever) the total of the catch is diminished he is in tears[297]

(even) without anybody telling him "Crocodiles are waiting".

This example is one of three from the Satire of the Trades containing *ir* in the protasis and again speaks in general terms of a profession, starting out with a non-verbal sentence. "*Whenever*" is a reasonable, or even preferable, translation for *ir*; the fisherman's catch could be diminished at any time whatsoever and the situation could occur repeatedly. Despite this, a case-specific reading cannot be ruled out: "*If his catch is diminished, he will be in tears*" although a potential mishap doesn't have the same rhetorical force as a regularly occurring mishap.

120. Satire of the Trades §XXIIa, version Sallier II

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[294] Taking *k3ḫ3* as a variant of *k3ḥ* to bind together (Meeks 1977: 4360 and 1978: 4247) and *nb* as referring back to the fingers. The Papyrus of Nu (Lapp: 1997; Plate 28, line 7)) has a description of Osiris's arms being bound, *k3ḥ.n=j ʿwy=i* , that uses this verb. Here this is perhaps a description of someone suffering from osteoporosis whose fingers have stiffened together making it look like he has arms but no hands, in the same way that the bound Osiris has a body but no arms. Otherwise, he might just be clenching his fists against the wind.

[295] Sallier II actually has *mtrt* "*testimony*" (Wb 2, 172.11-16). All the other versions have *mtnw* "*reward*" (Wb 2, 170.11-12)

[296] Lit. "*He is one who has been adzed*"

[297] For *m* + noun to express a state, see GEG §162.3. The gist of this passage is that the fisherman is so on edge that he will start crying for a relatively minor thing such as not catching as many fish as usual; the reader is invited to imagine what state he would be in when somebody told him there were crocodiles present.

*"There is no job lacking a boss except the scribe; **he** is the boss."*

*ir swt rḫ=k sš **ḥr** wnn=f m nfr n=k st*

If you learn writing it is good for you."

The first sentence is undoubtedly a general statement and it should be noted here that all the other texts have the third person after *rḫ*, which would make it beyond doubt that their scribes had understood it as an aphorism and therefore a gnomic statement. It is probably best to regard this version as such and take "*you*" in the same way as it is used in the medical texts; it refers to any reader, at whatsoever time he reads it, rather than making it case-specific to Dua-Khety's son.

121.   Satire of the Trades §XXVIa, Sallier II

*ir pr=k m ꜥt sbꜣ **ḥr** smi.tw n=k mtrt ḥr šmt hꜣnw[298] nꜣ iwywt*

If you leave school lunchtime is reported to you by the movement of the crowds in the streets.

The translation of this passage is very difficult[299]. It appears after a section that deals with eating in officials' houses (§XXIV) and before another that deals with eating in general (§XXVIII) and, although the details are difficult, it seems that the implication of this passage is that if you stop attending school you will never have a lunch break like scribes and officials do and will only know when lunch time happens because you see the crowds of officials coming out to take their lunch; it is an appeal to stay at school via the stomach.

The position of the passage, in a general context dealing with what happens when you *are* a scribe, argues against a description of what happens at school. "*Whenever you leave school*" does not seem to fit here but a reference to playing truant, repeatedly and habitually leaving school cannot be ruled out. However, it seems preferable to take "*you*" in the same way as the example above and understand "*leaving school*" as anyone abandoning his career as a scribe at whatsoever time it might happen.

III.4.2 *ḥr sḏm=f* IN THE HYMN TO THE NILE

A similar situation to that encountered in the Satire of the Trades is found with the Hymn to the Nile; the text is generally considered to be written in Middle Egyptian and is included in all the standard Middle Egyptian grammars, despite the earliest manuscript dating from the eighteenth dynasty. Quirke (2004: 199) writes "*The style of language and echoes of other literary compositions, such as laments of the order overturned, suggest that it may date to the Middle Kingdom*". Stauder examines this text closely and concludes that "*The Hymn to Hapi is composed in Middle Egyptian: the text includes a few innovative expressions- which permit dating- but is not couched in a 'transitional variety'- compare that the fact that a dating to the*

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[298]The well attested usual meaning of *hꜣnw* (Wb 2, 481.10-12) is "*waves*" but, because of the seated man determinative, it is taken here to mean "*waves of people*" or "*crowds*"

[299]Parkinson (1997; 280, n. 25) describes this stanza as "*obscure*" and, understandably, nobody has yet given a satisfactory rendering of it.

Middle Kingdom was long deemed acceptable, or even preferable, on linguistic grounds"
(2015: 235). He dates its composition to the eighteenth dynasty on the basis of the
appearance of the pronoun *sw*, the *tw sḏm* form, which is a strong enough argument, but he
also discusses the "bound" *ḥr-sḏm=f* form as a dating tool at length (See section III.4.1 above).
Curiously, he does not mention the *ḥr sḏm=f* at §IXb at all, despite the fact that it contains a
passive constructed with *tw*, a criterion for dating that he uses extensively elsewhere.

Like the Satire of the Trades, this is another text in which one would expect to find statements
of a general nature, the Nile being a constant in Egyptian life throughout the ages. The river
and its qualities, with which the hymn is concerned, are the same whether viewed yesterday,
today or at any time whatsoever. A major difference though between this text and the Satire
of the Trades is that it is praising the Nile; here, one would expect good things to be the norm
whereas in the Satire of the Trades, which is a criticism of manual labour, bad things are the
norm.

122.   Hymn to the Nile, §IId, GoI

wsf.t(w)=f ḥr ḏbb fnd

"when(ever) he is delayed noses are blocked"

This is possibly a general statement; the Nile flood could be delayed last year, this year or next
year or in any given year; the situation could, and did, occur repeatedly. On the other hand, in
a eulogy to the Nile it is unlikely that the flood being delayed would be presented as a regular
or habitual occurrence; it would hopefully be an unfortunate exception to the norm and would
therefore be case-specific. In terms of *ḥr ḏbb fnd* being understood as case-specific the form
of *ḏb3* here is noteworthy. In three versions it has a *w* ending and in three more, including this
one, is written as *ḏbb*. Although the morphology by itself is not to be relied on in such late
copies of the text[300] both these forms are reminiscent of the prospective.

123.   Hymn to the Nile §IXb, Sallier II

dns=k ꜥnd m3w[301] *ḥr dbḥ(t)*[302].*tw mw rnpt*

"When(ever) he is heavy[303] *the m3w are few; the water of the year is asked for"*

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[300] Two manuscripts (Sallier II and Anastasi VII) have neither *ḥr* nor *ḏb3* but *ḏb3w=f* "*His fingers*" which
is difficult to make any sense of in the context although is conceivably a phonetic writing of the verb
ḏb3 with a *w* ending and the third person suffix.

[301]The word 𓀀𓀁𓀂𓀃 is unknown and is in both the versions containing *ḥr* (Sallier II and Anastasi
VII). The other three versions that aren't broken have *rḥyt* (the people) instead but the section that
follows in those does not have *ḥr* and deals with people being killed. All translators have favoured the
versions without *ḥr*. On the basis of its first determinative *m3w* might well be something to do with
fish, which would fit with the general theme of the passage, although the kneeling and praising man
determinative argues against this. If read as *m3(ꜥ)w* it may be connected to the name of a lake in the
afterlife (Gauthier: 1926, 13), which would again fit with the theme.

[302]There is apparently a superfluous *t* although it is vaguely possible that a *sḏmt=f* form was intended.

[303]Quirke (2004; 201) has taken "*heavy*" to refer to an excess of water although the tone of the whole
verse looks like a lack of water, especially §IXd; *nn ḥbs r ḥbsw=f …. wš n šnt n g3w=f nn wrḥ n bw nb*:

This is in a section that deals with bad things that can happen with the Nile and, like the example above, could be a general statement but is unlikely to be so in a poem praising the Nile. This version has a passive in *tw*, which would indicate an imperfective or a subjunctive whereas Anastasi VII has *dbḥ=f*, which might again be a rendering of a prospective passive (See Stauder 2014: 21 on V-passives). It is possible though that the variation between the two comes from the nature of the verb *dbḥ* "*To be in need of, to ask for, to requisition*" (Wb 5, 439.6-440.1), which inherently has both active and passive meanings.

124.   Hymn to the Nile §IXb XIIa, DeM 1176

*wbn=f m niwt ḥkr **ḥr** s3ȝ=tw m inw š3w*

When(ever) he rises in a city that hungers one is full with the goods of the field

This passage may be again speaking in general terms of the properties of the Nile. The city has not been specified, nor has a particular time; cities can be hungry at any time that there is no water and the situation can occur repeatedly. On the other hand, one might not expect the Nile to be described as regularly leaving cities hungry in a hymn in praise of it. As far as the *sḏm=f* form is concerned, between all seven versions we ostensibly have nearly every combination of doubling and endings possible: the impersonal imperfective, *s3ȝ=tw*, appears in two versions (Anastasi VII and DeM 1176); an impersonal prospective, *s3y=tw* (M30); an impersonal third person[304] perfective or impersonal subjunctive, *s3=sn* (Chester Beatty); an impersonal perfective or impersonal subjunctive, *s3=tw* (Sallier II); an imperfective causative with impersonal third person plural (*s*)*s3ȝ=sn* (GC 94,3). More confusion is added to the situation by the fact that *s3(i)* "*To sate, be sated*" (Wb 4, 14-15.19) has both active and passive meanings.

This chaotic state of affairs renders the morphological evidence practically useless[305] and the only thing that can be said with relative certainty is that the verb form in all versions, by virtue of having no object and being followed by an *m* of instrument, was intended to be impersonal. Imperfectives though are numerically predominant and the general nature of the context also perhaps makes the imperfective more likely[306]. As a general point, in the light of all these different renderings of the verb, Allen's assertion, using this passage as evidence, that *ḥr* is followed by the subjunctive (2010: §19.6.2 and §22.7)[307] is also rendered quite arbitrary. Out of all the examples of *ḥr sḏm=f* in The Satire of the Trades, and for that matter the other texts, there are no unequivocal examples of the subjunctive.

"*There is no cover for what he should cover.... there is a want of foliage for lack of him and there is no anointing for anyone*".

[304] =*sn* has no referent and is in parallel with *tw* in the other versions so should probably be taken as the impersonal use found in Late Egyptian. See Stauder (2014: 186) who discusses this passage.

[305] Stauder (2013: 225) comes to the same conclusion writing "*the general degree of variation (s3ȝ, s3y, s3), compounded with the overall post-classical orthography of the manuscripts, prevents any reliable argument on this level*".

[306] The writing of *s3(i)* with gemination and no ending is actually the most common in the seven versions; there are three examples including the causative.

[307] Although, in the 3rd Edition of his grammar (2014), which, in general goes into much less detail than the 2nd edition, he does not comment on what he believes the form of the *sḏm=f* form following *ḥr* to be.

III.4.3 *ḫr sḏm=f* IN THE RAMESSEUM WISDOM TEXT

125.　　Ramesseum II, vso i, Line 4 (Pl. 8)

...] inm ḥḏ ḫr sn iwn [ir? ḳm]ʒw

"....] *skin is damaged; colours fade [……..]*"

Again, the immediate context is missing but the rest of the text deals with generalisations and aphorisms, so it is highly likely that this is what we have here.

III.4.4 *ḫr sḏm=f* IN THE LAHUN GYNAECOLOGICAL PAPYRUS

126.　　　Lahun Gynaecological Papyrus Case 34 (Col. 3, line 28)

]w ḫr siʒ=s sy wnn=s m mitt r nḥḥ

"*..]; she will understand it and she will be the same forever*"

This example is broken and without the context *siʒ* is very difficult to translate accurately; *wnn* though could be a prospective or an imperfect. The presence of *r nḥḥ* though points towards *wnn* being prospective and, by extension, *siʒ*. The *aktionsart* of *siʒ*, which involves a change of state from ignorance to knowledge on the part of the subject, would also point towards it being case-specific.

III.4.5 *ḫr sḏm=f* IN PAPYRUS RHIND

127.　　　Papyrus Rhind Problem 21 (Pl. H)

ḫr $\frac{1}{5}$ $\frac{1}{15}$ *m wʒḥ ḥr=f ḫr km* $\frac{2}{3}$ $\frac{1}{5}$ $\frac{1}{15}$ $\frac{1}{15}$ *r 1*

$\frac{1}{5}$ *and* $\frac{1}{15}$ *is undoubtedly what was added to it;* $\frac{2}{3}$ + $\frac{1}{5}$ + $\frac{1}{15}$ + $\frac{1}{15}$ *completed it to 1*

Peet (1923; 58) notes that "*these examples differ in one other important respect from the preceding group. In Nos. 21-23 we are set a definite problem to solve, while in Nos. 7-20 we started out with no problem, but merely operated on certain fractional quantities and recorded the results*". This and the following example are clearly case-specific; they do not deal with general principles but a specific problem. Neither this nor the following example use *sḏm.ḫr=f* anywhere in the problem.

128.　　　Papyrus Rhind Problem 22 (Pl. H)

ḫr $\frac{1}{5}$ $\frac{1}{10}$ *m wʒḥ ḥr=f ḫr km* $\frac{2}{3}$ $\frac{1}{5}$ $\frac{1}{10}$ $\frac{1}{30}$ *r 1*

" $\frac{1}{5}$ + $\frac{1}{10}$ *is undoubtedly what was added to it;* $\frac{2}{3}$ + $\frac{1}{5}$ + $\frac{1}{10}$ + $\frac{1}{30}$ *completed it to 1*

This problem is exactly the same as the preceding one in its method of solution and layout but different numbers are used. Problem 23 is of the same type but the working in which the *ḥr sḏm=f* form appears in problems 21 and 22 is missing.

III.4.6 *ḥr sḏm=f* IN THE EDWIN SMITH SURGICAL PAPYRUS

129.   Papyrus Edwin Smith VI,1 (Case 12 Gloss B)

"As for "his nose is crooked and his face flattened", it means that his nose is bent and swollen and his cheeks are big likewise. His face is invariably flat because of it.

nn sw m ḳd mtr m-ꜥ-ntt ḳrwt nbt ḏbꜣ m šft ḥr mꜣ.tw ḥr=f pds ḥr=s

It is not in its proper form because every sinus has been blocked through the swelling; his face seems[308] flat because of it.

This is a gloss explaining the terminology used in the diagnosis and again denotes a general state of affairs; *pw* has no inherent time designation and the context, of treating a patient with a fractured nose, is one that is likely to reoccur repeatedly. Whenever you see, or hear, the expression "*his nose crooked and his face flattened*" it always means this, it is not an ad hoc definition that is only valid at a particular time. The first part is a simplistic explanation for the man's face looking flat and ascribes it to his nose and cheeks being swollen whereas the second gives a more analytical reason for the man's appearance and explains exactly why his cheeks and nose are swollen. On the basis of the orthography alone the *sḏm.tw=f* form following *ḥr* could be either a passive subjunctive or a perfect passive form although as the manuscript is almost certainly a copy of an earlier text the morphology is not to be relied upon.

III.4.7 *ḥr sḏm=f* IN THE AUTOBIOGRAPHY OF ANKHTIFI

130.   Ankhtifi (I, α. 2)

i[w] in.n-wi ḥr r bḥdt n ꜥnḫ wḏꜥ snb r grg=s ir.n=i ḥr wn ḥr ḥr mrt grg=s ḥr in=f wi r=s r grg=s

"Horus brought me to Edfu for the sake of life, prosperity and health in order to stabilize it and I did [it]; Horus was wanting to stabilize it because he brought me to it to stabilize it."

The (*iw*) *sḏm.n=f* forms that introduce the *ḥr sḏm=f* place the action at a fixed point in the past and, together with its autobiographical narrative context, make this an unequivocal example of a case-specific *ḥr sḏm=f* form. "*Whenever Horus was wanting to stabilise it*" is completely unsatisfactory as a translation. *wn=f ḥr sḏm* is used here to form a preterite conversion of the unachieved extensive[309].

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[308]lit. "*his face is seen flattened*"
[309] See also Vernus 1990: n.44 for a discussion of the role of *wn* here.

III.4.8 *ḥr sḏm=f* IN THE DIALOGUE OF IPUWER AND THE LORD OF ALL

131.　　　Ipuwer 3.12-3.13

nfr is ib n nsw iw n=f m3ᶜt **ḥr** *is*[// 2 gr.//] *ḫ3st nb(t) mw=n pw w3ḏ=n pw*

"Happy is the mind of a king when tribute has come to him; all foreign lands [.....] he is our water, he is our prosperity"

The verb is actually missing from the text but if it is direct speech that follows, as Enmarch (2008; 91) and Parkinson (1997; 174) think, it has to be some sort of speaking or declaring verb although two groups seems a lot of space for *ḏd*. On the other hand, Quirke (2004; 142), takes *mw=n pw* as an idiom meaning "*loyal*" and doesn't suggest a verb. Lichtheim (2006; 152) wants to restore "*come*". Owing to the fact that *iw* is the stem used for both perfective and imperfective *sḏm=f* forms, *iw n=f m3ᶜt* could be interpreted in several ways: "*when tribute comes/has come*". It could also be interpreted as as an imperfect relative form "*to whom tribute comes/has come*". *nfr is ib n nsw* cannot be used either to judge whether *iw n=f m3ᶜt*, and by extension the *ḥr=f sḏm=f* form is case-specific or not because it has no inherent time designation. In summary, if we take *iw n=f m3ᶜt* as a perfective *sḏm=f* this example is case-specific but if we take it as an imperfective *sḏm=f* or an imperfect relative form it is general. The general context in which this passage appears is that no tribute has come to the king and the treasury is empty. Tribute not coming to the king is the usual state of affairs, in this text at least, therefore tribute actually coming would be the exception, making this example case specific.

III.4.9 *ḥr sḏm=f* IN THE COFFIN TEXTS

132.　　　Coffin Texts Spell 343 (IV 359c)

nis.k3 r=f nṯr pw r=k ḫ ᶜᶜ rᶜ m b3=f **ḥr**[//] *nis=k r=k r m3-ḫ3=f*

" *Then this god summons you and when Re appears as his soul, you summon the celestial ferryman*

It is unlikely that this is to be regarded as a *ḥr sḏm=f* form at all; the Coffin is damaged straight after *ḥr* and it is probable, because the broken area is small but flat, that it conceals a *k*. It is therefore preferable to regard this as a broken example of a *ḥr=f sḏm=f* form and take it as a case-specific instruction "*Then this god summons you and if/when Re appears as his soul you have to summon the celestial ferryman*".

III.4.10 CONCLUSIONS REGARDING THE RELATIONSHIP BETWEEN THE *ḥr sḏm=f* FORM AND THE *ḥr=f sḏm=f*

From the above examples it can be seen that it cannot be said for certain that the *ḥr sḏm=f* is specialised for either case specific or general contexts. On purely numerical grounds, the large

majority of its occurrences are in generalisations, which would suggest it was more akin to the *sḏm.ḫr=f* form but the presence of unequivocal case-specific examples (Exxs. 127, 128, and 130) shows that it is not unique to generalisations.

It can also be seen from the above that the *ḫr* of the *ḫr sḏm=f* form can be followed by at least two, and possibly more, different forms of *sḏm=f*. This is shown especially clearly with *wn* which, as expected, is *wn* in the case specific example and *wnn* in the generalisations. The mathematical and Edwin Smith examples are possibly perfective *sḏm=f* forms. Example number nine, where all the versions have a different form of the *tertiae infermiae* verb *s3*, perhaps tells us, if nothing else, that *ḫr sḏm=f* was not associated with a particular *sḏm=f* form, in the New Kingdom at least[310]. On the other hand, for the *ḫr=f sḏm=f* form, which only appears in case-specific contexts, the form of the *sḏm=f* is uniform, at least in every verb where the morphology can be seen (See II.1). In the same way, *sḏm.ḫr=f* only appears in Middle Egyptian with *wn* and never *wnn*[311], and, in the only other morphological comparison we can make, *sḏm.ḫr=f* uses *m33* while the only example of the verb *m3* from the attestations of *ḫr sḏm=f* uses the non-geminating form.

It is also notable that instructions, which make up the vast majority of the corpus of *sḏm.ḫr=f* and *ḫr=f sḏm=f* forms, are conspicuously absent where the *ḫr sḏm=f* is concerned. If, like previous commentators, we were to think that *ḫr sḏm=f* is an orthographic variant of, or a development from, *sḏm.ḫr=f* or *ḫr=f sḏm=f* we might expect to see some instructions framed in the *ḫr sḏm=f* form. This is not the case at all.

In terms of comparing the *ḫr sḏm=f* with the *sḏm.ḫr=f* or the *ḫr=f sḏm=f* it can be said:

      a.   The complete absence of instructions points strongly towards the usage of *ḫr sḏm=f* being markedly different.

      b.   The form of the verb that follows *ḫr* in the *ḫr sḏm=f* does not obviously share any morphological characteristics with that of either the *sḏm.ḫr=f* or the *ḫr=f sḏm=f*

      c.   It is not specialised for either general or case-specific contexts.

It would seem then that the only similarity that *ḫr sḏm=f* has with the *sḏm.ḫr=f* or the *ḫr=f sḏm=f* form is the presence of the element *ḫr* and, on this basis, it must be concluded that it is not an orthographic variant of either.

III.5 IS THE *ḫr sḏm=f* FORM A DEVELOPMENT OF *sḏm.ḫr=f*?

The difference in usage between *ḫr sḏm=f* and *sḏm.ḫr=f* taken in conjunction with its chronological distribution brings into serious question Vernus's argument that it is a development of the *sḏm.ḫr=f* form. To explain the overlap between the forms he says (1990;71) that the succession was not linear and *ḫr* headed constructions co-existed with

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[310] Stauder (2013: 227) says that the *ḫr sḏm=f* form is based on the subjunctive and that the *ḫr=f sḏm=f* is not, despite the evidence pointing more towards the opposite being true.

[311] In Middle Egyptian at least, but see the two eighteenth dynasty Book of the Dead examples of *wnn* that Depuydt uses (1993: 229) also section I.1.

sḏm.ḫr=f forms, which were then wholly superseded. Even if one is not convinced that there is a difference in usage between the forms, this assertion cannot be substantiated unless more weight is given to late manuscripts, whose text is probably from an earlier period (The Satire of the Trades and the Hymn to the Nile and the medical and mathematical texts) at the expense of earlier attestations whose text can be securely dated; namely, Ankhtifi, Lahun and The Ramesseum Wisdom Text.

Vernus does not mention The Ramesseum Wisdom Text (Exx. 125) and dismisses the Ankhtifi (Exx. 130) example for unclear reasons, confining it to a footnote (1990; 66, n. 44). He describes it as "*an interesting surmise*" to translate it in the same way as he does the other *ḫr* headed constructions and goes on to translate it as an epistemic modal. Despite justifying this translation fairly extensively and comparing *wn*'s use as a converter with the examples of *wnn* from the Satire of the Trades, he lists it nowhere else under *ḫr* headed constructions, excusing himself with: "*There seems to be general agreement that there are (at least) two ḫrs capable of heading a main clause. But the distribution of the data under each may remain open to discussion*".

Furthermore, if we use Vernus's own categorisation of "*ḫr headed constructions*" the first attestation of a *sḏm.ḫr=f* form is contemporary with the first occurrence of a *ḫr sḏm.n=f* form[312]. It should also be taken into consideration that the first example of a *sḏm.ḫr=f* form Merenre's Pyramid Texts Spell 400 (696g) may not be much earlier than the *ḫr sḏm=f* from Ankhtifi's autobiography depending on how long one places between Ankhtifi and the sixth dynasty. If that period were fairly short it could be said that the attestations of the *ḫr sḏm=f* form and the *sḏm.ḫr=f* form actually span roughly the same period[313].

Stauder (2013: 226-231) also takes up Vernus's argument that *ḫr sḏm=f* is a later development of *sḏm.ḫr=f* and adds some points of his own, concluding that *ḫr=f sḏm=f* was consistently used until the late second intermediate period until it was superseded by *ḫr-sḏm=f* (2013: 229). Stauder, in justifying his statement that *ḫr sḏm=f* "*is not securely documented before the early New Kingdom*" (2013: 226) does not mention at all, and is perhaps unaware of, the attestations from Ankhtifi, Lahun or the Ramesseum Papyri but, rather curiously, examines in detail Coffin Text Spell 343 (2013: 227) from the Middle Kingdom (Exx. 132 in this study). Firstly, this is almost certainly not a *ḫr sḏm=f* form but a broken *ḫr=f sḏm=f* form (See discussion of Exx. 132 above) and secondly, even if it were a *ḫr sḏm=f* form, his argument for dismissing it is insubstantial; he eliminates this example from his data on the basis that it is not a bound *ḫr-sḏm=f* form but is "*akin to other Middle Kingdom constructions in which ḫr is freely combined with a variety of different patterns, verbal and non-verbal alike*" (2013: 227) and refers us to Vernus's list of "*ḫr headed constructions*" (1990; 65-66) to define this "*variety of different patterns*", despite rejecting *ḫr* as a free morpheme, with regard to *ḫr sḏm=f* anyway (See below III.6).

