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'Aspects of the collocational analysis of meaning
with special reference to
some Biblical Hebrew anatomical idioms'

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PREFACE

Although the biblical data presented can be properly assessed only by a Hebraist/Old Testament exegete, I have attempted to make the work a little more accessible to linguistic scientists without specialization in Hebrew through provision of English glosses of Hebrew passages (rarely of more than a biblical verse in length). Typically these glosses are from NEB, although where NEB's rendering does not closely match the Hebrew sequence (e.g., if NEB omits certain Hebrew phrases because they would be redundant or cumbersome in English, or adopts substantial emendations of MT, or is, in my opinion, erroneous in respect of a particular translation) I have utilized JB, or, occasionally, AV. Italicized sequences (marking expressions not directly expressed in the Hebrew original) in AV (and in the translation of Rashi) are not thus distinguished in my quotations, and I have used 'Lord' for AV and NEB 'LORD'. NEB has been chosen as the primary source because at a semantic, if not a stylistic, level it provides an 'idiomatic' translation, and because its emendations are easy to trace (through Brockington's work). The few times that I wish to make a translation point particularly strongly or where I feel none of the forementioned translations to be adequate I provide my own glosses. Such renderings, unlike those quoted from other sources, are not accompanied by a citation of source. Within glosses words representing a collocation or other expression being discussed are capitalized.

BHK/S is used as the source of quotations from the Hebrew Bible, although its division of cola is not displayed; the caesura (athnach) is sometimes indicated by the use of a new line, or, if only one line of text is displayed, by a double space within this line. In 'citation-forms' of Hebrew text, we utilize a 'plene' orthography. Chapter and verse references are always to the Hebrew Bible.

The dissertation was produced via the AMSTRAD PCW 8256, based on Zilog's Z80 8-bit micro-processor, and its standardly-supplied (8-pin) dot matrix-printer. Portions of text containing Hebrew sequences were created through the PCW's dedicated word-processing software package, LOCOSCRIPT (Version 1.2), but employing a special set of control-characters to mark letters with diacritics, and beginnings and ends of sequences of italicized, underscored, superscripted, and Hebrew text. Hebrew sequences were keyboarded, screen-displayed, and stored in memory in a simple consonantal transcription. Documents containing Hebrew text were converted into (simpler) ASCII files through a LOCOSCRIPT facility. Printing of these documents was controlled from a PASCAL (Borland's TURBO PASCAL) program compiled and run under CP/M PLUS, the PCW's operating system. Reading a line at a time from the source document, the program converted any control-characters into instruction codes to the printer and any transcribed Hebrew sequences into numeric codes for printing graphics blocks, each block being a concatenation of Hebrew consonantal graphs (plus a few non-Biblical-Hebrew punctuation marks) from a previously defined array. Control-characters were removed from the line of text, and, if necessary, spaces were randomly inserted to compensate for loss of right-justification. The processed line of text was then sent to the line-

printer in sections corresponding to text (English) and graphics (Hebrew) portions. A bold Hebrew type-face was achieved by including in the program a procedure to reverse the print-head at the end of every graphics dump and repeat the graphics-printing process.

The few simple graphs in the dissertation were produced from programs written in Nabitchi Computing's EXBASIC, a version of (interpreted) BASIC which exploits CP/M's GSX facility.

I owe special debts of gratitude to the following: Prof. W. Johnstone of the Dept. of Hebrew & Semitic Languages, University of Aberdeen, for his efforts on my behalf in securing finance for this research at its initial and closing stages, and to the University of Aberdeen itself for its generosity in this matter; Dr J.W. Thompson, Head of the Dept. of Statistics, University of Hull, for his kindness and patience in assessing the statistical aspects of the thesis throughout its development; the University of Hull, corporately, for awarding me a research scholarship to pursue my studies to doctoral level.

Thanks are also due to Mr G.C. Slater and Dr R. Walker of the University of Hull's Computer Centre for continuous assistance with various aspects of computing required to bring the research and this dissertation to fruition; Dr R. Landau (Bar-Ilan University) and Prof. C. Rabin (Hebrew University) for encouraging my interest in the study of collocation and collocations; the staff of the Oriental Reading Room of the British Library and of Crawley College of Technology library for providing me with facilities in the final stages of my work.

PART I

A DEFENCE OF COLLOCATIONAL ANALYSIS

CHAPTER 1

ENVIRONMENTAL AND CONTEXTUAL MEANING

A fundamental premise of the present work is that semantic analysis divides naturally into two parts, the study of environmental meaning and the study of contextual meaning. Environmental meaning is constructed from evidence obtained through the study of a linguistic item's environments (in the sense of Harris 1951:15 and Lyons 1969:13, 27f.), that is, the text, written or oral, surrounding each occurrence, or token, of an item; contextual meaning, on the other hand, uses evidence from the study of an item's contexts (in the sense of Lyons 1969:23ff.), the non-linguistic (referential) data with which the item is associated.

For instance, the environmental meaning of the word *red* (for an English speaker) in a given sentence consists, amongst other things, of the speaker's knowledge that *red* also occurs in sequences like *red is the colour of blood, a red car, a red pillar box*, and that *blood* is a more significant collocate than *car* of *red* (the speaker has some awareness of the fact, for example, that whereas *yellow is the colour of blood* tends not to occur as frequently as *red is the colour of blood*, there is probably little difference in the frequencies of *a yellow car* and *a red car*).

Thus, the primary data of environmental analysis are items in a syntagmatic, 'pre-paradigmatic', relationship. Environmental analysis assumes paradigmatic relationships to be in some sense derived from, and abstractions of, syntagmatic ones. The (contextual) meanings of *taxi* and *bus* can only be seen as or learned to be paradigmatically related after they have been experienced as sharing similar environments or syntagms wherein they may be interchanged with a corresponding change of denotation. Taxis are paradigmatically related to buses because they are syntagmatically related. Cabbages are not paradigmatically related to taxis, at a semantic level anyway, because they do not share '-emically' similar environments. We do not wish to emphasize the psychological point here (see below), just the logical one - paradigms derive from syntagms.

Environmental meaning is part of what Halliday (1961:245) calls "formal meaning":

The formal meaning of an item is its operation in the network of formal relations.

.... The contextual meaning of an item is its relation to extratextual features, but this is not a direct relation of the item as such, but of the item in its place in linguistic form: contextual meaning is therefore logically dependent on formal meaning.

Mitchell elaborates on formal meaning thus:

The formal value of an item depends closely on (a) other items present in the text and the constraints and dependencies observable between them, [and] (b) the 'transformability' of the text in terms of the analytical operations of substitution, expansion or contraction,... interpolation..., and transposition.... [A] linguistic item or class of items is meaningful not because of inherent properties of its own but because of the contrastive or differential relationships it develops with other items and classes. (Mitchell 1971:42)

It is clear that the analysis of environmental meaning is grounded in the study of the degrees to which the occurrence of an item (normally, a word) is determined by a particular environment (i.e., a particular sequence of other items). As such, it lends itself to quantification: "Formal meaning is the 'information' of information theory" (Halliday 1961:244 - cf. Weaver 1959). This quantitative bias means that an environmental semantics is geared more toward semantic performance than competence, toward a theory of what is actually done with language rather than what can be done. The importance of this distinction will be seen several times in the present work.

In the past, environmental semantics has aspired to high status. In 1950, Joos (1966:356) was able to claim:

Now the linguist's 'meaning' of a morpheme is by definition the set of conditional probabilities of its occurrence in context with all other morphemes - of course without inquiry into the outside, practical, or sociologist's meaning of any of them.

However, since the 1960s such views have fallen on hard times. For example, Lyons, whose criticisms of environmental analysis will be discussed at length in Chapter 3, accepts (Lyons 1966:299) utilization of "the principles of information-theory" as "profitable for linguistic analysis" and devotes sections of his 1977 work to Shannon's model of communication and the quantification of 'signal' (environmental) and 'semantic' (contextual or propositional) information, yet nonetheless disparages Joos's claim:

The practical impossibility of summing over the transitional probabilities on all levels (even if we do not go higher than the sentence) is too obvious to need elaboration. (Lyons 1969:6:n.2).

For Lyons, meaning is principally contextual:

[T]he theory of meaning will be more solidly based if the meaning of a given linguistic unit is defined to be the set of (paradigmatic) relations that the unit in question contracts with other units of the language (in the context or contexts in which it occurs) (Lyons 1969:59).

It has even been claimed that formal aspects of lexical arrangement fall outside the scope of semantics. For instance:

In listing what the Englishman eats, one should say *fish and chips, roast beef and Yorkshire pudding*, not *chips and fish, Yorkshire pudding and roast beef*. Here is a rule governing the use of words that does not bear on their meanings, for *fish and chips* surely means the same as *chips and fish*. (Fodor 1980:20)

In terms of British English at least, Fodor seems to be ignoring the criterion of 'material adequacy' (see Ch. 3, Sect. D, 1) in her use of the words "means the same as". Speakers do indeed comprehend *fish and chips* differently from *chips and fish*; this fact might appear odd and arbitrary, but that is hardly a sufficient reason to exclude it from the scope of a theory of meaning, and the sort of data to which Fodor refers is very common (see Ch. 2; cf. Malkiel 1959). Weinreich (1966:147) claims that "chains of high associative probability" (like *fish and chips*), along with other elements "fail to represent the language in its full capacity as a semantic instrument", but he still regards them as being of semantic interest even if they only reflect the "banality or meaninglessness" of language (Weinreich 1975:28). Contrast Fodor on *fish and chips* with Weinreich (1969:43) on *bacon and eggs!*

Allerton (1979:35ff.) seems to recognize the semantic effect of formal features in his discussion of so-called 'determinant meaning', exhibited in, for example, *to* introducing infinitive verbs. Mel'chuk (1976:321) distinguishes "syntactic" and "semantic" meaning, and Coates (1964) enumerates three types of meaning, "differential" (in, e.g., the *de-* of *deceive*: "differential" or "distinctive" meaning pertains to all '-emic' units including the submorphemic - cf. McIntosh 1966b:98), "functional" (in, e.g., the *-ice* of *justice*), and "distributional" (in, e.g., the *-er* of *ladder* - cf. Nida 1966:264), alongside "denotational" meaning.

In principle, any linguistic item can undergo environmental semantic analysis, because every item exists within an environment at any one of its occurrences.

Many forms... are significant in biosocial environments [i.e., contexts]; but every form has linguistic [i.e., environmental] meaning as well, since every form occurs in some linguistic environment. (Wida 1966:264)

Environmental (formal) meaning may, therefore, be regarded as equivalent to valeur in the sense of Saussure, inasmuch as both terms refer to the relationships which an item contracts with other items within a given system, linguistic or other. The fact that every item has, by definition, a valeur means that Halliday (1966a:6) is wrong to claim that a word might be "absorbed into" a lexical set "without any change of meaning in any of the other words" in the set, unless by 'meaning' it is only reference, or contextual meaning, that is implied. Some words, of course, have contextual meaning and others do not - each word, though, must have environmental meaning, and this should be utilized in the semantic description of the item.

We can give part of the meaning of *boy* by identifying the referent... for which this morpheme occurs as a symbol; but another part of the meaning of *boy* is the distribution of the morpheme in particular linguistic situations. The linguistic meaning of *boy* includes such facts as the following: *boy* occurs as the subject of a sentence, the object of a verb, and the second member in a prepositional phrase; it combines with derivative formatives such as *-ish* (*boyish*); and it occurs in an exclamatory phrase *Oh boy!*. If we disregard entirely the biosocial distinction in the meanings of *boy* and *girl*, we can still say that the linguistic meanings of these two words differ in that *boy* occurs in a type of exclamatory phrase from which *girl* is excluded. (Nida 1966:244)

Analysis of "linguistic meaning" (in Nida's sense, i.e., environmental meaning) alone is, of course, insufficient. Weinreich (1975:30f.) imagines a thesaurus (a quantitatively-defined variety of which may be regarded as the end-product of a formal analysis of a language's vocabulary), the entries of which are not matched to denotata - this he compares to a map which the user examines without orienting to the place it describes. The map, the thesaurus, is valuable and interesting in its own right, but to acquire greater significance and utility it must be matched to real-world data.

It appears, then, that both types of semantic analysis are required, and that even were every item in a language to undergo environmental analysis, we could conclude nothing thereby of the relationship of any item to non-linguistic item(s) (context), a point stressed by John Searle in his 1984 Reith Lectures:

[I]magine that you are locked in a room [containing] several baskets full of Chinese symbols [and]... that you are given a rule-book in English for manipulating these Chinese symbols. The rules specify the manipulations of the symbols purely formally, in terms of their syntax, not their semantics.... Now suppose that some other Chinese symbols are passed into the room, and that you are given further rules for passing back Chinese symbols out of the room. Suppose that, unknown to you, the symbols passed into the room are called 'questions' by the people outside the room, and the symbols you pass back... are called 'answers...'. Suppose, furthermore, that the programmers are so good at designing the program, and that you are so good at manipulating the symbols, that very soon your answers are indistinguishable from those of a native Chinese speaker.... On the basis of the situation as I have described it, there's no way you could learn any Chinese simply by manipulating these formal symbols.

.... Understanding a language... involves more than having just formal symbols. It involves having an interpretation, or a meaning attached to those symbols. (Searle 1984a:15)

Clearly, environmental meaning is part of what Searle labels "syntax"; and, indeed, we shall argue that rules of syntax, in the sense of grammar, and rules of lexis (the object of environmental semantic study) are held together in a probabilistic relationship (see Ch. 4). On grounds of common sense, one wants to assent to his claim that even were a purely formal analysis of linguistic items in a corpus capable of displaying semantic 'insights' about the material, akin to the native speaker's tacit (contextual) semantic knowledge, all that one would feel safe to conclude is that the process "mimics, or simulates,... formal features of... mental processes" (Searle 1984b:17).

Such a view contrasts with the one that a Turing-machine (as suitably defined - see Putnam 1969), or any other formal process or the machine implementing it, may be said to have attained a particular 'mental' state (in our case, that of semantic understanding) if it exhibits all the standard 'symptoms' of that state. The fundamental thesis of proponents of the Turing-position may be characterized thus: "All brain processes are derived from a computable substrate" (Hofstadter 1980:572; see *ibid.*:*passim* for discussion of what we label 'Searle-' and 'Turing-' type views including the issue of epiphenomena, mentioned below).

In broader philosophical terms this view involves a materialist, or more precisely an anti-dualist, perspective (the 'minds' of finite automata are not "ghosts in Turing Machines, they are Turing Machines" [Putnam:1969:270]). We remain agnostic about both views - Searle appears to have common-sense on his side; on the other hand, if sufficiently 'syntactically' sophisticated analyses consistently demonstrated environmental semantic statements to be similar in result to their contextual counterparts, the Turing-type position would gain in credibility. (If this were to happen, then it could argue for an 'epiphenomenalist' account of semantic interpretation, wherein contextual meanings, or 'senses', might be regarded simply as habitual illusions fostered by speakers' more 'semantically' fundamental facility in the manipulation of formal symbols - this would run counter to the claim in Searle 1984a:15 that "syntax alone is not sufficient for semantics".)

Whatever the case, the formal structure of language is an undeniably essential part of our internalization and comprehension of language:

If we are reading a technical treatise on a subject we know little about, we can see that the sentences make grammatical sense, but we do not have enough external referents to complete the operation. Similarly with reading something in a language we imperfectly know. If, on the other hand, our reading is lazy and inattentive, we recognize the individual words but are not making the organized effort, the *Gestalt* or whatever it is, to unify them syntactically. One point that is significant here is that this centripetal organizing effort of the mind is primary. Mere unfamiliarity with the referents, which can be overcome by further study, is secondary. Failure to grasp centrifugal meaning is incomplete reading; failure to grasp centripetal meaning is incompetent reading. (Frye 1983:58)

(Compare Halliday 1961:245, quoted above: "contextual meaning is... logically dependent on formal meaning".)

However, in the present work we do not make any explicit claim to psychological reality. For instance, even though in the course of our present work we conduct a statistical analysis of certain data, we should want to agree with Lyons (1977:46) that this does not tell the whole story, and that in language "Probabilities of a different, and perhaps more subjective, kind are also relevant". A non-psychological orientation is, of course, typical of much work in linguistics, although studies initially conducted from such a stance may eventually yield results which are seen to be psychologically valid and interesting, and perhaps more significant within linguistics for that reason:

[A] linguistic theory of semantics will be... more adequate if, based on operationally definable concepts, it gives results which are in significant agreement with the native speaker's feelings about his language. For the native speaker's feelings derive, in general, from his natural use of the language and rest ultimately upon some formal properties of the language he speaks. (Lyons 1969:6f.)

We also accept that whatever the ultimate psychological and theoretical status of an environmentally-based theory of meaning, a full-scale environmental analysis of a corpus would yield many trivial results that could be of little obvious help in describing or explaining 'meaning':

[A]ll theories are insights, which are neither true nor false but, rather, clear in certain domains, and unclear when extended beyond these domains.

One may indeed compare a theory to a particular view of some object. Each view gives only an appearance of the object in some aspect. The whole object is not perceived in any one view but, rather, it is grasped only *implicitly* as that single reality which is shown in all these views. (Bohm 1980:4,8)

Until we know more about the overall importance of environmental meaning in (human) semantic analysis, it seems wisest to utilize techniques of environmental analysis only where there is *prima facie* evidence that they can provide significant semantic insights into the data.

The specific goals of the present work are (1) to develop and defend an environmental approach to semantic analysis in general, (2) to examine the problem of 'idioms' from this perspective (noting, incidentally, that "figures of speech emphasize the centripetal and interrelating aspects of words" [Frye 1983:58]), (3) to develop a hypothesis about an important distributional feature of idioms, and an associated statistical measure, and (4) to test this hypothesis, and through it, the thesis as a whole, on some 'idiomatic' data from a corpus in order to examine to what extent the results yielded correspond to those obtained by contextual semantic analysis. The corpus used in this part of the work is the Hebrew Bible and the data are certain 'collocations', including idioms, that utilize anatomical terms. These four goals correspond to the four parts (Chs. 1-4, 5-6, 7, 8-10) into which this dissertation is divided.

CHAPTER 2

ENVIRONMENTAL MEANING AND COLLOCATIONAL THEORY

A. THE NEED FOR ENVIRONMENTAL ANALYSIS

In the vast majority of cases, knowledge of an item's environmental meaning and knowledge of its contextual meaning are intimately related. To return to our earlier example, we know not only that *red* is a more common item than *yellow* in connection with *blood*, but also that 'yellowness' (i.e., the semantic 'concept') is less likely than 'redness' to be attributed to blood. Even though it has been stressed that "members of the same lexical set are not necessarily members of the same semantic field" (Wir 1978:210f.; orig. Hebrew), the ubiquity of the phenomenon whereby the relations of environmental meaning appear to match those of contextual meaning has led semanticists to assume, albeit tacitly, that environmental relations are in some way irrelevant or, at best, just trivial restatements in formal terms of what is already known in conceptual terms (i.e., in terms of context).

Of course, in certain circumstances the distinction between environmental and contextual meaning has to be accepted. For example, in machine-translation, it can only be the 'meaning' borne by "valent" (i.e., formal-combinatorial) relations of the source language that is expressed by the resulting translation. "Unvalent" (i.e., "contextual") relations are irrelevant (Leykina 1961:34). But outside such situations, environmental meaning tends to be ignored and contextual meaning alone is seen as a fit object of semantic study. This loss of distinction can lead to the sort of argument found in the following:

The meaning of a word is a reflection of an object, a phenomenon, or a relation in conception...; it enters the structure of a word as its so-called internal aspect; with respect to which the sound of a word emerges as the material shell.... Therefore, if, for example, a person blind from birth has never seen chalk, milk, snow, or any other white object in general, then the meaning of the word "white" will never become fully manifest to him. (Akhmanova 1963:21)

Akhmanova (whose statement of 'meaning' here, incidentally shows little advance on that of John Locke [1974:28ff.]) fails to distinguish between environmental and contextual meaning. For it is obvious that, whereas a blind man cannot know the contextual meaning of *white* or many other words, for that matter, because he has no access to some aspect of its reference, the same blind man may still be said to know, and to know fully, the environmental meaning of *white* or any other word, the truth of this latter statement being proven by his facility with the standard combinatorial properties of *white* (its *valeur*). And in terms of 'material adequacy' (see Ch. 3, Sect. D, 1), or respect-for-common-usage, Akhmanova is surely wrong to elevate the referential/perceptual aspect of 'meaning' in this way. Because although it has a superficial plausibility in connection with the extreme case of blindness, Akhmanova's argument would logically lead her to claim, far less acceptably, that ordinary people are semantically inept because they do not have as good a grasp of the conceptual content of *white* as physicists or artists

But there are other, more powerful, examples which do not need to invoke physical or mental differences amongst speakers in order to demonstrate the distinction of environmental and contextual meaning. First, there are items which are intrinsically referential and must be used with (or 'in') context; for example, indexical expressions like *I*, *here*, and *now*, which can only be used satisfactorily if the speaker has access to (non-linguistic) data about time and space. Even these, though, must possess environmental meaning (see Ch. 1).

Secondly, and more importantly for our purposes, there exists a number of items which appear to possess only environmental meaning. This is admitted by Lyons in the following:

In certain, comparatively rare, instances contrast and having meaning may coincide. And on this fact depends at the phonological level the native speaker's learning and subsequent recognition of the contrast, even where the contrasting items have no meaning. It is the limiting cases of coincidence between contrast and having meaning (that is to say, cases where there is nothing in the context of the occurrent item to increase its probability of occurrence, and consequently the hearer's expectation of it, beyond its general probability of occurrence in the environment) that provide the bridge between the language as it operates and its description by the linguist. (Lyons 1969:27f.)

Such an instance is provided by *quaff*. Now it seems clear that in so far as the unsophisticated native speaker has an understanding of this item, such comprehension is realized either through the speaker's knowledge of the combination of the items *quaff* and *ale* (i.e., through environmental meaning), or via knowledge of the association of the item *quaff* with the referent or 'concept' *ale* (i.e., through the semantic content or context of *ale*). This second type of knowledge perhaps endows *quaff* with a shadowy sort of reference in its own right ('drink', maybe). Possibly, of course, in expressions like this, where only one item is totally bound to an environment, both processes are involved.

However, the weight of other evidence, we believe, shifts the balance in favour of the first option or, possibly, the third. Evidence for this is provided by, for instance, the expression *give short shrift to*. As in the previous example, only one of the constituent items is referentially problematic. Yet in this case, it would be even more of a distortion of the evidence to claim any sort of shadowy reference for *shrift* through the item's association with a sequence of referentially transparent items. And the fact that *shrift* has no contextual meaning is evidenced even more sharply by our inability not only to substitute any other lexical item for it in the expression and 'mean' the same thing, but also to provide any definition of it other than a 'metalinguistic' one along the lines of 'A word which never appears except in the sequence *Give short - to*'. Compare Biblical Hebrew רָקָה which only occurs, as the second noun, in the sequence רָקָה רָקָה 'emptiness and confusion' at Gen. 1.2, Jer. 4.23, and (in slightly different form) Isaiah 34.11 - the sequence as a whole seems to mean, as in Modern Hebrew, 'chaos', but only the 'meaning' of the first word in the sequence is attested independently of this expression elsewhere in the Bible. This is unlike *quaff* which could conceivably be replaced by its hypernym *drink*. In sum, a word like רָקָה or *shrift* quite clearly has environmental meaning but no obvious contextual meaning.

There are, of course, some expressions which are composed entirely of *quaff-* and *shrift-*like words, the constituents of which on their own (i.e., isolated from their 'bound' environments) have no contextual meaning. Such expressions are found, for example, amongst 'foreign' sequences like *hocus pocus*. Here it is clear that, though both items have environmental meaning, only the etymologist trained in mediaeval leisure pursuits could justifiably claim to know the contextual meaning of either item. Yet the expression is used with ease and frequency (perhaps greater than that of *quaff ale*) by speakers - indeed it is this very facility with the items in the face of their non-possession of contextual meaning that evidences the utilization of environmental meaning in the interpretation of such referentially opaque sequences.

It might be countered that expressions like the last two examples are best listed, with their complex sub-categorial features, in the lexicon as single entries. By doing this with those relatively few items which do not appear to have a transparent relation to the non-linguistic world, semantic analysis will be free to concern itself purely with the world of contexts, that is, the relations of items with their semantic contents - this type of analysis would treat all lexicon entries (including multi-item ones) as linguistic primitives in connection with the non-linguistic data.

The problem with this 'solution' is that it simply begs the question of the extent throughout the language of the phenomenon evidenced most acutely by *short shrift* and *hocus pocus*. Bolinger (1976:5) lists a number of 'bound' expressions - *flurry of snow*, *dash of salt*, *inclement weather*, *signal honour*, *harbour a grudge*, etc. Into this category come many collective expressions like *coven of witches*, *exaltation of larks*, etc. (cf. Kiparsky 1976:75). Each of these expressions contains a word, the contextual (independent) meaning of which seems to be, to a large extent, merely a 'ghost' of the contextual meaning of the most common (or the only) word-combination in which the word appears. Its paradigmatic or contextual meaning is parasitic on its syntagmatic or environmental meaning. In fact, there is a mass of items like *quaff*, understanding of which seems to derive more from knowledge of purely linguistic contexts (i.e., environments) than from knowledge of relations to referents. Are all such minimally productive units to be accounted for in the lexicon? How, if at all, would such a dictionary encode the language-user's perceptions about the differing degrees of productivity characterizing different 'bound' units? At the very least it would require a 'lexicalist' framework rather than an earlier, simpler, style of transformational-generative grammar (see Nagy 1978).

The evidence we have presented surely indicates that in the name of descriptive completeness and scientific inquiry we attempt to analyse both environmental and contextual meaning throughout a language instead of pretending that the former does not exist or assuming that it is insignificant. By constructing a theory of environmental meaning we might well be able to relieve a theory of contextual meaning of some of its burdens and contradictions. Harris described the situation thus:

As Leonard Bloomfield pointed out, it frequently happens that when we do not rest with the explanation that something is due to meaning, we discover that it has a formal regularity or 'explanation'. It may still be 'due to meaning' in one sense, but it accords with a distributional regularity. (Harris 1981:13)

B. J.R. FIRTH

The reader will probably have realized already that the environmental aspect of meaning, as described, has a connection with what J.R. Firth called 'collocation'. In the rest of this chapter we examine Firth's use of this term and link it to the previous discussion.

The notion of collocation is illustrated in the following passage.

One of the meanings of *ass* is its habitual collocation with an immediately preceding *you silly*, and with other phrases of personal reference. Even if you said 'An ass has been frightfully mauled at the Zoo', a possible retort would be 'What on earth was he doing?'

There are only limited possibilities of collocation with preceding adjectives, among which the commonest are *silly*, *obstinate*, *stupid*, *awful*, occasionally *egregious*. *Young* is much more frequently found than *old*. The plural form is not very common. (Firth 1957b:194f.)

In the next passage 'collocation' appears, within Firth's theoretical vision, as a component of linguistic 'appropriateness of use', which for Firth is effectively equivalent to 'meaning':

As Wittgenstein says, 'the meaning of words lies in their use.' The day-to-day practice of playing language games recognizes customs and rules. It follows that a text in such established usage may contain sentences such as 'Don't be such an ass!', 'You silly ass!', 'What an ass he is!' In these examples, the word *ass* is in familiar and habitual company, commonly collocated with *you silly ---, he is an ---, don't be such an ---*. You shall know a word by the company it keeps! One of the meanings of *ass* is its habitual collocation with such other words as those above quoted. (Firth 1968:179)

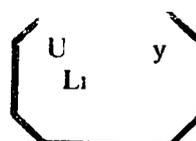
Major areas of semantic concern can also be couched in terms of 'appropriateness'. Continuing with *ass* as an example, part of the referentially appropriate use of this item is in denoting/addressing a stupid (male) person; part of its socially appropriate use (given human reference) is that it may only be addressed to a speaker's peers or social inferiors; part of its stylistically appropriate use is that it is avoided in writing. *Etcetera*. Within this pattern, collocation fits as awareness of the correct, because conventional, lexico-syntactic environments within which an expression is used. A foreigner who calls a Nobel-Prize-winning scientist a *silly ass* probably appears less foreign than one who calls a stupid friend a *foolish ass*. This example indicates that within a 'meaning-as-use' approach, collocational appropriateness is rather more important than correct reference. And just as there are differences in speakers' referential exactness, so there are differences (but not necessarily corresponding ones) in their collocational sophistication:

We are probably all aware of... collocational constraints as we search for the the 'right' choice among, say, *achieve*, *accomplish*, *effect*, *execute*, *implement*, *realize*, etc. to associate with *plan* or *project* or *proposal* or *ambition* or *object* or *objective* (Mitchell 1971:54).

Superficially, there is a connection between collocational restrictions, as outlined, and what a later era labelled (semantic) selectional restrictions. But for Firth meaning is semantic performance ("The linguist studies the speaking person in the social process"; Firth 1957b:190), thus, at least partially thus, his emphasis on collocations, on how words actually behave, not how they could behave. Selectional restrictions, however, belong more properly to a theory of semantic competence, where the difference in acceptability between *foolish ass* and *silly ass* is regarded as outside the domain of the theory. For Firth, of course, the difference is important.

The notion of 'collocation' is also used by Firth more generally within lexis, independently of a theory of 'meaning as use':

It can safely be stated that part of the 'meaning' of *cows* can be indicated by such collocations as *They are milking the cows*, *Cows give milk*. The words *tigresses* or *lionesses* are not so collocated and are already clearly separated in meaning at the *collocational level*. (Firth 1968:180; cf. Nida 1966:264, quoted in Ch. 1)



It is in this 'abstracted' sense that the concept of collocation is used by 'neo-Firthians' (a term used in, e.g., Mitchell 1971:64):

There is for instance a range, however laborious it may be to define or describe, which is represented by the fairly strictly limited inventory of nouns which may without any question be qualified by the word *molten*. The set of alternative available possibilities which this inventory consists of is just as much a part of the form of the language as is a grammatical system, and a full account of this set goes a long way towards constituting the meaning of *molten*. (McIntosh 1966a:189)

Although the fact of collocation is very important to Firth, it is abundantly evident that he never intended collocational techniques to provide a complete semantic analysis. "Meaning by collocation" is simply "an abstraction at the syntagmatic level and is not directly concerned with the conceptual or idea approach to the meanings of words" (Firth 1957b:196; cf 1968:181) - its limited scope is implied by Firth's emphasis on the 'context of situation' and by his frequent claim that meaning by collocation is just one meaning or part of the meaning of such and such a word.

In practice, in the realm of semantic analysis proper, Firth advises only limited use of collocational techniques - within a "restricted language" (Firth 1968:180; cf. Firth 1957b:195 on "the language of Lear's limericks": "One of the 'meanings' of *man* in this language is to be immediately preceded by *old* in collocations of the type, *There was an Old Man of...*") or as "a first approach" when "an exhaustive scheme of situational contexts cannot be set up" (Firth 1968:201). Collocational analysis was also claimed by Firth to be useful in analyzing style (see, e.g., Firth 1957b:196). Indeed, Firth's much maligned statement that "One of the meanings of *night* is its collocability with *dark*, and of *dark*, of course, collocation with *night*" (ibid.) illustrates a specifically literary observation.

As presented, Firth's ideas about meaning by collocation are indeed similar to the propositions we have expressed about environmental meaning. In particular, both models are geared toward semantic performance and assume that certain matters of lexical 'use' (e.g., the difference in acceptability between *fish and chips* and *chips and fish*) are relevant to a semantic theory, and claim usefulness only over a limited range of linguistic data - neither model pretends to 'tell the whole story' of meaning.

But before developing collocational techniques in connection with specific data, it is important to defend Firth's theory, at least its collocational aspect as we have outlined it, from the well-known attack on it by John Lyons (1966). In the next chapter we shall examine these criticisms in the light of what we believe collocational analysis to be capable and incapable of achieving.

CHAPTER 3

JOHN LYONS'S CRITICISMS OF DISTRIBUTIONAL ANALYSIS

A. INTRODUCTION

Lyons's clearest criticism of the 'distributional theory of meaning' is the following:

[Firth's] assertion that 'one of the meanings of *night* is its collocability with *dark* and of *dark*, of course, collocation with *night*', would seem to bring 'the statement of meaning by collocation' in line with the distributional theory of meaning advocated by Harris and Hoenigswald. And the distributional theory of meaning is very quickly disposed of on at least three counts: firstly, it does not satisfy the conditions of material adequacy governing the use of the term 'meaning'; secondly, it appears to involve the identification of language and text (or of 'langue' and 'parole'); and, finally, even if it were true that similarity and difference of distribution could be correlated with similarity and difference of meaning, there are many other more important meaning relations [e.g., antonymy, inversion, inclusion, incompatibility, synonymy]... which must be accounted for in a theory of meaning, and these relations cannot be derived by purely distributional, or collocational, criteria unweighted by concentration upon certain 'diagnostic' frames in which occur various 'logical constants' such as negative, adversative, conditional and causal particles. (Lyons 1966:295)

Lyons presents his arguments as valid and conclusive reasons to abandon attempts to revive Firth's collocational analysis, and they clearly need to be rebutted or mollified if the theoretical background of our subsequent analysis of restricted collocations is to be acceptable. To this task we now turn.

The first problem facing us when discussing Lyons's case is that in neither of the two works which Lyons cites as exponents of the alleged theory, Harris 1951 and Hoenigswald 1960, is adherence to a 'distributional theory of meaning', or indeed a 'theory of meaning' at all, admitted. So the assumption upon which Lyons bases his attack is false, at least trivially. However, both works make reference to meaning and semantics, and it is also possible that superficially non-semantic statements harbour semantic presuppositions or implications. Thus a brief appraisal of their contribution to semantic analysis seems in order.

B. HARRIS 1951

Despite the implication of Lyons's claim, Harris 1951 displays great respect for context. The meanings of utterances are their "correlation... with the social situation in which they occur" (ibid.:187); "The meaning of any domain, whether morpheme or larger, may be defined as the common feature in the social, cultural, and interpersonal situations in which that interval occurs" (ibid.:347).

It is true that Harris also states:

For the purposes of descriptive linguistics proper,... it suffices to define 'meaning' (more exactly, 'difference in meaning') in such a way that utterances which differ in morphemic constituency will be considered as differing in meaning (ibid.:189f.; emphasis supplied).

But in this passage, "it suffices to define 'meaning'" has two significant implications; first, that 'meaning' is not a prime concern of Harris, second, that any 'definition' of meaning provided by him is partial and provisional, serving only to contribute to the main aims of Harris's work (which are not semantic).

That there is no distributional theory of meaning in Harris 1951 (because this work includes no theory of meaning at all) and that meaning is used by Harris at most as a heuristic to (a non-semantic) distributional analysis is made explicit in the following:

In exact descriptive linguistic work... considerations of meaning can only be used heuristically, as a source of hints, and the determining criteria will always have to be stated in distributional terms (Harris 1951:365:n.6).

(In fact, this approach is not inconsistent with Lyons's own:

Semantic 'intuitions' are, as it were, scaffolding which must be abandoned wherever they are found not to be supported by the distributional structure constructed on its own firm foundations [Lyons 1969:231.]

One may argue justifiably like Fowler (1952) that Harris's work fails because it has no semantic theory (although Harris 1981:12 implies a rebuttal of Fowler's criticism that 'meaning' is required in order to establish units of grammatical analysis), but this is far from Lyons's claim that it suffers from bad semantic theory. In the same way, although the question posed by McQuown (1952:501), about whether knowledge of meaning involves any more than simply knowing differences of meaning, is pertinent to a semantic theory, it is irrelevant to Harris's work, because Harris never claims that meaning and distribution are identical. The most he claims is that:

Elements having different meanings (different correlations with social situations) apparently have in general different environments of other elements, if we go far enough afield and take enough occurrences (Harris 1951:365:n.6; emphasis supplied).

And even so, Harris concedes, there will remain "morphemes which are not differentiated from other morphemes by any common distinction except meaning" (ibid.:372).

C. HOENIGSWALD 1960

Does Hoenigswald furnish more substantial evidence of the theory which Lyons ascribes to him? An examination of his 1960 work shows that, like Harris, Hoenigswald views meaning as independent of distribution:

[W]hile the change whereby the morph (sequence) *avunculus* comes to denote a paternal as well as a maternal uncle may reflect a "widening" in the relational logic of the denotata, it is not altogether a widening in linguistic distribution (Hoenigswald 1960:34f.).

Nonetheless, there are passages which seem to back Lyons's claim:

Morphs and morph sequences... which... contrast with each other... are said to differ in MEANING, the difference in meaning being related to their respective characteristic environments (ibid.:16);

[I]f a morph... has changed its morphemic environment... it is quite rightly said to have changed its meaning (ibid.:45).

However, it is clear that Hoenigswald's view of meaning is much more limited than Lyons's because, like Harris, Hoenigswald uses 'meaning' purely as an aid in the achievement of basically non-semantic goals: "Meaning CONTENT... is not introduced at all into our picture...[;] classes... are defined by one another, not by denotata" (ibid.:19:n.11).

In sum, therefore, we may conclude that Lyons ascribes to both Harris and Hoenigswald a much more complete semantic theory than either intended. Nonetheless, inasmuch as Harris and Hoenigswald have a 'theory of meaning', regardless of how limited that theory is admitted to be, we must take seriously the objections which Lyons raises against it, simply because it is exactly this sort of model of language and meaning which we propose.

D. LYONS'S CRITICISMS

To recapitulate, Lyons's objections about collocational theory concern (1) the theory's material adequacy, (2) the theory's use of a closed corpus, and (3) the theory's ability to deal with 'meaning-relations'. Let us treat of each in turn.

1. MATERIAL ADEQUACY

The first criticism apparently implied here is that whatever the object of collocational and, more generally, distributional analysis might be, it is not 'meaning' as the term is commonly understood. According to Lyons, the linguist:

has inherited... certain notions about the function of linguistic units, which he seeks to refine and make operational. He may decide that the application of particular terms was previously too wide and introduce new distinctions; but, unless the terms used by him cover, at least partially, features which have always been held to fall within the scope of the terms as previously used, he should refrain from using the traditional terms. No matter how satisfactory his theory is from the operational point of view, no matter how elegant and coherent its internal form, unless he respects this principle of material, or external, adequacy he will leave himself open to the criticism that he has indeed defined *something*, but not what he set out to define. Not all that is measurable is meaning! (Lyons 1969:5)

Not every linguist would put material adequacy on such a high pedestal. Firth, indeed, appears to reject its importance expressly:

It is especially to be emphasized that 'the meaning of a technical term in the restricted language of a theory cannot be derived or guessed at from the meaning of the word in ordinary language. What in mechanics is called *force* or *work* can in no wise be derived from the meanings these words convey in everyday language'. (Firth 1968:169, quoting R. von Mises - note, however, Firth 1957a:7: "what is properly, because usually, called 'semantics'")

Nonetheless, Lyons is convinced of its importance and claims that the 'distributional theory of meaning' fails by this criterion:

The main objection to the theory is that it has not been shown to be *materially* adequate. The examples adduced by Professor Hoenigswald appear to have been 'devised' rather than 'found'. It has yet to be demonstrated that the distributional procedures outlined for the treatment of synonymy and polysemy would, when applied to the analysis of a real corpus of material, yield results that *show a significant degree of correlation with the native speaker's 'intuitions'* in respect of these notions. (Lyons 1960:621)

Of course, Lyons would be correct to claim that few speakers would accept a statement of the kind, The meaning of *blood* is its differing sorts of collocability with *red*, *congeal*, *spill*, *vein*, *pump*, etc. Rather, they would prefer the following proposition, *Blood* means the sticky red stuff in one's veins. In general, considerations of context (with which the latter statement is concerned) rank higher in native-speaker consciousness than do considerations of environment (from which the former statement was constructed), and, in general, Lyons's criticism regarding the material adequacy of a distributionalist's use of the term 'meaning' may be upheld.

But there are exceptions. As we have shown, certain formal, 'distributional', features are semantically significant. The 'meaning' of certain items appears to be to a large extent a function of their 'environment' rather than their 'context' and it is reasonable to suppose that unsophisticated native-speakers recognize, albeit in primitive form, this fact. In respect of such items, it is not materially inadequate to claim that distributional analysis deals with 'meaning'.

Moreover, the broad thrust of Lyons's objection is only valid in so far as proponents of collocational analysis claim the theory to offer a complete account of meaning in Lyons' sense (i.e., one including context). But that this is not the case in respect of Firth we have already demonstrated, and, in respect of our own theory, we have been careful to distinguish environmental from contextual meaning and to emphasize the limited goals of a theory of the former. The objection is simply irrelevant to a theory so limited in its semantic aspirations.

Finally, as Lyons concedes:

[I]t cannot be affirmed that the distributional theory of semantics fails to satisfy the conditions of material adequacy... since there has been so far no attempt to apply it to a large corpus of data (Lyons 1969:6:n.2).

(Since Lyons wrote this, there has been a large-scale collocational analysis reported in Sinclair-Jones-Daley 1970 - see Ch. 7, Sect. A, 1.)

To summarize, Lyons's criticism of distributional analysis on grounds of its alleged (materially inadequate) misuse of the term 'meaning' is only valid to the extent that such analysis aspires to the status of a comprehensive semantic theory - as we have seen it does not. The particular distributional analysis conducted in the present work is especially immune to Lyons's objection as it deals with 'idioms' which clearly require quite specific environmental statements in the description of their meanings (see Ch. 5, Sect. A).

2. CORPUS

In certain circumstances, one obviously has no option but to use a 'closed corpus' if any form of linguistic analysis is to be effected in respect of the language from which the corpus is drawn; this is the case with our own research into Biblical Hebrew and that of Lyons (1969) into Plato's Greek. Furthermore, Lyons appears to accept the methodological value of using a corpus for semantic analysis:

[T]he linguist investigating aspects of his own language and drawing theoretical conclusions from his investigations is tempted to use himself as a machine, as it were, for the production of 'samples' from [an] indefinitely large body of material. The danger of this procedure, especially in semantic analysis needs no emphasizing; it is eliminated by choosing as the corpus a definite body of material, open to inspection by all. (Lyons 1969:91; cf. Sawyer 1972:2)

What, then, is the aspect of a corpus-based approach which leads Lyons to claim that it involves a false identification of 'text' with 'language', 'parole' with 'langue'?