III.6 *ḫr* OF *ḫr sḏm=f* AS A PARTICLE

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[312] See Exx. 135 below,

[313] See I.4 for the chronological distribution of *sḏm.ḫr=f*

Despite not addressing the securely dated Middle Egyptian occurrences of *ḥr sḏm=f*, Stauder regards it as a bound construction, saying: "*As has been noted in a dedicated study of ḥr-headed patterns, the bound pattern ḥr-sḏm=f* …." (2013: 226)*.* The dedicated study to which he is referring is that of Vernus (1990) but Vernus does not actually say anywhere that *ḥr* headed constructions are bound forms. When discussing the Hymn to the Nile Stauder repeats his misapprehension that Vernus regarded *ḥr sḏm=f* as a bound construction (2015: 226 n. 100) and refers us to Vernus (1990: 65 n. 39) but there Vernus is actually only referring to Late Egyptian influences on the form of the verb and does not mention anything about whether the form is bound or not. Vernus's use of the term "*auxiliary*" in his classification of the *ḥr* of *ḥr sḏm=f* as a "*message auxiliary*" and his over-reaching category of "*ḥr*-headed constructions" would imply that he did not regard any of the constructions he deals with, except *sḏm.ḥr=f*, as bound forms. Stauder seems to be basing his belief that the *ḥr sḏm=f* is bound not just on Vernus's work but on the similarity of the examples from the Satire of the Trades and from The Hymn to the Nile to the New kingdom examples of *ḥr sḏm=f* provided by Neveu (2001: 219-26) because both appear in correlative systems. Neveu though seems to have created a category, which consists of twenty-one examples of a bound *ḥr-sḏm=f*, which is only used for correlative systems and in which *ḥr* has a completely different usage from the close to a thousand other examples where he treats *ḥr* as a free morpheme, many of which are also in correlative systems. He says: "*Ce morpheme ḥr, contrevenant ainsi aux règles d'emploi de la particule ḥr ne saurait donc être identifié avec celle-ci; en revanche, comme il est toujour suivi d'un sḏm.f il parait raisonnable de reconnaître en lui un constituant de la forme fixe ḥr-sḏm.f ancêtre de l'aoriste démotique.*" (2001: 219). Even if he is correct in saying that this particular combination of *ḥr* and *sḏm=f* should be bound he has provided no evidence as to how it might break his rules. In fact, it seems that these examples fit perfectly well with the rules he had laid out earlier in his study and that this may be an attempt, without much conviction[314], to make a connection with the Demotic form *ḥr-sḏm=f*, which is generally considered to be bound. Furthermore, when Stauder discusses the Hymn to the Nile later (2013:224), he only offers two possible analyses for the appearance of the *ḥr sḏm=f* forms in IId (Exx. 122 here) and XIIa (Exx. 124 here): "*(a) ḥr-sḏm=f the bound combination of ḥr with a subjunctive sḏm=f or (b) ḥr nfr sw a (free) combination of ḥr with the nfr sw pattern*" but, with regard to *"(a)"*, he does not even consider the explanation he gave for his example from the Coffin Texts (See III.5 above) and for *"(b)"*; that *ḥr* is a free morpheme.

On analysing the data regarding *ḥr sḏm=f* we find that it is certainly the case that *ḥr sḏm=f* should not be regarded as a bound construction but as a particle followed by a *sḏm=f* form, as had surmised Gardiner, Green, Allen and Vernus, the last calling it a "*message auxiliary*" rather than a particle. The appearance of *is* between *ḥr* and the verb in Ipuwer 3.12-3.13 (Exx. 134), *k3* between *ḥr* and the verb in Ipuwer 12.14 (Exx. 152) and *m-ḫt* between *ḥr* and the verb in the Decree to Shemai (Exx. 151) adds weight to the idea that the *ḥr* of *ḥr sḏm=f* is a free morpheme or a particle. It will also be seen below that in two other constructions preceded by *ḥr* the particle *ḥm* appears after *ḥr* (Exxs. 138 and 139 below) as well as there being an example from Papyrus Rhind where *ḥr* directly precedes a *sḏm.ḥr=f* form (Exx. 150). In terms of comparison, *sḏm.ḥr=f* is obviously a bound construction and none of the examples of *ḥr=f*

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[314] One should compare the amount of discussion he devotes to all the other constructions headed by *ḥr* with the two paragraphs he writes on this topic.

sdm=f occurs with any other particles at all; in every instance there is nothing between *ḥr* and the *sdm=f* that follows apart from the subject, pronominal or otherwise. The fact that a variety of *sdm=f* forms can follow *ḥr* and that it is not specialised for either general or case-specific contexts (see section III.4.10, above) is further strong evidence that it is a free morpheme, or particle.

Gardiner describes particles in general as "*sentence adverbs*", which mark the speaker's attitude towards a whole sentence. This explains why *ḥr* can stand in front of a variety of constructions (see sections III.12.1-8). The obvious candidate for the speaker's attitude, because *ḥr* shares exactly the same radicals as, and has been certainly correctly linked by all previous commentators with the *sdm.ḥr=f* and *ḥr=f sdm=f* forms, is modal necessity. We will proceed on this basis and, as the majority of *ḥr* with unattached subject's attestations from Middle Egyptian is followed by *sdm=f*, we will use *ḥr sdm=f* as shorthand for the particle *ḥr* followed by a *sdm=f* form.

III.7 *ḥr sdm=f* AS A RESULT OR CONSEQUENCE

If the *ḥr sdm=f* form is not directly derived from the *ḥr=f sdm=f* form or from the *sdm.ḥr=f* form the examples must be examined from a different point of view. According to Allen (2010: §16.6.13), who based his analysis of the form partly on Vernus's work, the *ḥr sdm=f* is a particle followed by the subjunctive that denotes an inevitable result[315]. Let us look at *ḥr sdm=f* with this in mind:

> 116. the cutter has chopped him to pieces *ḥr* → he is carved up.
> 117. the experience is painful *ḥr* → he is outside in the howling wind
> 118. he wears himself out for the bounty of the marshes *ḥr* → he is shredded
> 119. if/whenever the total of the catch is diminished *ḥr* → he is in tears
> 120. if you learn writing *ḥr* → it is good for you
> 121. if you leave school *ḥr* → lunchtime is reported to you
> 122. when he is delayed *ḥr* → noses are blocked
> 123. the *mꜣw* are few → *ḥr* the water of the year is asked for
> 124. when he rises in a city that hungers *ḥr* → one is full with the goods of the field
> 125. skin is damaged *ḥr* → colours fade"
> 126. [......] *ḥr* → she will understand, and she will be the same forever
> 127. 1/3 and 1/15 is what must be added to it *ḥr* → 2/3 + 1/5 + 1/15 + 1/15 completed it to 1
> 128. 1/3 and 1/15 is what must be added to it *ḥr* → 2/3 + 1/5 + 1/10 + 1/30 completed it to 1
> 129. every sinus has been blocked through the swelling *ḥr* → his face seems flat

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[315] Interestingly, Junge while discussing *sdm.ḥr=f* in coordinated clauses says "*Es scheint hierbei der Blick darauf gerichtet zu sein, daß sich eines aus einem mehr oder weniger unvermeidlich ergibt, angeordnet von einer 'höheren Instanz'*, and quotes an example from égyptien de tradition that uses *ḥr sdm=f* in support of it (1972: 135).

> *because of it*
> 130. *Horus brought me to Edfu for the sake of life, prosperity and health in order to stabilize it and I did [it] ḥr → Horus was wanting to stabilize it[316]*
> 131. *Happy is the mind of a king when tribute has come to him ḥr → all foreign lands [....].*

When these examples are examined carefully it is seen that not all of them are results. A consequence or result has to follow temporally, or logically, its cause but, for instance, Exx. 117 is not actually a consequence of a painful experience but the painful experience is a consequence of being outside in the wind, nor does it follow in a temporal sense. The mathematical examples are deductions not consequences. In the example from Ankhtifi, Horus wanting Ankhtifi to stabilise Edfu cannot be a consequence of what precedes it as Horus wanting it could only happen prior to Ankhtifi stabilising Edfu. Not all versions of the same passage, which are consequential, in the Satire of the Trades or the Hymn to the Nile, employ *ḥr* before *sḏm=f* and, despite this, the proposition expressed is still true and fits in the context whether *ḥr* is present or not. In fact, little difference would be made to the proposition expressed in any of the examples of *ḥr sḏm=f* if *ḥr* were to be entirely absent. Furthermore, Egyptian does not need *ḥr* to express a consequence or result; the mathematical texts, which abound in logical processes to make assertions express their final conclusions and results, with very few exceptions, by *in* followed by a number or by a number followed by *pw*. As mentioned earlier (I.5.5), Egyptian has no specific way of expressing a result, coordinated clauses being the norm, so this, taken in conjunction with the fact that *ḥr* is just one of several particles that appear in sequential situations, as has already been pointed out by Vernus[317], shows that expressing a consequence of what precedes it, inevitable or not, cannot be *ḥr sḏm=f*'s only function although it does seem prone to appear in sequential positions.

III.8 CHARACTERISTICS OF *ḥr sḏm=f*

The first thing that strikes one is that all the examples of the *ḥr sḏm=f* are third person. Where the *ḥr=f sḏm=f* form is concerned, there are only three examples of the third person out of thirty although there are eleven instructions issued with impersonal *tw* forms. In the *sḏm.ḥr=f* form instances of the third person are not so common either; from a total of 689 examples there are only 133 third person examples, of which 122 are instructions formulated with *ḫpr.ḥr* # from the mathematical papyri. It is unlikely that a particular construction would be specialised for a particular person though this might have a bearing on its overall characteristics.

It can further be seen that nearly all examples of the *sḏm=f* in the *ḥr sḏm=f* form are either passives, forms of *wn*, verbs of state, or changes of state; nearly all of them describe a situation rather than an action and, most importantly, all of them are assertions.[317.5] As noted above,

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[316] Edel (1967: §932) proposes "*denn*" as a translation of *ḥr* here.

[317] Vernus (1990; 77) describes *ḥr* as a "*marked sequential construction*" and points out that other constructions share this property without having "*the specific values of ḥr constructions*"

[317.5] Uljas (2007) treats the concept of assertions extensively but utilises no examples involving *ḥr*. This is to be expected as all the examples quoted here are realis and his study deals almost exclusively with irrealis assertions that appear in complement clauses. He does however supply a

there are no instructions among the examples. This may be an accident of preservation, but their absence can be explained if we take into account the fact that all the other instructions formulated with *ḥr* that we have are expressed with *sḏm.ḥr=f* or *ḥr=f sḏm=f*, forms in which the subject is always attached directly to *ḥr*. This indicates that in the *sḏm.ḥr=f* and *ḥr=f sḏm=f* forms, *ḥr* scopes over the subject whereas in the *ḥr sḏm=f*, as a sentence adverb, *ḥr* scopes over a whole situation. A subject, unlike a situation, can be instructed or forced to do or be something and when a subject is instructed to be in a particular state *wn.ḥr=f*, and not *ḥr wnn=f*, is used. For instance, Coffin Texts spell 405 (V, 208d) (Exx. 76):

> *wn.ḥr ꜣḫ pn sḫwt ḥr ẖt=f*

> "*The spirit has to be prostrate on his belly among them*".

or Coffin Texts Spell 404 (V 200b) (Exx. 5):

> *wn.ḥr ḥꜥ=f [wꜣḏ³¹⁸] mi nn nṯrw*

> "*His body has to be green like these gods*.

The fact that all the examples of *ḥr sḏm=f* are assertions would explain the predominance of the third person; all the examples are from descriptive contexts and one would only really be making assertions about a second person in an accusatory context, which is in fact the case in Exx. 137, although there *ḥr* is followed by a clause with an adjectival predicate. On the other hand, the verbs used in the *sḏm.ḥr=f* or *ḥr=f sḏm=f* are almost all dynamic, almost exclusively used for issuing instructions and overwhelmingly second person. For the *ḥr=f sḏm=f* form at least, the lack of dynamic verbs had been noted by Stauder who, while coming at the *ḥr sḏm=f* from the chronological development angle, wrote:

"*In the Middle Kingdom and Second Intermediate Period, ḥr-headed constructions with dynamic events in correlative systems are always based on the unmarked (/'unextensive') synchronous pattern N(P) sḏm=f, not on the subjunctive (ḥr-sḏm=f)³¹⁹*" (2015: 229)

III.8.1 DOES *ḥr sḏm=f* HAVE A PARTICULAR MODAL BASE?

As *sḏm.ḥr=f* and *ḥr=f sḏm=f* are closely associated with the circumstantial modal base and deontic and teleological conversational backgrounds, it is possibly the case that *ḥr sḏm=f* is associated with its counterpart, the epistemic modal base³²⁰. Four of the examples of *ḥr sḏm=f* clearly have an epistemic context, in that the proposition that *ḥr* follows is a conclusion based

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good definition of an assertion (2007: 14) into which all the examples presented here fit comfortably as "marked" ones. His comment (2007: 15, n. 47) that "p*resupposition is not tantamount to logical 'necessarily true'*" is also relevant here, especially when *ḥr* is absent in parallel versions of texts (See III.7)

[318] Restored from the almost parallel text from Coffin Texts Spell 405

[319] However, he is not justified though in regarding *ḥr sḏm=f* as *ḥr* + subjunctive. (see section III.4.10)

[320] The *sḏm.ḥr=f*, is capable of expressing epistemic necessity but there are few examples (see section I.11). There are no epistemic examples using the *ḥr=f sḏm=f*.

on the evidence at the speakers disposal; for instance Exx. 130, from the autobiography of Ankhtifi:

> *i[w] in.n wi ḥr r bḥdt n ꜥnḫ wḏꜥ snb r grg=s[t] ir.n=i ḫr wn ḥr ḥr mrt grg-s[t] ḥr in=f wi r=s r grg=s[t]*

> *"Horus brought me to Edfu for the sake of life, prosperity and health in order to stabilize it and I did [it] ḫr Horus was wanting to stabilize it because he brought me to it to stabilize it."*

This is an assertion based on a logical process.

> *Horus brought me to Edfu in order to stabilize it*

> *I stabilized it*

> *The conclusion is that Horus was wanting to stabilize it because he brought me*

It should be noted here though that most important piece of evidence in relation to Horus's desire to stabilize Edfu, "*because he brought me*", appears after the *ḫr* headed proposition. Here the conclusion has a *direct* relationship with the evidence, as is shown by the use of *ḫr*, but also refers back to the evidence already presented, which only has a contextual relationship with the conclusion. The conclusion is thus reinforced.

Exx. 129 from Edwin Smith also has an epistemic conversational background:

> *"As for "his nose is crooked and his face flattened" it means that his nose is bent and swollen and his cheeks are big likewise. His face is invariably flat because of it.*

> *nn sw m ḳd mtr m-ꜥ-ntt ḳrwt nbt ḏbꜣ m šft ḫr mꜣ.tw ḥr=f pds ḥr=s*

> *It is not in its proper form because every sinus has been blocked through the swelling ḫr his face seems flat because of it.*

Here *ḫr* appears in an explanation as to why the patient's face is flat. The doctor provides an explanation for his face being flat (every sinus is blocked) then introduces a conclusion to which the *s* of *ḫr=s* refers back, just as Ankhtifi's *ḫr* clause referred back to what had gone before. The doctor asserts, after a logical process has been followed, that the patient's face seems flat because every sinus has been blocked.

> *His face is flat because his nose and cheeks are swollen*

> *his nose and cheeks are swollen (not in their proper form) because his sinuses are blocked*

> *[The conclusion is that] his face seems flat because his sinuses are blocked*

It should also be noted here that, for the passage to make sense, *ḫr* has to scope over not just the *sḏm=f* form but the whole assertion, including the preposition and the resumptive pronoun.

The situation is the same in the two mathematical examples (Exxs. 127 and 128):

$\frac{1}{3}$ *and* $\frac{1}{15}$ *is undoubtedly what was added to it ḥr* $\frac{2}{3} + \frac{1}{5} + \frac{1}{15} + \frac{1}{15}$ *completes it to 1*

There is a logical process that leads the scribe to assert that the missing part of the sum is $\frac{2}{3} + \frac{1}{5} + \frac{1}{15} + \frac{1}{15}$

The case is probably the same for Ipuwer 3.12-3.13 (Exx. 131) but, as the verb is missing, it cannot be said for sure:

nfr is ib n nsw iw n=f mȝꜥt ḥr is[*// 2 gr.//*] *ḫȝst nb(t) mw=n pw wȝḏ=n pw*

"Happy is the mind of a king when tribute has come to him ḥr all foreign lands [.....]

If, as is most likely, the missing verb is "*say*" the fact that the king is happy and tribute has come to him provides evidence that the foreign countries are loyal; in other words, it can be concluded from the fact that tribute has arrived that the foreign nations are loyal. On the other hand, if the verb is "*come*", as Lichtheim (2006; 152) would have it, the *ḥr sḏm=f* would be a description rather than a conclusion.

There are other examples where there is no logical process or evidence for the assertion stated at all, such as Exx. 117 (The Satire of the Trades, §Xb, Sallier II):

ḏd=i n=k mi ḳd inbw mr dpt ḥr wnn=f m rwty n smȝꜥt iḳd=f m dȝiw

Let me tell you all about the builder of walls; the experience is painful ḥr he is outside in the howling wind, building in (only) a loincloth.

The writer asserts the builder is outside in the wind but no direct evidence is provided as to why that should be the case. In fact, here, the *ḥr* clause provides the evidence as to why the experience is painful. No evidence is needed for the assertion though, if we treat it as being a conclusion arising from the fact that he is a builder and that the assertion is based on the properties of being a builder, as mutually understood by the speaker and his audience. In Kratzer's terminology it has a stereotypical conversational background; everybody knows that builders are always outside, they wouldn't be able to do their job if they were inside.

In Exx. 120 (The Satire of the Trades §XXIIa, Sallier II) the situation is similar:

*"There is no job lacking a boss except the scribe; **he** is the boss."*

ir swt rḫ=k sš ḥr wnn=f m nfr n=k st

But if you learn writing ḥr it is good for you."

Again, no direct evidence or logical process is given for the assertion, the *ir* clause serves only as a restrictor indicating when the assertion is valid; everybody knows that writing is good for you, nobody normal would or could disagree. This also has a stereotypical conversational background.

Exx. 121 (The Satire of the Trades §XXVIa Sallier II), also seems to be a case of a stereotypical conversational background:

> *ir pr=k m ꜥt sbꜣ ḫr smi.tw n=k mtrt ḥr šmt hꜣnw nꜣ iwywt*

> *If you leave school ḫr lunchtime is reported to you by the movement of the crowds in the streets.*

It is a well-established fact, known to all, that only people who have been to school can afford to stop work for lunch.

Exx. 116 (The Satire of the Trades §VIIId, Sallier II) also contains a series of events that ends with a situation introduced by *ḫr* but is probably not epistemic:

> "*The reed-cutter goes north to the Delta in order to bring for himself arrows. When he has filled his arms with more than he should.*

> *smꜣ.n sw ḫnms ḫnmsyw sfd[k].n sw snny ḫr wnn=f wḏꜥ*

> *the mosquitos and mosquito-like things have butchered him and the cutter has chopped him up ḫr he is carved up*"

The speaker asserts that the reed-cutter is carved up and bases this on the following:

> *He has been butchered by insects*

> *He has been cut by his knife*

This could be either epistemic or circumstantial. It may be the case that the speaker has deduced that the reed-cutter is carved up from the fact that he has been butchered and cut up but it would be strange that, if he could see those two things, he would have to deduce that the reed-cutter was carved up rather than just state his observations. It is just as likely, if not more so, that the reed-cutter being carved up is a straightforward result of the circumstances described by the speaker rather than a conclusion at which he arrives.

In Exx. 118 (The Satire of the Trades, §XIIIc, Sallier II), we encounter the same situation:

> *wrd=f sw r mtrt r idḫw ḫr wnn=f m stpw*

> "*The field labourer.......wears himself out for the bounty of the marshes ḫr he is shredded*"

The speaker asserts that *The field labourer* is shredded and bases this on him wearing himself out. This again could be based on a logical process; the speaker has to deduce from the fact that the labourer wears himself out, and from common knowledge that it is back breaking work, that he is shredded. It would be more likely though, like the example of the builder, that the fact that the labourer is shredded is evidence that he wears himself out rather than the other way round. Just as in Exx. 116 though, it is most likely that being shredded is a direct result of wearing himself out.

In Exx. 122 (Hymn to the Nile; §IId, GoI), it is not so clear whether the *ḫr sḏm=f* form is a

consequence of what precedes it or a conclusion drawn therefrom.

wsf.t(w)=f ḥr ḏbb fnd

"when(ever) he is delayed ḥr noses are blocked"

All translators have assumed that the writers in five out of the six versions have mistakenly added a suffix pronoun by writing [ḥr] *ḏb3 fnḏ=f* and they have translated it as "*Noses are blocked*", despite there being no plural strokes in any version. If we work on the basis that the translators' assumption is correct, and five scribes got it wrong, then noses being blocked is a result of when the flood is delayed but the *=f* would be unexplained. On the other hand, if we are to assume that the scribes were correct and the *=f* refers to the Nile flood, as it does everywhere else in the hymn, the *ḥr sḏm=f* would be much more likely to be a conclusion derived from what went before; the flood has been delayed because Hapy's nose is blocked. However, without further references, of which we have none, as to how Hapy's nose is involved in dispensing the water this cannot be said for sure.

The remaining examples of *ḥr sḏm=f* are all unequivocal cause and effect sentences and are based on particular circumstances leading to a particular result:

Exx. 123 (Hymn to the Nile; §IXb, Sallier II)

dns=f ᶜnd m3w ḥr dbḥ(t).tw mw rnpt

"*When(ever) he is heavy the m3w are few ḥr the water of the year is asked for*"

It is unlikely that this example is epistemic; it seems fairly clear here that the Nile being heavy results in a lack of water, whatever "*The m3w are few*" might mean.

This is also the case for the following examples: Exx. 119 (The Satire of the Trades; §XXIe, Sallier II):

ir ḫb3.tw dmdyt nt (y) p3 ipw ḥr wnn=f m nḫwt

"*Whenever the total of the catch is diminished ḥr he is in tears*"

Exx. 125 (P. Ram. II, vso i, Line 4 (Pl. 8))

...] inm ḥḏ ḥr sn iwn

"*....] skin is damaged ḥr colours fade*"

and Exx. 124 (Hymn to the Nile; §XIIa, DeM 1176):

wbn=f m niwt ḥḳr ḥr s33=tw m inw š3w

When(ever) he rises in a city that hungers ḥr one is full with the goods of the field

The data show clearly that *ḥr sḏm=f* is not specifically modally epistemic in nature and that, in fact, there are various conversational backgrounds present; epistemic (Exxs. 127, 128, 129 and 130), stereotypical (Exxs. 117, 120 and 121) and circumstantial (Exxs. 116, 118, 119, 122,

123 ,125, 126, and 131). It cannot therefore be said that *ḥr sḏm=f* is limited to any particular modal base.

III.9 A DEFINITION OF *ḥr sḏm=f*

The *ḥr* of *ḥr sḏm=f* can therefore be defined as a sentence adverb that marks that the assertion that follows it is necessarily the case or that the situation it precedes cannot be otherwise. An assertion prefixed with *ḥr* is necessarily true. By using *ḥr*, just as when an English speaker makes an assertion using a modal necessity marker, the Egyptian speaker marks an assertion as being indubitable or a situation as being the only one possible (See introduction p. 10). It is never clear *exactly* why the speaker regards a situation to be so; there are many different forces at work which lead a speaker to use a modal and it is impossible to identify one individual reason why he should do so. The variety of conversational backgrounds in the Egyptian examples above shows that the reason behind using the necessity modal, just as in English, is not so important at the point of writing; the important thing for the speaker is to assert that the situation that follows is necessarily true and cannot be otherwise. Like when issuing an instruction with a modal, he does this by shifting the authority of the statement on to something other than himself, something that, unlike himself, cannot be argued with or be wrong[321]. In the case of the examples with an epistemic conversational background, anyone who wished to dispute the speaker's conclusion would be arguing not just against the speaker but against the evidence provided, logic and common sense. The same can be said about the examples with a stereotypical conversational background although there is a difference in the nature of the evidence; epistemic modal propositions are based on direct evidence whereas stereotypical propositions are based on much wider and more general evidence such as cultural norms, experience (shared or individual) and tradition (See Introduction, p. 7). In the same vein, anybody arguing against a speaker who makes an assertion with a circumstantial modal base is essentially arguing against the laws of nature. A speaker may not even have any reasoning or evidence behind his use of the modal and his only aim is to make his opinion beyond doubt by making the listener *think* that he would be arguing against incontrovertible proof should he dispute the statement. One could even go as far as saying that whatever follows *ḥr* is rendered an indisputable fact just by virtue of being preceded by *ḥr*.