Lyons could, perhaps, be raising a point about the relationship of a sample of language data to the totality of the data in the language concerned. One such problem was pointed out by Garvin:

The basic difficulty in the use of text for purposes of linguistic analysis is that large samples are required. This is understandable if one takes into account the inverse ratio of the the recurrence of elements to the size of sample: The less frequently an element recurs, the larger the sample required in order to study its distributional properties. (Garvin 1963:117)

Nonetheless, Garvin (1978:335) accepts that "The adequacy of [a] sample is an empirical question which can be answered by empirical means", a view shared by Harris:

To persons interested in linguistic results, the analysis of a particular corpus becomes of interest only if it is virtually identical with the analysis which would be obtained in like manner from any other sufficiently large corpus of material taken in the same dialect. If it is, we can predict the relations of elements in any other corpus of the language on the basis of the relations found in our analyzed corpus. When this is the case, the analyzed corpus can be regarded as a descriptive sample of the language. How large or variegated a corpus must be in order to qualify as a sample of the language, is a statistical problem; it depends on the language and on the relations which are being investigated. (Harris 1951:13)

(But note that Harris, with whom, as we have seen, Lyons especially associates the distributional theory of meaning, does not accept that a closed corpus is in general adequate for even non-semantic analysis - see Ch. 4.)

If the problem about the use of a corpus to which Lyons alludes is simply that of ensuring adequate coverage of a language, it is in principle patient of solution. Lyons would be right to think that collocational analysis implicitly acknowledges a sort of identity between a maximally useful sample and the object, the language, from which the sample is drawn, but wrong to claim that this identification is methodologically malign.

But it might be that Lyons is pursuing a different and less easily refutable case which we can for convenience divide into two. (1) However 'adequate' the type and size of a sample, a distributional analysis by itself does not reveal any of the semantic content (context) of the items within the corpus. (2) It is in the nature of every kind of linguistic analysis, including the semantic, to eventually require data for analysis beyond those contained in an initial corpus. Thus, whereas (1) concerns an alleged (qualitative) inadequacy of distributional methods for semantic analysis, (2) concerns an alleged (quantitative) insufficiency of distributional data. Whilst sympathetic to these criticisms, we believe that neither should be over-stated.

(1) The first part of the argument recalls Searle's view (see Ch. 1) that knowing the rules of a language can never add up to knowing its 'meanings'. We have already briefly debated this, but, even if true in general terms, it cannot detract from the fact (as we see it) of the ubiquity of items within a language, the meanings of which seem to be purely or mainly environmental (see Ch. 2), or from the possibility that environmental meaning might be significant in respect of language items other than the extreme examples to which we have referred.

(2) The second part of the argument we feel to be again insecure. Semantic analysis will normally need to increase its data to take account of material not contained or inadequately contained in the current corpus. But, in a purely distributional analysis, the goal is to make accurate measurements of relations amongst items; such measurement, by definition, requires a corpus which is closed at the moment that data-collection ceases and data-analysis commences, but which may be expanded to include more data if the results obtained by an analysis, or the predictions based on them, do not seem to be borne out by analysis of data outside of the corpus. In the nature of things, then, distributional analysis must use a closed corpus. To complain that this is so is simply to protest against distributional analysis in general.

However, a distinction should be made between an irrevocably closed and a closed but expandable corpus. If the results of an analysis of a corpus of the former type are semantically invalid or uninteresting, it is clear that here distributional analysis has little to contribute to semantic inquiry. On the other hand, if an expandable corpus fails to yield, on first analysis, sufficiently useful results, it may be expanded to take account of further data in the hope that results derived from their analysis will more closely approximate to the results of a non-distributional (non-corpus-based) semantic analysis of the language in question. By virtue of the limitless and dynamic character of language, it is clear that no corpus can be entirely adequate for distributional or non-distributional types of analysis, but a good corpus will include a high proportion of relevant data, and also some data which may well have been overlooked by a linguist who had chosen not to rely on a corpus. Thus, we can see that, although he would have good grounds for objecting in principle to the use of an irrevocably closed corpus for semantic purposes, Lyons's grounds for objection would be much slighter with regard to the use of a closed but expandable corpus. The corpus studied in the present work, the Hebrew Bible, constitutes an irrevocably closed corpus (see Ch. 8), and, thus, any semantically oriented analysis of it will be more liable to Lyons's criticisms.

OTHER DEFENCES OF CORPUS-BASED ANALYSIS

There remains a number of defences available to us in respect of Lyons's 'corpus' criticism. (1) If we accept that semantically-oriented analyses of an irrevocably closed corpus are pointless, this effectively excludes any semantic study of a language instantiated by such a corpus. Surely a semantic analysis of Biblical Hebrew through analysis of the closed corpus within which it is contained is better than no semantic analysis at all? (2) It is precisely the sort of language contained only in such a corpus that will tend to be the least amenable to more normal, non-distributional, and non-corpus-based, semantic analysis, because of the researcher's lack of native-speaker competence in the semantics and pragmatics of that language and his or her ignorance about the society within which it was spoken. (3) It is possible that analysis of such a corpus will yield results which would remain little altered even if the corpus could be expanded. As Lyons has pointed out, occasionally an irrevocably closed corpus possesses a feature which makes it especially amenable to a particular sort of analysis. For example, in respect of the Platonic corpus "The dialogue-form, in which the majority of the works are written, makes them especially suitable for semantic analysis" (Lyons 1969:92). With reference to our own corpus we can point to the pervasive phenomenon of parallelism as a guide (albeit one to be used with great care; see Ch. 8, Sect. A) to semantic intent. (4) It is occasionally possible, although not entirely desirable, to increase the data-base (expand the corpus) by judicious utilization of an additional corpus from a later stage of the language or a corpus of a cognate language. For the biblical corpus possible sources of 'extra

data' include the Dead Sea Scrolls, early rabbinic literature, and the Ugaritic Texts. (5) Results obtained by distributional analysis of an irrevocably closed corpus can be checked for validity against results obtained by the same methods in respect of an expandable corpus.

Furthermore, in standard semantic analyses, distributional facts are often taken into account. For example, in connection with words which seem to refer to the same denotatum, and are therefore conceptually synonymous, but yet which may not always replace each other, the only way to avoid using collocational data in semantic description is by enormously complicating, in a way which breaks principles of good theory construction, the referential (denotative) description associated with each word.

However, this use of distributional facts as such does not require a 'closed-corpus' approach. But where some sort of quantification of distributional data is required, a closed corpus is necessary. For example, if we discover that one speaker alone on certain occasions uses the archaism *maugre* instead of *despite*, we should not wish to claim that *maugre* and *despite* 'mean the same thing' any more than we should want to claim that German *Geschwister* 'means the same' as English *siblings*. (This is especially true if we assume that the object of semantic analysis is geared toward 'received' rather than 'intended' meaning; see MacKay 1969:84.) And once we perceive a connection, albeit a not very simple one, between the frequency of an item and its (contextual) meaning, this relationship must, in the nature of things, be analyzed within the confines of a closed (though preferably not an irrevocably closed) corpus. (Cf. Tournier 1970:49: "Seul un corpus clos peut faire objet d'études quantitatives".)

In conclusion, then, we see that Lyons's objections concern not so much the use of a corpus *per se*, but, rather, the injudicious and uncritical application of 'semantic' results obtained through analysis of a corpus, especially an irrevocably closed corpus. Lyons would, we believe, agree with us that distributional facts comprise an unobjectionable and often an unavoidable aspect of a full semantic analysis. However, whereas Lyons appears sceptical about the semantic usefulness of a full-scale corpus-based collocational analysis of a language, we are far more optimistic about this, and the present work will we hope give further support to the validity of corpus-based semantic methods.

3. MEANING-RELATIONS

Lyons criticises collocational analysis because it is unable to elucidate some or all "meaning-relations". To what extent can this objection be sustained?

Given that, as we have stated, in collocational analysis an item's environmental meaning is ascertained by checking its capacities of combination with other items, we might find that *red* could be used in position *x* in the following sequences: *x trousers/face/house/brick*, *The x -ness of the trousers/face/house/brick*, *The trousers/face/house/brick looked x*. Using similar techniques, we can demonstrate a number of meaning-relations.

For example, if we find within a corpus an item or item sequence which shares all the collocational patterns of *red*, we can state that such an expression is a 'synonym' of *red* and whether it is a rare or common synonym. 'Absolute' synonymy would entail identity of environments and frequencies - we should expect 'near synonymy' to be the rule. (This is a stronger condition of distributional synonymy than that of Harris 1981:14, which does not take account of frequencies.) That synonymy is affected by collocational restrictions is hardly in doubt. Berry-Rogghe (1971:15) has suggested that collocational analysis is better able than componential analysis to demonstrate the apparent lack of synonymy of, for example, *powerful* and *strong* in the environment '+ tea', and Bolinger points out that:

mutual and *common* are synonyms, and you and I may be *mutual enemies* or *mutual friends*; we may also be *common enemies*, but we are not apt to be **common friends*, although we may have *friends in common*. (Bolinger 1976:6)

In contrast, sometimes words which in isolation are not synonymous become so in specific environments:

[Par exemple, les synonymes «sens» et «raison», se distinguant sémantiquement à l'état isolé..., perdront leur différenciation sémique au-dedans des [certaines] expressions figées [e.g., *perdre le sens/la raison*] (Lipshitz 1981:39).

'Hyponyms' of red could start to be established by checking for items which have no collocates apart from those also collocating with *red*, but which do not share its entire collocational range. Collocational techniques can also be used to analyze 'polysemy' in a corpus. A polysemous item would be one which has collocates falling into two or more classes such that these classes have no collocate in common except the polysemous item. Here, collocational analysis offers the possibility of making relatively delicate judgments about the degree to which an item is polysemous. The term 'homonym' might then be reserved for an item the collocational classes of which have no collocate but it in common (cf. Halliday 1966a:157). Sinclair, Jones, and Daley (1970:98ff.) were relatively successful in disambiguating 'homographs' through collocational techniques (although their success diminished where homographs belonged to the same part of speech). Their project is anticipated at Akhmanova 1965:152; Pike (1960:84) suggests that polysemes will share "a statistically much greater set of common contexts" than will homonyms.

Although we have shown that collocational analysis is, at least in principle, able to construct statements about certain meaning-relations, the 'meaning-relations' involved are not those with which Lyons is directly concerned. For Lyons, synonymy, for instance, is essentially synonymy in context (where 'context' has the same technical sense that we ascribe it):

If we ask the ordinary native speaker of a language whether a particular isolated form, *a*, has the same meaning as another isolated form, *b*, he will usually qualify his reply, if it is affirmative, by specifying, at least partially, the contexts in which the two forms have the same meaning. (Lyons 1969:77)

But to object that environmental analysis leads to types of statement about meaning different from those of contextual analysis is simply to state the obvious. As we have stressed, distributional analysis of meaning does not pretend to the status of a comprehensive semantic theory. What we claim is that environmental analysis can lead to statements that reflect a significant aspect of native-speakers' use of language, including their semantic behaviour. And, as we have already pointed out, whatever shortcomings may eventually be found in distributional analysis, contextual semantic analysis tends (at least covertly) to take into account the distributional, including quantitative, nature of certain linguistic data.

There are, as Lyons points out (see also Lyons 1960:621), certain 'meaning-relations' which are impatient of elucidation by purely distributional means, because such elucidation requires the use of non-distributional, logical, categories. Thus, for example, with antonymy, gradable or non-gradable, which cannot be decided without the use of, at least, the logical operator 'not (equivalent to)'. Lyons is wrong, however, to use the phenomenon of antonymy as an argument against collocational analysis,

The identification of likeness of meaning and likeness of distribution has been criticized on the grounds that the distribution of any given unit is probably more like that of its antonym (where it has one) than that of any other unit (Lyons 1969:60:n.3),

for, presumably, antonyms will be 'near in meaning' in any semantic model, and the adequacy of a distributionally-based analysis of antonyms or any other type will depend on the sophistication of the techniques used.

Statements of semantic incompatibility also seem to be unattainable via purely distributional means, because collocational analysis can state only with which items a given item does collocate, and not with what it could collocate. (We re-iterate here the status of distributional analysis within a theory of semantic performance rather than competence.) For example, the semantic deviancy of *married bachelor* could not be arrived at by purely distributional means. However, this criticism requires modification. Within a purely environmental analysis, if the sequence *married bachelor* were found not to appear within the corpus studied, one could not state that the sequence was impossible, as such a statement would run contrary to the ethos of inductive and empirical analysis. Nonetheless, its statistical propensity not to appear could be relatively easily discovered by distributional means, and any occurrence of the sequence could be marked as abnormal in the light of this. As Tsevat (1955:29) points out "a language is characterized by what is not in it as well as by what is in it". An advantage possessed by collocational analysis over contextual analysis, is that the former can lead to statements about degrees of semantic abnormality, and is, thus, consonant with some recent discussion of selectional restrictions:

[L]es règles de sélection... ont un caractère probabiliste au fond, parce qu'elles sont déduites de façon empirique de la distribution des éléments lexicaux dans les énoncés qui, en règle générale, correspondent à la fonction référentielle de la langue. Leur caractère obligatoire n'est donc que relatif. Elles constituent, toutefois, une norme (Ostrá 1977:74)

(but see Ch. 2, Sect. B on the theoretical distinction of collocational and selectional restrictions).

E. CONCLUSION

In respect of all three of Lyons's criticisms of collocational analysis, we have found that they are justified only in so far as the analysis attempts to over-reach its stated goals, the attainment of which would constitute but part of a total semantic theory of the sort that interests Lyons. Lyons's objections, we argue, rest on an overstating of the semantic interests of Harris and Hoenigswald, and we feel that Lyons's criticisms are better used against Firth's theory of meaning as a whole rather than its collocational aspect alone. We have tried to demonstrate that, in principle, semantic analysis may utilize a closed corpus and that distributional analysis can lead to statements about meaning-relations.

CHAPTER 4

COLLOCATION AND SYNTAX

Semantic theories generally are linked to particular forms of syntactic theory. Although it is not our purpose in the present work to develop a comprehensive theory of collocational/distributional analysis with respect to semantics, let alone syntax, the present chapter, which outlines a 'syntactic component' of collocational analysis, is included for the sake of completeness.

The syntactic theory with which our form of collocational analysis most obviously dovetails is that of Harris 1981:143-210 (originally published in 1957). There, Harris writes of "individual co-occurrence". It is our claim that collocational analysis provides a description of precisely that aspect of Harris's 'theory of co-occurrence'. (Thus, we do not in principle restrict the term 'collocation' to analysis of items specifically *qua* lexemes or dictionary entries, as is frequently done in the collocational literature; e.g., Mitchell 1971.) The term 'individual co-occurrence' is introduced at Harris 1981:143f.:

The range of individual co-occurrence of a morpheme (or word) *i* is defined first of all as the environment of morphemes (or words) which occur in the same sentences with *i* (in some body of linguistic material).... Each morpheme has a unique set of co-occurents (except for special morphemes such as some paradigmatic affixes [e.g., the past-tense marker *-ed*] which all occur with the same set of words and in the same sentences).

However, Harris's interest in "diagnostic" (i.e., syntactic) rather than individual co-occurrence is also expressed:

[C]lassification is not set up on the basis of relative similarity of co-occurents, but rather on the basis of a particular choice of diagnostic co-occurents: *cloth* and *paper* both occur, say, in the environment *the () is...* where *diminish* does not appear; we call this class *N*.... [*C*]*loth, paper, diminish, grow* all show some differences in their environments, so that no simple summary can be made. But in terms of the classes *N* and *V* we can say that every *N* occurs before some *V* in the environment *the () V*, and every *V* occurs in the environment *the N ()* for some *N*. (Ibid.:144)

[T]o describe a language in terms of the co-occurrences of the individual morphemes is virtually impossible: almost each morpheme has a unique set of co-occurents; the set varies with individual speakers and with time (whereas the class combinations are relatively permanent); it is in general impossible to obtain a complete list of co-occurents for any morpheme; and in many cases a speaker is uncertain whether or not he would include some given morpheme as a co-occurrent of some other one. (Ibid.:146f.)

The difficulties which, Harris claims, face analysis of individual co-occurrence could, in practice, be alleviated by the choice of an adequate corpus (see Ch. 3, Sect. D, 2; Harris [1981:52] rejects this course on grounds of the impracticability of sifting through a vast body of transcribed oral data). Of course it is much more difficult to obtain sufficient data for adequate collocational analysis than it is for co-occurrence (syntactic) analysis, but the difference is one of degree not of kind. All the points raised by Harris, about idiolectal and historical variation and lack of completeness, also apply, less sharply, to syntactic data. Syntactic structures change over centuries, whereas lexical structures alter over years; idiolectal variations of vocabulary are vast, but idiolectal differences of grammar do exist as well. And complete lists of co-occurents, diagnostic or individual, are unattainable in any inductive approach such as Harris's - the researcher always leaves open the possibility that he or she has missed or misappropriated certain data, which may yet have to be added and in the light of which a description might need to be amended.

But although Harris appears to be concerned with the lexical aspects of co-occurrence only in so far as they help to categorize the grammatical status of an item, in fact he frequently strays into discussion of individual, or lexical, co-occurrence (collocation), and evidently has problems upholding a rigid distinction between syntactic and lexical analysis (diagnostic and individual co-occurrence, in Harris's terms). For instance, his statement that:

the N co-occurents of *man* (as N_1) in N_1 is a N may include *organism, beast, development, searcher*, while the N co-occurents of *man* in N_1 's N may include *hopes, development, imagination*, etc. (Harris 1981:145)

implies an interdependence between statements of syntactic combination, or 'co-occurrence' proper, which utilize such terms as Adjective, Noun, Verb, and statements of lexical combination, or collocation, which use specific items in a language.

Again, in a brief reference to idioms, Harris makes data-specific (collocational) statements, which underline his confusion, or implicit acceptance of the interdependence, of levels of co-occurrence and collocational analysis:

For the PN=A type of N_1 PN₂... we can often find the same triples appearing in the construction N_1 is P N_2 : *The hopes are for a settlement; This type is of bacteria, The bacteria are of this type.* However, certain triples cannot be obtained in the latter construction: *point of departure, time of day.* These are often the cases which seem more 'idiomatic'; they may be called compound N P N , akin to compound words. A related close-knit sequence is the P_1 N_2 P_3 N_4 in which the P_1 N_2 P_3 occurs throughout in the same individual sentence environments as a single P: *He phoned in regard to a job; They won by dint of a fluke.* The N_2 P_3 N_4 members of this construction do not occur in N_2 is P_3 N_4 , and some do not even occur together except after P_1 . (Ibid.:159)

Despite the final sentence, Harris does not appear to see the possibility, developed in the present work, that 'idioms' represent a most extreme form of item-specific dependency, nor, more generally, that all 'syntactic' dependency is, in principle, reducible to lexically-specific combinatorial dependencies in language. Collocational analysis, that is, the analysis of item-specific dependency, is the end-point of (syntactic) subcategorization.

The situation in language which gives rise to the problems encountered by Harris concerning the boundary of syntax and lexis have been described by Berry-Rogghe (1971:10):

Grammatical statements are about distributions of CLASSES of elements; lexical statements are about the co-occurrence of PARTICULAR members of these classes.

The point where grammar leaves off and lexis starts is located at that point where a further subclassification would yield no more CLOSED systems of grammatical classes but lexical sets. It seems to us, however, that the borderline between grammar and semantics is not so much dependent on a theoretical distinction - for, theoretically, regularities of co-occurrence between particular elements could be considered as distributional relations between one-member classes - but that the domain of grammar is limited because of practical restrictions. A grammatical description can become more and more detailed until it reaches the point where the principle of 'diminishing returns' starts operating, this happens when the rules have become so complex that the generalizability of the description is lost.

Compare:

Grammar is first and foremost generality in relation to lexical particularity, but this does not imply any denial of the essential one-ness of grammar, lexis, and meaning. (Mitchell 1971:43)

In Leykina 1961, where categorical and individual "valence" replace Harris's diagnostic and individual co-occurrence in the context of machine-translation, a similar point is made:

For the algorithm of each language one should evidently seek an optimum balance between categorical and individual valences and the most rational method of standard use of the valences.

(Ibid.:39)

Compare "minor syntax", that is, "the theory of word combination", and "major syntax", "the theory of the sentence", in Akhmanova & Mikael'an 1968:84.

Halliday, whilst accepting the practical distinction of grammar and lexis (Halliday 1961:273), views them as a theoretical unity, separated by stages of 'delicacy':

The items *a* and *of* are structurally restricted, and are uniquely specified by the grammar in a very few steps in delicacy; collocationally on the other hand they are largely unrestricted.... There might then appear to be a scale on which items could be ranged from 'most grammatical' to 'most lexical'.... The 'most grammatical' item is one which is optimally specifiable grammatically: this can be thought of as 'reducible to a one-member class by the minimum number of steps in delicacy'. Such an item may or may not be 'least lexical' in the sense that there is no collocational environment in which its probability of occurrence deviates significantly from its unconditioned probability.