III.10 TRANSLATION OF *ḥr sḏm=f*

Vernus (1990; 82) says that using the adverbs "*inevitably*", "*unfailingly*", "*necessarily*" or "*unavoidably*" to translate "*descriptive*" uses of *ḥr* "*cannot be ruled out*" but cautions that "*the artificial nature of the device should not be underrated*". He does not, however, confine these adverbs to descriptive contexts but uses them to translate *sḏm.ḥr=f* and *ḥr=f sḏm=f* constructions, using them as *ad hoc* variants of "*must*" or "*have to*".

To bring out the impersonal nature as well as the necessity aspect of constructions headed by *ḥr* one could translate in all cases with the clumsy "*it is inevitable that*" or, more succinctly but less descriptively, "*inevitably*" but ideally the context should invite a more specific adverb. It

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[321] See Introduction, p. 11

should also be noted that in Egyptian the sentence adverb stands at the beginning of the clause whereas in English, especially where a state of affairs is described, the adverb can also be, and nearly always is, placed directly after the verb of existence.

In those cases where the speaker makes a generic statement preceded by *ḥr*, the assertion is not only necessarily the case but always the case; there are no occasions when the assertion is not true[322]. "*Always*" on its own would probably be serviceable in English in most cases but an adverb that takes both of these criteria into account by having a sense of being always valid as well as a sense of the impossibility of alternatives is "*invariably*". This would be particularly useful for the examples taken from the Satire of the Trades and the Hymn to the Nile where the speaker is making a generalisation at the same time as saying that the situation cannot be otherwise:

Exx. 116 (Satire of the Trades §VIIId Sallier II; the reed-cutter):

> "*The reed-cutter goes north to the Delta in order to bring for himself arrows. When he has filled his arms with more than he should, the mosquitos and mosquito-like things have butchered him and the cutter has chopped him to pieces; he is **invariably** carved up.*"

Exx. 117 (Satire of the Trades: §Xb, Sallier II):

> "*Let me tell you all about the builder of walls; the experience is painful, he is **invariably** outside in the howling wind, building in (only) a loincloth.*"

Exx. 118 (Satire of the Trades, §XIIIc, Sallier II, the field-worker):

> "*The farm-labourer complains endlessly, making the noise of a "boaster-bird", his fingers are turned into arms; being all stuck together because of the howling wind and he wears himself out for the bounty of the marshes; he is **invariably** shredded.*"

Exx. 119 (Satire of the Trades §XXIe, Sallier II, the fisherman):

> *Let me tell you about the fisherman, he is more vulnerable than any (other) job; there is no other tax-payer on the river who mixes with crocodiles. When the total of the catch is diminished he is **invariably** in tears (even) without anybody telling him "Crocodiles are waiting".*

Exx.120 (Satire of the Trades §XXIIa, Sallier II):

> "*There is no job lacking a boss except the scribe; he is the boss. If you learn writing it is **invariably** good for you.*"

If *wnn* were to be a prospective here "*If you learn writing it will **undoubtedly** be good for you*" might be a more suitable translation.

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[322] This might well be the origin of the *"habitual"* properties claimed for the Coptic ϢⲀϤⲤⲰⲦⲘ form. This is a matter that requires further investigation elsewhere.

Exx. 121 (Satire of the Trades §XXVIa Sallier II):

> *"If you leave school lunchtime is **invariably** reported to you by the movement of the crowds in the streets."*

Here perhaps "*lunchtime **can only ever** be reported to you*" would bring out the sense better.

Exx. 122 (Hymn to the Nile, §IId, GoI):

> *"Whenever he is delayed noses are **invariably** blocked"*

Exx. 123 (Hymn to the Nile, §IXb, Sallier II):

> *"Whenever he is heavy the mȝw are few and the water of the year is **invariably** wanting"*

Exx. 124 (Hymn to the Nile, §XIIa, DeM 1176):

> *"Whenever he rises in a city that hungers one is **invariably** full with the goods of the field"*

Exx. 125 (Ramesseum Papyrus II, vso i, Line 4 (Pl. 8))

> "....] *skin is damaged and colours **invariably** fade"*

Exx. 126: (Lahun Gynaecological Papyrus Case 34)

> "..] *she **invariably** understands it and she will be the same forever"*

In the remaining examples, which are all case-specific, ḥr is followed by a verb form with past reference and, as noted above, all are conclusions, or explanations, based on a logical process. They are assertions that employ ḥr to show the listener that what follows is the only situation possible. By using ḥr the speaker marks his conclusion as being necessarily true, or proven, which, in theory, makes it impossible for the listener to disagree. In these cases, it seems appropriate to use an adverb that shows this and *"undoubtedly"* would seem the most appropriate.[323]

Exx. 129 (Edwin Smith Surgical Papyrus, VI,1 (Case 12 Gloss B):

> *"As for "his nose is crooked and his face flattened" it means that his nose is bent and swollen and his cheeks are big likewise. His face is invariably flat because of it. It is not in its proper form because every sinus has been blocked through the swelling. **Undoubtedly,** his face seems flat because of it.*

Exx. 130 (The Autobiography of Ankhtifi I, α. 2):

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[323] *Indisputably*, *definitely, necessarily* and *undeniably* are other possibilities. For a fuller list see Introduction, p. 11 and Quirk et al. (1985: 620) who calls them "*Content disjuncts*". For a full discussion of modal adverbs in English see Simon-Vandenbergen and Aijmer (2007: 189)

*"Horus brought me to Edfu for the sake of life, prosperity and health in order to stabilize it and I did [it]. **Undoubtedly,** Horus wanted to stabilize it because he brought me to it to stabilize it."*

Exxs. 127 and 128: (Rhind Mathematical Papyrus, Problems 21 and 22)

$\frac{1}{3}$ *and* $\frac{1}{15}$ *is undoubtedly what was added to it* **undoubtedly** $\frac{2}{3}$ $+\frac{1}{5}$ $+\frac{1}{15}$ $+\frac{1}{15}$ *completed it to 1*

III.11 COMPARISON OF THE EPISTEMIC EXAMPLES OF *ḫr sḏm=f* WITH THOSE EXPRESSED WITH *sḏm.ḫr=f*

Although the ability to mark an epistemic conclusion is a feature of *ḫr sḏm=f* it is not unique to it; there are several examples of epistemic conclusions being expressed by the *sḏm.ḫr=f* form (there are no examples from the *ḫr=f sḏm=f* form) all of which are also in the third person (see section I.11). If we take the examples of *ḫr sḏm=f* that have an epistemic conversational background and compare them to the epistemic examples of the *sḏm.ḫr=f* an interesting difference in usage is shown.

The fact that *ḫr sḏm=f* does not have an attached subject is relevant here. In the cases of assertions expressed with *sḏm.ḫr=f* the subject is held responsible for the truth of the assertion, he or it can confirm or deny it (See section I.11). However, in the case of assertions formulated with *ḫr sḏm=f*, by virtue of not having a subject who, or which, is responsible for confirming the statement, they require no more confirmation; the statement is *actually* true, according to the speaker anyway. If it were the case that *ḫr sḏm=f* expressed epistemic necessity of the same type as "*he must still be working*", the assertions made would be subject to doubt. For instance, *"writing must be good for you"* would imply that the speaker, although he had based his assertion on what he knew, was awaiting confirmation as to whether this were definitely the case. If he were to say only "*writing is good for you*" this would imply that his assertion was true, in his own mind at least.

It is very unlikely that a writer making strong points would deliberately weaken his argument by leaving it at the mercy of an unknown quantity, and, in the case of the examples from mathematics it is impossible to do so without questioning the laws of nature. *ḫr* must therefore reinforce the truth of the assertion that follows.

A distinction must thus be made between assertions that employ the *sḏm.ḫr=f* construction, in which *ḫr* is followed directly by a subject and those such as *ḫr sḏm=f*, in which an assertion is preceded by *ḫr*. Take for instance the following two examples; the first has an epistemic conclusion expressed with *sḏm.ḫr=f*, the second with *ḫr sḏm=f*:

Papyrus Edwin Smith; II,1 (Case 3, Gloss C) (Exx. 88)	Edwin Smith; V, 21-VI, 1 (Case 12, Gloss B) (Exx. 129)
ir mn=f ṯsw m nḥbt=f *ṯst pw m pꜣ=f iḥ nw* *nnm m nḥbt=f* **mn.ḥr nḥbt** *ḥr=s*	*ir fnd=f ḫꜣb pds ḥr=f* *ḏnb=f pw šfw r-ḏr=f wr[t]* *mndty=fy m mitt* *ḥr ḥr=f pds ḥr=s* *nn sw m ḳd=f mty* *m-ꜥ ntt ḳrt nbt ḏbꜣ m šfwt* **ḥr** *mꜣ.tw ḥr=f pds ḥr=s*
As for "he suffers stiffness in his neck" it means stiffness from what he has already suffered and this has strayed into his neck. His neck **must be** *hurting because of it.*	*"As for "his nose is crooked and his face flattened", it means that his nose is bent and swollen and his cheeks are big likewise. His face is invariably flat because of it. It is not in its proper form because every sinus has been blocked through the swelling* **undoubtedly** *his face seems flat because of it.*

Fig. 14. Comparison of epistemic sḏm.ḥr=f and ḥr sḏm=f

In the first example the original injury is a fracture of the skull and the stiffness of the neck is listed as a symptom of that. The passage that is quoted from comes from the "gloss"[324] and is an explanation as to why the patient's neck is stiff. The comment "*As for 'he suffers stiffness in his neck' it means stiffness from what he has already suffered*" would be useless to a reader without what follows because it just rephrases, without expanding upon, exactly what was said in the diagnosis and the stiffness is obviously connected to the injury or it wouldn't have been mentioned in the diagnosis. The important point here is the physiology; *how* the stiffness is connected to the skull fracture. The doctor states that the stiffness has strayed into the neck and concludes that the neck is hurting because of this. The doctor knows that the head injury and the stiffness are connected because one appeared at the same time as the other, which makes it almost certain that the stiffness has originated in the head, but he has no way of checking whether there is any "stiffness" in the skull or the brain, or how it travels. He cannot therefore say with 100% confidence that the stiffness has come from the head injury but, *on the basis of the evidence he has*, which is that the neck became stiff after the patient had suffered a head injury, he can say that the patient's neck is suffering because the stiffness originated in the head. This conclusion could be changed with further evidence, or further information but until that is forthcoming, the only possible explanation is the one given.

In the second example though, the doctor can unequivocally state that the man's face looks flat because his sinuses are swollen because it can be proven. In the treatment, the sinuses are described as being filled with "*eels of blood*" (Papyrus Edwin Smith V, 18) and it is this which causes the swelling and makes the patient's face look flat. The cure is to remove these blockages so the man gets well, which, although not stated explicitly, certainly involves his face returning to normal. The doctor can therefore prove that the man's face seemed flat on

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[324] These codicils are referred to as "glosses" by Breasted but they don't all explain only the terminology and very often deal with pathology; a more suitable term, as used by Allen (2005a) might be "*Explanations*".

account of the the swelling of the sinuses because removing the cause of the swelling returns his face to normal. Unlike the first example, this can be verified and the explanation is therefore beyond doubt; no more evidence or information is needed, this is the only possible explanation.

It can thus be said that an assertion expressed by *sḏm.ḥr=f* is necessarily true, *as far as is known*, but still needs to be confirmed. On the other hand, any assertion preceded by *ḥr* requires no further confirmation or proof and is thus necessarily true.

III.12 *ḥr* FOLLOWED BY OTHER CONSTRUCTIONS

If *ḥr* is to be regarded as a free morpheme, specifically a sentence adverb, it allows us to examine other "*ḥr* headed constructions" to see if *ḥr*'s role there is similar to the examples cited above. All confirm the hypothesis that it marks an assertion that is necessarily true and thus indisputable.

III.12.1 *ḥr sḏm.n=f*

The first example of *ḥr* followed by *sḏm.n=f* is also the earliest example of a "*ḥr* headed construction"

135. The autobiography of Djau in his tomb (Urk I; 147,4), from the reign of Pepi II:

Here, Djau wants future generations to know the correct reason for his being buried with his father; he especially doesn't want people to think that he was buried with his father because he hadn't planned for, or was too poor to afford, his own tomb.

> *rdi.n=i swt ḳrs.t(w)=i m is wˤ ḥnˤ ḏˤw pn n mrwt wnn=i ḥnˤ=f m st wˤt*
>
> *n is n tm=i m wnn ḥr-ˤ n irt is snw*
>
> *ḥr ir.n=i nw³²⁵ n mrwt m33 ḏˤw pn rˤ nb n mrwt wnn=i ḥnˤ=f m st wˤt*
>
> *"However, I caused that I was buried in one tomb with this Djau [senior] for the sake of being with him in one place, not because I was one who was not ready to make a second tomb³²⁶.* **Indisputably,** *I did this for the sake of seeing this Djau every day and being with him in one place."*

This again, like Exxs. 127-30, is epistemic and case-specific. Djau asserts a conclusion gained from a logical process.

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³²⁵ Strudwick (2005: 365) takes this as *ir.n(=i)* as does Ritter (1992: 135). On contextual grounds, but not on established grammatical grounds, *ir n(=i) nw* seems possible; Djau asked for "*this*" (being buried with his father) earlier in the text and was granted it in the preceding line, the agent of the burial is the king not Djau himself. It is more likely though that it is *ir.n=i nw* and that "*this*" refers to asking the king.

³²⁶ Lit. "*Not for the sake of I not being [as] one who was (participle) ready for making a second tomb*"

> *I was buried in the same tomb because I wanted to be with Djau senior*
>
> *I was not someone who was unprepared for building another tomb*
>
> *[The only possible conclusion is that] I was buried in one tomb with him because I wanted to be with my father*

He starts by stating the reason for which he was buried in the same tomb as his father Djau senior and continues by ruling out being unprepared, which is the only other conceivable explanation for being buried in the same tomb as his father, and, on these bases, one positive and one negative, asserts that he was buried with his father because he wanted to be with him. Although his logic is not strong it doesn't matter, just the appearance of *ḫr* makes this assertion indisputable and by using it he shifts the authority for the statement from himself to factors that cannot be argued with; it is necessarily the case that he was buried with his father *because he wanted to be with him*, it cannot be otherwise and any other explanation, especially the ones provided, is ruled out.

This example illustrates very clearly the difference between an epistemic assertion with attached subject, such as those expressed with the *sḏm.ḫr=f* form, and an indisputable assertion expressed with *ḫr*. If we were to translate it as the former "*I must have done this because I wanted to be with Djau [senior]*" it would make little sense and would imply that Djau was not entirely sure as to why he did this and was awaiting confirmation, or more evidence, from himself.

The other example of *ḫr* followed by *sḏm.n=f*, this time from the Middle Kingdom, is from The Tale of Sinuhe:

136. Sinuhe B 147

Sinuhe has defeated a fearsome champion of Retjenu

> "*I became great therefrom, rich with possessions and numerous cattle*
>
> *ḫr ir.n nṯr r ḥtp n ṯs.n=f im=f tḫ.n=f r kt ḫȝst*
>
> "***Undoubtedly***, *the god had acted favourably[327] towards one from whom he had distanced himself[328], whom had trespassed into another land.*"

The use of the *sḏm.n=f* form means that this has to be a case-specific example. Like Exxs. 127 to 130 it also has an epistemic conversational background; Sinuhe asserts a conclusion based on the known facts. At this point he had beaten a hitherto unbeaten opponent *pry pw nn snw=f dr.n=f s(y) r-ḏr=f* "*He was a champion without equal, having subdued it all*" (B 109) in a fight that nobody expected him to win *ib nb mr n=i ḏd=sn in-iw wn ky nḫt ʿḥȝ r=f* "*Every heart was sore for me, saying 'Is there another hero that can fight against him?'*" (B 134). Here, he concludes that it was an act of god that had allowed him to do so. By using *ḫr* he shifts the authority for the statement from himself to factors that cannot be argued with such

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[327] Taking *r ḥtp* as an adverb, literally "*with regard to happiness*"
[328] Literally "*Whom he had lifted up from him*"

as evidence, logic and common sense thereby showing the reader that his conclusion is undoubtedly correct. Although there are innumerable other forces at work Sinuhe's train of logic might go roughly so:

I have beaten a champion thought to be unbeatable.

Everybody knows that royal tutors do not beat unbeatable champions

The only possible conclusion is that I had had divine help.

Whether his reasoning is correct or not, the use of *ḥr* shows that Sinuhe regarded it as necessarily the case that it was because the god had acted favourably that he had defeated the hero of Retenu and, as in the case of Djau's assertion, this was the only possible conclusion in the circumstances. The proposition would still be valid without *ḥr*: "*The god had acted favourably towards one from whom he had distanced himself*" but the authority for it would come from Sinuhe alone, who may be an unreliable or biased witness, thereby weakening it.

III.12.2 *ḥr* FOLLOWED BY AN ADJECTIVAL PREDICATE

The first example of *ḥr* followed by an adjectival predicate comes from The Heqanakhte Letters and is somewhat complicated by the presence of *n* (⁓) before *ḥr*:

137. Heqanakhte I Vso. 2 (pl. 28)

Heqanakhte has just accused Sihathor of giving him old, dried up barley and keeping ten sacks of fresh barley for himself. He continues thus:

n ḥr nfr ṯw ḥr wnm iti-mḥ nfr iw=i r tȝ

"*Is it not **undoubtedly** the case that you are well on account of eating good Lower-Egyptian barley while I am ignored?*"

Allen remarks that "*the negative here governs the entire sentence beginning with nfr tw rather than just the adjectival predicate*" (2002: 30), which seems the best explanation for *n* here. It may be regarded as a rhetorical question or as one inviting the answer "*yes*". Removing *n* temporarily from the equation we are left with an assertion presented to Sihathor; that he is well because he is eating full barley while Heqanakhte goes without. This is again an example of an assertion with an epistemic conversational background. By using *ḥr* Heqanakhte states that Sihathor being well on account of eating good barley is the only possible conclusion and rules out all alternatives. The assertion is, in theory, indisputable; if Sihathor were to deny it he would be arguing with not just Heqanakhte but with the evidence presented and logic itself. Whether the logic is correct, or the assertion is actually true or not, is irrelevant; the important thing is that Heqanakhte shows that the assertion is indisputable, and he does this by employing *ḥr*. Heqanakhte could have made this assertion without using *ḥr* but it would not have the same force; Sihathor could easily say that Heqanakhte was wrong and deny the accusation. When the *n* is put back we are left with a question to which, in theory, it is

impossible to reply "*no*" or to offer an alternative explanation. As this has an element of Heqanakhte challenging Sihathor to deny an undeniable charge, "*undeniably*" might fit better here.[329]

138. Sinuhe B202-3

Sinuhe has just received a letter from the king that forgives him and tells him to come home

> "*I went around my encampment screaming "How has this been done for me, someone who lost his mind to barbarian lands?*
>
> *ḫr ḥm[330] nfr wȝḥ-ib nḥm wi m mt*
>
> *Now, **undoubtedly**, the patient one that saved me from death is good.*"

This is again an example of an assertion with an epistemic conversational background; having considered the evidence Sinuhe states that this is the only possible conclusion. In Exx. 136 Sinuhe was saved from being killed by the champion of Retjenu by the god acting favourably towards him. Here, by allowing Sinuhe to be buried at home, the same god provides conclusive evidence that he is acting in Sinuhe's favour; the god has now *proved* himself to be good. Sinuhe's train of logic may run something like this:

> *The god made him run away because he was offended*
>
> *The god made him spend many years in exile*
>
> *The god, in an act of benevolence, saved him from death at the hands of an enemy champion*
>
> *The god then let him go home to live out his days as an Egyptian*
>
> *The god is therefore good*

By using *ḫr* Sinuhe shows that he regards the last piece of evidence as conclusive; previously (in Exx. 136) the god was only "*favourable*" to him, but his latest act proves that he is actually good. *ḫr* is again used to show that Sinuhe's assertion is necessarily true; it is now indisputable that the god is good.

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[329] It is also possible that this is not case specific and should be translated "*Is it not the case that you are invariably well on account of eating good barley*"

[330] *ḥm*, as Gardiner (GEG §253) points out, is an asseverative particle although his translation of "*indeed*" or "*assuredly*" seems far too unspecific. Allen (2010: §16.7.8) says that the clause that it heads is an "*additional statement*". Oréal (2011: 351-91) treats *ḥm* extensively but, quite implausibly, attributes at least six different, and quite diverse meanings to it. On the basis of the Old and Middle Egyptian examples it seems that *ḥm* marks that a situation has changed and emphatically contrasts the particular moment of speaking with the situation which previously existed. This is especially well shown by its frequency in the dialogue of Ipuwer and the Lord of All. "*Now*" seems an appropriate translation.

III.12.3 *ḥr* FOLLOWED BY A STATIVE

In the next example *ḥr* is also directly followed by *ḥm*, which in turn is followed by a stative:

139. Sinuhe B 75-6

A panegyric to the Pharaoh by Sinuhe precedes. Ammunenshi replies to it as follows:

ḥr ḥm kmt nfr.ti [n-]ntt s[y] rḫ.t[i] rwḏ=f

"Now, **undoubtedly,** *Egypt is happy because she knows his steadfastness*"

This example is case-specific in that it is limited to the moment of speaking; Ammunenshi has just heard Sinuhe's poem, which is a tribute to the strength of the current pharaoh. He then asserts that the only possible situation is that Egypt is happy; this is now proven by what he has just heard and therefore indisputable.

140. Hymn to The Nile IId

This example follows on directly from Exx. 122

"*When he is delayed noses are invariably blocked*

ḥr ḥr-nb nmḥ.w

*and everyone is **invariably** deprived*"

The translation here depends on the translation of the clause that precedes it. In the translation above it assumed that the author is speaking in general terms but if we were to take this as a case-specific conclusion (see the discussion of the alternative translation of Exx. 122 in section III.8.1) the whole passage would be translated as "*If he is slow his nose is undoubtedly blocked and everyone is inevitably deprived*" which would make it a necessary conclusion followed by a necessary result based on the fact that the Nile is slow in coming[331].

141. Hymn to The Nile IIe

ir ḫb3.tw m p3wt nṯrw ḥr s ḥḥ 3ḳ m rmṯ

"*If the altar of the gods is diminished a million men **invariably** perish from mankind*"

The above translation is working on the basis that a general statement is being made but the use of the stative in the apodosis argues against that; one might expect a *sḏm=f* form rather than a stative if the author were speaking in general terms. It is therefore possible, but less likely, that this is an inescapable conclusion; "*If the altars are empty a million men have undoubtedly perished from mankind*" or phrased another way "*Only if a million men were to*

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[331] A similar sentence structure to this, where an inevitable conclusion is followed by a necessary result, is found in Exx. 15 and 16 although there both are expressed with *sḏm.ḥr=f* making the conclusion slightly less certain.

have died would the altars of the gods be diminished". This would be showing the devotion of the populace to filling the altars; they would only neglect it if there were no-one to do it.

142. Coffin Texts Spell 402 (V 176h)

*ist dmḏ.n=i ḥk3=i pn m bw nb ntf im **ḫr** s nb ntf ḥr[332]=f tbn r ṯsm ḫ3ḫ3 r šw*

"*Meanwhile, I have collected this magic of mine from everywhere that it was, and any man for whom it is destined is **invariably** faster than a hound and more agile than Shu*"

There is no other possible situation; anyone who gets the magic is faster than a hound and more agile than Shu. If a man gets the magic, it cannot be otherwise.

142.5 Papyrus Edwin Smith; V, 21-VI, 1 (Case 12, Gloss B)

***ḫr** ḥr=f pds ḥr=s*

"*His face is **invariably** flat because of it*"

This particular injury *always* produces this effect.

III.12.4 *ḫr* FOLLOWED BY A CLAUSE WITH A NOMINAL PREDICATE

143. Papyrus Westcar 7,17

Prince Hardjedef has just met the magician Djedi and says:

*iw ḫrt=k mi ʿnḫ tp m tni **ḫr** i3wt st mni st ḳrs st sm3-t3 sḏr r šsp šw m ḫ3t nn kḥkḥt nt sryt nḏ-ḥrt im3ḫy pw*

"*Your condition is like that of a middle-aged man just starting to age[333]. Old age is **supposed to be** a time[334] of mooring, burial and entombment, sleeping till the crack of dawn free from disease without a debilitating cough. This is greeting one of the revered dead.*"

Taken out of context, *ḫr i3wt st mni st ḳrs st sm3-t3* means that the only possible situation is that in old age one dies, which is a necessarily true proposition. However, from the context we know that Djedi is 110 years old and shows few signs of ageing never mind of dying. This example is counterfactual because the proposition is contradicted by reality, hence the English translation "*supposed to*". (See also section A.1.6.1 in Appendix A for examples of epistemic counterfactuals from égyptien de tradition).

144. Ptahhotep §D409-10 (Col 12,12)

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[332] This is the preposition *ḥr*
[333] Literally "*first in old age*"
[334] Literally "*place*"

The theme in this section is the reward for giving good advice

ḥr sꜥḥ=k mrr=k

Vernus (1990: 70) takes this as an instruction: "*Your noble must be (the) one you love*" but it could equally be a statement of fact "*Your noble is **invariably** somebody who you love*".

144.5. Coffin Texts Spell 8 (I, 26a) (B2B0)

ḥr nṯr pf wḏꜥ sw ḫft rḫt.n=f

"*That god is **invariably** someone who judges him according to what he has found out*"

III.12.5 *ḥr* FOLLOWED BY A CLAUSE WITH AN ADVERBIAL PREDICATE

145. Hymn to the Nile IIIc (x2)

wbn=f ḥr tꜣ m ḥꜥꜥwt ḥr ẖt nbt m ršwt

"*Whenever he rises the land is **invariably** in joy and every belly is **invariably** in pleasure*"

The only possible situation in the circumstances (when the Nile rises) is that the land is in joy and everyone eats well; it is not possible that this does not happen when that situation occurs.

146. Kagemni, Papyrus Prisse pl. I, 11

ir šww m srḫ n t n sḫm.n mdt nbt im=f ḥr [*r*][335] *tr n ḥr r dfꜣ*

It is debatable whether this example contains *ḥr* at all (See Gardiner's reservations (1946: 74, n. a)) and with or without *ḥr* it is difficult. It may read "*As for the one who is free from accusations about food, no words have power over him; respect for authority is **invariably** in proportion to what is eaten(?)*"

147. Book of Kemit Pl 5. (All the intact copies of the text on Plate 5 have *ḥr nn r sšw*)

mi mrr bꜣk-im m ḥtp nfrt wrt ḥr nn r sšw rdi.n.wi wpwty n ḥm=k ḥr=s

"*Just as yours-truly would wish, in very good peace. ḥr this is with regard to the writing to which the messenger of his majesty put me.*"

The book of Kemit has the form of a literary letter and *m ḥtp nfrt wrt* marks the end of the greeting formulae which take up approximately half of the entire composition and after *ḥr=s*

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[335] The *r* seems to be superfluous.

a section of poetry starts. *ḥr nn r sšw rdi.n.wi wpwty n ḥm=k ḥr=s* therefore provides the introduction to the poetry and *nn* obviously refers to the composition that follows. *r* refers it back to the order (*rdi.n.wi wpwty n ḥm=k ḥr=s*) that was given to compose a piece of writing (*sšw*). It could therefore be assumed that this is a reply to a, probably imaginary, letter in which the scribe was asked to produce a composition for the king. As far as *ḥr* is concerned it could be said the author is pointing out that the only situation possible is that he has produced the composition asked for. The conversational background to this would therefore be stereotypical, he did the only thing that could be expected after receiving instructions from the king to write a composition and that was to write one; nobody in their right mind would refuse. One could translate it as: "**Naturally,** *this* [composition] *is with regard to the writing to which the messenger of his majesty put me."*

148. Coffin Texts Spell 404 (V 187d)

ḏdt n mẖnty n sẖt-iȝrw **ḥr** *ḥr=f n nṯrw ipn wnw ḥr pf gs n itrw ḏd.ḥr=f n=sn*

Vernus (1990: 73) translated this as "*To be said to the ferryman of the Field of Reeds. Then his face will be (unfailingly) towards those gods who are on that other side of the river*"but there are objections to this, firstly the use of the preposition *n* to mean "towards" seems stretched[336], secondly, everywhere else in the spell where something has to be said the purpose of the speech is never given[337], only a description of the god to whom it is to be said; it either launches straight into the speech or introduces it with *sḏm.ḥr=f* . It seems almost certain, putting *ḥr* aside for the moment, that *ḥr=f n nṯrw ipn wnw ḥr pf gs n itrw* is a description of the ferryman which would make this a virtual relative clause (See GEG §196): "*whose command belongs to those gods who are on that side of the river*". *ḥr* must therefore indicate that the only possible situation is that the gods command the ferryman; only they, and no-one else, can command him. The fact that the instructions are addressed to the gods (*ḏd.ḥr=f n=sn*) confirms this; the dead man has to speak to the gods to get them to command the ferryman. The translation should therefore go as follows:

"*What is said to the ferryman of the Field-of-Reeds whose command **invariably/only ever** belongs to the gods who are on that side of the river. He has to say to them….."*

148.5 Satire of the Trades XVIIIa (Sallier II)

ṯbww bin sw r-sy **ḥr** *dbḥt=f* [*m*] *r nḥḥ*

"*The sandal maker, he is extremely bad, **undoubtedly,** his biting pain is never-ending*"

148.6 Papyrus Rhind Problem 22 (Plate H)

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[336] Faulkner (2015: 49) translates *n* here as "on", which is equally, if not more, improbable.
[337] The purposes of all the spells are given in their titles.

$ḫr$ $\frac{1}{5}$ $\frac{1}{10}$ m $w\!\!\beta\!ḥ$ $ḥr\!\!=\!\!f$

" $\frac{1}{5}$ + $\frac{1}{10}$ is **undoubtedly** what was added to it"

148.7 Papyrus Rhind Problem 21 (Plate H)

$ḫr$ $\frac{1}{3}$ $\frac{1}{15}$ m $w\!\!\beta\!ḥ$ $ḥr\!\!=\!\!f$

"$\frac{1}{3}$ and $\frac{1}{15}$ is **undoubtedly** what was added to it"

III.12.6 $ḫr$ FOLLOWED BY A PSEUDOVERBAL CONSTRUCTION (SUBJECT + r $sḏm$)

149. Ramesseum Wisdom Text, II, vso ii, Line 4 (Pl. 9)

......] *smi ḫr tw r rḫ* ᶜ*š3-r ḫr tw r mdw rn n grw ir m th*[338]

"[........] *report. The gossip*[339] *will **undoubtedly** be known and the name of the silent one who acts with bad intentions will **undoubtedly** be spoken*"

The text is part of a lament, in the style of Ipuwer and the Lord of All, and here it complains specifically about how characteristics that used to be regarded as bad are lauded and those which are good are ignored. Here, the author is saying that in the current climate the only situation possible is that the gossiper and the silent one who acts with bad intentions will be noticed at court; it is impossible that they won't.

III.12.7 $ḫr$ FOLLOWED BY $sḏm.ḫr\!\!=\!\!f$

150. Papyrus Rhind Problem 55 (Plate P)

Here, the problem is to divide a field of 3 aurorae into 5. The final line of the problem is thus:

ḫr gm.ḫr=k t3 3ḥwt m sṯ3t

"*ḫr, you have to find the fields as 3 aurora*"

The line before this one, which is the last line of the calculation, gives us the area of each of the five fields expressed in aurorae and cubits. If we ignore *ḫr* for the moment we are left with a final instruction *gm.ḫr=k t3 3ḥwt m sṯ3t* "*You have to find the fields as 3 aurora*", which is in essence an instruction to make the proof, or to check that you have done the calculation right

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[338] Literally "*transgression*"
[339] Literally "*Numerous of mouth/speech*"

by working backwards until you get the three aurorae you started with. *gm.ḫr=k* probably has a deontic conversational background; the rules of doing maths prescribe that you always check your working. It may also be teleological; in order to check that your answer was correct you have to do the proof. Having *ḫr* before this means that the situation that follows is the only possible one and we would end up with something along the lines of "*the only possible situation is that you have to make your proof*". If we look for a reason as to why this is the only situation possible, or the conversational background, we might surmise that a proof is always done after a calculation, it would be inconceivable that you wouldn't do it[340] and thus take it as having a stereotypical conversational background. The whole phrase could then be translated as "***Naturally**, you have to find the fields as 3 aurorae*"

III.12.8 *ḫr* FOLLOWED BY *m-ḫt sḏm=f*[341]

151. Decree to Shemai (Urk. I; 303, 16)

……] *r ḥwt-nṯr nt mn gbtyw* [………..]

ḫr m-ḫt ḥtp nṯr im [………..]

"*….] for the Temple of Min of Coptos […….]*

***Naturally**, when the god is satisfied thereby [……..*"

It is likely that this example is similar to the preceding example in that it forms part of an instruction, which is now missing, which relates to a fixed and well-understood way of doing things. In this case though it would be an instruction where the timing (the god being satisfied) for carrying it out is specified. It is possible that it refers to the "*reversion of offerings*".

III.12.9 *ḫr* FOLLOWED BY *k3 sḏm=f*

152. Ipuwer 12.14

"*If three men set out on a road it is two men that will be found; it is the many who kill the few.*

in-iw [*nmyw?*[342]] *mr mwt **ḫr** k3 wḏ=k ir.t*[*w*] *wšb*

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[340] Many problems in the mathematical papyri have their proofs written out; for instance in the Lahun Mathematical Papyrus UC 32162, fragments of col III (Collier and Quirke 2004: 82) and Rhind Problems 32-38. See Peet (1923: 21-4) on the subject of mathematical proofs in the texts.

[341] This example is presented here, and not classed as the literary *ḫr m-ḫt* because *ḫr* is lacking the falling man determinative here. Further evidence that it is not a writing of (*i*)*ḫr* (See section IV.1.3) is that it appears in a decree, a context that has general import, rather than having the past narrative context common to all the other examples of (*i*)*ḫr m-ḫt*.

[342] The reading is far from certain but the sign before A33 seems to resemble *nm*. Although Enmarch (2008: 190) reads *mniw* "*shepherd*" (Wb 2, 74-75.10), a word meaning a traveller would fit better in the context. The word is perhaps *nmyw*, derived from the verb *nmi* "*to travel*" (Wb 2, 265.5-13)

Is a [traveller?] someone who wants to die? ḫr, you will order a solution to be made

Here, *ḫr* probably has a stereotypical conversational background; only one response to the problem of danger on the roads can possibly be expected, that the king will order a solution to be made *"**Naturally**, you will order a solution to be made"*. It should be noted here that the writer is not instructing the king to make a solution, which would employ *ḫr=f sḏm=f*, but is making an observation that the always expected action that the king will do is to order a solution to be made. This perhaps implies that the king always makes a response but that his orders or words are empty or ineffectual.

Chapter IV

MATTERS FOR FURTHER INVESTIGATION

IV.1. *ḫr*, *iḫr* AND *ḫr m-ḫt*[343]

IV.1.2 *iḫr*

It is very likely that *iḫr*, by sharing the same radicals, is related to the *ḫr* of the *ḫr sḏm=f*, *ḫr=f sḏm=f* and *sḏm.ḫr=f* forms and is also a marker of modal necessity.

In the Old Kingdom, *iḫr*, always written with with the falling man determinative, appears exclusively in past narrative contexts. The Middle Egyptian construction *ḫr m-ḫt* also only appears in past narrative contexts and is also consistently written with the falling man determinative (See also III.2). By contrast, the particle *ḫr*, discussed in chapter III never appears in past narrative and never has the falling man determinative, furthermore its first instance, which is consistent with its later usages, is as early as the sixth dynasty (Exx. 135). It therefore seems fairly safe to conclude that *iḫr* is the ancestor of the Middle Kingdom *ḫr* with the falling man determinative but not the sentence adverb *ḫr*. Further evidence that *iḫr* is the ancestor of the *ḫr* of *ḫr m-ḫt* is provided by an intermediate form from the time of an indistinguishable Mentuhotep in which we have *iḫr*, followed by an adverbial phrase introduced by *m-ḫt*, in the same way as the later *ḫr m-ḫt* construction.

153. First Intermediate Period Stela from Deir el-Ballas (Lutz 1927: Pl. 34, line 3)

iḫr m-ḫt ḥwi.n=sn mnit [......]
iḫr *when they struck the mooring post [.......]*

To distinguish and from the particle (*ḫr*), which was discussed in the last chapter, they will be from now on referred to as *iḫr*, *(i)ḫr* and *ḫr* respectively.

Although *iḫr* and *ḫr* are almost certainly not ancestor and descendant it does not mean that they are not at all related; the fact that they contain the same radicals makes it very likely

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[343] This was originally intended to be the topic of a further chapter in this study.

that they are related to one another and that *iḫr* is an expression of modal necessity. Most examples involving *iḫr* come from autobiography and all the writers take great pains to explain how well they served the king and the rewards they got for doing so. *iḫr* nearly always introduces the situation in which the reward from the king is received so if it is to be associated with modal obligation, the logic behind using it, although not actually expressed, may go as follows:

> *I performed exceptionally in the service of the king so* [In view of the fact that the king *always* rewards exceptional service] *it was inevitable that I would be favoured*

Inevitably being rewarded would therefore have an epistemic stereotypical conversational background (see Introduction p. 7) and would represent the reward as a foregone conclusion; it would have been inconceivable that anything else would have happened or it was the *only* situation to be expected. Or, in view of what always happens, according to the perception of the writer, which is rooted in cultural norms, tradition or shared experience, what happened was the only the course of events, or situation, that could have happened. A suitable translation of *iḫr* in these contexts would therefore employ the adverbs "*obviously*", "*naturally*" or "*of course*", the latter two referring to the natural, and ineluctable, course of events, as understood by a speaker and his audience. For example:

154. Stela of Henwen (Clère and Vandier: 1948; §24, 4)

> *iw šms.n=i ḥr w3ḥ-ꜥnḫ (s3-rꜥ int=f ꜥḥꜥw ꜥ3 rnpwt [……………………..] nbw n iw ḫt nb*
> **iḫr** *m sḏ3 =f r 3ḫt=f r bw nty nṯrw im ꜥḥꜥ.n šms.n=i s3=f*

> "I served The Horus Wahankh, Son of Ra Intef, for many long years [.......] and nothing bad happened so, **naturally,** when[344] he proceeded to his horizon, to the place where the gods are, I followed his son"

Nothing else could have been expected. By using *ḫr* he is emphasising that there was no question of him not being employed by the new king, nobody would have expected anything else. A quick survey of all the examples of *iḫr* seem to confirm that the conversational background is always epistemic stereotypical, even where rewards from the king are not involved. For instance:

155. Harkhuf Urk. I; 127,4

> **iḫr** *m33 ḥk3 irṯt s3ṯw w3w3t nḫt ꜥš3 ṯst nt im3 h3t ḥnꜥ r ḫnw ḥnꜥ mšꜥ h3b ḥnꜥ=i*

> *wn.in ḥk3 pn ḥr sbt=i ḥr rdit n=i ꜥ3 ꜥnḫw ḥr sšm=i n w3wt nt ṯswt nt irṯt*

> **Naturally,** when the ruler of Irtjet, Satju and Wawat saw the strong and numerous troops of Yam coming back with me to the residence, together with the army sent with

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[344] Nearly all the examples have fronted adverbials, the nature of which demands a thorough investigation as the forms of the verbs do not fit established rules for adverbial forms despite the context in nearly every case demanding a translation as such. It also raises questions of the scope of sentence adverbs.

me he then escorted me, gave me goats(?) and sheep and guided me on the paths of the hills of Irtjet.

The ruler reacted in the only way that anybody confronted with a huge army appearing on his border would be expected to; nobody could reasonably expect that he would do anything other than give them the assistance they required.

IV.1.3 (*i*)*ḫr m-ḫt*

(*i*)*ḫr m-ḫt*, as noted above is almost certainly the descendent of *iḫr* and appears in the same sort of contexts (past narrative) and is always followed by a fronted adverbial clause. It might therefore be mooted that it performs exactly the same role as *iḫr*; showing that what follows it was the only possible situation and that nobody could reasonably conclude that anything else could have happened in the circumstances. As a marker of stereotypical modal obligation (*i*)*ḫr* would also help to bring the listener into a story by sharing indisputable cultural references between speaker and listener, hence its almost exclusive appearance in literature. A brief survey of the examples of *ḫr m-ḫt* shows that stereotypical modal obligation seems to fit in all the contexts, although, as is the case with anything with a stereotypical conversational background, the actual shared cultural references are not explicitly stated. For instance, the following two examples seem to be based on a shared understanding of how one would expect someone to behave:

156. Papyrus Westcar 8, 5-6

(*i*)*ḫr m-ḫt spr=f r ḫnw ꜥḳ pw ir.n sꜣ-nsw ḥr-dd=f r smit n ḥm n nsw bity |(ḫfw mꜣꜥ ḫrw*

"***Naturally,*** *when he arrived at the Residence, Prince Hardjedef went in to report to the majesty of the king of Upper and lower Egypt Khufu, true of voice*"

It was inconceivable that on his return the Prince would do anything else other than go to his father to report the exciting news about Djedi. The following example is based on the shared expectation of how a prince behaves:

157. Westcar 7,11:

(*i*)*ḫr m-ḫt nꜣ n ꜥḥꜥw mni r mryt šꜣs pw ir.n=f m ḥryt snḏm.n=f m ḳniw n ḥbny*

"***Naturally,*** *after the boats had been moored at the riverbank, he [Prince Hardjedef] went aloft, having made himself comfortable in a carrying chair of ebony*"

It was inconceivable that a royal prince would travel any other way than in a richly appointed carrying chair. On the other hand, the following example is stereotypical in that it relies on common sense, which by nature is something shared and, in theory, indisputable:

158. Neferkare and General Sasenet (Papyrus Chassinat I, line *x* +9)

(*i*)*ḫr m-ḫt irt ḥm=f mr.n=f ḥr=f wḏʒ=f r ʿḥ=f*

"***Naturally,*** *after his majesty's doing what he wanted to him* [General Sasenet], *he* [the king] *proceeded to his palace*"

It was inconceivable that the king would stay in his lover's house and not return to the palace at the first possible opportunity;

IV. 2 THE PREPOSITION *ḥr*

There is a strong possibility that the preposition *ḥr* is related to, if not the same as, the *ḥr* of the *sḏm.ḥr=f* and the *ḥr=f sḏm=f* forms.

The preposition *ḥr* is used when communicating with people from the future or past or with gods and kings. All of these are beings who are inaccessible due to rank or distance in time and so a mortal would be unable to speak to them directly and would need a way of making sure that a message got to them.

In the same way that *ḥr* demonstrates that an action or situation is inevitable, or the only one possible, the preposition *ḥr* may, like the *ḥr* constructions, be used to invoke an external power to make sure that a recipient receives the message; the speaker would be ensuring that the only situation possible would be that the message arrives at its intended target and any alternative worlds, where the recipient does not receive the message would be ruled out by the use of *ḥr*. Where the preposition *ḥr* is used to link a dead person to a god or a king it may also be seen as a guarantee that a person, like a message, reaches the god or king in the afterlife. Likewise, when it is used in dates it could be said that the king is the guaranteed recipient of those years and the situation cannot be otherwise; there can be only one king at one time and it is indisputably him.

If it is the case that the preposition *ḥr* is linked to *ḥr*'s other usages and they all have the same underlying concept, then the idea of "*destiny*" in English could be applied to translating it. "*Destiny*" is particularly apt when dealing with this topic because it provides a suitably indeterminate description of an external power which, in theory, cannot be defied and also has a prepositional phrase derived from it in English. One could therefore conceivably translate the various contexts in which it appears as:

159. Autobiography of Djau (Urk. I; 143, 6)

imʒḫw ḥr nsw

"A *revered one, destined for the king*"

160. Stela of Harwerre (Gardiner et al: 1952; Pl. XXVA, line 3)

ḏd=f ḥr srw iw.ty=sn r biʒ pn   "......."
"*He says, destined for those officials who shall come to this mining country:*

161. Stela of Harwerre *(Gardiner et al: 1952; Pl. XXVA, East Face, line 1)*

rnpt-sp 6 ḫr ḥm n [nṯr pn]

"Regnal Year 8, destined for the incarnation of [the god]"

If this were the case the *sḏm.ḫr=f* form could also be analysed as "*the hearing destined for him*", in that the addressee would need a very good reason to defy destiny itself.

IV. 3 NOUNS CONTAINING *ḫr: sḫr, ḫrt* AND *ḫr-nsw*

It may also be the case that nouns which contain *ḫr* display the concept of something being imposed by an external power. *ḫrt* (Wb 3, 318.10-319.8) could be analysed as a nominal form perhaps meaning "*what an external power has imposed*" or "*what has been destined*" which would fit with the dictionary definitions for *ḫrt*, such as *"condition", "state"* or *"requirement"*. *ḫrt* is also listed as *"products"* but may well literally mean "*things which have been destined for (wherever)*". *ḫr* in the following example: *inn ḫrt ḫ3swt nb n nb* (Autobiography of Harkhuf, Urk. I; 123,17), "*One who brought back what has been destined for foreign lands for his lord*", would mean, on the principle of *ḫr* ruling out alternative situations, that destiny had decreed that the products were available *only* in the foreign lands and not in Egypt, hence the need for Harkhuf to obtain them from abroad. The phrase *ḫr-nswt* (Wb 3, 315.11-12), used of a specific type of royal gift may also fall into this category; it may mean "*things that are destined for the king (and only the king)*", which only he has the right to possess, and the right to dispose of as he sees fit.

The very common expression *nḏ-ḫrt=k* might also be analysed as "*To ask what has been destined for you*" or "*To ask what has been imposed on you by external powers*", and as such would be akin to such modern greetings as "*How do you do?", "How are things with you?" or "How is life treating you?".* Similar would also be the expression *(smi) ḫrt t3wy* (Wb 3, 318.10-319.14), which is a job of the vizier; this would be rendered literally "(*Reporting) what has been destined for the two-lands*" meaning reporting what has befallen it, perhaps even reporting the "*news*". Likewise, the noun phrase *ḫrt-ib* (Wb 3, 319.11) could also be seen literally as "*what an external power has imposed on the mind*", meaning perhaps an "*idea*", "*thought*" or "*inspiration*".

If *sḫr=f* (Wb 4, 258.10-260.16) were also related to *ḫr* it would theoretically mean something along the lines of "*What he causes to be inevitable (for someone else)*" or, perhaps, "*what he decrees/decides*" and *sḫrw=f* would be the passive version meaning "*What is caused to be inevitable for him*" or "*what is decreed/decided for him*". *sḫr* on its own would therefore mean a "*decree*" or a "*decision*" and the very common phrase *iḳr n sḫr* would mean "*skilful of decision*". Although the traditional translation "*plan*" would still fit in most contexts, an association with conclusively deciding things would add an extra dimension to our understanding of it.

IV.4 *sḏm.k3=f, k3=f sḏm=f* AND *k3*

sḏm.k3=f, *k3=f sḏm=f* and *k3* have often been grouped together with *ḥr* constructions owing to the similarity of their constructions. Because *ḥr* is associated with inevitability it is possible that *k3* is associated with its modal counterpart, possibility. A comprehensive analysis of all the examples of *k3* constructions, similar to what has been done for *ḥr* here, would be needed to see whether this is the case or not.

IV.5 *sḏm.in=f*

sḏm.in=f is also often grouped together with *sḏm.ḥr=f* because of its construction and may also be associated with modality. There seems to be no mechanism in Egyptian, according to the scheme for *ḥr* constructions laid out in this study anyway, to express that a case-specific action in the past has a circumstantial modal base, with the meaning "*He had to hear*". It is possible that the *sḏm.in=f* form is used in this capacity.