Halliday has also noted the fluidity of the boundary of syntax and lexis in children's language acquisition (Halliday 1975:68; cf. Blackburn 1984:24).

Thus, it appears that the mixing of diagnostic and individual co-occurrence data by Harris reflects, properly, the essential unity of the two phenomena studied in co-occurrence and collocational analysis, and the complementary nature of the analyses themselves, even though Harris does not himself emphasize these features.

In respect of a theory which links individual (lexical) and diagnostic (syntactic) co-occurrence, we see that the difference between lexis and syntax involves differing numbers of data (lexical and syntactic) within a corpus; we believe, therefore, that this difference can best be characterized by reference to probabilities of combination of items within each set of data. For example:

In the sentence *I'm going to the store to buy a pound of...*, the blank may be filled by *nails, sugar, salt, glue*, and many other items. The expectancy for some member of the noun class is very great, but the particular noun expected cannot be predicted as well. (Pike 1960:87)

Rules of syntax, or co-occurrence, can be seen, then, as stating combinatorial probabilities of minimally differentiated linguistic data (i.e., linguistic data formed into syntactic classes). Correspondingly, rules of collocation state combinatorial probabilities of more or less (depending on the level of lexical abstraction involved) maximally differentiated linguistic data. Nir (1978:211) has pointed out that "Regularities of collocation are not as clear-cut as rules of grammar; but this deficiency is due to the much greater number of the former than the latter" (orig. Hebrew). Whereas the probability of following a syntactic rule is very high (and breaking it, thus, very low), the probability of following any collocational rule tends to be very low. Considerations of referential abnormality aside, *colorless green ideas sleep furiously* only breaches, albeit rather strikingly, collocational regularities, and is, hence, more 'acceptable' than *furiously sleep ideas green colorless* (cf. Chomsky 1956:110).

Clearly, because collocational relationships are so 'delicate', there are practical difficulties in 'measuring' them:

[T]he connections among words possess such a strong "distant action"... that any Markov model based, for example, on conditional probabilities of the second order yields a very poor approximation to the sense-sequences of words in real texts. (Paducheva 1963:146f.)

But the fact that the combination (collocation) of lexical items requires a more sophisticated stochastic model is not an objection in principle to searching for probabilistic illumination of such relationships, and, in practice, this type of analysis is increasingly more possible with advances in computerized string handling.

Thus, from a probabilistic viewpoint, syntax and lexis, or co-occurrence and collocation, are not radically different aspects of language, but complementary features of the same data. Syntax only appears to be a closed and self-supporting system of analysis because the classes with which it deals are so much abstracted from item-specific language data. The claim that "lexical probability is a purely statistical regularity independent of the grammatical formation of the language" (Zinder 1958:9) might be valid in practice but not true in principle. As Saussure pointed out:

[A]bstract entities are always based, in the last analysis, on concrete entities. No grammatical abstraction is possible without a series of material elements as a basis, and in the end we must always come back to these elements. (Twaddel 1983:36)

CONCLUSION: COLLOCATION AND EMPIRICISM

All the preceding remarks on the relationship of syntax and lexis presuppose a "basically inductive approach to language study" (Mitchell 1971:66), regarded, incidentally, by Mitchell as a "salient feature" of 'Firthianism'. This is in the nature of a study which deals with the quantitative (thus, empirical) description of a large amount of data about which our intuitions tend to be insecure.

Thus, a syntactic model based on our techniques can never properly be compared with a 'generativist' syntactic model, because, whereas the data of the latter will tend to consist, at least in part, of syntactic intuitions (of the linguist *qua* 'ideal speaker') about the language data studied, the former draws its evidence from non-idealized actual data as manifested in a particular corpus. Most 'generativist' models, being deductive systems, naturally involve the statement of rules, leading to 'binary', 'yes/no', decisions about grammaticality, etc., but combinatorial models, being inductive systems, utilize (graded) probabilities and regularities rather than rules. And whereas the quality of a 'Chomskyan' model is often judged, to some extent, on how theoretically 'advanced' (e.g., in terms of deductive completeness and consistency) it is, a combinatorial model, such as we propose, is better judged purely on its descriptive adequacy (including comprehensiveness), even though this does not permit us to ignore the essentials of good theory construction.

Our concentration on semantic performance and our inductive approach to data reflects to some extent the views of linguists who reject the current domination of intuitionism and unfettered deduction:

Chomsky is right in his repeated insistence that we must always go beyond the data. But without sufficient data, the theory has too much to do; the logical and logistic demands of the theory tend to supply more of the data than the language itself... When too much of reality is factored out or ignored,... deductive methods... become heavily prescriptive and destructive (Ruhl 1978:381f.);

It must be conceded that at mid-century linguistics had in general incurred a serious risk of having its data outrun theory; in the intervening quarter-century there is the even more hazardous reverse situation where theory has outrun data. (Twaddel 1983:46)

Supporting this view, Garvin claims:

In a behavioral science such as linguistics, the aim of a particular approach cannot be to make "predictions" in the natural science sense. Rather, it is to provide a frame of reference for a description of the object of study, as well as to provide operational controls for the many variables that must be manipulated in the course of the analysis. (Garvin 1978:349)

This is because:

In an empirical discipline, everyone knows that there is no proof - there is only empirical verification. Verification is not as conclusive as mathematical proof; it is at best a close approximation. (Garvin & Karush 1963:367)

Garvin's caution is, perhaps, too emphatic. Where linguistic analysis examines 'observable' data (speech or writing, for example), there is no principled reason why predictions, or, at least, statistical inferences, may not be made. The so-called natural sciences themselves do not facilitate totally certain predictions, but only strong probabilities on the basis of data so far examined and results so far derived. Only in mathematics and logic is total predictability possible, and even in mathematics we find that complex problems which at first sight appear patient of purely deductive solution in fact require the use of massive computer resources to cover sufficient data.

PART II

COLLOCATIONAL THEORY AND IDIOMS

CHAPTER 5

ENVIRONMENTAL SEMANTICS AND THE ANALYSIS OF IDIOMS

A. INTRODUCTION: WEINREICH 1969

The subjective and empirically inadequate nature of a semantic analysis which has no obvious regard for the importance of 'environment' is demonstrated particularly well in the study of 'idioms' (in a broad sense of the term), and especially when any attempt is made to classify idioms in such a way that it can be said that one idiom is more or less 'idiomatic' than another.

We orient our discussion initially to Uriel Weinreich's well-known paper from 1969 (based on earlier lectures) in which idioms and idiomaticity were examined from a variety of angles. Our task is not so much to criticise Weinreich, who was interested in many aspects of idioms of little concern to us, as to show the difficulties involved in effecting a contextual semantic treatment of idioms, and the suitability of idioms to environmental analysis.

Weinreich divides 'idiomatic expressions' into two main groups:

[Let us... call... any expression in which at least one constituent is polysemous, and in which a selection of a subsense is determined by the verbal context a *phraseological unit*. A phraseological unit that involves at least two polysemous constituents, and in which there is a reciprocal contextual selection of subsenses, will be called an *idiom*. (Weinreich 1969:42)

(At *ibid.*:25:n.6, the term 'phraseological unit' is traced to Vinogradov. It is used as a generally accepted term in Soviet literature; see, e.g. Akhmanova 1965:158. Weinreich's definition of the term is more restrictive than Vinogradov's. See Akhmanova 1965:164 and Weinreich 1969:42:n.12.)

Thus, for example, *blind* is idiomatic in the 'phraseological unit' *blind alley* because here, exceptionally, it bears the sense "without exit at opposite end" (Weinreich 1969:40f.). And in the 'idiom' *red herring*, the meaning of both constituents is idiomatic because *red* does not mean 'phony' and *herring* does not mean 'issue' outside of the expression.

Two related aspects of the contextual semantic analysis of idiomatic expressions, bring it into disrepute.

First, there is a problem attaching to the 'location' of meanings, or '(sub)senses' in Weinreich's terms, within a semantic or lexical structure resulting from contextual analysis. By this we mean that the meaning of an idiom often cannot be neatly 'distributed' over the components of the idiom. In the case of Weinreich's examples, it is fortuitous that a discrete analysis of sense and item seems to be available - *blind* means 'exitless', *alley*, 'alley', *red*, 'phony', and *herring*, 'issue'. But a simple correspondence between parts of the collocational sense and formal items does not hold for many, and perhaps most, 'idiomatic' expressions, in respect of which it seems particularly true that "semantic components cannot be segmented neatly with sharp-cut borders" (Pike 1960:89). Such expressions include many binomial or adjective-noun constructions, especially those with structurally exocentric paraphrases or deriving from compressed metaphorical descriptions; e.g., *black bottom*, (type of dance), *rat race*, *book worm* (from Makkai 1972:321ff.). Of course, in such instances it is sometimes possible to construct a plausible paraphrase that is structurally similar to the idiom, but:

Subsense assigning [of this sort] can be done only *ex post facto*, after the meaning of the idiom is already known to the analyst. No ordinary subsenses of *hot* and *dog* amount to 'frankfurter'; no ordinary subsenses of *red* and *herring* amount to 'phony issue' and no logical subsenses of *white* and *elephant* exist which add up to 'a possession unwanted by the owner but difficult to dispose of'. (Makkai 1972:49)

Weinreich was aware of this problem: "I feel that the relation between idiomatic and literal meanings is so unsystematic as to deserve no place in the theory" (Weinreich 1969:76). He also accepted, for example, in relation to the 'idiom' *shoot the breeze* that: "the segmentation of the paraphrase 'chat/idly' is arbitrary in relation to the idiom itself. Why not 'chat idly / ø'?" (ibid.:56).

The second, more general, problem associated with a purely contextual semantic approach to idioms concerns its negative consequences for a theory of meaning, such as that of Lyons.

Assuming a Lyons-type semantic model, we have tried to illustrate in the following two diagrams something of the network of meaning-relations contracted by *blind*, first in an instance of its 'normal' context, and secondly in an instance of its 'idiomatic' context (in *blind alley*).

Thus, incorporating an idiomatic meaning like this into a contextual semantic model involves breaching Occam's rule, for, quite clearly, specifying a 'context' for *blind (alley)* is superfluous, in terms of its explanatory and 'prediction-facilitating' value, to a statement of the environmental restriction of the expression, and merely 'clutters up' an otherwise quite powerful theory. Used, or abused, in this way, the notion of context, and its relative, sense, becomes fatuous. And how much more foolish the notion becomes with Weinreich's 'idioms' proper, as distinct from 'phraseological units' - at least with *blind alley* one sense remains constant, but with Weinreich's example of an idiom, *red herring*, even this is untrue.

We conclude, then, that whereas the use of the notion of context (and, consequently, sense) seems useful, reliable, and even objective in respect of non-idiomatic items, when 'meanings' are restricted to specific 'idioms', it begins to look foolish. As the only 'context' of a 'phraseological unit' or 'idiom' is, as Weinreich appears to concede, a strictly limited 'verbal context', the meaning of an idiom and the components of an idiom must be in large measure a function of the verbal context or environment.

Note that we do not necessarily deny the 'existence' of senses or of contextual meanings in general, nor do we claim that environment necessarily 'determines' meaning or its perception; rather, we believe that in respect of 'idiomatic' expressions at least, the notion of context is liable to be reduced to absurdity because knowledge of context or sense is indissolubly bound to that of environment - we are therefore better advised to study such expressions in a formal, distributional, manner.

B. MEL'CHUK 1960

'Idioms', broadly understood, are not only 'environmentally-bounded' to a high degree, but they also constitute a relatively 'easy target' for statistical analysis, seeing that the selection of 'collocational' components of idioms is constrained in a manner far more typical of relations amongst 'diagnostic co-occurents' (syntactic constituents) than of those holding amongst 'individual co-occurents' (lexical items, collocates; cf. Harris 1981:159, quoted in Ch. 4). This conjunction of features suggests the possibility of 'quantifying' the idiomaticity of a combination.

In his remarks about the number of combinations in which *blind* means 'exitless' (see above) compared to the (lesser) number in which it means 'unknown' (i.e., *blind date*), Weinreich already implies a scale of idiomaticity. But Mel'chuk (1960) explicitly affirms the possibility of a quantitative scale of idiomaticity, whereby the idiomaticity of one expression may be compared with that of another.

Mel'chuk defines 'idiomacy' (referred to henceforth as 'idiomaticity', except when quoting Mel'chuk) thus:

Idiomacy can be measured on the basis of the number of combinations which have a common word with a single special translation for the combination, but which are also found (they must have one or more other translations) elsewhere than in these combinations. If there is but one such combination, it is 100% idiomatic. As the number of such combinations increases, the degree of idiomacy drops toward zero. (Mel'chuk 1960:19)

Note that Mel'chuk's study is within the framework of a polylingual machine-translation project. However, even though Mel'chuk explicitly eschews the use of 'senses', his 'objective' alternative of 'mono- or bi-lingual dictionary entries' is effectively equivalent, seeing that 'dictionary entries' are no more than formal representations of senses (meanings).

The general thrust of Mel'chuk's position is clear enough; a combination is more or less idiomatic depending on the number of other combinations in which one of its components appears in the same sense. Yet there are several problems here. First, how precisely is degree of idiomaticity measured? For example, suppose one word occurs just five times and in each of its five combinations requires a different translation. Another word which occurs 1000 times appears in four combinations that occur just once each and requires four different translations for each of the four combinations. Would the idiomaticity of each of these nine combinations be the same?

A second difficulty is the use of an 'inter-lingual' as opposed to an 'intra-lingual' definition of 'idiom' (or any other linguistic phenomenon). Mel'chuk's definition is geared toward maximum usefulness to those concerned with machine-translation - it is a practical contribution rather than a primarily theoretical one. And on theoretical grounds, inter-lingual definitions like those of Mel'chuk and Bar-Hillel (1955) are unsatisfactory because it is possible that an idiom, recognized as such by native-speakers and through the application of formal criteria, may yet not be recognized by machine-translation criteria because the idiom in the source language occurs, possibly as a calque, in the receptor language. Thus, we may envisage a situation where an idiom is recognized by two language communities, but rejected as an idiom within a machine-translation project for that very reason! Of course, even if such a situation were, felicitously, never to arise Mel'chuk's proposal takes us no nearer resolving the fundamental issues of the existence, emergence, and comprehension of idioms in language. Such an operational definition simply begs the question of the true nature of idioms.

Thirdly, going beyond the specific interests of Mel'chuk's study, is the problem of 'counting' meanings. For Mel'chuk, this is simply a matter of adding up all the different times that a word requires a 'special translation' in a dictionary. But the objectivity obtained is only apparent, for a dictionary derives from an individual's or a committee's perceptions of meaning and, as Makkai (1978:412) points out: "meaning is not a mathematically divisible, quantifiable concept". Indeed, Makkai provides relevant evidence of this fact. He notes 22 'different meanings' including those associated with idiomatic combinations of *dog* and calculates from this that each meaning of *dog* retains only 1/22 of its basic sense and, hence, is "highly idiom-prone" (Makkai 1978:412). But clearly (although Makkai misses this particular point in his own criticism of the measure), such an analysis involves tendentious and subjective perceptions of 'meaning' and 'different meanings'. Why, for example, should the 'meaning' of *dog* in *dog star* be considered 'different' from the 'meaning' of *dog* in *dogwood*, at least within a monolingual approach? The 'meanings' in each seem to be 'null', and yet, in terms of speaker-perceptions of meaning, may we claim that the 'null' meaning in *dog star* is the same as the 'null' meaning in *dogwood* (cf. Bloomfield 1935:227f.)?

Thus, we reject Mel'chuk's proposal of 'idiomaticity' as a viable and objective measure of the idiomatic status of sequences. However, in the same paper Mel'chuk introduces a second property of lexical combinations, namely, 'stability', which we believe to be a more promising candidate for such a measure:

The stability of a combination containing a given element is measured in terms of the degree of certainty with which it is possible to predict the presence of that particular element in other combinations (in a given order relative to the predicting element).

... Stability equals 1 (100%) when the predicting element is not to be found outside the combination in question.... The stability of a combination equals 0 if the predicting element has no relation in the combination, as for example... in... meaningless phrases (Mel'chuk 1960:11f.).

(Compare the proposal in Neubert et al.1977:118 to classify 'phraseologisms' "nach dem Grade der morphologisch-syntaktischen Stabilität [feste, halbfeste Phraseologismen, und freie Wortfügungen].")

According to Mel'chuk, "From the point of view of the suggested definition, stability and idiomacy are entirely independent characteristics of a combination" (ibid.:19). However, this is necessarily so in Mel'chuk's framework seeing that idiomacity is defined inter-lingually (see above) and stability intra-lingually. The very fact that the two phenomena are studied together by Mel'chuk suggests that he views them, from a more general perspective, as closely related to each other.

C. NIR 1971, 1978

The possibility of using 'stability' or a similar phenomenon as a measure of idiomaticity has already been explored to some extent by the Israeli scholar Raphael Nir.

Apart from 'idiomaticity' (אידיומאטיות), which he defines in a way similar to Mel'chuk (though from an intra-lingual perspective), Nir distinguishes three sorts of 'stability' (קביעות) pertaining to 'collocations' (קולוקאציות or צרפים - the latter are defined more closely at Nir 1971:113 as "set-phrases or formulas"; for the term 'collocation[sl]', see below, Sect. D). They are described in the following passage (which, like subsequent ones, we have translated from Hebrew):

There are different types of 'stability': grammatical stability, whereby one cannot alter the components of a collocation without it losing its [idiomatic] character (העלה חרס בידיו [lit. 'he lifted a shard with his hands' > 'he failed'] - העלה חרסים בידיו ['he lifted shards with his hands' (literal reading only)]); semantic stability which is an indicator of idiomaticity whereby one cannot exchange one of the components of the collocation for a near-synonym without altering its idiomatic properties (ריחיים על צוארו [lit., 'a millstone round one's neck' > 'married'] - ריחיים על עורפו ['a millstone round one's neck' (literal reading only, using a word for 'neck' different from that used in the idiomatic expression)]); and finally - structural, external, stability which does not necessarily depend on the meaning of the collocation. The extent of this stability can be established according to the degree of confidence with which one can predict the total structure of the collocation when given a portion of it. In order to distinguish this from grammatical and semantic stability we call it compactibility [הדיקות]. (Mir 1971:112)

On the grammatical stability of idioms, which is similar to the phenomenon examined in Fraser 1970 (see also Mir 1978:219), see below, Sect. E. 'Idiomaticity' has already been dealt with in our study of Mel'chuk.

The last of Mir's three types of 'stability', namely 'compactibility', Mir further defines as "a statistically graded property... expressed in the tendency of a collocation's components to co-occur and in a fixed order" (Mir 1978:219). It is, thus, exactly equivalent to Mel'chuk's 'stability'. Now, as Mir points out:

If one can predict the form of the collocation on the basis of one of its parts then obviously it is not possible to exchange parts of it for others. [Semantic] stability and compactibility are but two different expressions for the same basic feature: the strong bond amongst components (ibid.:223f.).

Thus, 'semantic stability', which Mir defines in terms of restriction on the replacement by synonyms of collocational components can be viewed as a facet of, and, presumably measured by, the purely formal criterion of 'compactibility'.

But if 'compactibility' directly reflects 'semantic stability', it offers us a formal, observable, measurable, index of 'idiomaticity', because 'semantic stability' itself is a non-trivial aspect of the frequently noted semantic opacity of idioms. (Reasons why 'idioms' are prone to 'synonym-substitution-restriction' are advanced in Ch. 6.) For instance, in the following set of apparently synonymous data from Landau 1974:83 only the first expression yields the idiomatic sense 'Let justice be done':

יקוב הדין את ההר	'The law pierces the mountain',
יקוב הדין את הגבעה	'The law pierces the hill',
יקוב המשפט את ההר	'Justice pierces the mountain',
יקורר המשפט את הגבעה	'Justice bores through the hill'.

If an 'idiomatic' sequence is one in which a component may not be exchanged even for an apparent synonym, then it follows that a combination the components of which can be freely replaced is 'unidiomatic', and that a sequence which has some restriction on component-exchange but not a total prohibition has an idiomatic value lying somewhere between these two extremes. This is, in fact, exactly what Nir claims, when he writes (Nir 1978:226) in respect of 'weak collocations': "The longer the series, the less the idiomaticity of its members". 'Weak collocations' comprise that class of sequences mentioned, which lie between completely 'compacted' expressions and completely 'free' collocations. Statistically, they can be characterized as expressions:

in which an element with a high degree of probability (close to 100%) suggests not a given element or group of elements used together, but one of a small number (two, three or four) of possible elements. (Mel'chuk 1960:21)

For example, in Modern Hebrew, the following set of 'weak collocations' is presented by Landau (1972:111):

נשא +	עיוניים	'eyes' (i.e., 'look up'),
('raise')	רגליים	'legs' (i.e., 'start running'),
	פנים	'face' (i.e., 'look at'),
	ראש	'head' (e.g., in pride),
	קול	'voice' (e.g., in song).

Of these, Landau writes:

The meaning of the verb אָנַח here is conditioned by a restricted context in connection with a specified group of words, the members of which can be exchanged without changing the meaning of the verb. (ibid.; orig. Hebrew; for the same items in Biblical Hebrew, see Reif 1983 - for אָנַח פִּי in particular, see Gruber 1983)

Given our belief that Nir's posited relationship between 'compactibility' and 'idiomaticity' is plausible, in the present work we attempt to develop and test this relationship.

D. IDIOMS AS RESTRICTED COLLOCATIONS: AN ENVIRONMENTAL HYPOTHESIS

The hypothesis about 'idiomaticity' we perceive in embryonic form in Hir's work, and which we aim to test, is as follows.

A collocation is any sequence of two or more morpho-syntactically instantiated lexical units, or collocates, in a given syntactic order (although 'syntactic order' need not correspond to surface-structure order). Each collocation is to some degree a restricted collocation inasmuch as it is characterized by some level of 'restriction' on the number of components by which any given collocate or sub-sequence of collocates within it may be replaced. The level of 'restriction' is measured statistically as the stability or 'predictability' amongst collocates within a collocation. The hypothesis we attempt to test is that the level of idiomaticity (which we define for now simply as 'semantic abnormality', but see Ch. 6) of a collocation is reflected in the degree to which that collocation is 'stable' or 'restricted'.

In our usage, 'stability' is broadly equivalent to 'compactibility' in Mir and 'stability' in Mel'chuk. Let us illustrate diagrammatically what 'stability' is intended to show:

red _____ |her.| + | red | _____ herring

blind _____ |alley| + | blind | _____ alley

The first of the top diagrams indicates that of all the occurrences of RED in a particular corpus, a given proportion of these, ranging, diagrammatically, from bar to bar, are immediately followed by HERRING. The accompanying top diagram shows, in similar fashion, the proportion of occurrences of HERRING that are immediately preceded by RED. The overall stability of the collocation is shown by the line-segments with intervening '+'. The bottom diagrams show the situation for BLIND ALLEY. Note that as they stand, the diagrams take no account of actual frequencies, but merely of frequency-proportions (this is not true, however, of our eventual analysis). Furthermore, the diagrams simply indicate the ratio of occurrences 'taken up by' a particular collocation to the total occurrences of all other collocations. No 'break-down' of the overall collocational behaviour of an item is provided. Mel'chuk labels this feature "combinability":

We assume an adjective that can be combined with 100 substantives. Of each 10,000 times this adjective is used, it will be found in combinations with a given one of these (combination C1) 9,901 times. The stability of combination C1 for this adjective is then very high - above 99%! If however, with the same degree of combinability, the adjective is found an equal number of times with each of the 100 substantives, the stability of each one will be very low - 1%. (Mel'chuk 1960:21).

For the purposes of the analysis conducted in the present work, we do not pay attention to 'combinability'.

The hypothesis as we have outlined it, and as illustrated in the diagrams is very 'strong' in so far as it treats collocates of an item without respect to their semantic relationship to one another. It does not claim merely that it is restriction on synonym-substitution that characterizes idioms, but that in some sense the collocational attraction between the components of an idiom is so influential that these items tend to reject association with all collocates other than those occurring in the idiom. This 'collocational rejection', we claim is 'intuited' most sharply in respect of synonyms, but is in fact a phenomenon of much wider scope.

Restricted collocations, as defined for the purposes of the present work, comprise a subset of what Firth (1968:180) calls "habitual collocations". 'Habitual collocations' of particular words are "the other word-material in which they are most commonly or most characteristically embedded" (ibid.). But the collocations we have defined form only a 'subset' of habitual collocations because they are also syntactically structured (they are lexico-syntactic units). Firth (1968:181), however, specifically rejects the requirement for habitual collocations to be grammatically constrained.

There are two main reasons for restricting our definition of collocations in this way. First, it is intuitively obvious that idioms are, typically, 'phrases', that is, sequences of words in a fixed order. Indeed, as the literature on the subject makes clear, idioms tend to be exceptionally 'sequenced' or 'structured', so much so that often they can undergo only a limited number of expected grammatical manipulations (including 'transformations'). This is the 'grammatical stability' of idioms which Mir mentions (see below, Sect. E). Secondly, Firth (1968:181) claimed that "The collocation of a word or a 'piece' is... an order of mutual expectancy". We believe, by limiting our 'habitual collocation' data in the way proposed, we can more easily establish simple, easily-checked, statistical measures of 'mutual expectancy'; as we shall see (Ch. 7, Sect. A), other researchers of a collocational perspective who have ignored the fact that idioms are syntactically-structured collocations have found little success in 'measuring' idiomaticity.

Furthermore, there is some evidence that in native-speaker perception it is the highly structured internal composition of an expression that serves as a mark (although by no means the only one) of an expression's idiomaticity:

[S]peakers tend to allow semantic context to be the major cue for differentiating idiomatic from literal meanings. However, we found that under certain conditions, listeners are easily able to disambiguate ditropic sentence pairs [i.e., sentences that can yield a literal or an idiomatic meaning] even in the absence of a semantic context.

[F]or the literal sentences, the acoustic cues serve to separate and highlight the constituent parts, while for the idiomatic sentences, acoustic cues tend to signal the melding of constituents, enveloping them into a seamless whole.

(van Lancker-Canter-Terbeek 1980:357f.,362)

As stated, each collocation that occurs in a language is more or less 'restricted'. By the same token, presuming idiomaticity and stability to be related features, any collocation is to some extent an 'idiom'. That is to say, idiomaticity is a scalar, not an absolute, phenomenon:

There is no clear boundary between an idiom and a collocation or between a collocation and a freely generated phrase - only a continuum with greater density at one end and greater diffusion at the other. (Bolinger 1977b:168; see also Wood 1981, which develops the notion of a 'compositional gradience' for idioms)

Our position contrasts with that of Mitchell (1971:53) who ascribes to 'idioms' a status different from that of 'collocations' and of Leykina (1961:42) who distinguishes "inclusive" ('idiomatic') and "exclusive" ('compositional') valences.

To test our hypothesis, we have, of course, to formulate a statistic to measure 'stability'. Although it is easier to establish a measure of syntactically-constrained stability than of a more general 'stability of lexical association', there are still difficulties in choosing a 'correct' statistic. We turn to this in Ch. 7, where we also review other related attempts to 'measure' idiomaticity. It should be borne in mind that any failure to sufficiently 'prove' the hypothesis might be due, at least in part, to an inadequacy of the statistic chosen, rather than solely a reflection of the invalidity of the underlying hypothesis (concerning the relationship of 'stability' and 'idiomaticity').

Once established, we test the hypothesis, via the statistic selected, on a set of collocational data, drawn from the Hebrew Bible. For the validity of the hypothesis to be demonstrated requires that we actually know what it is for a collocation to be more or less 'idiomatic' than another collocation. The semantic analyzability of the Hebrew Bible, and specifically of the vocabulary from which our data are drawn, is defended in Chapter 8, Sect. A. More generally, isolation of an 'idiom' is sometimes facilitated by the presence of contextual incongruity if the 'idiom' is interpreted literally, and/or by an oddity in an expression itself, that is, in the concatenation of its components (see Sect. F, 1).

It is, of course, possible that the hypothesis will turn out to be invalid, or only 'weakly' valid (discounting the possibility that the invalidity resides partly or totally in the choice of statistic employed). If so, this will indicate that analysis of 'idioms' by methods, such as Mir's, which are formal but not statistical, is flawed - a formal technique that is not patient of quantification falls between two stools, possessing neither the 'common sense' and analytic ease of an 'intuitional' approach, nor the scientific rigour of an empirical one. Failure of the hypothesis would also indicate the inadequacy of collocational-statistical techniques in linguistic analysis more generally, given that, as we have claimed (see Sect. B), 'idioms' appear to form an 'easy target' for collocational analysis; it should serve to warn off other prospective workers in the field.

On the other hand, if our results indicate that the hypothesis tends to be valid, this could be of significant practical benefit to, for example, the analysis, at least in its initial stages, of 'dead' or otherwise unknown languages, not only assisting in the isolation, preliminary classification, and interpretation of 'idioms' but also helping to show from the outset semantic 'specialization' of words within 'idioms', and deterring simplistic interpretation of a word which takes no account of the environmental restriction of certain meanings attached to that word (cf. Barr 1961:124, 132 on קָהָל 'gathering', ?'congregation', and דְּבָרִים 'words', ?'history', in Biblical Hebrew). Lexicography, especially of ancient languages, could gain if provided with a secure means of testing for degree of idiomaticity - the same is true of machine-translation. More generally, if the hypothesis is proved correct it would provide impetus to formal analysis of other 'meaning-bearing items' in language, and to study of the perceptual correlates of 'stability' and other statistical phenomena of language.

E. GRAMMATICAL STABILITY

In our work we do not exploit 'grammatical stability' (in Nir's terms) to 'measure' idiomaticity. Well-known examples of analyses that utilize differences in the syntactic, specifically the transformational, behaviour of idiomatic collocations, though written from different perspectives, are Weinreich 1969, already discussed in another context, and Fraser 1970. Weinreich 1969 has been criticized by Landau (1974:86f.) on the grounds that the transformational criteria proposed are inapplicable to languages other than English, in particular Modern Hebrew, and because it insufficiently distinguishes syntactic restrictions on idioms from restrictions that apply to a particular class of words members of which happen to occur in idioms (though see Weinreich 1969:47: "phraseological units are at best a subclass of transformationally deficient structures") - the second criticism is also raised by Wood (1981:24) against Fraser. Fraser's posited eight levels of transformational defectiveness in idioms has been criticized, and partially invalidated by McCawley (Quang Phuc Dong 1971; although in Makkai 1972:57 it is pointed out that the criticism rests on an identification of 'idioms of encoding' and 'idioms of decoding' - see Wood 1981:104ff., however). Nagy (1978:296) has also pointed out an inconsistency in Fraser's use of the term 'idiom'. On the other hand, Cutler (1982) found some diachronic correlates of Fraser's levels.

In part, our avoidance of 'grammatical stability' simply reflects the lexical, as opposed to syntactic, overall interests of the present work. But also we believe that even though grammatical stability is, as we have already made clear, an important aspect of 'idioms' which greatly facilitates their isolation, it is not a particularly useful aid to a scalar classification of 'idioms'.

Syntactically-oriented analysis tends toward the separation of 'idioms' or 'sets of idioms' from one another rather than their unification in a single classificatory system where each may be compared with the others, due to the fact that 'idioms' are expressed in a wide variety of syntactic forms, and that they are often difficult to identify as 'idioms' in the first place. Broad structurally-based groupings are established and refined in the hope that such groups might evidence a set of (deviant) semantic features common to each member of the structural group. The usefulness of this approach would be proven if it could be demonstrated that structurally different groups of 'idioms' vary semantically in such a way that the addition or subtraction of a syntactic or other kind of formal feature corresponds in an observably consistent way with the gain or loss of a given semantic feature. But this is evidently not the case. Of Fraser's analysis, for example, Makkai writes:

The result is... disappointing, since it turns out that there is no way in which... particular transformational freedoms or restrictions... could be correlated either with... semantic content or with... formal structure. (Makkai 1972:150)

Whether or not they [scil., the components of an idiom] may be re-encoded in some alternate way so as to realize the same sememe must be regarded as an interesting, but essentially gratuitous fact. (Ibid.:152)

Hence, any attempt to provide a unified description of idiomatic collocations based on syntactic criteria seems doomed to failure.

F. OBJECTIONS TO THE HYPOTHESIS

Before proceeding with our own lexically-based analysis it is worth discussing two apparent difficulties attached to the hypothesis that formal stability may be regarded as an accurate guide to perceived idiomaticity.

1 NON-IDIOMATIC INTERPRETATION

Most 'idiomatic' expressions are also patient of a 'literal' or (obviously) compositional interpretation (cf. Weinreich 1969:44, quoted in part 2 of the present section). But our analysis, because it utilizes as data only formal items and relationships, will throw together both idiomatic and literal usages of an expression, and, moreover, might lead us to claim that the literal ones are in fact idiomatic, because we will have been deceived by their formal identity with genuinely idiomatic occurrences. The refutation of this criticism depends to some degree on maintaining a distinction between a theory of semantic competence, of the possibilities of interpretation (which was what Weinreich was seeking to develop - see, e.g., Weinreich 1969:43f.), and a theory of semantic performance, of the actualities of interpretation (to which our study pertains).

The criticism is answered in two ways. First, in respect of 'weakly' restricted collocations, our theory claims that the weaker the collocational bonds within a collocation (the more 'manipulable' its components), the less likely is that collocation to develop a consistent specialized, or 'idiomatic', meaning, and the more likely it is to be employed 'literally', because of the proximity of the collocational meaning to the compositional meaning - thus, our hypothesis accommodates the possibility of 'weakly' restricted collocations being attested in both 'idiomatic' and 'literal' senses.

Secondly, in connection with 'strongly' restricted collocations, it seems to us, although clearly this a matter for empirical investigation, that such collocations will tend not to be used with their literal senses (except in deliberately language-manipulative situations - joking, punning, etc.), due, in part, we believe, to their subjection to a general 'rule' of homonymy. (For a comparison of 'idioms' and homonyms, see Makkai 1972:122.)

This 'rule' might be stated loosely as, The most common meaning of a homonym will tend to suppress less common meanings, at least to the extent that these latter meanings will usually be realized only in a limited number of morphological forms of the homonymous lexeme (cf. Bloomfield 1935:396ff. on French *gat* 'cock/cat' and English *let* 'allow/prevent'). In respect of collocations, we might recast this as, The more stable a collocation the more it is perceived and stored in the mind as a single, albeit complex, unit with its collocational or idiomatic meaning (see Ch. 6, Sect. F). In so far as this status has been attained the more suppressed will be the employment of the collocation, *qua* 'free' combination of components, with its compositional meaning. (However, the 'literal' use of any sub-sequence of components should not be affected - if so, this is another reason to regard the meaning of a collocation as a function of the whole, not a composite function of its parts; contrast Weinreich 1969.) Furthermore, the different meanings of a homonym (and of a restricted collocation) are usually far enough apart to necessitate their realizations in significantly different distributional environments - this aids purely formal disambiguation of one meaning from another. (Note that in the foregoing we have not accepted the validity of the distinction between 'misinformation' as a property of homonyms and 'disinformation' as a property of 'idioms'; see Makkai 1972:122.)

There is another aspect to the 'literal' interpretation of restricted collocations which might support our view that in practice it rarely occurs. Regarding the expressions *bite the dust*, *kick the bucket*, *take the cake*, and *rock the boat*, Rose (1978:56) claims "there is nothing terribly unusual about the concatenation of ideas in such expressions". But is this really true? May *bite the dust* be said not to breach any semantic selectional restrictions except after *dust* has been understood, by synecdoche, to refer to 'earth, soil'? And in respect of each example, how may one 'normally' interpret a determiner that refers to nothing previously signalled in the discourse? Thus, Rose's evidence points to a conclusion opposite to his own, namely, that a sign of an expression's idiomaticity may well be the referential oddity of the components in combination. Therefore, the idiomatic reading of such a collocation will tend, by its semantic peculiarity, to suppress the 'literal' one for two (possible) reasons. First, situations ('contexts') suited to the 'idiomatic' rather than the 'literal' employment of the collocation are the more likely to occur in discourse. Secondly, the idiomatic reading, *qua* oddity, may well be psychologically 'foregrounded' in the language-user's lexical recall system.

In sum, our reply to the first objection is that although it is indeed possible that literal uses of a restricted collocation will be (wrongly) utilized as data alongside idiomatic ones, it is in fact improbable in the case of very restricted collocations, and in the case of less restricted expressions the existence of both literal and idiomatic uses is predicted by the theory anyway.

2. COUNTER-EXAMPLES

Another difficulty with our hypothesis that idiomaticity and stability are correlated arises from the apparent existence of non-stable but idiomatic combinations and stable but non-idiomatic ones. Mel'chuk (1960) gives examples of both kinds of situation, but his data are unusable in view of the nature of his inter-lingual definition of 'idiomaticity' (see above, sect. B). However, this comment does not apply to Nir who describes the situation in Modern Hebrew (but applicable elsewhere) thus:

In the majority of cases, we find... that expressions characterized by a high degree of idiomaticity also possess a large measure of stability; e.g., קופא על שטריו ['freezing over ones dregs' (cf. Zeph. 1.12), i.e., 'conservative, stick in the mud'], אין חוכו כברו ['his inside is not like his outside', i.e., 'he is a hypocrite'].

But there exist as well idiomatic expressions possessing a low stability - most of them are collocations that can be used either with their normal sense or metaphorically: עבודה נסלים [lit. 'work of ants' > 'painstaking work'; cf. נסלי 'assiduous'], צוואר בקבוק [lit. 'neck of a bottle' > 'bottleneck'], etc. Amongst them are many slang expressions... לא הלך לו ['it didn't go (well) for him'], קיבל על הראש ['he got it in the neck (lit., 'head')'], הלך לו קלף ['the card went for him, he came up trumps'], הפס שלוה ['he snatched rest, he took a breather'].

There is another class of expressions, characterized by great stability although they cannot be viewed as idiomatic combinations in the sense already suggested. To this category belong, amongst others, expressions formulated as similes...: **בְּקִלִּיפַת הַשּׁוּם** ['(thin) as the peel of a garlic', i.e., 'worthless'], **כְּשֶׁלֶג דְּאַשְׁחַקֵּד** ['as (real as) last year's snow'], **כְּאִבֵּן שְׂאִיִן לֵה הוֹפְכִין** ['like an unturned stone', i.e., 'unwanted, redundant'], **כְּחֹמֶר בַּיַּד הַיּוֹצֵר** ['like clay in the potter's hand', i.e., 'easily influenced']. The existence of the sign of comparison [כ] prevents us from seeing an idiomatic use of any one of the components. Any idiomaticity a simile has derives from its habitual, fixed, usage.

In other words, it is [simply] established usage that forms the structural link amongst components, which we call 'stability'. Alongside similes are other 'stable' expressions not characterized by a high level of idiomaticity, such as **כַּזְּכֵּן עַתָּה** ['as then, so now'], **יָצָא לְחַרְבוֹת רַעָה** ['he went for an evil upbringing', i.e., 'he went off the straight and narrow'], **לֹא הָיוּ דְבָרִים כֵּאלֵּל** [lit. 'such things never happen'; i.e., 'nonsense!']. (Mir 1971:112f.)

In connection with the first two 'unstable idioms' (second paragraph), in the absence of any objective evidence Nir seems to overstate his case. It seems likely that בקבוק has a rather high degree of collocational association with צואה in Modern Hebrew just as, intuition tells us, *bottle* has with *neck* in English - similarly נמל 'ant' and עבודה 'work' intuitively comprise a collocational pair similar to *busy* and *bee* in English. Nir seems to assume that it is necessary for an item to show an exceptionally high degree of stability in respect of its collocational partner(s) before the resulting combination may be regarded as idiomatic, and does not appear to take consider the possibility of a collocation being idiomatic if all its components show an above-average, albeit not outstandingly high, degree of stability in respect of one another.

תפס שלווה 'snatch rest' seems, again intuitively, quite stable - it is difficult to imagine, for example, שקט 'silence' or הפסקה 'break' being used for the noun or לקח 'take' for the verb. Clearly with the collocation of הלך and ל 'to go (well) for (someone)', which appears in two of Nir's 'slang' expressions, it is more difficult to 'intuit' stability in view of the very high frequency of both components; the collocation might have a stability that is lower than that pertaining to other expressions cited, but still high enough to yield a distinctly idiomatic flavour. The version of the expression followed by קלף 'playing-card', is considerably more stable - כרטיס, for example, a superordinate, 'card', of קלף could not replace the latter in this expression and yield the same meaning. Furthermore, with this idiom and קיבל על-הראש 'get (it) in the head', Nir seems to overlook the possibility that a collocation might be characterized by high stability between sequences of components rather than between individual components:

The term "stability"... can be applied to such combinations as *vynosit' sor iz izby* (to foul one's nest). In this combination of words, not a single one gives a very probable indication of the others. But two elements together (*vynosit' sor*) give a suggestion of the others. In such a case, one can refer to the prediction of stability on the basis of two elements. (Mel'chuk 1960:12)

As for Nir's examples of 'stable non-idioms' (third paragraph), these are, as Nir admits, only denied the characteristic 'idiomatic' because of his definition of the term. But Nir refers to these same expressions as מִבְּיָמַי, the standard Modern Hebrew term for 'idioms' in a loose sense ('figures of speech' would be more accurate in the context of the work of Nir and Landau), thus implying some degree of 'semantic specialization/oddity'. This is clear enough from the examples themselves; they are used in referentially abnormal contexts (e.g., *garlic* in a political situation), and their 'collocational meaning' is idiosyncratic in respect of their componential meanings - why should one of the expressions imply 'nonsense!' rather than 'remarkable!' and why should a garlic peel be 'worthless' rather than 'unpleasant'? Compare Weinreich 1969:76. Furthermore, one can easily imagine situations in which the sign of simile, כְּ, is omitted from the collocations (e.g.; זֶה הַשָּׁלֵג דְּאַשְׁמֻקָּה, literally, 'That's last year's snow', meaning 'Tell me something new!'). In sum, Nir's alleged 'non-idioms' simply attest the difficulty of noticing 'idiomatic' usages in one's own language. Clearly some of these collocations are not as 'idiomatic' as some others - but it is precisely this type of difference in idiomaticity that we are trying to analyze in the present work.