CHAPTER V

CONCLUSIONS

Vernus' argument, that *ḥr* constructions represent actions or states governed by "*external norms or necessity*", by which he means modal obligation, is undoubtedly correct. Using methodology borrowed from Modal Logic for Linguistics his argument is refined and it is argued that when a speaker uses *ḥr* he transfers the authority for what is said from himself to a theoretically undefiable external power, thereby making the action or situation expressed with *ḥr* the only possible course of action or the only possible situation; any alternative course of action or situation is, in effect, removed and the addressee is thereby forced, theoretically at least, to obey the instruction or to accept the proposition. It cannot, however, be convincingly argued that the three main constructions: the *sḏm.ḥr=f*, *ḥr=f sḏm=f* and *ḥr sḏm=f* are variants of, or chronological developments of one another. When these three constructions are examined separately it is seen that each construction has a specific usage:

The *sḏm.ḥr=f* expresses a generic obligation, although the frequently used term "aorist" is inappropriate. Its generic nature is shown by the contexts in which it appears; it occurs in situations that are not fixed in a particular moment in time and could occur at any time or repeatedly. It very frequently appears in parallel with *iw=f sḏm=f*, a construction used for making statements of a general nature and with that construction's negative counterpart *n sḏm.n=f*. Furthermore, specific individuals, which would link it to a specific moment in time are never mentioned in conjunction with it. It is nearly always used to express instructions of a generally applicable nature and is only occasionally used to denote results. It is best translated with a general present "*You **have to do** $\frac{2}{3}$ + $\frac{1}{30}$* " (Exx. 3) and, when a clause introduced with *ir* precedes it, translating that clause as "*whenever.......*" helps bring out the generic nature of the form in English. For example: "*"Whenever you examine a man suffering stomach-pain and all his limbs are heavy because of it, like the swelling from fatigue, **you have to put** your hand on his stomach*" (Exx. 50). It is further used to express epistemic judgements which are necessarily true according to the evidence available to a speaker at a particular moment but cannot be confirmed beyond doubt, visually or otherwise. For instance; "*His disease **must be spreading**" (Exx. 87)*

The *ḥr=f sḏm=f* form appears in case-specific contexts, such as letters or literature and in the medical texts it is only used in response to out of the ordinary events which are not part of the normal cure, such as an unwanted side-effect or where the usual remedy hasn't worked. The actor is virtually always specified, the action can be linked to a specific time or event and, unlike the *sḏm.ḥr=f*, none of *ḥr=f sḏm=f* 's occurrences can be said to be universally or generally applicable. All but one of its occurrences are in instructions issued in response to specific, out of the ordinary, situations arising. When a clause introduced with *ir* precedes it,

translating that clause as "*If…….*" helps bring out the case-specific nature of the *ḥr=f sḏm=f* in English: "*If you cannot obtain any from him **you will have to go** before Hau*"(Exx. 98)

ḥr sḏm=f, on closer examination, is actually an erroneous categorisation and is not, as was previously believed, a variant writing of, or a later development of the *ḥr=f sḏm=f* or *sḏm.ḥr=f* forms. The lack of any instructions whatsoever using *ḥr sḏm=f*, something that might be expected if it were a variant of either of the other two forms, which are almost exclusively used for issuing instructions also indicates that *ḥr sḏm=f* is not a variation of or development of them. In fact, in all its occurrences the "*ḥr sḏm=f*" is an assertion and it denotes a state or a change of state whereas nearly all the occurrences of the other *ḥr* forms describe actions. Also relevant here is the observation that, unlike the the *sḏm.ḥr=f* form or the *ḥr=f sḏm=f* form, the *sḏm=f* of the *ḥr sḏm=f* construction shows a variety of forms and the contexts in which it appears are not limited to either case-specific or generic contexts. Furthermore, *ḥr* can also stand in front of a large variety of sentence structures, not only *sḏm=f* forms, and, unlike the *sḏm.ḥr=f* form or the *ḥr=f sḏm=f* form, it can be used in combination with various other particles. It is therefore concluded that *ḥr* is a free morpheme that appears with a variety of forms, including *sḏm=f* and the particle *ḥr* is defined as a sentence adverb that marks that the assertion that follows it is necessarily the case or that the situation it precedes cannot be otherwise. Many modal adverbs could be employed to translate it but which ones are used depends on the context: in case-specific situations "*undoubtedly*", "*definitely*" or similar adverbs can be used, for instance "***Undoubtedly,** Horus wanted to stabilize it because he brought me to it to stabilize it" (Exx. 130)*. However, in contexts where the situation is generic but also necessarily true, "*invariably*" would be suitable; for instance: *"His face is **invariably** flat because of it" (Exx. 142.5).* Although not discussed in the thesis, this interpretation of the particle *ḥr* provides an indication as to the evolution of the *ḥr + sḏm=f* of Late Egyptian and the Coptic ϢⲀϤⲤⲞⲦⲘ forms, both imperfective constructions often used in gnomic contexts. It might be said that there is a significant overlap between what is "invariably" or "necessarily" the case and what "always" and "normally" happens. It should also be noted that the interpretation of the case-specific examples of *ḥr* presented here can equally be applied to the often overlooked case-specific examples of the Coptic ϢⲀϤⲤⲞⲦⲘ form supplied by Green (1987: 65-87).

APPENDIX A

ḥr IN ÉGYPTIEN DE TRADITION

In égyptien de tradition the role of *ḥr* does not change at all, it is still a marker of modal obligation and, in the *sḏm.ḥr=f* and *ḥr=f sḏm=f* forms and as a sentence adverb, it continues to appear in the same contexts with the same usages. A non-exhaustive selection of examples is presented here to demonstrate this.

A.1 THE *sḏm.ḥr=f* FORM

When the occurrences of *sḏm.ḥr=f* in the *égyptien de tradition* of the eighteenth dynasty and beyond are examined it is seen that even though there is a greater variety of usage, far from being "*frozen*", or used to give an "*archaistic flavour*" (Vernus 1990: 65), it is still always used to express a generic obligation, in the same way as it is in Middle Egyptian. This is shown by the examples below:

A.1.1 *sḏm.ḥr=f* WITH A TELEOLOGICAL CONVERSATIONAL BACKGROUND

162.   Seti I shadow clock (Frankfort 1934: pl. LXXXI)

A set of instructions essential to make the clock work properly are expressed with *sḏm.ḥr=f*

Col. 9 *rdi.ḥr=k* "You have to place"
Col. 10 *rdi.ḥr=k (x3)* "You have to place"
Col. 11 *ḥsb.ḥr=k* ""You have to calculate"
Col. 12 *pẖr.ḥr=k* "You have to turn around"

A.1.2 *sḏm.ḥr=f* WITH A CIRCUMSTANTIAL CONVERSATIONAL BACKGROUND

163. The Autobiography of Amenemhat "The Clockmaker" (Von Lieven 2016: 224)

This concerns the movement of a water-clock and describes the mechanical movements of figures of divinities attached to it. In the lacuna before the passage in question there is an unknown object in the goddess's hands that goes towards the king's nose.

> [………………….] *nty m ʿw=s r fnḏ n ḥm=f **h3.ḫr=s** ḥr wnwy* […….]

> "……..] *which is in her hands to the nose of his majesty and it **has to go down** on account of the two strings [……….]*"

This is almost certainly a cause and effect sentence; when one part of the mechanism moves it automatically and inevitably causes another part to go down because they are, presumably, attached by two strings, whose purpose or location has either already been explained in the lacuna preceding or will be explained in the lacuna following. "*Automatically*" might be a suitable translation here.

A.1.3 *sḏm.ḫr=f* WITH A DEONTIC CONVERSATIONAL BACKGROUND

164. Hatshepsut's Chapel at Karnak (Lacau and Chevrier: 1977; 126)

> *ist nsw dnit pw n inr **wn.ḫr=f** m ḫs r wryt*

> "*And the king is a dam of stone; **he has to be** the one who stands against the torrent*"

A.1.4 CONSTRUCTIONS USING *wn.ḫr=f*

A.1.4.1 *wn.ḫr=f ḥr sḏm*

Although in Middle Egyptian there are several examples of a generic unachieved extensive obligation using the *wn.ḫr=f ḥr sḏm* construction; "*He has to keep on hearing/continually hear*" (See I.13), there are also several examples from égyptien de tradition where the same construction is used to express an obligation in the past. As a conversion from the *iw=f ḥr sḏm* form, which can have past or present reference in Middle Egyptian depending on the context, it is not surprising that the *wn.ḫr=f ḥr sḏm* form can also refer to the past, the *sḏm.ḫr=f* form itself also having no fixed tense. However, given that the *iw=f (ḥr) sḏm* form in Late Egyptian is used to describe episodic events it is debatable whether *wn.ḫr=f ḥr sḏm* is used in 18th dynasty texts as an unachieved extensive obligation with past reference or as a case-specific (episodic) past obligation. On balance, it would seem that the unachieved extensive is more likely because (*i*)*ḥr m-ḫt* would seem to be perfectly adequate to express case-specific events, the contrast being particularly evident in the autobiography of Ahmose son of Ebana (Exx. 1) in which his promotion, which only happens once, is expressed with (*i*)*ḥr m-ḫt* and his duties, which are by nature repetitive, by a *wn.ḫr=f ḥr sḏm* form:

165. Ahmose son of Ebana (Urk. IV; 3, 5)

> *ḥr m-ḫt grg.n=i pr ʿḥʿ.n=i iṯt.kwi r p3 wi3 mḥty ḥr ḳnn=i*

> ***wn.ḫr=i ḥr šms** ity ʿ.w.s. ḥr rdwy=i m-ḫt swtwt=f ḥr wrt=f iw ḥms.tw ḥr dmi n ḥwt-wʿrt*

*"Now, after I had founded a household, I was taken to the ship "Northern" on account of my bravery and **I (continually) had to follow** the sovereign, l.p.h, on foot when he went on patrol in his chariot when the harbour area of Avaris was besieged.*

The following examples also utilise the *wn.ḫr=f ḥr sḏm* construction:

166. Ahmose son of Ebana (Urk. IV; 3, 7-8)

wn.ḫr=i ḥr ḳnt ḥr rdwy m-bȝḥ=f

***I had to (continually) act bravely/could not help (continually) acting bravely** on foot in the presence of his majesty"*

We already know that Ahmose is brave but the addition of *m-bȝḥ=f* here emphasises that, this time, he was brave *in front of his majesty.*

The preceding two examples are inevitable results of encountering the awesomeness of Hatshepsut. See also Exxs. 171, 172 and 173 below.

167. Hatshepsut's Chapel at Karnak (Lacau and Chevrier: 1977; 99)

*iw.in r=s nbt tȝwy m-ḫnw ḏsrw nw ʿḥ=s **wn.ḫr=s ḥr rdit iȝw** m-ḫsfw nb nṯrw*

*"Then, for her part, the Lady of the Two Lands [The goddess] came into the sanctuary of her palace and she **could not help (continually) giving praise** in front of the lord of the gods."*

168. Hatshepsut's Chapel at Karnak (Lacau and Chevrier: 1977; 141)

*ḏiw ḥms=i ḥr wṯst-sḫmty-ḥr **wn.ḫr r=s nbt tȝwy** ḥr biȝt ʿȝt wrt ʿȝwy wrwy ḥr ḥmt=i*

*"My sitting upon the Throne-of-the-two-ladies-of-Horus was granted and the Lady of the Two Lands, for her part, **could not help (continually) marvelling** very greatly and at great length at my majesty."*

A.1.4.2 *wn.ḫr=f* + STATIVE

In *egyptien de tradition wn.ḫr=f* is also used to construct statives which are used to express general obligations in the past. Like the *iw=f ḥr sḏm* form, the stative has no inherent tense because it describes a state rather than an action and so depends on the context for its location in time; it is frequently used to describe a general state in the past. There is therefore no reason why its converted form, with *wn.ḫr=f*, also tenseless, should not be used to express a general state, which is also necessary, in the past. Bearing this property of the stative in mind, the lack of examples of *wn.ḫr=f + stative* from Middle Egyptian is much more likely to be an accident of preservation than a result of the form being an innovation in the eighteenth dynasty. Both examples are epistemic ones.

169. Autobiography of Rekhmire (Urk. IV: 1075, 4)

di.n=f n=i ḳnbt r ḫt=i
nn wˁ im ksm [ḳnb]tyw
wn.ḥr=i wsṯn.kwi *m irt ḫt ḥr [ps]dt*

"He placed the councilmen under my authority
There was no-one therein who disgraced the council
I must have been liberal *in using the stick upon [backs]*

Here the evidence, that the councilmen didn't get out of control, has led to the only possible conclusion; that Rekhmire was free with punishment. This conclusion isn't 100% certain, maybe his inspired leadership brought it about or maybe others might think that he wasn't free enough with the stick but, at the moment of speaking, it is certain that liberal violence was the reason for keeping them under control.

170. Autobiography of Rekhmire (Urk. IV: 1073, 13)

dhn.kwi m ḥm-nṯr m3ˁt
[……………………………]
wn.ḥr ḥswt=i mn.ti *m-ḫr-ib k3w ḥˁ(3)w{ˁ}*

"I had attained the embodiment of truth
[………………………………………………………..]
My praises must have been established *amongst the exalted and the humble"*

Based on the reaction of the people at his investiture, Rekhmire makes the only possible conclusion, that his praises were felt by all. Were he able to read minds he could say for sure but, as he can't, there is the very slight possibility that somebody wasn't as impressed as he thought.

A.1.5 *sḏm.ḥr=f* IN CAPTIONS

Another usage of the *sḏm.ḥr=f* not found in Middle Egyptian is in descriptions accompanying illustrations. However, the lack of examples in Middle Egyptian is highly likely to be because there are no extant captions of comparable length or complexity to those of the eighteenth dynasty, if there ever were any. As is the case in all captions accompanying scenes the text has no inherent time value because the action described has to be happening at whatever point the text is read, whether in the past, present or future, and has to be valid as many times as looked at; absolute tenses, such as *iw sḏm.n=f*, never appear. In the Middle Kingdom infinitives followed by a noun or pronoun are the norm wherever a verb is needed in these contexts and in *egyptien de tradition* a variety of *sḏm=f* forms and infinitives are used. It is therefore logical that, where an expression of modal obligation is needed, the *sḏm.ḥr=f*, by being generic in nature and not tied to any particular point in time, should be used to provide a counterpart to the tenseless *sḏm=f* forms and infinitives in the descriptions.

The folllowing examples are inevitable reactions to the divinity of Hatshepsut or the reflected divinity of her representatives.

171. Hatshepsut's Coronation (Urk. IV; 205, 17)

ḏd=s n rmṯ sḏmw ḫr.ḫr šfšft im=s ḫpr.ḫr ḥmt=s ꜥꜣ.ti r ḫt nbt

"*When she says to the people "Listen!", **awe cannot help falling** on them and **her majesty cannot help becoming** greater than anything*"

Hatshepsut saying "*Listen!*" has the inevitable effect of overawing the people and seeming greater than anything. The only possible result for the people is that they are awed and she seems greater than anything; no other reaction is possible.

172. Hatshepsut's Coronation (Urk. IV; 246, 14)

*ir sp nb n wḏꜣ ḥmt=s r tꜣ-mḥw m-ḫt it=s nsw bity (ꜥꜣ-ḫpr-kꜣ-rꜥ) ꜥnḫ ḏt **iw.ḫr** mwt=s ḥwt-ḥr ḥryt-tp wꜣst wꜣḏt dp imn nb nsw tꜣwy (list of gods more gods follows)*

"*Every time her majesty proceeds to the (shrine of) Lower Egypt following her father, the king of Upper and Lower Egypt, Aakheperkare, living forever, her mother Hathor, who supervises Thebes, Wadjet of Buto, Amun lord of the thrones of the Two Lands (a list of gods more gods follows) **cannot help coming**"

This is possibly a deontic usage and it is the gods' duty to come but this would not have the rhetorical force of the gods being compelled to come by the power of Hatshepsut.

173. The coming of the chiefs of Punt (Urk. IV; 324, 6)[345]

"*Coming by the great ones of Punt, bowing and with lowered heads to receive the royal expedition.*

di=sn iꜣw n nb nṯrw imn-rꜥ pꜣwty tꜣwy hb ḫꜣswt

***ḏd.ḫr=sn** dbḥ=sn ḥtpw pḥ.n=ṯn nn ḥr s(y) išst*

*They give praise to the Lord of the Gods Amun-Re, the primaeval one of the two lands who treads the foreign countries. **They cannot help saying**, while asking for offerings, "Why have you come here? Did you come on the high road? Did you navigate across the water or the land?*

A series of amazed questions, suggesting that the sudden appearance of the Egyptians might be supernatural[346], is the only possible reaction to the appearance of the "*divine*" representatives of the queen.

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[345] Urk. IV: 332,8 and 333, 10 are similar
[346] The request for offerings from them also suggests this.

A.1.6 EPISTEMIC USES OF *sḏm.ḫr=f*[347]

ib.ḫr=k

All the following examples are formed with the verb *ib*, "*Think, believe, consider*" (Wb 1, 60.12-13). This verb is particularly suited for making epistemic judgements by virtue of the impossibility of knowing for sure what somebody else thinks or believes without asking them. In the absence of the possibility of asking what the subject believes, it can only be discerned from their actions. The speaker can therefore never be 100% sure that he has interpreted correctly the subject's actions, hence the use of the epistemic modal; the situation regarding the truth of the proposition may well change when given the opportunity to ask the subject.

174. The Second Beth-Shan stela (Kitchen:1975; 16; 10)

> ….*ist iw=tw r ḏd n ḥm=f ꜥ.w.s. n3 n ꜥ-p-y-rw n p3 ḏw y-rw-m-tw ḥnꜥ ti-y-rw [ꜥḥ]ꜥw thm.w ḥr n3 n ꜥ3mw rw-h-m-ꜥ*
> *ḏd.in [ḥm=f iw=sn] mi m ḥr ib=sn nn ꜥ3mw ḫsy m t3t pḏwt=sn n ḥn m-rꜥ **ib.ḫr=sn** iḫm n=sn [p3] [ḥk3] [kn] mj bik ḥr k3 nḫt pḏ nmtt spd ḫnwty wp ḏnḥ. wj?] mds [ꜥt] [=f] [nb] m bj3 r ḥb[ḥ] p3 t3 n ḏ3[hj] [r-ḏr] [=f]*

> *Meanwhile, someone came to say to his majesty l.p.h. that the Apiru of the mountain of Yaromuth, together with the Tiryu [who were in wait]ing had infiltrated the Aamu of Rohma. Then his majesty said: "What are they thinking, these wretched Aamu, taking up their bows for more trouble-making? **They must think** that the strong ruler who is like the falcon Horus is unaware of them (but) the strong Bull, wide of step and sharp of horns has opened his wings and, all of his limbs cutting with metal, will destroy the entire land of Djahi"*

Here the king answering is own question as to why the Aamu would take such a foolish course of action. The inevitable conclusion he comes to, based on what he knows of the Aamu and the usual reaction to his reputation, is that they think that the king does not know what they have done. At this point, whether this is *actually* true or not is unknown without asking the Aamu or finding some other proof that this is what they think but, having weighed up the evidence there is only one possible answer.

175. Beit el-Wali Temple, (Ricke et al 1967; Plate 8)

> *ḏd.in t3y-sryt ḥr imnt nsw iry-pꜥt s3 nsw n ḫt=f mr=f imn-ḥr-wnm[348]=f*
> ***ib.ḫr ḫ3st**[349] nn wn rdit pt di p3 ḥk3 m3n=n rdi st [.......] rsy*

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[347] See also Exxs. 169 and 170 above

[348] Ricke et al (1967: 11) do not provide a transliteration but translate the name as Amenhiwonemef. *wnm* is written with an *imn* sign here.

[349] Despite devoting a note to *ib.ḫr* without a subject (1967; 11, n. d) and comparing it to *ib.ḫr* in Plate 12 (example 168 here) which does not have a subject, Ricke et al seem to have fairly clearly copied in plate 8, part of an admittedly rather flat, *ḫ3st* sign.

"Said by the standard bearer on the right of the king, the crown prince, the true royal son who he loves, Amenherwenemef:
*"**The foreign land must think** that the sky cannot be given away[350]. May the ruler let us watch when the southern [.......] gives it"*

The translation given here is speculative. Whatever it means it seems to be some sort of witty or inspiring speech with clever word-play on *rdi pt*, the exact import of which eludes us now[351]. This example is very similar in tone to the last one; the prince is speculating as to why the foreign land would be so foolish as to fight pharaoh and, having weighed up the evidence, comes to the only possible conclusion; that they think that (their?) sky cannot be given away therefore they cannot lose it in battle. He cannot be 100% sure because he cannot read their minds but on the basis of what he knows at this point, it is the only possibility.

176. Satirical Letter, Anastasi I 24,8

ib.ḫr=k p3 ḫrwyw n-ḫ3=k t3=k p3 sdd

*"**You must think** that the enemy is behind you (because) you got the shakes"*

Based on the subject's actions, the writer inevitably concludes that he thinks that the enemy is behind him but, without actually asking him or reading his mind, he cannot be 100% certain.

A.1.6.1 COUNTERFACTUAL EXAMPLES

The following two examples are counterfactual, in that they have an epistemic stereotypical conversational background, *ib.ḫr=f* describing the only thing that the subject is expected to believe or what is invariably or normally the case. The proposition is, however, contradicted by reality hence the English translation "*supposed to*".[352]

177. Beit el-Wali Temple (Ricke et al 1967; Plate 12)

The defeat of a foreign chieftain:

ḏd in wr ḫsy m sˁ3 nb t3wy

ib.ḫr=Ø[353] nn wn ky mi bˁyr p3 ḥḳ3 s3=f m3ˁ n ḏt=f

"Said by the wretched chief while extolling the Lord of the Two Lands:

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[350] Literally "*There does not exist the giving of the sky*"
[351] The translation provided by Ricke et al "(*I*) *did believe that there was no limit to the sky*" (1967; 11) seems to have only a passing resemblance to the text in their plates although it is possible that they are reading *rˁyt* "*gate*" (Wb 2, 403.1), instead of *rdit*, and stretching it to mean "*limit*".
[352] For an example with *ḫr* from Middle Egyptian see Exx. 143 from Papyrus Westcar.
[353] There is no subject here, but it is possible that the depiction of the foreign chieftain next to the speech doubles as the subject.

I am supposed to think that there is no other like Ba'al (but) the ruler is his true son of his body"

178. Satirical Letter, Anastasi I 5,5

ib.ḫr=i iw=k r ḫsf st wꜥ.ti ḥr tp=k ist nꜣy=k mw<n>f ḥr ꜥḥꜥ n-ḥꜣ=k

I am supposed to believe that you will answer it alone by yourself, but your helpers are waiting behind you"

A.2 THE SENTENCE ADVERB *ḫr*

In *égyptien de tradition, ḫr* functions exactly like it does in Middle Egyptian; the situation that follows is the only one possible. The majority of examples come from texts relating to the vizier:

179. Installation of the Vizier (Faulkner 1955: 19, 6-8)

This example concerns the impossibility of keeping anything secret while in the office of vizier:

šmi mw ṯꜣw n irwt=f nbt m=k ḫr n ḥm irywt=f is pw ir ir=f nkt […spr(?)]w r sp=f tm=f bs ḫr r n iry-sšm ḫr rḫ=tw ḥr r n wpy=f m ḏd st ntf r-gs iry-sšm m pꜣ ḏd nn wṯs ḫrw pw hb sprw [………………………….] sr r-pw ḫr n ḥm.n.tw iryt=f

"Water and wind report everything he does. Lo! **Inevitably**, there is no-one who is unaware of what he has done. If he takes a bribe [from a [petitioner(?)]] regarding his case and it does not surface on account of the speech of a court-official it will **undoubtedly** be known on account of the speech of his messenger when it was said, he who was at the side of the court-official, the one who said "Nobody will mind[354]", the one who writes to the petitioner [………….] or an official". What he has done is **inevitably** not unknown.

180. Biography of Rekhmire (Urk. IV: 1079, 6)

ḫr [ḥ(?)]m n šsp=i ḥsy n wꜥ

" I **undoubtedly** did not accept a bribe from anybody"

181. Installation of the Vizier (Faulkner 1955: 19, 11)

ḫr ḥꜣw pw ḥr mꜣꜥt

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[354] Lit "*There is no-one who will raise a voice*"

*This is **undoubtedly** taking justice too far*[355]

182. Installation of the Vizier (Faulkner 1955: 19, 13)

ir sr irr mitt n3 ḥr rwd=f ꜥ3 m t3 st

*As for the official who acts like this, he **invariably** flourishes here in this place*

183. Installation of the Vizier (Faulkner 1955: 19, 20)

m=k ḥr dmi n sḫm-ib mr nb sndw r sḫm-ib iḫ ir=k ḫft ḥr dd n=f

*"Lo! Touch(?) is **invariably** associated with[356] coercion[357] and the lord wants respect rather than coercion, so you can act according to the authority given to you."*

Nobody has yet come up with a satisfactory rendering of this passage; the meaning of *dmi* here being the main stumbling-block. The sense suggested in this tentative translation is that co-operation is better produced by respect for the person than by the use of physical force.

184. Duties of the Vizier (Urk. IV: 1109, 3)

This example deals with judges not declaring their interest in a trial:

ir nty nb r [.............................ḫt nbt] sdm.t(y)=f(y) sw ḥr=s tm.t(y)=f(y) dr n=f sdb m sdm=f ḥpr r=s ḥr w3ḥ.t(w) ḥr šfd ḫbnty wnn m ḫnrt wr

*As for anyone who will [..............anything] about which he will be making a judgement, for which he will not remove something detrimental to it when he judges what has happened, an entry is **invariably** made on the register of criminals which is in the main prison.*

185. Thutmosis III Annals, (Urk IV: 690, 5)

ist ir p3 nty nb ḥr mwt m nn wrw ḥr di ḥm=f šm s3=f r ꜥḥꜥ ḥr st=f

*"Meanwhile, as for anyone who died among these chiefs, his majesty **invariably** caused his son to go and take his place"*

186. Satirical Letter, Anastasi I, 10, 4

ir ptr=k sw m rwh3 m p3 kkw ḥr dd=k 3pd r=f

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[355] Lit: "*This is an excess on top of justice*"

[356] Lit: "*belongs to*"

[357] Lit: "*Directing the mind*"

*"If you were to see him at dusk in the dark you would **undoubtedly** say that he was a bird"*

187. Satirical Letter, Anastasi I, 17,5

This example regards incompetence in calculating rations:

*rmṯ ꜥš3.ti r=k **ḥr** p3 nkt šry r=sn*

*"The men are too numerous for you and, **inevitably**, the meagre rations are not enough[358] for them"*

188. Installation of the Vizier (Faulkner 1955: 19, 4)

*m=k ir irwt [nbt] ś m ẖnw pr nb=f **ḥr=f** nfr*

*Lo! With regard to everything that a man in the palace of his lord does, he is **invariably** good.*

A.3 *ḥr=f sḏm=f*

All the examples, except the first, come from the Duties of the Vizier.