Regarding Nir's claim that it is 'habitual usage' which yields 'idiomaticity' in a simile, cf. Pike 1960:87, and see Ch. 7, on the significance of frequency of occurrence of a collocation and of unexpectedly high association of collocates in contributing to idiomaticity.

Another possible class of 'stable non-idioms' are sequences based on what we shall call 'cranberry collocates', words which occur nowhere in the language except one particular environment. Weinreich writes:

[Such phrases as *luke warm*, *runcible spoon*, *spic and span*, *kith and kin*, *hem and haw*, *cockles of the heart*, and so on.... are hardly ambiguous since the unique occurrence of, say, *luke* with *warm* guarantees that *luke* has only one subsense - whatever that may be.... From this point of view, ambiguity is an essential characteristic of true idioms. (Weinreich 1969:44)

He proceeds to claim that such combinations are 'stable' (in the sense of Mel'chuk 1960) but not 'idiomatic', and this is the aspect of Weinreich's case that we shall examine. (Of course, this is not the main point of Weinreich's argument here, which is concerned with the alleged need for 'true' idioms [as opposed to 'pseudo' ones; see Makkai 1972:123, cited by Weinreich] to be ambiguous; cf. Wood 1981:72ff.)

The first two of Weinreich's examples do indeed appear to be 'non-idiomatic' - *warm* and *spoon* exhibit no semantic deviancy, and *lute* and *runcible* seem to be simply 'shrift-like' words (see Ch. 2), words for which 'meaning' is 'environmentally-bound' to an abnormally high degree. For our hypothesis, such 'bound-lexemes' do pose something of a problem because they exhibit total stability. However, this absolute restriction is only 'one-way' - *warm* and *spoon* are relatively very unconstrained in their collocational associations. Thus, it would be possible to eliminate such collocations as 'stable' by specifying that to be classed as 'stable' a collocation must show 'reciprocal' or 'multilateral' stability amongst its components. In respect of two-item collocations this could be checked by comparison of the standard-deviation of the two stabilities with the mean stability (the closer the two, the less acceptable the collocation as stable). Clearly, this type of proviso could only be realistically effected in connection with a very large, adequately-representative-as-a-sample-of-the-language, corpus; in a less adequate corpus many lexemes would appear as 'cranberries' simply because a context in which they would have occurred in a different (collocational) environment was not represented by the corpus.

We agree again with Weinreich that *Cockles of the heart* is not an 'idiom' (although in conjunction with *warm the...* it might be); *cockles* is interpreted (as originally) as 'symmetrical cockle-shaped (cardiac) sections'. Thus, *cockle(s)* is not a 'cranberry collocate' to begin with. Nor do we believe that *cockles of the heart* is highly stable; in terms of the collocational proclivities of *cockles*, *cockles and mussels* is probably more stable. This is true at least for British English; if Weinreich's comments reflect American usage, then the matter can be resolved in the manner of *luke warm* and *runcible spoon*.

Kith and kin we regard as 'idiomatic', certainly more so than the three items already discussed - *kin*, of course, bears its 'regular' meaning, but the collocation as a whole has an emphatic connotative value of 'all ones near- and distant-relations (and friends)' (the collocation has thus come to receive an interpretation similar to that of *spic and span* - see below). Apart from this 'intuitive' idiomaticity, the collocation would also be judged as 'idiomatic' by the criteria outlined in Ch. 6. Furthermore, it strikes us that this idiomaticity does indeed correspond with high stability, not simply 'one-way' from the 'cranberry' *kith*, but also from *kin* which is largely (although not entirely) restricted to this collocation (from a diachronic perspective, though, the same item is found in the adjective *kind*, as well as the suffix *-kind*: see Trench 1867:72f.).

By our criteria (see Ch. 6) *hem and haw* too is idiomatic to the extent that it now 'directly' or 'idiomatically' means 'dither', and no longer attains this meaning by compositional interpretation of the meanings of the components. *Haw* is probably now a 'cranberry', although *hem* as a 'stylized cough' is quite frequent enough outside the collocation - again, stability and idiomatic value co-incide.

Spic and span contains two 'cranberries', and, thus, has a very high stability, even when *and* is taken into account. Intuitively, the collocations forms an 'absolute idiom' of the *kick the bucket* type, even if it is composed of 'cranberry lexemes' - thus, we disagree with Weinreich on this point. From a diachronic perspective, and judged by the criteria of Ch. 6, the idiomaticity is evident (OED portrays the historical process as follows: *span new* 'chip new' > *spick and span new* [alliterative emphatic form] > *spic[k] and span* 'like new'); quite clearly (anticipating the arguments of Ch. 6), *spic and span* now 'directly' or 'idiomatically' means 'like new', that is it signifies 'like new' without 'describing' or 'evoking' this reference in any way. In fact, although within the present discussion of Weinreich's claims it is important to point out that *spic and span* is an 'idiom', we shall not in practice be concerned with such 'absolute' idiomaticity in our subsequent analysis (see Ch. 6, Sect. F).

So far we have found that none of the 'counter-example' data proves a major obstacle to our hypothesis. Tentatively, then, we feel able to proceed with a more rigorous and extensive formulation and testing of the hypothesis, although we accept that it is quite likely that certain modifications will have to be made as other 'difficult' data are encountered. Before specifying the precise nature of the hypothesis to be tested (Ch. 7), we attempt in the next chapter to outline a 'theory' of idioms consonant with the basic form of the hypothesis propounded.

CHAPTER 6

TOWARD A THEORY OF IDIOMS

INTRODUCTION

So far we have used the terms 'idiom' and 'idiomaticity' in an intuitive, pre-theoretical, way. It is not the purpose of the present work to offer a comprehensive theory, description, or definition of idioms. We have already stated (Ch. 5, Sect. D) that our theoretical position dictates that we regard all collocations as 'idiomatic' to some degree. In this chapter we try to highlight precisely what this all-pervasive phenomenon is, and why it might be 'measurable' via analysis, as we have suggested, of stability or predictability-amongst-components.

Our analysis is based on the long-established position that idiomaticity and metaphor (in a broad sense) are closely associated, and we also relate these to the notion, well known in biblical scholarship, of 'demythologization'.

A. MYTHOLOGY AND METAPHOR

In tracing the development of a metaphor, of whatever size of unit of linguistic expression, we often encounter an aspect of the phenomenon known to biblical circles as demythologization. Although best known in relation to fairly large, narrative units, demythologization is also used with regard to lower-level single lexical units:

The notion that creation consisted in an act of procreation has survived in the P[riestly] account [of creation (Gen. 1.1-2.4)], in the word 'generations', but has entirely lost its original meaning; it has been demythologized. (Hooke 1963:119; for the background 'mythology', see Frankfort *et al.* 1949:17f.)

The phenomenon mentioned by Hooke is clear enough; certain expressions 'lose' their originally (etymologically) descriptive nature when what they designate ceases to exist or is perceived as having ceased to exist or is forgotten. In fact, the Hebrew original of 'generations', דורות, was probably rather less 'demythologized' in respect of its etymological meaning than *generations* is, because Biblical Hebrew contains relatively more common words based on root י-ל-ד (ילד 'boy', ילדה, 'girl', סיידה 'midwife') than English possesses based on stem *gen-*. The fact that Biblical Hebrew has only a tiny proportion of non-Semitic lexemes, and the Hebrew speaker's well-attested proclivity toward etymological and aetiological analysis (see Caird 1980:45; Sawyer 1972:50) might also have encouraged an awareness of the relationships of derivational-morphology amongst words.

Sometimes, an original, non-demythologized, signification is only evidenced in a cognate speech community. For example, Akkadian *Tiamat*, the name of the chaos-dragon in Babylonian mythology, has been 'demythologized' in Hebrew תַּיַמָּת, which signifies the primæval abyss (see Hooke 1963:119) over which Tiamat would have ruled but not the god himself - there is no evidence that the ordinary speaker of Biblical Hebrew was aware of the fact that תַּיַמָּת was 'originally' a divine name (though note its general rejection of the article; see BDB, KB).

Similarly, the average speaker of English is completely unaware of the relation of *gossip* to God and *Europe* to face (Trench 1862:207ff., 231) or of *distance* to standing, *interval* to hedges, *mass* to kneading, and *time* to stretching (Pumphrey 1953:325). All these words may "be truly regarded as buried parables or metaphors or analogies" (ibid.; cf. Trench 1867:4f., 34f. [quoting Emerson] on language as "fossil poetry").

As the quotation from Pumphrey suggests, demythologization has close associations with the ubiquitous phenomenon of 'metaphor-death', the tendency of all metaphors to lose their 'freshness', within the speech-community at large or within the perceptions of individual members of the community. In particular it seems to us that expressions like תולדות, the original descriptive power of which is in principle cognizable by native-speakers on the basis of their familiarity with morphological cognates in their own language, are akin to what Northrop Frye calls 'vestigial metaphors', such as *law of nature*, which "carries with it a vestigial sense of a personality who commands and other personalities (ourselves) who have the option of obeying or disobeying" (Frye 1983:16).

Thus, a vestigial metaphor is an 'ex-metaphor', a 'demythologized metaphor', the metaphorical form of which is not recognized by speakers, unless particular attention is drawn to it. The epithet 'vestigial' implies a previously 'full-bodied' metaphor, which lies between the 'literal' use of an expression and its 'vestigially metaphorical' use. Thus, תולדות shifts its signification from 'acts of (divine) procreation' through 'stages of (the earth's) development analagous to acts of (divine) procreation' to 'phases of (the earth's) development'.

Vestigial/demythologized metaphors are, effectively, 'dead' metaphors. Their (protracted) death sometimes coincides with the development of a progressively more rational and secular society as, perhaps, in the case of the Hebrew examples (where 'secular' must be interpreted as 'less polytheistic/animistic'), although there will often remain differences in perceptions of 'metaphoricity' within a language-community - for example, despite acquisition of basic astronomical facts at school the majority of English speakers will probably be found to understand *sunrise* rather more 'literally' and less 'vestigially' than the facts dictate. Compare the discussion in Putnam 1978 of 'expert' and 'stereotype' meanings (strictly, 'extensions').

Despite the claims of, for example, Kennett (1933:2) that words like כבוד 'glory' continued to bear their 'literal' values (in the case of כבוד, 'heaviness'), being "metaphors not as yet completely crystallized into abstracts", and of Dhorme (1923:163), writing on "l'emploi métaphorique" of Biblical-Hebrew anatomical terms, that "La nuance de ces expressions est fournie par le contexte, mais elle respecte toujours le sens primitif du mot employé", it is a fact of linguistic life that metaphors do die. Biblical Hebrew is no exception to this, and James Barr (1961, 1983) has inveighed against the tendency of exegetes to assume mistakenly that most theologically potent Hebrew words were somehow suspended at a fully metaphorical stage, never becoming completely 'demythologized'. Even if it were true that in Biblical Hebrew, or another language, "No word is metaphysical without having first been physical" (L.H. Grindon quoted in Brown 1955:17; but see Fohrer 1968:98f. for Biblical-Hebrew concretes derived from abstracts, e.g., אדא 'splendour, royal robe', און 'virility, property'), it would be most unlikely that this 'physical' basis would somehow persist, whenever an expression were used 'metaphysically'. (Biblical scholars are not alone in their error on this point. At Burchfield 1985:105, the following quote from J.L. Austin is included: "A word never - well hardly ever - shakes off its etymology and its formation. In spite of all changes in and extensions of and addition to its meanings, and indeed pervading and governing these, there will persist the old idea".)

B. METAPHOR AS DESCRIPTION

Our position is that for an expression to be a metaphor it must refer to something in terms of something else. The object of comparison need not be formally signalled, but triggered in the hearer's perception by more subtle means. Thus, in the original metaphorical understanding of דורות , namely, 'stages similar to a sequence of divine procreations', the 'similar to...' part of the definition is evoked by the hearer's familiarity with the morphological relation of דורות to other words from a semantic field of 'birth'. That is to say, דורות did not refer to (the concept) 'generations' by labelling it, but by describing it. But when the metaphor 'died', that is, when it was no longer, except vestigially, perceived by speakers of Biblical Hebrew as a metaphor, it became a mere 'label' for what it once 'described'.

Clearly we are using 'metaphorical' rather loosely to express simply that property whereby a phenomenon is signified through designation of (an)other referent(s), that is, by what we call 'description'. Many 'demythologized' descriptions, that is descriptions-which-have-turned-to-labels are borrowed from another language-community in this form. But, within their initial language, it seems likely that the vast majority of new items of vocabulary are introduced as descriptions (trading on their morphological or phonaesthetic relationship with known items), only subsequently becoming labels, the original descriptive power of which can be revealed by etymological analysis alone.

C. METAPHORS AND IDIOMS

This account of what a metaphor is applies not only to single words but also to sequences of words ('metaphors' as generally understood), including so-called 'idioms'. Thus, for example, *kick the bucket* once described a means of death, but now is simply a label for 'die', its original descriptive force known only to the etymological elite. Other word-sequences are 'vestigial' metaphors - their descriptive origins are synchronically cognizable, but in practice rarely perceived. The only obvious difference between 'idioms' (in a broad sense) and other 'demythologized' expressions is that idioms are combinations, strictly, 'collocations', of other expressions (which possibly have undergone demythologization independently). Why is it, then, that speakers prefer to reserve the term 'idioms' to the category of demythologized collocations?

One obvious reason is that if every demythologized expression were to be classified as an idiom, languages would be found to consist largely of idioms - the term 'idiom', would then be vacuous as well as etymologically inappropriate. Thus, the idiosyncratic definition of idiom in Hockett 1956 is usually discounted; see, for example, Makkai 1972:33.

A more fundamental reason seems to be the following. Demythologization, as we have seen, destroys the original (metaphorical) description-evoking force of a lexical expression, and turns that expression into a mere label of what it once described. If the expression is a single word, even though its referential power is greatly diminished by demythologization, the word does not change its essential semantic function - the lack of syntactic structure of a word ensures that this function can only ever be nominative or labelling. The original descriptive force of the word was only ever evoked, not explicit. But in the case of an expression of more than one word, the original descriptive force is explicit, residing in the structure, albeit compressed, of the expression. The whole point of the move from the use of words on their own to the use of words in combination is to enable the expression of propositions, the making of statements. A statement speaks 'about' a referent, and to speak about a referent can only be to speak about it in terms of another referent. Yet the semantic function of a demythologized collocation is nominative or labelling inasmuch as what was once metaphorically described/evoked by the collocation is now directly signified by the collocation - this is indicated most extremely by the tendency to gloss idioms, especially semantically exocentric ones (for our use of 'endo/exocentric' in this section, cf. Bloomfield 1935:235f.), by one-word equivalents: e.g., *kick the bucket* means 'die'.

Thus, when a collocation (as opposed to a word) is demythologized it changes its semantic function from descriptive to, or at least toward, nominative whilst retaining its syntactic structure as a descriptive (proposition-expressing) combination. It masquerades as a description but is used more like a label.

This kind of relationship between level of semantic deviancy and type of syntactic structure is attested elsewhere in language. Commenting on *des nuages essoufflés* and *le chenil voit le garçon*, Ostrá (1977:71) claims that, although the same sort of breach of selectional restrictions and semantic deviation occurs in both, the latter expression is more difficult to comprehend probably because "la déviation sémantique se réalise ici sous forme du prédicat explicite, ce qui la fait sentir comme moins admissible." Similarly, idiomatic collocations are (perceived as) idioms because their semantic function is disconsonant with their syntactic form - further, semantically exocentric idioms like *kick the bucket* and *bite the dust* seem more 'idiomatic' than endocentric structures like *black as the ace of spades* and *blind alley*.

D. IDIOMS AND COMPOSITIONALITY

At first sight, certain idiomatic collocations speak against what we have claimed. Take as an example, *sweet Fanny Adams*. Now, inasmuch as the original collocation is composed of a modified noun-phrase and a 'translation' like 'absolutely nothing' realizes this same structure, there is no difference in 'structural perception' between the original and the contemporary usage of the collocation. But this is to miss the point that the collocation as originally used described 'absolutely nothing' by evoking a 'myth' (of sailors' meat and Victorian infanticide; for a detailed account see Annette Booth's article on p.14 of the *Sunday Times*, 22 August, 1982) - it was not directly interpreted in some word-for-word manner as 'absolutely nothing'. How could it be! Clearly, now, the collocation labels what it once described/evoked, and is, thus, according to our analysis an idiom, even though for the purposes of perceiving its idiomaticity, the native-speaker is more aware of its lack of compositional semantics than the discrepancy of descriptive and labelling structures.

Of course, lack of compositional semantics has traditionally been presented as the main criterion of idiomaticity, and there are indeed many collocations of the *sweet Fanny Adams* type in respect of which speakers are alerted to the presence of idiomaticity more by semantic than by structural mismatch. Nonetheless, we argue that it is the occurrence, and perception, of structural incongruity at some point in the history of the development of a collocation that turns it into an 'idiom'. Any subsequent loss of mismatch, so that the idiom appears idiomatic only because of a lack of compositionality, is the result of conceptual simplification and re-ordering of the reference of the collocation to better fit the structure of the collocation. (This process is encouraged by the fundamental psychological tendency to reduce referentially complex structures into conceptual simples ready for linguistic encoding [which encoding subsequently tends to confirm the psychological reality of the concept rather than the referent itself]. A table, for example, is conceptualized, and lexicalized, as a single unit, *table*, rather than as a more complex relationship of legs to surface.) In the case of a 'simplified' collocational reference, the 'meaning' assigned to each component can be extremely vague, but as long as its referential function, say, attribute or object, matches the syntactic function of its appertaining collocational component, this is sufficient to ensure that the only perceptual index of the collocation's idiomatic status is its non-compositionality.

Clearly, then, non-compositionality can be utilized as an important sign of idiomaticity, even though, as we have explained, we do not believe it to be the major criterion. Our rejection of an 'idioms-as-non-compositional' approach is also valid for the following reason. Suppose that nowadays most speakers of English understand *bite the dust* as 'die', but do not in interpreting the expression thus mentally participate in the (Wild West?) 'myth' behind the meaning 'die'. The collocation is, then, today, by our criterion, an 'idiom', even though once, undoubtedly, it was a vivid metaphor. But as far as a 'compositionalist' approach is concerned, *bite the dust* does not 'compositionally mean' 'die' today any less or any more than it did when first introduced into the language. A 'compositionalist' approach, that is to say, does not cater for degrees of idiomaticity; it fails to appreciate the dynamic character of language. To be sure, a 'compositionalist' approach can discriminate between literal and non-literal applications of a collocation. But this facility is almost valueless if we assume that collocations of words become 'buried metaphors' (see above, Sect. A) as frequently as individual words. A 'compositionalist' approach to idioms reflects the more general errors of compositional analysis, for example, in viewing 'meanings' as discretely distributable over specific lexical items and the syntactic bonds amongst them, and in regarding relations between words and objects as predominantly 'literal', thus doing no justice to the fact that language does not, cannot, mirror reality but merely offers tokens and structures as perceptual markers to assist in the analysis and communication of an infinite and ever-changing state.

E. EVIDENCE FOR IDIOMATICITY AS A CHANGE IN TYPE OF REFERENCE

What we have so far claimed is that the more 'idiomatic' a collocation is (the more its explicit structure as figurative description or proposition is ignored), the more the collocation will be used in, and perceived as possessing, a labelling semantic function and the less relevant (the more 'forgotten') will be the means (expressed in the syntactic form of the collocation) by which this function is, or rather was, achieved. This process of idiomatization may be called the function-endorsing tendency. But language only unwillingly accepts 'meaninglessness' of any kind, including the loss of the actively perceived meanings of components in a restricted collocation. This unwillingness is manifested in a second, opposing, structure-preserving, tendency. Both tendencies can be especially well illuminated by examining archaic and related components that the speaker feels possess no meaning, either because the referent no longer occurs in the speaker's perceived world or because it is now expressed by a different lexical item.

1. THE STRUCTURE-PRESERVING TENDENCY

Occasionally, archaisms and their kin witness to the awareness within a language of a break-down in the relationship between the (apparent) descriptive reference of a collocation and its (actual) labelling reference and to the language's efforts to restore that relationship. Often by slight phonetic adjustment of a (no longer understood) component collocational (and compositional) meaning is regained through a different figure (although this different figure may in turn eventually lead to a different collocational meaning or to a loss of 'idiomaticity'). For example:

spoil a ship for a ha'p'orth of tar < *sheep* (facilitated by dialect variation);

plain as a pikestaff < *packstaff* (of pedlar) (Smith 1943:187:n.1);

on the right/wrong track (New Generation Dictionary) ?< *tack* (OED; which also attests the *track* version, at least in embryonic form, s.v. *track*, 9 [*on the false track*]);

rule the roost (New Generation Dictionary) < *roast* (OED - Dr Johnson, under *roast*, suggests derivation from *roist* 'tumult');

bride-groom < *bryd-guma* 'bride's man' (Bloomfield 1935:423);

shame-faced < *shan(e)-fast* 'modest' (ibid.);

tomber dans les pomes 'faint' < *pâmes* 'swoon' (archaic) (Boisset 1978:59).