189. Installation of the Vizier (Faulkner 1955: 19, 21)

*ir w3=k ḥr wḥꜥ **ḥr=k** h3b=k r wḥꜥ imy-r idb imy-r 3tw ir wnn wn wḥꜥ.t(y)=f(y) ẖr-ḥꜥt=k **ḥr=k šn=k** sw iẖ ir=k m ddt m ḥr=k*

*If you are far away from the investigation **you have to send** an overseer of land and overseers of bailiffs to investigate. If it is the case that the one who will investigate is there before you, you **have to question** him, so you can do what your authority allows you to.*

190. Duties of the Vizier (Urk. IV 1104, 16)

*ir ḏd ḥry nn sḏm nb r-ꜥ=i **ḥr=tw nḏr.tw=f** in wpwtyw n ṯ3ty*

*"If a man of superior rank says "Only I am to be heard[359]" **he has to be seized** by the vizier's messengers"*

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[358] Lit: "*Small in relation to them*"

[359] Lit. "*There is not any hearing beside me*"

191. Duties of the Vizier (Urk. IV: 1105, 17)

*ʿḥʿ=f r snt mḥtt r mnmn ṯȝty m wbn m pȝ sbȝ n rwty wrty **ḥr imy-r ḫtm iy=f** n=f m ḥs=f*

he (the treasurer) waits at the northern pillar until the vizier proceeds from emerging from the door of the great gatehouse building; the treasurer **has to come** to him when he turns around.

Being followed by an adverbial *sḏm=f* it may be the case that the important thing here is the lack of alternatives; he can *only* come to him when he turns around (See I.9.1.4. n. 118)

192. Duties of the Vizier (Urk. IV: 1106, 6)

ḥr ṯȝty smi=f n imy-r ḫtmt r-ḏd……

the vizier **has to report** to the treasurer, saying…

193. Duties of the Vizier (Urk. IV: 1106, 12)

*ḥr ir m-ḫt smi wʿ n wʿ m pȝ srwy **ḥr ṯȝty hb=f** r wn sbȝ nb n pr-nsw r rdi ʿḳ ʿḳwt nbt*

"Naturally, when the two officials have reported to each other the vizier **has to send** a message to open all the gates of the palace, so all visitors may enter."

This example is interesting because it contains both the particle *ḥr* and a *ḥr=f sḏm=f* form. The particle *ḥr* applies to the whole situation, which is the only one possible for the palace to function; one in which the people can get inside to conduct their business. This is brought about by the vizier opening the gates. Again, it is possible that it is *only* when they have reported that the gates are to be opened (See Exx. 191 above)

194. Duties of the Vizier (Urk. IV: 1107, 5)

*ir ḫpr sk r wʿ m nȝ n srw imy ḫȝ=f **ḥr=f di=f in.tw=f** r ʿryt*

"If an accusation arises against one of the officials who is in his department, **he** [the vizier] **has to cause him to be brought** to the courthouse"

195. Duties of the Vizier (Urk. IV: 1109, 6)

*ir iw sp=sn ky sp **ḥr=tw smi.tw** swȝḏt ntt st ḥr šfd n ḫbnty*

"If their case comes up again, the information on the criminal register **has to be reported**."

196. Duties of the Vizier (Urk. IV: 1109, 12-1110, 1)

*ir sš nb hbw ṯ3ty ḥr=f n ḫ3 nb m nty nn st ḥbs **ḥr** iṯ.t(w) n=f ḥnˁ(y)*[360] *šfdw iryw iry ḥr ḥmt n sḏmw sšw iry m s3=sn **ḥr=f pg3=f** sw ḥr ir m-ḫt m3=f sw **ḥr** šm(t)=f r st=f ḫmt ḥr*

"If any scribe writes to the vizier about him on behalf of any department about something that is not covered[361], what(ever) is with the documents, those who are responsible for it as well as the seal of the judges (involved) are **invariably** seized for him and the scribes relating to it after them. **He has to bring it into the open. Naturally**[362], after he sees it, it **invariably** goes where it should, sealed with the vizier's seal.

197. Duties of the Vizier (Urk. IV: 1111, 9)

*ir sprty nb nty r ḏd mnmn t3š=n **ḥr** m3=t(w) ntt st ḥr ḫtm n sr iry **ḥr=f šd=f** šdwt n t3 ḏ3ḏ3t=s mnmnt st*

As for a petitioner who will say "Our boundaries are being disturbed". It is **invariably** checked that it is being done under the authority of the official who is responsible. **He** [the vizier] **has to confiscate** the *šdt* land of the council that disturbed it.

In the examples above, the use of *ḥr* followed by a *sḏm=f* form is interesting; it is used for procedures done on an institutional level (Exxs. 184, 196 and 197) and always uses the impersonal *sḏm=tw* form (interestingly, never written out fully; always with just a *t*)[363]. All of the examples are also deontic; the rules of bureaucracy dictate what happens. The use of the particle *ḥr*, which describes a situation with no alternatives, may be explained by assuming that the bureaucracy is treated as a non-sentient monolithic entity that always does what is necessary and is incapable of exercising free-will and is therefore incapable of neglecting its obligations; the action described by *ḥr sḏm=f* is therefore presented as an inevitable situation rather than an instruction. On the other hand, the *ḥr=f sḏm=f* forms rely on the vizier to bring them into effect, someone who, in theory at least, may decide that the rule does not have to be obeyed or that the procedure could be done differently. Similarly, in the case of Exx. 195, it is someone's duty to report the malefactor but there is the chance, however small that, for whatever reason, whoever the person may be, he may not do what he is supposed to, hence the *ḥr=f sḏm=f* form. The same applies to the vizier's messengers in Exx. 190.

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[360] As *iṯ* is a transitive verb it requires a noun.

[361] This relates to the previous two examples and probably refers to doing things *"off the books"*.

[362] *ḥr* does not have the falling man determinative and relates to general procedures anyway (See Exx. 151) This is the only situation possible because, were it not to be put it in the records where it belongs, the department would be in the same position as before; having no official record of what had been done.

[363] The nature of these passive examples are discussed by Stauder (2014: 370-1)

ABBREVIATIONS

(Non-standard)

Eb. = Papyrus Ebers

GEG = Gardiner: 2001

L. Gyn = Lahun Gynaecological Papyrus

L. Vet = Lahun Veterinary Papyrus

MMP = Moscow Mathematical Papyrus

PT = Pyramid Texts

Sm. = Papyrus Edwin Smith

TLA = Thesaurus Linguae Aegyptiae (http://aaew.bbaw.de/tla/index.html)

BIBLIOGRAPHY

Allen, J. P.,
-1984, *The Inflection of the Verb in the Pyramid Texts,* Undena Publications, Malibu
-2002, *The Heqanakhte Papyri*, Metropolitan Museum of Art, New York
-2005a, *The Art of Medicine in Ancient Egypt*, Metropolitan Museum of Art, New York
-2005b, *The Ancient Egyptian Pyramid Texts*, Society of Biblical Literature, Atlanta
-2006, *The Egyptian Coffin Texts, Volume 8. Middle Kingdom Copies of Pyramid Texts*, Oriental Institute of the University of Chicago, Chicago
-2010 *Middle Egyptian : an Introduction to the Language and Culture of Hieroglyphs*, 2nd edition, Cambridge University Press, Cambridge
-2011, *The debate between a man and his soul: a masterpiece of ancient Egyptian literature*, Brill, Leiden
-2013 *A New Concordance of the Pyramid Texts* Vols I-VI, Downloaded from https://www.dropbox.com/sh/0xo88uy04urnz0v/AAAEajZ6OGHcn5w5xbw2H2oQa on 7/07/13
- 2014, *Middle Egyptian: an Introduction to the Language and Culture of Hieroglyphs*, 3rd Edition, Cambridge University Press, St. Ives
-2015, *Middle Egyptian literature: eight literary works of the Middle Kingdom*, Cambridge University Press, Cambridge

Alzheimers Society, 2013, Factsheet 417LP, National Health Service, no place of publication

Bardinet, T., 1995, *Les papyrus medicaux de l'Egypte pharaonique : traduction integrale et commentaire*, Fayard, Paris

Barns J., 1956 *Five Ramesseum Papyri*, OUP, Oxford

Blackman, A. M.,
-1931a "A New Translation of the Inscription of Herwerre at Serâbit el-Khâdim" in BIFAO 30, p. 97-101
-1931b, *"*The Stele of Thethi, Brit. Mus. No. 614" in JEA 17, pp. 55-61

Blackman, A. M. and Davies, W. V., 1988, *The story of King Kheops and the magicians*, J. V. Books, Reading

Boorn G. P. F. van den, 1982 *On the date of 'The duties of the Vizier'* in Orientalia 51, pp. 369-381

Borghouts, J. F., 2010, *Egyptian: an Introduction to the Writing and Language of the Middle Kingdom*: Vol I, Peeters, Leiden

Breasted, J. H., 1930, *The Edwin Smith Surgical Papyrus, Vol I,* University of Chicago Press, Chicago

Brose, M., 2014, *Grammatik der dokumentarischen Texte des Mittleren Reiches*, Widmaier, Hamburg

Bybee, J. L., Perkins, R. D. and Pagliuca, W., 1994, *The Evolution of Grammar: Tense, Aspect and Modality in the Languages of the World*, University of Chicago, Chicago

Callender, J. B., 1975, *Middle Egyptian*, Undena Publications, Malibu

Clère, J. J., and Vandier, J., 1948, *Textes de la première periode intermédiare et de la XIème dynastie*, Éd. de la Fondation égyptologique Reine Elisabeth, Bruxelles

Collier, M. A., 2005, "Reading *ir wnn* conditionals in the Heqanakhte documents" in LingAeg 13, pp. 1-29

Collier M. A. and Quirke S.,
-2002, *The UCL Lahun Papyri: Letters*, BAR, Oxford
-2004, *The UCL Lahun Papyri: Religious, Literary, Legal, Mathematical and Medical*, BAR, Oxford
-2016 *The UCL Lahun Papyri: Accounts*, BAR, Oxford

De Buck, A.
-1938, *The Egyptian Coffin Texts II: Texts of Spells 76-163,* University of Chicago Press, Chicago
-1954, *The Egyptian Coffin Texts V: Texts of Spells 355-471*, University of Chicago Press, Chicago
-1956, *The Egyptian Coffin Texts VI: Texts of Spells 472-786,* University of Chicago Press Chicago
-1961, *The Egyptian Coffin Texts VII: Texts of Spells 787-1185*, University of Chicago Press, Chicago

Depuydt, L.,
-1988, "The end of the *ḥr.f sḏm.f* in the Heqanakhte letters" in Revue d'Égyptologie 39, pp. 204-208
-1993, *Conjunction, Contiguity, Contingency : on relationships between events in the Egyptian and Coptic verbal systems*, OUP, New York
-1995, "Condition and Premise in Egyptian" in Revue d'Égyptologie 46, pp. 81-88

Drioton, E. and Lauer, J-P., 1958, "Une groupe de tombes a' Saqqarah: Icheti, Nefer-Khouou-Ptah, Sebek-em-Khent et Ankhi" in ASAE 55 (2)

Edel, E., 1967, *Altägyptische Grammatik*, Pontificium Institutum Biblicum, Rome

Eyre, C. J., 2015, "Review of Andréas Stauder, Linguistic Dating of Middle Egyptian Literary Texts" in LingAeg 22, pp. 321 - 326

Enmarch, R.,
-2005, *The Dialogue of Ipuwer and the Lord of All*, Griffith Institute, Oxford
-2008, *A World Upturned; Commentary on and Analysis of The Dialogue of Ipuwer and the Lord of All*, OUP, New York

Faulkner, R. O.,
-1933, *Papyrus Bremner Rhind (BM 10188)*, Ed. de la Fondation égyptologique Reine Elisabeth, Brussels
-1955, "The Installation of the Vizier" in JEA 41, pp. 18-29
-2015, *The Ancient Egyptian Coffin Texts: Spells 1-1185 & Indexes*, Aris & Phillips, Oxford

Frankfort, H., 1933, *The Cenotaph of Seti I at Abydos: Vol II,* Egypt Exploration Society, London

Gardiner, A. H.,
-1911, *Egyptian hieratic texts. Series l, Literary texts of the New Kingdom*, J.C. Hinrichs, Leipzig
-1935, *Hieratic Papyri in the British Museum*, British Museum, London

-1946, "The Instruction addressed to Kagemni and his brethren" in JEA 32, pp. 71-74

-1957, *Egyptian Grammar, 3rd Edition, Revised*, Griffith Institute, Oxford

Gardiner, A. H, Peet. T. E. and Cerny, J.,
-1952, *The Inscriptions of Sinai: Part I; Introduction and Plates* (2nd Edition), Egypt Exploration Society, London

-1955 *The Inscriptions of Sinai: Part II; Translation and commentary* (2nd Edition), Egypt Exploration Society, London

Gauthier, H., 1926, *Dictionnaire des noms géographiques contenus dans les textes hiéroglyphiques: Tome Troisième*, Société Royale de Géographie d'Egypte, Cairo

Ghalioungui, P., 1987, *The Ebers papyrus. A New English Translation, Commentaries and Glossaries*, Academy of Scientific Research and Technology, Cairo

Goodwin, W. W., 1963, *A Greek Grammar*, Macmillan, London

Grandet, P., 2005, *Le papyrus Harris I: (BM 9999)*, IFAO, Cairo

Grapow, H., 1958, *Grundriss der Medizin der alten ägypter. V, Die medizinischen Texte in hieroglyphischer Umschreibung autographiert*, Akademie-Verlag, Berlin

Green, M., 1987, *The Coptic Share pattern and its ancient Egyptian Ancestors: a Reassessment of the Aorist Pattern in the Egyptian Language*, Aris & Phillips, Warminster

Griffith, F. Ll., 1889, *The Inscriptions of Siût and Dêr Rîfeh*, Trübner & Co, London

Gunn, B., 1924, *Studies in Egyptian Syntax*, P. Geuthner, Paris

Helck, W.,
-1970, *Die Lehre des ḏwꜣ-ḫtjj*, (2 Vols), Harrassowitz, Wiesbaden

-1972, *Der Text des "Nilhymnus*, Harrassowitz, Wiesbaden

-1984, *Die Lehre des Djedefhor und die Lehre eines Vaters an seinen Sohn*, Harrassowitz, Wiesbaden

Heyvaert, L., 2003, *A Cognitive-Functional Approach to Nominalization in English*, Mouton de Gruyter, New York

Hoch J. E.,
-1991, "The teaching of Dua-khety; a New Look at the Satire of the Trades" in SSEA Vol XXI, pp. 88-100

-1994, *Semitic Words in Egyptian Texts of the New Kingdom and Third Intermediate Period*, Princeton University Press, Princeton

Hornung, E., 1997, *Der ägyptische Mythos von der Himmelskuh: eine Ätiologie des Unvollkommenen*, Universitätsverlag/Vandenhoeck Ruprecht, Göttingen

James T. G. H., 1962, *The Heqanakhte Papers and Other Early Middle Kingdom Documents*, Metropolitan Museum of Art, New York

Jequier, G., 1911, *Le Papyrus Prisse et ses variants,* Paul Geuthner, Paris

Jones, D., 1988, *A Glossary of ancient Egyptian nautical titles and terms,* Kegan Paul International, London

Junge, F., 1972, "Zur Funktion des *sḏm.ḫr.f"*, in JEA 58, pp. 133-139

200

Kitchen, K. A.,
-1975, *Ramesside Inscriptions: historical and biographical* Vol I, Blackwell, Oxford
-1981, *Ramesside Inscriptions: historical and biographical* Vol V, Blackwell, Oxford

Kloth, N., 2002, *Die (auto-)biographischen Inschriften des ägyptischen Alten Reiches: Untersuchungen zu Phraseologie und Entwicklung*, Buske, Hamburg

Koch, R., 1990, *Die Erzählung des Sinuhe*, Ed. de la Fondation égyptologique Reine Elisabeth, Brussels

Koschmieder, E., 1945, *Zur Bestimmung der Funktionen grammatischer Kategorien*, Verlag der Wiss, Munich

Kratzer, A., - 1977, "What 'must' and 'can' must and can mean." in Linguistics and Philosophy 1 (3) p. 337-355
- 1981, "The notional category of modality*"* in H.J. Eikmeyer and H. Rieser (eds) *"Words, worlds, and   contexts: New approaches in word semantics"*, Walter de Gruyter, Berlin
- 2012, *Modals and Conditionals: New and Revised Perspectives*, OUP, Oxford

Kripke, S., 1959, "A Completeness Theorem for Modal Logic*"* in Journal of Symbolic Logic, Volume 24, Issue 1 (1959), p. 1-14

Lacau, P., 1949. "Une stèle juridique de Karnak" in Annales du Service des Antiquités de l'Égypte. Supplément. 13.

Lacau, P. and Chevrier, H., 1977, *Une chapelle d'Hatshepsout à Karnak*, IFAO, Cairo

Lalouette, C., 1984, *Textes sacrés et textes profanes de l'ancienne Egypte des pharaons et des hommes*, Gallimard, Mayenne

Lapp, G., 1997, *The Papyrus of Nu (BM EA 10477), Catalogue of Books of the Dead in the British Museum I*, BMP, London

Leibniz G. W., 1951 *Theodicy; essays on the goodness of God, the freedom of man, and the origin of evil,* Routledge and Keegan Paul, London

Lefebvre, G., 1955, *Grammaire de l'Égyptien Classique*, Impr. De 'IFAO, Cairo

Lexa, F., 1922, "L'origine vraisemblable de la forme de l'egyptien ancien *śḏm=f* et des formes qui s'y rattachent" in Philologica; Journal of Comparative Philology 2, p. 25-53

Lichtheim, M., 2006, *Ancient Egyptian Literature; the Old and Middle Kingdoms: Vol I*, University of California Press, London

Loprieno, A., 1995 Ancient Egyptian: a Linguistic Introduction, Cambridge University Press, Cambridge

Lutz, H. F., 1927, *Egyptian tomb steles and offering stones of the Museum of Anthropology and Ethnology of the University of California*, Hinrichs, Leipzig

Malaise, M. and Winand, J. 1999, *Grammaire Raisonnée de l'Egyptien Classique*, Centre Informatique de Philosophie et Lettres, Liège

Meeks, D.,
-1977, *Année lexicographique. 1*, Cybèle, Paris
-1978, *Année lexicographique. 2,* Cybèle, Paris

Miatello, L., 2012, "Papyrus Berlin 6619" in ZÄS 139 (2), pp. 158–170

Moers, G., Widmaier, K., Giewekemeyer, A., Lümers, A. & Ernst, R. (eds.), 2013, *Dating Egyptian literary texts: Göttingen, 9-12 June 2010*, Widmaier, Hamburg

Neveu, F., 2001, *La particule ḫr en néo-égyptien: étude synchronique*, Cybèle, Paris

Nunn, J. F., 1996, *Ancient Egyptian Medicine*, BMP, London

Oréal, E., 2011, *Les particules en égyptien ancien: de l'ancien égyptien à l'égyptien classique,* IFAO, Cairo

Palmer, F., 1986, *Mood and Modality*, Cambridge University Press, Cambridge

Pantalacci, L., 1996, "Un été a serabit el-Khadim" in Göttinger Miszellen 150, p. 87-92

Parkinson, R.,
     -1991, *The Tale of the Eloquent Peasant* Griffith Institute, Oxford
     -1997, *The Tale of Sinuhe and other Ancient Egyptian Poems 1940-1640 BC*, OUP, Oxford
     -2004, *Voices from Ancient Egypt*, BMP, London
     -2012, *The Tale of the Eloquent Peasant: a Reader's Commentary*, Widmaier, Hamburg

Peet, T. E., 1923, *The Rhind mathematical papyrus, British Museum 10057 and 10058. Introduction., transcription, translation and commentary*, University Press of Liverpool, London

Pendlebury, J. D. S., 1951, *The city of Akhenaten. Part III, The central city and the official quarters: the excavations at Tell el-Amarna during the seasons 1926-1927 and 1931-1936*, OUP, London

Polis, S., 2005, "Les formes "contingentes" en égyptien ancien: une catégorisation en question" in C., Cannuyer (Ed.), *La langue dans tous ses états*. Retrieved from http://hdl.handle.net/2268/26063 accessed on 12/09/2012

Portner, P., 2010, *Modality*, OUP, Oxford

Posener G.,
     -1951, *Catalogue des ostraca hieratiques litteraires de Deir el Medina VOL 2 fasc. I*, IFAO, Cairo
     -1957, "Le Conte de Neferkare et du General Sisene (Recherches Litteraires, VI)" in Revue d'Égyptologie 11, pp. 119-137

Posener-Kriéger, P. and J.L. de Cenival, 1968, *Hieratic Papyri in the British Museum, 5th series: The Abu Sir Papyri*, Trustees of the British Museum, London

Quirk, R., Greenbaum, S., Leech, G. and Svartvik, J. 1985 *A Comprehensive Grammar of the English Language*, Longman, London

Quirke, S., 2004, *Egyptian Literature 1800BC; Questions and Readings*, Golden House Publications, London

Ricke, H., Hughes, G.R. and Wente, E., 1967, *The Beit el-Wali temple of Ramesses II*, University of Chicago Press, Chicago

Randall-McIver D., and Mace, A. C., 1902, *El Amrah and Abydos*, Egypt Exploration Fund, London

Reisner, G., 1905, *The Hearst Medical Papyrus; the Hieratic Text*, J.C. Hinrichs, Leipzig

Ritter, T., 1992, "On Particles in Middle Egyptian" in LingAeg 2, pp. 127-137

Sanchez, G. M. and Meltzer, E. S., 2016, *The Edwin Smith Papyrus: updated translation of the trauma treatise and modern medical commentaries*, Lockwood press, Atlanta

Satzinger, H., 2003, **"**Verbal Modality in Egyptian and Elsewhere*"* in Grimal, N., Kamel, A. and Sheikholeslami, C-M. (eds) *Hommages à Fayza Haikal*, IFAO, Cairo

Scharff A., 1924, "Briefe aus Illahun" in ZÄS 59, (1-2), pp. 20–51

Sethe, K.,
    -1903, *Urkunden des alten reiches* J.C. Hinrichs, Leipzig
    -1906-1909 *Urkunden der 18. Dynastie: historisch-biographische Urkunden*, J.C. Hinrichs, Leipzig
    -1983, *Aegyptische Lesestücke*, Georg Olms, Hildesheim

Shubert, S., 2007, *Those who (still) live on earth: A Study of the Ancient Egyptian Appeal to the Living Texts*, Unpublished PhD Dissertation, University of Toronto. Retrieved from https://central.bac-lac.gc.ca/.item?id=NR28051&op=pdf&app=Library on 12/05/2018

Simon-Vandenbergen, A.M. and Aijmer, K., 2007, *The Semantic Field of Modal Certainty: A Corpus-based Study of English Adverbs,* Mouton de Gruyter, New York

Simpson W. K., 1965, *Papyrus Reisner II : accounts of the dockyard workshop at This in the reign of Sesostris I: transcription and commentary*, Museum of Fine Arts, Boston

Simpson, W. K., Ritner, R. K., Tobin, V. A., and Wente, E. F., 2003, *The Literature of Ancient Egypt: an Anthology of Stories, Instructions, Stelae, Autobiographies, and Poetry*, Yale University Press, London

Smith, H. S., 1976, *Excavations at Buhen. II. The Fortress of Buhen. The Inscriptions*, Egypt Exploration Society, London

Stauder, A.,
    -2013, *Linguistic Dating of Middle Kingdom Literary Texts*, Widmaier, Hamburg
    -2014, *The Earlier Egyptian Passive: Voice and Perspective,* Widmaier, Hamburg

Strudwick, N., 2005, *Texts from the pyramid age*, Society of Biblical Literature, Atlanta

Struve, V. V. and Turajeff, B. A., 1930, *Mathematischer papyrus des Staatlichen museums der schönen künste in Moskau*, Springer, Berlin

Talmy, L., 1988, "Force Dynamics in Language and Cognition*"* in Cognitive Science 12, p. 49-100

Thacker, T. W., 1954, *The Relationship of the Semitic and Egyptian Verbal Systems*, Clarendon Press, Oxford

Uljas, S.,
    2007, *The modal system of earlier Egyptian complement clauses : a study in pragmatics in a dead language*, Brill, Leiden
    2015, "The Results are Unclear: A Note on Clauses of Result in Earlier Egyptian" in *Fuzzy Boundaries: Festschrift für Antonio Loprieno*, H. Amstutz, A. Dorn, M. Müller, M. Ronsdorf, S. Uljas (Eds), Widmaier, Hamburg

Vandier, J., 1950, *Mo'alla: la tombe d'Ankhtifi et la tombe de Sébekhotep*, IFAO, Cairo

Vernus, P., 1990, *Future at Issue: Tense, Mood and Aspect in Middle Egyptian*, Yale Egyptological Seminar, New Haven

Von Lieven, A., 2016, *"*The Movement of Time, News from the "Clockmaker" Amenemhat" in Landgráfová, R. and Jana Mynářová (eds) *Rich and Great: Studies in honour of Anthony J. Spalinger on the Occasion of his 70th Feast of Thoth*, Charles University Faculty of Arts, Prague

Walker, J. H., 1996, *Studies in ancient Egyptian anatomical terminology*, Aris & Phillips, Warminster

Wente, E., 1990, *Letters from Ancient Egypt*, Society of Biblical Literature, Atlanta

Westendorf, W. 1962, *Grammatik der medizinischen Texte*, Akademie-Verlag, Berlin

Winand, J. 2006, "Temps et aspect en Egyptien : une approche sémantique", Brill, Boston

Zaba, Z., 1956, *Les Maximes de Ptaḥḥotep*, Éditions de l'Académie Tchécoslovaque des Sciences, Prague

ONLINE RESOURCES

Thesaurus Linguae Aegyptiae: http://aaew.bbaw.de/tla/index.html
Medizinischze Schriften der Alten Ägypter: http://www.medizinische-papyri.de/PapyrusEbers/html/index.htmlJSesh Hieroglyphic Editor:
https://jsesh.qenherkhopeshef.org

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   	Citations containing *ḫr + sḏm=f*
   	Citations containing *sḏm.ḫr=f*
   	Citations containing *ḫr + constructions other than sḏm=f*
	Citations not containing *ḫr*

Abydene Stela of Neferhotep (Randall-McIver and Mace: 1902)

Pl. 29	II.4; II.8	*ḫr=f sḏm=f*

Ankhtifi (Vandier: 1950)

I, α. 2	*Exx. 130*	*ḫr + sḏm=f*

Autobiography of Amenemhat "The Clockmaker" (Von Lieven 2016)

p. 244	*Exx. 163*	*sḏm.ḫr=f*

Autobiography of Tjetji (BM 614) (Blackman: 1931b)

Pl. VIII; Line 9	I.14, n. 203

Beit el-Wali Temple (Ricke et al 1967)

Plate 8	*Exx. 175*	*sḏm.ḫr=f*
Plate 12	*Exx. 177*	*sḏm.ḫr=f*

Berlin Letter P10073 (Scharff: 1924 (pl. 8))

Line 5	*Exx. 96*; II.8	*ḫr=f sḏm=f*

Berlin Mathematical Papyrus (Miatello: 2012)

	Problem:	
1 (x7)	I.92; 1.5.5.1	*sḏm.ḫr=f*
4 (x2)	I.92; 1.5.5.1	*sḏm.ḫr=f*
6 (x2)	I.92	*sḏm.ḫr=f*
x + 2	I.92	*sḏm.ḫr=f*

Book of Kemit (Posener: 1951)

Pl. 5 (All versions)	*Exx. 147*	*ḫr + adverbial predicate*

Busirite ritual = *non videt*, unpublished, quoted by Vernus (1990: 69) from pers. Comm. from J. Yoyotte

Coffin Texts (De Buck: 1938-1961)

Spell Number:		
8 (I 26a)	*Exx. 144.5*	*ḫr + nominal predicate*
160 (II 379b)	*Exx. 17*	*sḏm.ḫr=f*
- (II 379b)	*Exx. 80*	*sḏm.ḫr=f*
- (II 379b)	*Exx. 81*	*sḏm.ḫr=f*
343 (IV 359c)	*Exx. 132*; I.9.3, n. 134	*sḏm.ḫr=f*
373 (V 36c-e) (B2l)	*Exx. 74*; n. 134	*sḏm.ḫr=f*
402 (V 176h)	*Exx. 142*; I.9.3, n. 134	*sḏm.ḫr=f*
404 - (V181 a-b, i) (B5c)	*Exx. 70*	*sḏm.ḫr=f*
- (V181 c-e, i) (B7c) (x2)	*Exx. 71*; I.15; I.9.3, n. 134;	*sḏm.ḫr=f*

-	(V181d) (B5c)	I.9.3, n. 139	*sḏm.ḫr=f*
-	(V181 g-h,i) (M2c) (x3)	*Exx. 72*; I.9.3, n. 134; I.9.3, n. 140	*sḏm.ḫr=f*
-	(V181g) (M2c)	I.9.3, n. 139	*sḏm.ḫr=f*
-	(V 182b) (B5c)	I.9.3, n. 134	*sḏm.ḫr=f*
-	(V 182d)	*Exx. 79*; n.249	*sḏm.ḫr=f*
-	(V 182f)	*Exx. 102*; II.8	*ḫr=f sḏm=f*
-	(V 184a)	I.9.3, n. 134; I.9.3, n. 139	*sḏm.ḫr=f*
-	(V 184c)	I.9.3, n. 134; I.9.3, n. 140	*sḏm.ḫr=f*
-	(V 184f)	I.9.3, n. 134; I.9.3, n. 139	*sḏm.ḫr=f*
-	(V 185b), B5c only	*Exx. 73*; I.9.3, n. 134	*sḏm.ḫr=f*
-	(V 185b)	I.9.3, n. 141	
-	(V 186c)	I.9.3, n. 134; I.9.3, n. 139	*sḏm.ḫr=f*
-	(V 186d)	*Exx. 82*	*sḏm.ḫr=f*
-	(V 186h)	I.9.3, n. 134; I.9.3, n. 140	*sḏm.ḫr=f*
-	(V 187d)	*Exx. 148*	*sḏm.ḫr=f* · *ḫr* + adverbial predicate
-	(V 199g)	I.9.3, n. 134	*sḏm.ḫr=f*
-	(V 200a)	I.9.3, n. 134	*sḏm.ḫr=f*
-	(V 200b)	*Exx. 5*	*sḏm.ḫr=f*
-	(V 202j)	I.10, n. 157	*sḏm.ḫr=f*
405	(V 203a)	I.9.3, n. 140	*sḏm.ḫr=f*
-	(V 203f)	I.10, n. 157	*sḏm.ḫr=f*
-	(V 203k)	I.10, n. 157	*sḏm.ḫr=f*
-	(V 204a)	I.9.3, n. 140	*sḏm.ḫr=f*
-	(V 207a)	I.10, n. 157	*sḏm.ḫr=f*
-	(V 207d)	I.9.3, n. 140	*sḏm.ḫr=f*
-	(V 207f)	I.10, n. 157	*sḏm.ḫr=f*
-	(V 207j)	I.10, n. 157	*sḏm.ḫr=f*
-	(V 208d)	*Exx. 76*	*sḏm.ḫr=f*
-	(V 208e)	I.9.3, n. 140	*sḏm.ḫr=f*
-	(V 209a)	I.10 (Exx. 82)	*sḏm.ḫr=f*
-	(V 209e)	I.10 (Exx. 82)	*sḏm.ḫr=f*
-	(V 209g-j) (x4)	*Exx. 92*; I.9.3, n. 134	*sḏm.ḫr=f*
-	(V 209k)	I.10 (Exx. 82)	*sḏm.ḫr=f*
-	(V 209o)	I.10 (Exx. 82)	*sḏm.ḫr=f*
-	(V 210b)	(Exx. 92)	*sḏm.ḫr=f*
-	(V 210f)	I.9.3, n. 140	*sḏm.ḫr=f*
469 (387h)		*Exx. 75*	*sḏm.ḫr=f*
554 (VI 153j)		*Exx. 21*	*sḏm.ḫr=f*
650 - (VI 272i)		I.10, n. 158	*sḏm.ḫr=f*
-	(VI 272k)	I.10, n. 158	*sḏm.ḫr=f*
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818 - (VII 17t)		*Exx. 18*	*sḏm.ḫr=f*
-	(VI 18b)	I.10 (Exx. 82)	*sḏm.ḫr=f*
829 (VII 30k)		Exx. 45; I.10 (Exx. 82)	*sḏm.ḫr=f*
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1134 (VII 476g)		*Exx. 46*	*sḏm.ḫr=f*
1165 (VII 508c)		I.9.3, n. 134; I.9.3, n. 141	*sḏm.ḫr=f*

Contracts of Hapydjefa (Griffith: 1889)

Plate 7, Col. 297	II.2, n. 227

First Intermediate Period Stela from Deir el-Ballas (Lutz: 1927)

Pl. 34, line 3	*Exx. 153*	

Florence Stela 2540 (Smith: 1976)

Plate LXIX, 1	I.14, n. 203	

Hatshepsut's Chapel at Karnak (Lacau and Chevrier: 1977)

p. 99	*Exx. 167*	*sḏm.ḫr=f*
p. 126	*Exx. 164*	*sḏm.ḫr=f*
p. 141	*Exx. 168*	*sḏm.ḫr=f*

Himmelskuh (Hornung: 1997)

29	I.15

Heqanakhte letters (Allen: 2002)

Letter I Rt 8-9 (Pl. 26)	*Exx. 98*; II.11.1	*ḫr=f sḏm=f*
Letter I, Vo 2 (Pl. 28)	*Exx. 137*	*ḫr + adjectival predicate*
Letter II, Rt 35-36 (Pl. 30)	*Exx. 97*; II.11	*ḫr=f sḏm=f*
Letter II, Vo. 40 (Pl. 30)	*Exx. 93*; II.11	*ḫr=f sḏm=f*

Horus and Seth (Collier and Quirke: 2004; 21)

UC32158

Col. 2, line 5	*Exx. 107*; II.7.1.3	*ḫr=f sḏm=f*
Col. 2, line 7	*Exx. 108*; II.7.1.3	*sḏm.ḫr=f*

Hymn to the Nile (Helck: 1972)

Section

IId GoI	*Exx. 122; Exx. 140*	*ḫr + sḏm=f*	*ḫr + stative*
IIe	*Exx. 141*	*ḫr + stative*	
IIIc (x2)	*Exx. 145*	*ḫr + adverbial predicate*	
IXb Sallier II	*Exx. 123*	*ḫr + sḏm=f*	
IXd Sallier II	III.4.2, n. 303		
XIIa DeM 1176	*Exx. 124*	*ḫr + sḏm=f*	

Installation of the Vizier (Faulkner 1955)

19, 4	*Exx. 188*	*ḫr + stative (?)*
19, 6-8	*Exx. 179*	*ḫr + negative nominal predicate*
19, 11	*Exx. 181*	*ḫr + noun + pw*
19, 13	*Exx. 182*	*ḫr + sḏm=f*
19, 20	*Exx. 183*	*ḫr + adverbial predicate*
19, 21	*Exx. 189*	*ḫr=f sḏm=f*

Ipuwer (Enmarch: 2005)

3.12-13	*Exx. 131*	*ḫr + sḏm=f*
4.7	*Exx. 109*; II.9	*ḫr=f sḏm=f*
12.14	*Exx. 152*	*ḫr + kꜣ sḏm=f*

Kagemni (Jequier: 1911)

Plate I, line 11	*Exx. 146*	*ḫr + adverbial predicate*

Karnak Juridical Stela (Lacau: 1949)

25-6	II.4	*ḫr=f sḏm=f*

Lahun Gynaecological Papyrus (Collier and Quirke: 2004; fold-out in back inside cover)

UC32057
Case No.:

1	I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
2	*Exx. 47*; I.9.1.1; I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
3	I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
4	I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
5	I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
6	I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
7	I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
8	I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
9	I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
10	I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
11	I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
12	I.9.1.1; I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
13	I.9.1.5; I.9.1.4, n. 110; I.9.1.5, n. 123	*sḏm.ḫr=f*
14	I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
15	I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
16	I.9.1.5; I.9.1.4, n. 110	*sḏm.ḫr=f*
17	I.9.1.5; I.9.1.4, n. 110; I.9.1.5, n. 123	*sḏm.ḫr=f*
18	*Exx. 48*	*sḏm.ḫr=f*
19	*Exx. 49*	*sḏm.ḫr=f*
20	*Exx. 126*; III.3; III.11	*sḏm.ḫr=f*
25	I.9.1.5, n. 123	*sḏm.ḫr=f*
26 (x3)	I.9.1.4, n. 110; I.9.1.5, n. 123	*sḏm.ḫr=f*
27	I.9.1.5, n. 123	*sḏm.ḫr=f*
28	I.9.1.4, n. 110; I.9.1.5, n. 123	*sḏm.ḫr=f*
34	*Exx. 126*	*ḫr + sḏm=f*

Lahun Letter UC32202 (Collier and Quirke: 2002; 110)

Fragment ii, 3	*Exx. 99*; II.11.1	*ḫr=f sḏm=f*

Lahun Letter UC32113B (Collier and Quirke: 2002; 26)

Rt. 2-4	*Exx. 100*; II.8	*ḫr=f sḏm=f*

Lahun Letter UC 32190A (Collier and Quirke 2016; 9)

UC 32190A rto. Col. 3	II.2, n. 227

Lahun Mathematical Fragments (Collier and Quirke: 2004; 75-83)

UC32124A
Col I, line:

2	I.9.2, n. 127	$s\underline{d}m.\underline{h}r=f$
3	I.9.2, n. 127	$s\underline{d}m.\underline{h}r=f$
5	I.9.2, n. 127	$s\underline{d}m.\underline{h}r=f$

UC32162
Col. II, line:

4	I.9.2, n. 127	$s\underline{d}m.\underline{h}r=f$
5	I.9.2, n. 127	$s\underline{d}m.\underline{h}r=f$
7	I.9.2, n. 127	$s\underline{d}m.\underline{h}r=f$
8	I.9.2, n. 127e	$s\underline{d}m.\underline{h}r=f$
10 (x2)	I.9.2, n. 127	$s\underline{d}m.\underline{h}r=f$

Col. III, line:

9	I.9.2, n. 127	$s\underline{d}m.\underline{h}r=f$
10	I.9.2, n. 127	$s\underline{d}m.\underline{h}r=f$

UC 32118B

Line: x + 3	I.9.2, n. 127	$s\underline{d}m.\underline{h}r=f$
x + 4	I.9.2, n. 127	$s\underline{d}m.\underline{h}r=f$

Lahun Poem UC32117C (Collier and Quirke: 2004; 41)

Vso Col. 2	I.13	$s\underline{d}m.\underline{h}r=f$

Lahun Veterinary Papyrus (Collier and Quirke: 2004; 54-57)

UC32036
Col. No.

5	Exx. 7	$s\underline{d}m.\underline{h}r=f$
8	Exx. 44	$s\underline{d}m.\underline{h}r=f$
22a	Exx. 25	$s\underline{d}m.\underline{h}r=f$
22b	*Exx. 28; Exx. 91*	$s\underline{d}m.\underline{h}r=f$
23	*Exx. 29*	$s\underline{d}m.\underline{h}r=f$
26	I.9.1.5, n.123; I.9.1.5, n. 123	$s\underline{d}m.\underline{h}r=f$
28a	(Exx. 29)	
28b	I.1.9.4 n. 110	$s\underline{d}m.\underline{h}r=f$
39	I.9.1.5, n. 123; I.9.1.5, n. 123	$s\underline{d}m.\underline{h}r=f$

Letter BM 10549 (James: 1962; Pl. 24A)

XVI Rt. Col. 6	*Exx. 94*: II.11.1	$\underline{h}r=f\ s\underline{d}m=f$

Moscow Mathematical Papyrus (Struve and Turajeff: 1930)

Column

Problem 1

I, 3	I.5.5.1, n. 56	*sḏm.ḫr=f*

Problem 5

VI 5	I.5.5.1, n. 56	*sḏm.ḫr=f*
VI 6	I.9.2, n. 127	*sḏm.ḫr=f*
VI 7	I.5.5.1, n. 56	*sḏm.ḫr=f*
VII 1	I.9.2, n. 127	*sḏm.ḫr=f*
VII, 2	I.5.5.1, n. 56	*sḏm.ḫr=f*
VII 3	I.9.2, n. 127	*sḏm.ḫr=f*
VII 5	I.5.5.1, n. 56	*sḏm.ḫr=f*

Problem 6

VIII 3	*Exx. 69*	*sḏm.ḫr=f*
VIII 4	*Exx. 69*	*sḏm.ḫr=f*
VIII 5	*Exx. 69*	*sḏm.ḫr=f*

Problem 7

IX 3 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
IX 4(x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
IX 5	I.5.5.1, n. 56	*sḏm.ḫr=f*

Problem 8

X 5	I.9.2, n. 127	*sḏm.ḫr=f*	
X 6	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*	
X 7	I.5.5.1, n. 56	*sḏm.ḫr=f*	
XI 1 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*	
XI, 3 (x2)	*Exx. 111*; I.5.5.1, n. 56	*sḏm.ḫr=f*	*ḫr=f sḏm=f*

Problem 9

XIII 1	I.9.2, n. 127	*sḏm.ḫr=f*
XIII 2 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*
XIII 3	I.5.5.1, n. 56	*sḏm.ḫr=f*
XIII 4	I.9.2; (Exx. 4)	*sḏm.ḫr=f*
XV 1 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*
XV 2 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*
XV 3 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*
XV 4 (x2)	I.9.2; I.5.5.1, n. 56	*sḏm.ḫr=f*
XV 5	I.9.2, n. 127	*sḏm.ḫr=f*
XVI 3	I.5.5.1, n. 56	*sḏm.ḫr=f*
XVI 4	I.9.2, n. 127	*sḏm.ḫr=f*
XVII 2	I.5.5.1, n. 56; 192	*sḏm.ḫr=f*
XVII, 4	*Exx. 112*; II.7.1.2; (Exx. 4)	*ḫr=f sḏm=f*

Problem 10

XVIII 4	I.9.2, n. 127	*sḏm.ḫr=f*
XVIII 6	I.5.5.1, n. 56	*sḏm.ḫr=f*
XIX 1	I.9.2, n. 127	*sḏm.ḫr=f*
XIX 2	I.9.2, n. 127	*sḏm.ḫr=f*
XIX 3 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
XIX 3-4	I.9.2, n. 127	*sḏm.ḫr=f*
XIX 5	I.5.5.1, n. 56	*sḏm.ḫr=f*
XX 1	I.9.2, n. 127	*sḏm.ḫr=f*
XX 2	I.5.5.1, n. 56	*sḏm.ḫr=f*

Problem 11

XXI 5 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḥr=f*
XXI 6 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḥr=f*
XXII 1	I.9.2, n. 127	*sḏm.ḥr=f*
XXII 2 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḥr=f*
XXII 3	I.9.2, n. 127	*sḏm.ḥr=f*

Problem 12

XXIII 6	I.9.2, n. 127	*sḏm.ḥr=f*
XXIV 1	I.9.2, n. 127	*sḏm.ḥr=f*
XXIII 8	I.5.5.1, n. 56	*sḏm.ḥr=f*

Problem 13

XXIV, 1	I.9.2, n. 127	*sḏm.ḥr=f*
XXIV 2	I.5.5.1, n. 56	*sḏm.ḥr=f*
XXV 2	I.9.2, n. 127	*sḏm.ḥr=f*
XXV 3 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḥr=f*
XXV 4 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḥr=f*
XXV 6	I.5.5.1, n. 56	*sḏm.ḥr=f*
XXV 6	I.5.5.1, n. 56	*sḏm.ḥr=f*
XXVI 2 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḥr=f*
XXVI 2	I.5.5.1, n. 56	*sḏm.ḥr=f*
XXVI 3	I.5.5.1, n. 56; I.9.2	*sḏm.ḥr=f*
XXVI, 3	*Exx. 4*	*sḏm.ḥr=f*

Problem 14

XXVII 4 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḥr=f*
XXVII 5 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḥr=f*
XXVII 6 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḥr=f*
XXVIII 3 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḥr=f*
XXVIII 4 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḥr=f*
XXVIII 5 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḥr=f*

Problem 15

XXX 5	I.9.2, n. 127	*sḏm.ḥr=f*
XXX 6	I.5.5.1, n. 56	*sḏm.ḥr=f*

Problem 16

XXXI 4	I.9.2, n. 127	*sḏm.ḥr=f*
XXXI 6 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḥr=f*
XXXI 7 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḥr=f*
XXXII 1	I.5.5.1, n. 56	*sḏm.ḥr=f*
XXXII 2	I.5.5.1, n. 56	*sḏm.ḥr=f*
XXXII 3	*Exx. 113*	*ḥr=f sḏm=f*

Problem 17

XXXIII 4	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḥr=f*
XXXIII 5 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḥr=f*
XXXIII 6 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḥr=f*
XXXIV 1 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḥr=f*
XXXIV 2	I.5.5.1, n. 56	*sḏm.ḥr=f*

Problem 18

XXXV 3	I.9.2, n. 127	*sḏm.ḥr=f*
XXXV 4	I.5.5.1, n. 56	*sḏm.ḥr=f*
XXXV 5 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḥr=f*

Problem 19

XXXVI 3 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
XXXVI 4 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
XXXVI 5	I.5.5.1, n. 56	*sḏm.ḫr=f*

Problem 20

XXXVII 3	I.9.2, n. 127	*sḏm.ḫr=f*
XXXVII 4 (x3)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*
XXXVII 5 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*

Problem 21

XXXVIII 3	I.9.2, n. 127	*sḏm.ḫr=f*
XXXVIII 4 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*
XXXVIII 5 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*
XXXVIII 6	I.9.2, n. 127	*sḏm.ḫr=f*
XXXIX 1 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*
XXXIX 1	I.5.5.1, n. 56	*sḏm.ḫr=f*

Problem 22

XL 6	I.9.2, n. 127	*sḏm.ḫr=f*
XL 7 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*
XLI 1 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*
XLI 2 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*

Problem 23

XLII 5	I.9.2, n. 127	*sḏm.ḫr=f*
XLII 6 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*
XLII 7	I.9.2, n. 127	*sḏm.ḫr=f*

Problem 24

XLIII 4	I.9.2, n. 127	*sḏm.ḫr=f*
XLIII 5 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*
XLIII 6 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*
XLIII 7 (x3)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*
XLIV 2 (x2)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*

Problem 25

XLV 2	I.9.2, n. 127	*sḏm.ḫr=f*
XLV 3 (x3)	I.9.2, n. 127; I.5.5.1, n. 56	*sḏm.ḫr=f*

Neferkare and General Sasenet (Posener: 1957; 129)

Papyrus Chassinat I, line x +9	*Exx. 158*

Papyrus Bremner-Rhind (Faulkner 1933)

7,9	I.14, n. 188
7, 21	I.14, n. 188
26, 13	I.11, n. 172
72, 10	I.11, n. 198

Papyrus Chester Beatty V = Gardiner: 1935

Vso. 6,5; 6,7 and 6,9	II.5 (Exx. 101)

Papyrus Ebers (Grapow: 1958)