Occasionally, if a component is homonymous, an obsolete meaning may be exchanged for a current one with no change in the collocational meaning. Thus, for example, with *call a spade a spade* where sixteenth-century *spade* meant 'prostitute' (Wescott 1981:219). On the other hand, the meaning might change drastically. For example Modern Hebrew has the expression חסור חסורתיים, interpreted as 'ass of two she-asses', i.e., 'complete idiot'. However, the 'idiom' apparently derives from Judges 15.16 where, in a complex paronomasia, חסור means not (or, at least, not only) 'ass', but, given context and parallelism, 'pile', the meaning of a homonym not extant in Modern Hebrew - see Bullinger 1898:288; Landau 1974:97f.; Segert 1984:456. (Landau's claim that association of the ass with stupidity is absent from earlier Hebrew-speaking communities [cf. Brown 1954:55] is uncertain in view of Psalms 32.9. For the form of the expression compare רחם רחמיים "one, two wombs = one, two (captured) concubines (soldier's slang)" (KB, s.v. רחם) at line 7 of the Mesha Inscription.)

2. THE FUNCTION-ENDORSING TENDENCY

The preceding examples attest the structure-preserving tendency which facilitates alteration of the sense of a component in order to maintain descriptive, hence, 'non-idiomatic', collocational meaning. However, even they witness to the function-endorsing tendency in two ways. First, the very fact that a component needs to be adjusted indicates the degree to which the descriptive meaning of a collocation has been superseded by its idiomatic, labelling, function. Secondly, the actual (idiomatic) reference of a collocation thus altered tends not to change. If Dr Johnson's suggestion about *roist* is correct, the 'rationalization' of the idiom concerned into a significantly different figurative description with *roast*, has changed the effective, idiomatic, meaning of the idiom hardly at all. Similarly with *sheep* and *ship*, two very different pictures lead to an identical idiomatic meaning. Why? Because the picture, the syntactic structure of either form of the collocation as descriptive expression, is simply (increasingly) irrelevant. This is most strikingly evidenced by those 're-analyzed' components the meanings of which have subsequently become obsolescent again (e.g., the noun in *plain as a pikestaff*).

That structure-preservation is subordinate to the function-endorsing tendency is evidenced by collocations which continue to retain unaltered archaisms despite their 'meaninglessness'. The very presence of a (synchronically) 'meaningless' word in a collocation evidences that collocation's loss of the proposition- or description-expressing referential power that one would predict it to have on the basis of its external form. How can the collocation 'describe' anything when it lacks formal elements with which to describe! Sometimes such an expression disappears, as in the case of the proverbial collocation *When bale is hext, boot is next* 'When melancholy (cf. *baleful*) is highest, good fortune (cf. *booty*) is nearest' (Wescott 1981:219). But frequently archaic or obscure vocabulary is retained in semantically vacuous expansions of collocations which must, therefore, function purely as labels. Examples are (*with*) *might and main*, *time and tide*, *kith and kin* (see Ch. 5, Sect. F, 2), *rain cats and dogs*, *hue and cry*, *chop and change*, *rack and ruin*.

It might be argued that these data do not assist in confirming our hypothesis about the semantic function of idiomatic collocations - archaic components ensure such an impoverished, merely labelling, semantic function for any combinations within which they occur simply because they cannot, *qua* archaisms, make a contribution to the meaning of these combinations.

But what we claim is that the semantic function of idioms, as outlined, encourages the semantic obsolescence of components - because the reference of an idiom is reduced from descriptive to 'nominative', the meaning or lack of it of one or more of its components is simply not noticed. Put differently, speakers are too busy using an idiom in its idiomatic meaning to concern themselves with what it should mean (in terms of its components).

There is, in fact, independent evidence at a purely synchronic level which supports our stance on why collocations attract archaisms. For instance, Sinclair (1966:424) points out that certain collocations exist in longer and shorter forms; his example is *fed up (to the back teeth)*. *Don't count your chickens (before they've hatched)* would be another. Clearly, the fuller structure of such expressions is being brought into line with their reduced or reducing referential function - the two examples are at different stages of transformation; speakers would probably regard the longer version of the first case as a non-standard redundant expansion and the shorter version of the second as a non-standard contraction. But in both cases what is of primary importance is that the (formal) contraction should happen at all. We also believe that the presence of many proverb-derived collocations in English and other languages (for Modern Hebrew, see Mir 1971:115) results from a progressive reduction in the perceived reference of the longer form. The shorter forms should not be explained merely as 'abbreviated reference' to the longer forms (cf. Cram 1980:15, Green 1975, Wescott 1981:215).

Further support for our position is provided by Nir (1975 16,n.10):

The phenomenon of ascribing the meaning of the whole expression to one of its components is rather common; cf., the [Hebrew] word *sa'ad* [which] acquired the meaning of the idiom *sa'ad libo* ('ate'), its original meaning being 'supported'.

(The literal meaning of the 'idiom' is 'he supported his heart'.) The same situation is reflected, temporarily, in connection with the biblical expression $\text{גָּזַל לֵב} \text{וְנִפְתָּר}$ 'steal the heart' - meaning 'deceive', it occurs twice in Gen. 31 (vv. 20,26) in connection with Jacob's deception of Laban (elsewhere the expression is found at 2 Samuel 15.6). However, at v. 27 וְנִפְתָּר alone is used to convey the meaning of the whole expression.

Finally, we note collocations like *dog-rough* and *plain as a pikestaff*, where each expression as a whole has exactly the same ambiguity of the underlined word used independently (respectively, 'uncouth' and 'exhausted'; 'obvious' and 'not good-looking') - the non-underlined words to be referentially valid in both interpretations must have 'meanings' generalized to the point of semantic vacuity (in spite of the fact that the second collocation has undergone 'structure-preservation' - see above).

The loss of connection between idiomatic labelling function and originally descriptive structure is evidenced as well in collocations the structures of which have been changed for no apparent good semantic reason by, for instance, syntactic re-analysis. An English example is *fine tooth comb* which has undergone the structural change [A+N]+N > A+[N+N] (Wood 1981:83). From an early interpretation of Isaiah 40.3 comes *A voice crying in the wilderness*, which has passed via the New Testament into European languages and indeed 'back' into Modern Hebrew (Landau 1974:96), even though the context and punctuation (see GK 15f, 4a-b; 146b; Shohet 1968:57) of the Masoretic Text supports the interpretation *A voice crying 'In the wilderness...'*.

The pre-eminence of the labelling function of an idiom and the complete loss of its descriptive structure reaches its apogée in those cases where a collocation comes to be analyzed as a syntactically simple lexical item (albeit with a complex morphology). Temporarily this occurs in, for example, *he k.o.'d him* for *he knocked him out*, and at the phonological level, there is the well-known propensity of English 'idiomatic' compounds to adopt the stress pattern of a single word. But a total, morpho-syntactic, change may also occur. English examples are *handicap* (from *hand in cap*, an epithet of races in which competitors deposited forfeit money in a hat: the resulting formation is similar to non-contracted *handiwork* < Old English *handgewearc*; OED), *handkerchief* (from *hand cover chief*, where *chief* means modern French *chef* - OED), and the pronunciation 'forid' for *fore-head* (Bloomfield 1935:416: see also *ibid.*:148 on "shortened by-forms [of]... common formulas of social intercourse"). 'Condensed collocations' like these subsequently behave as normal lexical items - *handicap*, for example, developed a secondary meaning (originally metaphorical) of 'disability', and *handkerchief* was further contracted to *hanky*. Contraction of a more syntactic (less morphological) nature is seen in the following data from Canadian French provided at Boisset 1978:24:

Paul est un m'as-tu-vu 'Paul is a bragger',

Patrick et Bernard sont des m'as-tu-vu

'Patrick and Bernard are braggers',

**Patrick et Bernard sont des nous-avez-vous-vu.*

A related, although more artificial, synchronically observable, process is that of 'blending', resulting in 'portmanteau' words. This is especially prevalent in later forms of Hebrew (Nir 1980; cf. Bloomfield 1935:488 on a similar phenomenon in Russian), where it is sometimes associated with obvious 'idiomatization' of the resulting expression: e.g., תפוז (tapu:z) 'orange' from תפוח זהב (TAPU:ax Zahav) 'apple of gold' and דיון (du:ax) 'report' from דין ושבון (Di:n W-Xeshbon) 'trial and calculation'. In English, compare *pelican crossing*, now understood almost exclusively in paradigmatic relationship with *zebra crossing* - few speakers seem consciously aware of the originally acronymic structure, namely *pedestrian light-control crossing*.

F. THE RECOVERY OF IDIOMATIC MEANING

Thus, our task is to analyze exactly how far the reference expressed by the labelling function of a collocation has superseded the reference expressed by its descriptive form, to what degree the descriptive form is still 'meaningful' or 'perceptually relevant'. Figurative relations of every kind present themselves to the native speaker who needs to create a compositional interpretation for an idiomatic meaning. Boisset (1978:135) claims the existence of an infinite number of metaphorical processes. Even an idiom as recalcitrant as *kick the bucket* has been known to undergo re-analysis (Makkai 1975:22f.). Of course historical genuineness of reference and logical coherence of explanation are only incidental here. For Makkai's informants who understand *kick the bucket* as referring to old-style execution in which a pail is kicked from under the feet of a suspended malefactor, this expression is no longer an idiom, at least not a strong idiom, even though the explanation has been invented not resurrected, and in spite of the fact that one should expect this explanation to yield the meaning 'kill', not 'die'.

Such re-analysis prevents the evolution of the vast majority of a language's collocations into 'absolute' idioms, in the sense of collocations for which there is no possibility evident of explaining their actual idiomatic meanings in terms of any literal or figurative description conveyed (including 'evoked') by them. But they may justly be labelled as 'idiomatic' to a large extent. For even though their meanings are cognizable by native-speakers in terms of the description/evocation conveyed by the form of the collocation, they are only actively known by him or her on reflection, if asked directly about the 'literal' or 'original' meaning of such expressions, or if (deliberately) presented with a situation that forces a re-thinking and a semantic re-enriching of them (Caird 1980:153 has examples from "theological jargon"). Normally, though, "We no longer think of cars *running* or *legs of triangles* or *catching colds* as metaphors" (Ortony-Reynolds-Arter 1978:925)

The situation is represented, in a crude fashion, in the following diagrams. The first shows a compositional or 'literal' reading of *bite the dust*, such as one might encounter in connection with a conversation about things children put in their mouths. The second relates to an 'early collocational' (the temporal term should not be taken to imply that lack of time within the language is the most relevant correlate of this type of expression) reading ('die') of the same expression such that the expression is actively perceived as a 'metaphor'. The third diagram compares this situation with that which pertains to a 'late collocational' or 'idiomatic' collocation, where the expression is perceived as a label, even though the 'propositional' derivation of this 'labelling' sense is synchronically cognizable. This differs from the situation illustrated by *kick the bucket* in the final diagram where no propositional derivation is (normally) synchronically cognizable. In the diagrams, *w* means 'word' or component of an expression, *d* represents the 'designatum' or referent signified by a word or a combination, and *p* ('proposition') shows how the 'meanings' of the designata are combined into a proposition.

1. <-----p(d1+d2+d3+d4+d5)----->

d1	d2	d3	d4	d5
w1	w2	w3	w4	w5
JOHN	BIT	THE	DUST	YESTERDAY

2. <-----p(d1+[d2+d3+d4]+d5)----->

<-----p(d2+d3+d4)----->

d1	d2	d3	d4	d5
w1	w2	w3	w4	w5
JOHN	BIT	THE	DUST	YESTERDAY

3. <-----p(d1+[d2+d3+d4]+d5)----->

[<-----p(d2+d3+d4)----->]

d1	d2	d3	d4	d5
w1	w2	w3	w4	w5
JOHN	BIT	THE	DUST	YESTERDAY

4. <-----p(d1+[d2+d3+d4]+d5)----->

d1	d2	d3	d4	d5
w1	w2	w3	w4	w5
JOHN	KICKED	THE	BUCKET	YESTERDAY

Long ago, Dean Trench outlined the same situation with reference to individual words most lucidly:

[A] word will travel on by slow and regularly progressive courses of change, itself a faithful index of changes going on in society and in the minds of men, till at length everything is changed about it.... There may be said to be three leading phases which the word successively presents.... At first it grows naturally out of its own root, is filled with its own natural meaning. Presently the word allows another meaning, one superinduced on the former, and foreign to its etymology, to share with the other in the possession of it, on the ground that where the former exists, the latter commonly co-exists with it. At the third step, the newly introduced meaning... has thrust out the original... possessor altogether.... The three successive stages may be represented by *a*, *ab*, *b*....

We are not to suppose that in actual fact the transitions from one signification to another are so strongly and distinctly marked, as I have found it convenient to mark them here. Indeed it is hard to imagine anything more gradual, more subtle and imperceptible, than the process of change. The manner in which the new meaning first insinuates itself into the old, and then drives out the old, can only be compared to the process of petrification... - the water... successively displacing each several particle of that which is brought within its power, and depositing a stony particle in its stead, till, in the end, while all appears to continue the same, all has in fact been thoroughly changed. (Trench 1862:205f.)

Although such 'petrification' (represented by the fourth of our diagrams) is relatively common in respect of individual words, we believe it to be very rare in any language for collocations. One token of this rarity is the monotonous re-appearance of *kick the bucket* in analyses of idioms. Language tolerates utter arbitrariness of signification only in respect of minimal signs, up to the level of the word. Such arbitrary signs cannot themselves combine to constitute arbitrary units, and, as we have seen, language has many means not so much to prevent the emergence of this type of arbitrary structure as to adjust itself so that the anomaly is no longer felt to be such. The persistence in languages of the occasional absolute idiom is itself an object of interesting study, which we believe must concern itself with the lexical and referential reasons for the absolute loss of a synchronically cognizable compositional or 'propositional' reading of a collocation, in view of the fact, as we see it, that the primitive antecedent of any 'pure' idiom must have been introduced into its very first dialect not as an idiom but as a fully and actively comprehended 'descriptive' expression (cf. Sect. B). Pure idioms, that is, are deviant adults, not malformed infants.

However, for the purposes of the present work, our main interest is in collocations exemplifying the second and third situations represented in the diagrams.

An explanation of why there should be so many collocations, especially of the second and third kinds, is not attempted in the present work. That they should then become 'restricted', that is, perceived as single wholes rather than as lexical composites, seems to relate, at least in part, to ease of perception. A collocation that replaces or exists alongside a simple 'label', will tend to lose, in the language-user's perception its internal 'descriptive' semantic structure as its 'labelling' function comes to be perceived as paramount, partly because the area of reference now expressed in 'descriptive' manner by the collocation has already been encoded for the speaker by means of a structurally simple nominative sign. The nominative function also tends to dominate because, in the terms of our diagrams, it is easier to interpret at the 'topmost' level, treating collocations as equivalent to lexical simples, without continually 'descending' to interpret the propositional content of a collocation in its own right. Bolinger has expressed the same thought thus:

The landscape of frozen forms is a jagged one, here and there rising to great heights of morphemes piled on morphemes, in between sinking to levels only one or two morphemes deep. Disambiguation follows a course that skims the top. At no time does it go morpheme by morpheme. (Bolinger 1965:571)

Interpretative 'laziness' like this serves to re-inforce the perception of the collocation as such (i.e., as a syntactically complex expression being oddly used as a 'label') without removing the possibility of retrieving its internal propositional relationships. Our stance here is consistent with experimental psychological evidence which suggests that the 'meanings' of 'idioms' are accessed directly, without first 'composing' a literal meaning and that the idiomatic meaning of an idiom is accessed faster than its compositional one (see, e.g., Ortony-Reynolds-Antos 1978; Swinney & Cutler 1979).

Between the situations illustrated in the second and third diagrams lies an infinity of degrees of active or merely latent cognizability, of 'freshness of metaphor'. Unlike 'pure' idioms, for which there is no longer a 'cognitive bridge' between the actual idiomatic meaning and the apparent compositional meaning, in the case of collocations possessing a lesser degree of idiomaticity there is indeed such a 'cognitive bridge', but this bridge is rarely used; speakers simply stay on the side of the actual idiomatic meaning, only crossing back and forth when explicitly required. In the naive native-speaker perception the differing lengths of bridges to different collocations is only of significance when the native-speaker is asked to cross it; hence, he or she possesses only a fairly crude idea of differing degrees of idiomaticity - an idiom is an idiom is an idiom. But for the purposes of scientific inquiry, the length of the bridge, as demonstrated by the difficulty experienced in crossing it, that is, the perceived obviousness or lack of obviousness of the answer to the question "Why does collocation x mean so-and-so", is the key to the attempt to assign each 'non-absolutely idiomatic' collocation to its place on a scale of varying degrees of idiomaticity.

G. FROM THEORY TO ANALYSIS

The preceding 'theory of idioms' relates to our proposed study of the substitutional restrictions of collocations in the following, rather obvious, way. A commonly accepted index of a collocation's semantic specialization or 'demotivation' is its apparent inability to retain its meaning when a standard synonym of one its components is substituted for that component, or to change its meaning in the expected way if the component is replaced by a lexical item with which it shares a standard semantic relationship (such as antonymy). Given our account of the semantic structure of an idiomatic collocation this feature is obvious. If no mismatch between syntactic form and semantic function were present, there would be no problem in manipulating the components to alter or retain the meaning of the collocation in a predictable manner. This meaning would be a logical consequence of the syntactico-semantic relationship of the meanings of the components, instead of being, as in the case of 'idiomatic' collocations discussed, more or less divorced from it.

Following the same argument, we hypothesize, as outlined in Ch. 5, that the extent of this divorce can be measured as a function of the degree to which the components of a collocation are or are not amenable to lexical manipulation. In the following chapter, we develop a simple means of examining the permitted degree of lexical substitution.

PART III

A STATISTICAL HYPOTHESIS

CHAPTER 7

MEASURING IDIOMS

A. PREVIOUS ATTEMPTS AT COLLOCATIONAL-STATISTICAL ANALYSIS OF IDIOMS

INTRODUCTION

Up to this point we have established, broadly, a feature of many collocations, 'stability', which we believe can be measured and utilized as a criterion of degree of idiomaticity. Not only have we shown the desirability of accounting for aspects of meaning 'formally' both in general terms and specifically in connection with idioms, but we have also suggested a 'theory of idioms' that is compatible with our emphasis on stability. In Sect. B of this chapter, we outline the measure of stability to be used in our analysis. Before turning to this task we examine three other formal and statistical approaches to idiom analysis.

1. SINCLAIR-JONES-DALEY 1970

Within a report of various collocational analyses presented by Sinclair, Jones, and Daley in 1970 is a section devoted to idioms. Here and elsewhere we find a number of measures of relevance to a scalar classification and measurement of idioms, although these are rarely developed by Sinclair, Jones, and Daley.

Sinclair, Jones, and Daley first try to exploit a possible definition of idioms as "A sequence of words in a fixed order, occurring very commonly in the language" (Sinclair-Jones-Daley 1970:90). However, the formula they employ to measure statistically significant association of components proved impractical, consuming large amounts of computer time (ibid.:91) - it is not specified whether the time mentioned is cpu, punch-card-operator time, etc. Sinclair, Jones, and Daley also complain that the method produces a large number of obviously unidiomatic data (ibid.), but this criticism might derive simply from their (non-scalar) assumption that an expression must be either an idiom or a non-idiom.

In the end, they decided to collect

fifty examples of the idiom [*red herring*]... with fifty examples each of the two [component] words occurring separately. The contexts in which they occurred were recorded up to a span of ± 4 . (Ibid.:94)

The results of this method, detailed at Sinclair-Jones-Daley 1970:245ff. (Appendix 6vi), cast light on both positive and negative features of collocational method in general. For example, in one group (1) *red herring* appears twice under *herring* as a culinary item, because the span includes the word *fish*. In another group (3), under the influence of the word *communist/m*, the idiom appears with *red* in a political sense. Another, "unclassified" list groups together 29 instances of the idiom, eleven of *red* in its basic, colour, sense, and four of *herring(s)* in its literal sense. More positively, another group (10) consists of all and only the non-idiomatic occurrences of *red herring*, thus vindicating to some extent the claim that:

it is to be expected that the collocational pattern of a word when it is part of an idiom will be quite different from that of the same word used independently. (Ibid.: 91).

Compare:

In essence we pick out a polymorphemic item when its cluster [i.e., the words with which it significantly collocates] cannot be predicted from the clusters of its components (Sinclair 1966:423);

[The composite element can exhibit its own distribution *qua* compositum. (Mitchell 1971:50)

Although the method of Sinclair, Jones, and Daley in itself is of little practical relevance to our own analysis, this is not true of the following passage which develops their insight about the collocational peculiarity of an idiom in the context of a discussion of (the disambiguation of) homographs:

Given sufficient data... they [*scil.* idioms] might be found by a two stage procedure. Stage one would consist of the splitting of ambiguous words into homographs according to their collocational patterns. In stage two, the interaction between homographs would be examined. If two homographs were mutually defining, e.g. word A was a strong discriminator of a homograph of B, and the word B a strong discriminator of a homograph of A, it would be a good objective indication that they constituted an idiom. (Sinclair-Jones-Daley 1970:109)

By "strong discriminator", Sinclair, Jones, and Daley seem to mean an item which collocates with another relatively frequently. They do not provide any measure of such 'relative frequency' in connection with their discussion of idioms. However, they do mention, in another context, a property of idioms which suggests that it can be assessed. The relevant property is what Sinclair, Jones, and Daley call 'position-dependence'. Position-dependence of a word within a 'span' (an 'environment') of other words is most obviously associated with 'grammatical words', but "lexical items" may also "enter into position-dependent collocations when they form either an idiomatic phrase or a very common grammatical construction" (*ibid.*:80).