Section number

§	1	I.9.1, n. 99		
§	128	II.2, n. 224; II.5, n. 257: II.7.1.1	*ḫr=f sḏm=f*	
§	215	II.2, n. 224	*ḫr=f sḏm=f*	
§	188 (x4)	*Exx. 53*; I.9.1.4 n. 110, 119; I.9.1.5 n. 122	*sḏm.ḫr=f*	
§	189 (x6)	*Exx. 50; Exx. 60*; I.9.1.4 n. 110; I.9.1.5 n. 122; I.9.1.5, n. 123	*sḏm.ḫr=f*	
§	190 (x3)	*Exx. 61*; I.9.1.4 n. 110; I.9.1.5 n. 122	*sḏm.ḫr=f*	
§	191 (x3)	I.9.1.4 n. 119, 122; I.9.1.5, n. 123	*sḏm.ḫr=f*	
§	193 (x3)	*Exx. 51*; I.9.1.4 n. 110; I.9.1.5 n. 122	*sḏm.ḫr=f*	
§	194 (x3)	*Exx. 59*; I.9.1.4 n. 110; I.9.1.5, n. 123	*sḏm.ḫr=f*	
§	196	I.9.1.5 n. 122	*sḏm.ḫr=f*	
§	197	I.9.1.5 n. 122	*sḏm.ḫr=f*	
§	198 (x2)	I.9.1.5 n. 122	*sḏm.ḫr=f*	
§	199	I.9.1.5 n. 122	*sḏm.ḫr=f*	
§	200	I.9.1.5 n. 122	*sḏm.ḫr=f*	
§	201	I.9.1.5 n. 122	*sḏm.ḫr=f*	
§	202	I.9.1.5 n. 122	*sḏm.ḫr=f*	
§	203 (x3)	I.9.1.5 n. 122	*sḏm.ḫr=f*	
§	204 (x3)	I.9.1.5 n. 122; I.9.1.5, n. 123	*sḏm.ḫr=f*	
§	207 (x6)	I.9.1.4 n. 110, 119, 122	*sḏm.ḫr=f*	
§	215	*Exx. 103*; II.7.1.1	*ḫr=f sḏm=f*	
§	251	*Exx. 12*	*sḏm.ḫr=f*	
§	252	*Exx. 105*; II.7.1.1	*ḫr=f sḏm=f*	
§	294	*Exx. 24*	*sḏm.ḫr=f*	
§	295	I.9.1.5, n. 123	*sḏm.ḫr=f*	
§	296 (x3)	*Exx. 14*; 19; 62	*sḏm.ḫr=f*	
§	307 (x3)	I.9.1.5, n. 123	*sḏm.ḫr=f*	
§	308	*Exx. 22*; I.9.1.5	*sḏm.ḫr=f*	
§	312	1.9.1.5; I.9.1.5, n. 123	*sḏm.ḫr=f*	
§	313	*Exx. 63*	*sḏm.ḫr=f*	
§	314	1.9.1.5	*sḏm.ḫr=f*	
§	325 (x4)	*Exx. 64*; I.9.1.5, n. 123; I.9.1.5	*sḏm.ḫr=f*	
§	356	*Exx. 65*	*sḏm.ḫr=f*	
§	368 (x2)	II.5, n. 257; II.7.1.1	*ḫr=f sḏm=f*	
§	448	I.9.1.5, n. 123	*sḏm.ḫr=f*	
§	501	I.9.1.4 n. 122	*sḏm.ḫr=f*	
§	522	*Exx. 101*; I.9.1.5 n. 122; II.7.1.1	*sḏm.ḫr=f*	*ḫr=f sḏm=f*
§	565	I.9.1.5 n. 122	*sḏm.ḫr=f*	
§	571 (x2)	23; I.9.1.5, n. 123	*sḏm.ḫr=f*	
§	589	*Exx. 13*	*sḏm.ḫr=f*	
§	617 (x2)	I.9.1.4 n. 110, 114	*sḏm.ḫr=f*	

§	712	*Exx. 104*; II.7.1.1	*ḫr=f sḏm=f*
§	717	II.5, n. 257; II.7.1.1	*ḫr=f sḏm=f*
§	733	I.9.1.5	*sḏm.ḫr=f*
§	756	*Exx. 11*	*sḏm.ḫr=f*
§	786 (x2)	I.9.1.5, n. 123	*sḏm.ḫr=f*
§	788	*Exx. 56*	*sḏm.ḫr=f*
§	789	I.9.1.5, n. 123	*sḏm.ḫr=f*
§	794	I.9.1.5, n. 123	*sḏm.ḫr=f*
§	831 (x3)	I.9.1.4 n. 110, 115; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	832 (x3)	I.9.1.4 n. 110, 115; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	833 (x4)	I.9.1.4 n. 110, 115; I.9.1.5 n. 122; I.9.1.5, n. 123	*sḏm.ḫr=f*
§	848	*Exx. 66*	*sḏm.ḫr=f*
§	854e	*Exx. 90*	*sḏm.ḫr=f*
§	855k	*Exx. 84*	*sḏm.ḫr=f*
§	855l (x2)	*Exx. 15; Exx. 85*	*sḏm.ḫr=f*
§	855n (x2)	*Exx. 16; Exx. 86*	*sḏm.ḫr=f*
§	855u	I.14	
§	855q	*Exx. 87*	*sḏm.ḫr=f*
§	856d	I.9.1.4 n. 110	*sḏm.ḫr=f*
§	856e	I.9.1.4 n. 110	*sḏm.ḫr=f*
§	857	I.9.1.4 n. 113; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	858	I.9.1.4 n. 113; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	859	I.9.1.4 n. 113; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	860	I.9.1.4 n. 113; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	861	I.9.1.4 n. 113; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	862	I.9.1.4 n. 113; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	864 (x3)	*Exx. 52*; I.9.1.4 n. 113; I.9.1.5, n. 123; 1.9.1.5; n. 108	*sḏm.ḫr=f*
§	867 (x2)	I.9.1.4 n. 113; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	868 (x2)	I.9.1.4 n. 113; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	869	I.9.1.4 n. 113	*sḏm.ḫr=f*
§	870	I.9.1.4 n. 113	*sḏm.ḫr=f*
§	871	I.9.1.4 n. 113	*sḏm.ḫr=f*
§	872 (x2)	I.9.1.4 n. 113; I.9.1.5 n. 122; 1.9.1.5	*sḏm.ḫr=f*
§	873 (x2)	I.9.1.4 n. 113; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	874 (x2)	I.9.1.4 n. 113; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	875 (x2)	I.9.1.4 n. 113; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	876 (x2)	I.9.1.4 n. 113; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	877 (x2)	I.9.1.4 n. 113; I.9.1.5 n. 122	*sḏm.ḫr=f*
§	876b	I.9.1.4 n. 110	*sḏm.ḫr=f*

Papyrus Edwin Smith (Breasted: 1930)

Case 1

I + x (Breasted's restoration 1930: 89)	I.9.1.5, n. 124	*sḏm.ḫr=f*
I, 2	I.9.1.5, n. 125	*sḏm.ḫr=f*

Case 2

I, 13 (x2)	I.9.1.5, n. 124; I.9.1.2, n. 107	*sḏm.ḫr=f*
I, 14	I.9.1.5, n. 125	*sḏm.ḫr=f*
I, 15	I.9.1.5, n. 124	*sḏm.ḫr=f*
I, 13	I.9.1.2, n. 107	*ḫr sḏm=f*

Case 3

I, 22	I.9.1.5, n. 124	*sḏm.ḫr=f*

Case 3, (Gloss C)

I, 26	*Exx. 88*	*sḏm.ḫr=f*

Case 4

II, 3	I.9.1.2, n. 107	*sḏm.ḫr=f*
II, 8	I.9.1.5, n. 123	*sḏm.ḫr=f*

Case 5

II, 12	I.9.1.2, n. 107	*sḏm.ḫr=f*

Case 6

II, 19	I.9.1.2, n. 107	*sḏm.ḫr=f*

Case 6, (Gloss A)

II, 22	I.9.1.5	*sḏm.ḫr=f*
II, 24	*Exx. 89*	*sḏm.ḫr=f*

Case 7

III, 2	I.9.1.2, n. 107	*sḏm.ḫr=f*
III, 7 (x2)	I.9.1.5, n. 123; *Exx. 16.5*	*sḏm.ḫr=f*
III, 8	I.9.1.5, n. 125	*sḏm.ḫr=f*
III, 14 (x2)	I.9.1.5, n. 123	*sḏm.ḫr=f*

Case 8

IV, 5-6	I.9.1.2, n. 107	*sḏm.ḫr=f*

Case 9

IV, 20 (x2)	I.9.1.5 n. 122	*sḏm.ḫr=f*
IV 21	I.9.1.5, n. 123	*sḏm.ḫr=f*
V, 1	I.9.1.5	*sḏm.ḫr=f*
V, 4	I.9.1.5	*sḏm.ḫr=f*

Case 10

V, 6 (x2)	1.9.1.5; n. 107	*sḏm.ḫr=f*
V 14, 8 (Breasted's restoration 1930: 231)	I.9.1.5, n. 125	*sḏm.ḫr=f*

Case 11

V, 11-12 (x2)	I.9.1.5, n. 124	*sḏm.ḫr=f*
V, 12-13	I.9.1.5, n. 124	*sḏm.ḫr=f*

Case 12, (Gloss B)

V, 18	III.11		
V, 19	I.9.1.5, n. 124	*sḏm.ḫr=f*	
V, 20	I.9.1.5, n. 124	*sḏm.ḫr=f*	
VI,1	*Exx. 129; Exx. 142.5*	*ḫr + sḏm=f*	*ḫr + stative*

Case 13

VI, 4	I.9.1.5, n. 124	*sḏm.ḫr=f*

Case 14

VI, 8	I.9.1.5	*sḏm.ḫr=f*
VI, 9	I.9.1.5 n. 122	*sḏm.ḫr=f*
VI, 10	I.9.1.5	*sḏm.ḫr=f*
VI, 11	I.9.1.5, n. 125	*sḏm.ḫr=f*
VI, 12	I.9.1.5, n. 125	*sḏm.ḫr=f*

Case 15

VI, 16-17	I.9.1.5, n. 125	*sḏm.ḫr=f*

Case 16

VI, 20	I.9.1.5, n. 125	*sḏm.ḫr=f*

Case 17

VI, 5	I.9.1.5, n. 125	*sḏm.ḥr=f*
VII, 1-2	I.9.1.2	*sḏm.ḥr=f*
Case 18		
VII, 8	I.9.1.2, n. 107	*sḏm.ḥr=f*
VII, 10	I.9.1.5, n. 125	*sḏm.ḥr=f*
Case 19		
VII, 15	*Exx. 54*	*sḏm.ḥr=f*
VII, 18	I.9.1.5, n. 124	*sḏm.ḥr=f*
VII, 19	I.9.1.5, n. 125	*sḏm.ḥr=f*
Case 20		
VIII,2	*Exx. 9*	*sḏm.ḥr=f*
Case 21		
VIII, 9	I.9.1.5, n. 124	*sḏm.ḥr=f*
Case 22		
VIII, 10	I.9.1.5, n. 124	*sḏm.ḥr=f*
VIII,11 (x2)	*Exx. 10; Exx. 57.5*	*sḏm.ḥr=f*
Case 23		
VIII, 19	I.9.1.5	*sḏm.ḥr=f*
VIII, 21	I.9.1.5 n. 122	*sḏm.ḥr=f*
Case 24		
VIII, 23	I.9.1.2; I.9.1.5, n. 124	*sḏm.ḥr=f*
Case 25		
IX, 3 (x2)	*Exx. 58*; I.9.1.5, n. 123	*sḏm.ḥr=f*
IX, 5	I.9.1.5, n. 125	*sḏm.ḥr=f*
Case 26		
IX, 7-8	*Exx. 57*; I.9.1.5	*sḏm.ḥr=f*
IX, 10	I.9.1.5, n. 125	*sḏm.ḥr=f*
Case 27		
IX, 14 (x2)	*Exx. 55*; n. 107	*sḏm.ḥr=f*
IX, 16	I.9.1.5, n. 124	*sḏm.ḥr=f*
IX, 17	I.9.1.5, n. 125	*sḏm.ḥr=f*
Case 28		
IX, 19-20	*Exx. 6*; 1.9.1.5	*sḏm.ḥr=f*
X, 1	I.9.1.5, n. 125	*sḏm.ḥr=f*
X, 2	I.9.1.5	*sḏm.ḥr=f*
Case 29		
X, 7	I.9.1.5, n. 125	*sḏm.ḥr=f*
Case 30		
X, 10-11	I.9.1.5, n. 125	*sḏm.ḥr=f*
Case 31		
	n.100	
Case 32		
XI, 2	I.9.1.2	*sḏm.ḥr=f*
XI, 4	I.9.1.5, n. 125	*sḏm.ḥr=f*
XI, 5	I.9.1.5, n. 125; 1.9.1.5	*sḏm.ḥr=f*
Case 33		
	n.100	
Case 35		
XII, 5	I.9.1.5	*sḏm.ḥr=f*
XII, 8	I.9.1.5, n. 125	*sḏm.ḥr=f*
Case 36		
XII, 11	I.9.1.5	*sḏm.ḥr=f*
XII, 13	I.9.1.5, n. 125	*sḏm.ḥr=f*
Case 37		
XII, 17	I.9.1.5, n. 125	*sḏm.ḥr=f*

Case 38			
XIII, 2	I.9.1.5, n. 125	*sḏm.ḫr=f*	
Case 39			
XIII, 6	I.9.1.5	*sḏm.ḫr=f*	
Case 40			
XXXIII, 15	I.9.1.5, n. 125	*sḏm.ḫr=f*	
Case 41			
XIV, 2	I.9.1.5 n. 122	*sḏm.ḫr=f*	
XIV, 4	I.9.1.5 n. 122	*sḏm.ḫr=f*	
XIV, 6	I.9.1.5 n. 122	*sḏm.ḫr=f*	
Case 42			
XIV, 19	I.9.1.5, n. 125	*sḏm.ḫr=f*	
Case 43			
XV, 2	I.9.1.5, n. 125	*sḏm.ḫr=f*	
Case 44			
	n.100		
Case 45			
	n.100		
Case 46			
	n.100		
Case 47			
XVI, 18	I.9.1.2, n. 107	*sḏm.ḫr=f*	
XVI, 20	I.9.1.5	*sḏm.ḫr=f*	
XVII, 2	I.9.1.5, n. 125	*sḏm.ḫr=f*	
Case 48			
XVII, 17 (x2)	*Exx. 8; Exx. 83*	*sḏm.ḫr=f*	
Incantations and Recipes (Verso)			
XX, 14	I.9.1.4 n. 110	*sḏm.ḫr=f*	
XX, 15	I.9.1.5 n. 122	*sḏm.ḫr=f*	
XX, 18	I.9.1.5, n. 123	*sḏm.ḫr=f*	
XXI, 2	I.9.1.5, n. 123	*sḏm.ḫr=f*	
XXI, 9-10	*Exx. 30*	*sḏm.ḫr=f*	
XXI, 10	*Exx. 31*	*sḏm.ḫr=f*	
XXI, 11-12 (x2)	*Exx. 32; Exx. 106; 1.9.1.5; II.7.1.1*	*sḏm.ḫr=f*	*ḫr=f sḏm=f*
XXI, 13	*Exx. 106*	*sḏm.ḫr=f*	*ḫr=f sḏm=f*
XXI, 15	*Exx. 33*; 1.9.1.5	*sḏm.ḫr=f*	
XXI, 16 (x2)	*Exx. 34*; I.9.1.5, n. 123	*sḏm.ḫr=f*	
XXI, 18-19	*Exx. 35*; 1.9.1.5	*sḏm.ḫr=f*	
XXI 19 (x2)	I.9.1.5, n. 123; 36	*sḏm.ḫr=f*	
XXI, 20	I.9.1.5	*sḏm.ḫr=f*	
XXII, 1 (x2)	I.9.1.5, n. 123; 37	*sḏm.ḫr=f*	
XXII, 2	*Exx. 38*; 1.9.1.5	*sḏm.ḫr=f*	
XXII, 2	*Exx. 39*; 1.9.1.5	*sḏm.ḫr=f*	
XXII, 3	I.9.1.5, n. 123; 40	*sḏm.ḫr=f*	
XXII, 7	*Exx. 41*; I.9.1.5, n. 123	*sḏm.ḫr=f*	

Papyrus Harris (Grandet: 2005)

I 34b, 3	III.4.1		

Papyrus Hearst (Reisner: 1905)

Section No:			
25	I.9.1.5	*sḏm.ḫr=f*	

159	I.9.1.5	*sḏm.ḫr=f*

Papyrus of Nu (Lapp: 1997)

Plate 19, 2	*Exx. 89*, n. 179
Plate 28, 7	*Exx. 118*, n. 297
Plate 79, 2	I.14, n. 188

Papyrus Reisner II (Simpson: 1965; Plate 5A)

Line 15	*Exx. 95*; II.7.1.4	*ḫr=f sḏm=f*

Papyrus Rhind (Peet: 1923)

Plate/Problem No.

Plate F

1	I.9.2, n. 127	*sḏm.ḫr=f*
2	I.9.2, n. 127	*sḏm.ḫr=f*
3	I.9.2, n. 127	*sḏm.ḫr=f*
4	*Exx. 3*; I.5.5.1, n. 56	*sḏm.ḫr=f*
5	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*

Plate H

21	*Exx. 127; 148.7*	*ḫr + sḏm=f*	*ḫr* + adverbial predicate
22	*Exx. 128; Exx 148.6*	*ḫr + sḏm=f*	*ḫr* + adverbial predicate
26 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*	

Plate M

40	*Exx.2; Exx.68*; I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
41(x6)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*

Plate N

42(x5)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
43(x6)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
44(x6)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
45 (x4)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
46 (x5)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*

Plate O

50 (x3)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*

Plate P

52(x5)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
55 (x3)	*Exx.150*; I.5.5.1, n. 56; I.9.2, n. 127	*ḫr + sḏm.ḫr=f*

Plate Q

56(x4)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
57(x2)	I.9.2, n. 127	*sḏm.ḫr=f*
58(x4)	I.9.2, n. 127	*sḏm.ḫr=f*
59 (x3)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
59B (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*

Plate R

60	I.5.5.1, n. 56	*sḏm.ḫr=f*
61	I.9.2, n. 127	*sḏm.ḫr=f*
62(x4)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*

63 (x6)	I.9.2, n. 127	*sḏm.ḫr=f*
Plate S		
64 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
65(x4)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
66(x5)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
Plate T		
68 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
69 (x2)	I.9.2, n. 127	*sḏm.ḫr=f*
70 (x2)	I.9.2, n. 127	*sḏm.ḫr=f*
Plate U		
71(x4)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
Plate V		
72(x9)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
73 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
74(x4)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
75 (x2)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*
76	I.9.2, n. 127	*sḏm.ḫr=f*
77 (x3)	I.5.5.1, n. 56; I.9.2, n. 127	*sḏm.ḫr=f*

Papyrus Westcar (Blackman and Davies: 1988)

8, 5-6	*Exx. 156*	
7, 11	*Exx. 157*	
7, 17	*Exx. 143*	*ḫr + nominal predicate*

Prophylactic Statue (Kitchen 1981)

KRI V; 265, 10	I.11, n. 172

Ptahhotep (Zába: 1956)

§D207	I.14, n. 203	
§D218 (British Museum Papyrus no. 10409)	I.14	
§409-10	*Exx. 144*	*ḫr + nominal predicate*
§D532	I.14, n. 193	

Pyramid Texts (Allen: 2013)

Spell 233 (§237b)	1.5.5.1, n. 65	
Spell 400 (§696g)	*Exx. 20*	*sḏm.ḫr=f*
Spell 484 (§1024c)	I.14, n. 203	
Spell 606 (§1695c)	I.14, p.	

Ramesseum Medical Papyrus (Barns: 1956; Plates 10-15)

Plate 10, Col:		
7	I.2, n. 21	*sḏm.ḫr=f*
11	*Exx. 26*	*sḏm.ḫr=f*
Plate 12, Col:		
8	II.5, n. 256	
Plate 14, Col:		

31	*Exx. 42*	*sḏm.ḫr=f*
32	*Exx. 27*: I.9.1.5	*sḏm.ḫr=f*

Ramesseum Wisdom Text (Barns: 1956; Plates 8-9)

II, 219s oi, Line 4 (Pl. 8)	*Exx.125*	*ḫr + sḏm=f*
II, vso ii, Line 4 (Pl. 9)	*Exx. 149*	*ḫr + pseudoverbal construction (subject + r sḏm)*

Satire of the Trades (Helck: 1970)

Section		
Ia-d Sallier II	III.4.1	
VIIId Sallier II	*Exx. 116*	*ḫr + sḏm=f*
Xb Sallier II	*Exx. 117*; III.4.1	*ḫr + sḏm=f*
XIIIc Sallier II	*Exx. 118*	*ḫr + sḏm=f*
XVIIIa	*Exx. 148.5*	*ḫr + adverbial predicate*
XXb Sallier II	*Exx. 110*; II.9	*ḫr=f sḏm=f*
XXIe Sallier II	*Exx. 119*; III.4.1	*ḫr + sḏm=f*
XXIIa Sallier II	*Exx. 120*	*ḫr + sḏm=f*
XXVIa Sallier II	*Exx. 121*	*ḫr + sḏm=f*

Satirical Letter Anastasi I (Gardiner: 1911)

5,5	*Exx. 178*	*sḏm.ḫr=f*
10, 4	*Exx. 186*	*ḫr + sḏm=f*
16, 2	I.14	
17, 5	*Exx. 187*	*ḫr + stative*
19, 9	I.14	
24, 8	*Exx. 176*	*sḏm.ḫr=f*

Second Beth-Shan stela (Kitchen: 1975)

KRI I, 16; 10	*Exx. 174*	*sḏm.ḫr=f*

Seti I shadow clock (Frankfort 1934: pl. LXXXI)

Col. 9	*Exx.162*	*sḏm.ḫr=f*
Col. 10 (x3)	*Exx.162*	*sḏm.ḫr=f*
Col.11	*Exx.162*	*sḏm.ḫr=f*
Col. 12	*Exx.162*	*sḏm.ḫr=f*

Sinuhe (Koch: 1990)

B 75-6	*Exx. 139*	*ḫr + stative*
B 96	I.14	
B 109	III.12.1 (Exx. 136)	
B 147	*Exx. 136*	*ḫr + sḏm.n=f*
B 202-3	*Exx. 138*; I. 14	*ḫr + adjectival predicate*
B223-229	I.14	
B 252-253	I.10 (Exx. 76)	

Sobekemkhent (Drioton and Lauer: 1958)

p. 240, Door lintel, line 7/Plate XXIV	*Exx. 77*	*sḏm.ḫr=f*

Stela of Harwerre (Sinai No. 90) (Gardiner et al: 1952)

Plate XXVA; Line 3	*Exx. 160*
Plate XXVA; Line 9	I.15
Plate XXVA; East Face, Line 1	*Exx. 161*

Stela of Henwen (Clère and Vandier: 1948)

§24, 4	*Exx. 154*

Tale of the Eloquent Peasant (Parkinson: 1991)

B1, 96	I.14, n. 190	
B1, 98	I.14, n. 193	
B1, 144-5	I.14	
B1, 162	I.14	
B1, 182	*Exx. 114*; II.12	*ḫr=f sḏm=f*
B1, 189-90	I.14, n. 193	
B1, 197	I.14, n. 186	
B1, 193	*Exx. 115*; II.12	*ḫr=f sḏm=f*
B1, 211	I.14	
B1, 219	I.14	*sḏm.ḫr=f*
B1, 220-224	I.14	
B1, 272	I.14, n. 193	
B2, 96-7	I.14, n. 193	
B2, 98	I.14; 1.5.3, n. 15	

Urk. I (Sethe: 1903)

Autobiography of Harkhuf

123, 17	IV. 3	
127, 4	*Exx. 155*	

Autobiography of Djau

143, 6	*Exx. 159*	
147, 4	*Exx. 135*	*ḫr sḏm.n=f*

Urk. IV (1906-1909)

Autobiography of Ahmose son of Ebana

3, 5	*Exx. 165*	*sḏm.ḫr=f*
3, 7-8	*Exx. 166*	*sḏm.ḫr=f*

Hatshepsut's Coronation

205, 17	*Exx. 171*	*sḏm.ḫr=f*
246, 14	*Exx. 172*	*sḏm.ḫr=f*

Punt Expedition

324,6	*Exx. 173*	*sḏm.ḫr=f*
332, 8	*Exx. 173*, n. 345	*sḏm.ḫr=f*

333, 10	*Exx. 173*, n. 345	*sḏm.ḫr=f*	
Hatshepsut's Obelisk			
363, 13	I.14		
Prayer of Djehuty			
445, 7	I.14		
Thutmosis III Annals			
690, 5	*Exx. 185*	*sḏm.ḫr=f*	
Duties of the Vizier			
1109, 3	*Exx. 175*	*ḫr + sḏm=f*	
1104, 16	*Exx. 190*	*ḫr=f sḏm=f*	
1105, 17	*Exx. 191*	*ḫr=f sḏm=f*	
1106, 6	*Exx. 192*	*ḫr=f sḏm=f*	
1106, 12	*Exx. 193*	*ḫr=f sḏm=f*	
1107, 5	*Exx. 194*	*ḫr=f sḏm=f*	
1109, 3	*Exx. 184*	*ḫr + sḏm=f*	
1109, 6	*Exx. 195*	*ḫr=f sḏm=f*	
1109, 12 – 1110,1	*Exx. 196*	*ḫr + sḏm=f*	*ḫr=f sḏm=f*
1111, 9	*Exx. 197*	*ḫr + sḏm=f*	*ḫr=f sḏm=f*
Autobiography of Rekhmire			
1073, 13	*Exx. 170*	*sḏm.ḫr=f*	
1075, 4	*Exx. 169*	*sḏm.ḫr=f*	
1079, 6	*Exx. 180*	*sḏm.ḫr=f*	