The position-dependence of idioms is implied by the first definition of Sinclair, Jones, and Daley ("words in a fixed order"; see above), and it is this feature which, as we pointed out in Ch. 5, Sect. D, makes idioms in some ways rather easy to analyze in terms of both computerization and statistical quantification - had Sinclair, Jones, and Daley paid more attention to this fact they might have chosen a substantially simpler metric for their initial attempt to identify idioms. (The one chosen had been previously used for the analysis of more complex 'position-independent' collocational relationships.) 'Positionally-dependent strong discrimination' would seem to be a close relative of the property of 'stability' which we have already claimed is a basic characteristic of idioms.

In fact, Sinclair, Jones, and Daley actually provide a measure of position-dependence, although it is not presented as such:

[Although there is only one measure of association between the two words *the* and *cathode*, the degree of prediction exercised by each word is very different. Given the word *the*, the likelihood that it will be followed by *cathode* on any one occasion is small, whereas the likelihood that an occurrence of *cathode* will be preceded by *the* is much higher. The probability that a particular collocate will follow the node can be calculated by dividing the total number of node occurrences into the number of intercollocations; no account is taken of the text length or the frequency of the collocate. The resulting figure will always be a fraction of 1.0 but the closer it is to the whole number, the greater is the probability. (Ibid.:61)

As will be seen in Sect. B, this measure forms the basis of our own techniques to measure 'stability'.

2. BERRY-ROGGHE 1973, 1974

Four years later Godelieve Berry-Rogghe had published two papers about the statistical analysis of collocations which touch upon our proposed study. For example, in the second paper, Berry-Rogghe describes:

a way of automatically constructing a lexicon of phrasal verbs given a vast amount of... data and adequate statistical procedures (Berry-Rogghe 1974:18).

The variables she enumerates in both papers are as follows:

Z: Total number of words (i.e., tokens) in the text;

A: A given node occurring in the text F_n times;

B: A collocate of A occurring in the text F_c times;

K: Number of co-occurrences of B and A;

S: Span size, "that is, the number of items on either side of the node considered as its environment." (see Berry-Rogghe 1973:104).

From these may be calculated:

p: "The probability of B occurring at any place where A does not occur"; $p = F_c / (Z - F_n)$;

E: "The expected number of co-occurrences"; $E = p \times F_n \times S$;

z: The 'z-score' which measures to what extent "the difference between observed and expected frequencies is statistically significant" - $z = (K - E) \div \sqrt{Eq}$ (where $q = 1 - p$) (ibid.).

There are a number of superficial flaws in Berry-Rogghe's presentation. (1) The formula for E is incorrect and should read $E=p.Fn.2S$ (see Sinclair 1966a:418). (2) Berry-Rogghe appears to use neither the corrected nor the uncorrected version of the formula. For example, in the following data presented in Berry-Rogghe 1973:106, according to Berry-Rogghe's statements elsewhere $Z=71595$, $F_n=83$, and $2S=6$:

<u>Collocate</u>	<u>K</u>	<u>F_c</u>	<u>E</u>	<u>z-score</u>
THE	35	2368	20.6315	3.2978
THIS	22	252	2.1955	13.3937
A	15	1358	11.5661	0.9316

But if we assume the figures for Z, F_n , and 2S to be as stated, the E and z-score figures should be for THE 16.4904 and 4.6355, for THIS 1.7549 and 15.3095, and for A 9.4569 and 1.8199. Assuming that only Z and F_n are correct, Berry-Rogghe's figures can only be achieved by using a 2S of approximately 7.4 (i.e., 3.2 words on either side!). Nor is this an isolated example. Of all the tables of data supplied by Berry-Rogghe, only the one at Berry-Rogghe 1974:22 seems to tally precisely with the figures already supplied. (3) No special treatment is reserved for an item occurring in such a position that it falls within the span of two occurrences of a single node or for a collocate that occurs more than once within a single span (see, e.g., the figures for SOLD at Berry-Rogghe 1973:110). ([4] There is an apparent confusion in the 1973 data between WHERE and THERE and between A and OR and with the figures for BEFORE and SOMETHING.)

On more general grounds there are reasons for questioning Berry-Rogghe's methods. It seems to us that she has attached too great a significance to the probability of each item within the corpus as a whole, namely $F_c/(Z-F_n)$. High-frequency words will, as a matter of course, tend to associate with nodes, especially where a span is large ('function words' in particular may even occur more than once within a span). Thus they tend to acquire high z-scores even though their attraction to the node is of little significance (cf. Haskell 1971:162; Sinclair 1966:417). (Moreover, because the z-scores of high-frequency items are exaggerated those of low-frequency items are unduly diminished.) Thus, despite the high degree of probability of statistical association ($z > 2.58$; see Berry-Rogghe 1973:107), several of the z-score-significant collocates of HOUSE (using a span of 3; $2S=6$) listed below (from Berry-Rogghe 1973:109) do not form obvious syntagmatic ties with HOUSE.

<u>Collocate</u>	<u>z-score</u>
SOLD	24.0500
COMMONS	21.2416
DECORATE	19.9000
THIS	13.3937
EMPTY	11.9090
BUYING	10.5970
PAINTING	10.5970
OPPOSITE	8.5192
LOVES	6.4811
OUTSIDE	5.8626
LIVED	5.6067
FAMILY	4.3744
REMEMBER	3.9425
FULL	3.8209
MY	3.6780
INTO	3.5792
THE	3.2978
HAS	2.9359

More significantly for our own intended analysis, Berry-Rogghe's model takes no account of the fixed order of components within idioms (see part 1 of this section). If a span of one ($2S=2$) is chosen, the results of an operation utilizing it will be valid equally for items occurring immediately before the node as for those occurring immediately after it. If the span is increased to two ($2S=4$), results will be valid equally for each of any four items surrounding the node.

Nor does the model pay attention to the proximity of a collocate to a node. A collocate that enters the span when this is set at one is accorded an evaluation no different from that of a collocate that enters when the span is set at four (see, e.g., the entrance with fourth-ranking z-score of FRONTS when the span from the node HOUSE was increased; Berry-Rogghe 1973:110).

Such a model is useful for indicating the mere presence of association, but it is insensitive to the type of collocational relationship involved. *Prima facie* it is unlikely to be successful in the study of that aspect of lexis which is characterized by relationships of a highly stable nature.

Thus, in respect of idiom-identification and -classification, Berry-Rogghe's method, like that of Sinclair, Jones, and Daley, fails to exploit the generally high levels of position-dependence and structural invariability characterizing idioms. Moreover, the method she employs is not only unduly complicated (for our purposes), but also gives too much significance to absolute frequency within a corpus rather than concentrating on the statistical relationships amongst the components of collocations.

The two computer-generated graphs at the end of Sect. A of this chapter, which relate to data in, respectively, Berry-Rogghe 1973 and Berry-Rogghe 1974, plot, in a very simple fashion, rank of z-score against rank of K/F_c (the number of collocations divided by the frequency of the collocate). Note that this second variable is similar to the one which Sinclair, Jones, and Daley (1970:61; see above, Sect. A, 1) call "degree of prediction", and which we have related to 'stability', although it does not utilize as data only spans of 1 item. Ranking by z-score is represented by the bisecting straight line $x=y$; the jagged line indicates deviation from this of ranking by K/F_c (for more information on how this type of graph is to be read, see Ch. 10, Sect. C). Although there is no question of identity, the degree of deviation is usually quite small, indicating the possibility that K/F_c provides a simpler alternative to the z-score as a means of ranking collocations in order of significance. Moreover, it is less susceptible to the fault of Berry-Rogghe's metric in that it is not so greatly influenced by frequency of occurrence. For instance, THE (HOUSE) is ranked seventeenth in Berry-Rogghe's figures (Berry-Rogghe 1973:108; see above) but only thirty-seventh on ours. There thus seems to be good reason to explore the 'predictability' measure of Sinclair, Jones, and Daley (and Nir; see above, Ch. 5, Sect. C), and to attach only with care importance to measures of the sort proposed by Berry-Rogghe (and initially Sinclair, Jones, and Daley) connecting degree of idiomaticity with statistical significance of (unordered) co-occurrence.

3. CHOUKA-KLEIN-NEUWITZ 1983

More recently, Choueka, Klein, and Neuwitz have published an "algorithm" (Choueka-Klein-Neuwitz 1983:34) for collecting "as a by-product of the automatic processing of a large corpus... a list of common... idioms... that occur frequently enough in that corpus" (ibid.). This was to be achieved purely on the basis of "the statistical aspects and the combinatorial properties of the words' distributions in the text" (ibid.). Although their avowed intent is simply to identify rather than to classify or compare expressions, Choueka, Klein, and Neuwitz do in fact utilize a scalar measure (see below). Their approach has *prima facie* interest for our research as well for the following reasons.

First, the corpus utilized is Hebrew - "the RESPONSA database... of the full and unaltered text of 176 volumes of Rabbinical documents" (ibid.). Secondly, it exploits the general nature of idioms as "two or more consecutive words" (ibid.; emphasis in original), a point we have already stressed. Thirdly, it is 'inclusivist'; it is not concerned solely with 'pure idioms' (ibid.), thus allowing, as we suggest, for 'degrees of idiomaticity'. Fourthly, a criterion that Choueka, Klein, and Neuwitz offer for deciding that an expression is 'idiomatic' in this broad sense is "whether a learned informant can guess (knowing that he is dealing with an [idiomatic] expression) the entire sequence once he has read (or heard) its beginning" (ibid.). Although one might question the necessity of telling informants in advance that the data are idiomatic, the criterion as a whole clearly exploits "degree of prediction" (Sinclair, Jones, and Daley) or 'stability'. (That informants be "learned" is, of course, demanded by the nature of the corpus.)

Due to lack of computing resources Choueka, Klein, and Neuwitz only examine expressions of two collocates in length. They also defend this restriction because "most... longer expressions would be identifiable... by their beginnings" (ibid.) and because of the relatively rich synthetic nature of Hebrew morphology which means that two Hebrew words are often equivalent to a good deal more English words. Clearly, this 'defence' implies a non-morphologically-segmented and, presumably, non-lemmatized text and a definition of 'word' as 'word-form' rather than 'lexeme' or 'lemma'. Although the use of such 'raw' text would produce poor results in our own analysis (cf. Ch. 8, Sect. E), it is more justified for Choueka, Klein, and Neuwitz given the much larger size of their corpus (28,000,000 words).

Choueka, Klein, and Neuwitz discovered that a measure based on or heavily influenced by the frequency of a collocate or of collocates yields poor results noting that "the most frequent pairs are formed by 'accidental concatenation', so to speak, of the most frequent words" (Choueka-Klein-Neuwitz 1983:35; see part 2 of this section). However, they also admit that it cannot be completely discounted observing that when such high-frequency collocates combine there is a marked and statistically unexpected difference between the occurrences of the combination in one order (AB) and the other (BA).

Instead of concentrating, then, on frequency or significance of co-occurrence, Choueka, Klein, and Neuwitz turn to what they call a 'neighbour-selectivity index' (NSI) which would reach a peak in the case, for example, of "a word w_1 [which] occurs 50 times in a given corpus, and is invariably followed in all its occurrences there by the same word w_2 " (ibid.).

The formula that Choueka, Klein, and Neuwitz eventually utilize for the NSI is as follows:

$$\frac{1}{2} \frac{f(w)-d(w)}{f(w)-1} + \frac{1}{2} \frac{m(w)-n'(w)}{f'(w) [1+SD'(w) \div n'(w)]}$$

Definitions: - $f(w)$: frequency of a given word, w . $d(w)$: number of different word-types immediately following w . $m(w)$: frequency after w of the commonest item to follow w . $n'(w)$: mean of frequencies of all other collocates of w . $SD'(w)$: standard deviation about $n'(w)$. Note that primed ($'$) variables involve the use of pseudo-collocates in place of several low-frequency (below 10 in the data analysed) ones.

Choueka-Klein-Neuwitz 1983 supplies few of the explicit data required to check results and contains a number of apparently erroneous calculations. However, right at the end of this section, we provide a computer-produced tabulation of data supplied or implied at Choueka-Klein-Neuwitz 1983:38. NSIa represents the result of the first part of the formula given, NSIb, the second.

Choueka, Klein, and Neuwitz report a good correlation between success in 'guessing' collocations by informants and degree of NSI. The equal weighting of NSIa and NSIb is questionable, as it appears from our data to be much more difficult to score a high NSIb than to score a high NSIa. Also open to doubt is the value of combining a measure of a set of collocational relationships (NSIa) with a measure of a specific collocational relationship (NSIb) in this way.

NSIa is a measure merely of what Mel'chuk (1960:20f.) calls the 'combinability' of a word w occurring $f(w)$ times (see Ch. 5, Sect. D). As such it yields no explicit information about any specific 'idiom' in which w occurs, but simply measures the number of different item-types with which an item collocates. It could assist us in determining the 'idiom-forming tendency' of a word (cf. Makkai 1978, briefly discussed in Ch. 5, Sect. B), but is of less immediate use in our present task of trying to establish whether one collocation is more or less 'idiomatic' than another.

NSIb is a fairly sophisticated measure of the proportion of collocations with w in which w 's most frequent collocate participates. However, this proportion is unduly elevated - as it stands, the measure seems to assume that only one, the most frequent, collocate of a particular item will form an 'idiomatic' collocation of any significance with that item. Furthermore, two features of NSIb lead to counter-intuitive results, if we regard NSIb as a potential measure of differing degrees of idiomaticity attaching to collocations.

The first of these features is the employment of the mean and the standard deviation about the mean of the frequencies of the collocates occurring less than the most frequent collocate. In principle, this element of the calculation allows the overall 'combinability' of an item to be taken into account. In practice, it can lead to anomalous results. For example, the formula for NSIb using the seventh item from the data at the end of this chapter is filled out as follows:

$$\text{NSIb} = \frac{286 - (11+6)/2}{303 \times (1 + 2.5/8.5)} = \frac{277.50}{392.12} = 0.71/2 = 0.35.$$

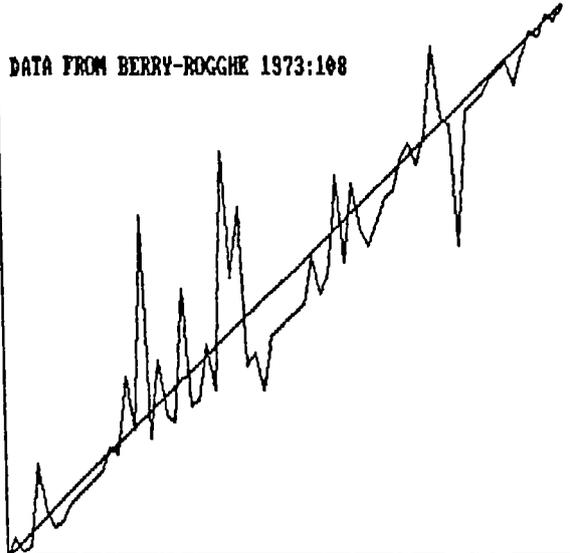
However, let us now suppose a situation where four rather than two collocates exist in addition to the most frequent collocate, occurring in total the same number of times as before (17) and with a virtually identical standard deviation (2.5). The formula will appear thus:

$$\text{NSIb} = \frac{286 - (2+8+5+2)/4}{303 \times (1 + 2.49/4.25)} = \frac{281.75}{481.77} = 0.58/2 = 0.26.$$

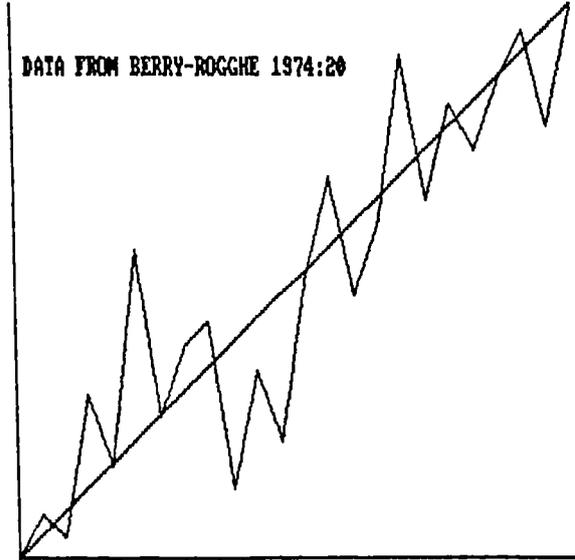
What is demonstrated here is that, in certain circumstances, NSIb assigns a higher score to a collocate which has to 'compete' against relatively few collocates to attain its supremacy than to a collocate which has to 'compete' against relatively many. Yet we should surely wish to claim the opposite, that the greater the number of words with which a collocate can combine, the more remarkable it is that a single one of these collocates takes up a high proportion of collocations of the item.

The second counter-intuitive feature of MSIB as a measure of idiomaticity concerns its utilization of only the 'frequency-within-a-collocation' of a collocate rather than its overall frequency in the corpus. Suppose, for example, that $f(w)$ of a particular w is 100 and $m(w)$ of its most frequent collocate x is 50. Now x might occur so frequently in the corpus that its appearance in this collocation 50 times is statistically completely expected. Yet Choueka, Klein, and Neuwitz's measure assigns greater weight to this purely 'accidental' collocation than it does to a collocate y which occurs 49 times in the corpus each time after the same w with which x occurs.

The first criticism of MSIB suggests that we should not try to get a single idiom-measuring formula to account for too many aspects of the collocational attraction of a particular pair of items. Obviously, in the long term, it is desirable to isolate and measure as many variables as possible which might affect idiomaticity, but initially only what is considered to be the most fundamental aspect, should be measured, lest the precise object of calculation becomes obscured along with the exact significance of any results. In respect of the second criticism, it seems that whereas Berry-Rogghe over-emphasizes the overall frequency of collocates, Choueka, Klein, and Neuwitz have ignored it to the detriment of the usefulness of their measure beyond their own immediate needs.



Deviation of K/Tc rank from Z-score ranking (x=y) of 69 items



Deviation of K/Tc rank from Z-score ranking (x=y) of 23 items

DATA FROM CHOWEKA-KLEIN-NEUMITZ 1983:38

f(w)	d(w)	n(w)	n'(w)	SD'(w)	f'(w)	NSIa	NSIb	NSI
564	2	563	1.0000	0.0000	564.00	.4991	.4982	.9973
248	2	246	2.0000	0.0000	248.00	.4900	.4919	.9899
118	3	115	1.5000	0.0000	116.50	.4915	.4871	.9786
116	2	112	4.0000	0.0000	116.00	.4957	.4655	.9612
371	28	327	1.6300	0.0000	328.62	.4635	.4951	.9586
204	2	187	17.0000	0.0000	204.00	.4975	.4167	.9142
303	3	286	8.5000	2.5000	303.00	.4967	.3538	.8505
110	2	95	15.0000	0.0000	110.00	.4954	.3636	.8590
689	36	586	13.3975	8.0398	639.71	.4746	.2797	.7543
1229	52	1013	29.1060	18.5933	1158.62	.4792	.2591	.7383
776	33	614	20.5480	15.1323	730.76	.4794	.2338	.7132
2129	48	1766	54.4820	50.2982	2072.60	.4890	.2147	.7036
88	7	66	9.0000	8.0000	84.00	.4655	.1796	.6451
1512	34	955	126.4425	126.0420	1460.67	.4891	.1420	.6311
146	28	51	15.3467	13.5843	97.04	.4069	.0974	.5043
101	15	33	17.3850	14.6150	67.76	.4300	.0626	.4926
375	56	60	34.6300	21.1917	273.95	.4265	.0287	.4552
787	191	201	55.3140	65.1111	499.69	.3791	.0670	.4461

B. A MEASURE OF STABILITY

Examination of the previous analyses suggests that in approaching the particular sort of collocational stability in which we are interested we are best advised to concentrate not on statistical association as such but, rather, on the position-dependent predictability of words in particular environments, that is the degree to which the presence of word or words x entails the presence in a particular position of word or words y. This approach, unlike Berry-Rogghe's, should have the effect of including in the data collocations consisting wholly or in part of low-frequency items, and of excluding high-frequency collocations which, nonetheless, do not possess the sort of predictability with which we are concerned.

A first approximation to 'stability' is provided by analysis of transition-probabilities. Suppose in a corpus x occurs 100 times, y 3 times, and xy (in that order) 3 times. The forward transition-probability of x to y ($x \rightarrow y$) will be $3 \div 100$ or .03 whereas the backward transition-probability of y to x ($y \leftarrow x$) will be $3 \div 3$ or 1.0. An average transition-probability ($x \leftrightarrow y$) of $(.03 + 1) \div 2$ or .65 can then be stated. Notice that the measure utilizes the total frequency of collocates, not simply frequency within a collocation (as Choueka, Klein, and Neuwitz), but ignores the corpus-probability of an item.

As we have seen (Sect. A, 1) transition-probability as a possible measure of 'collocability' is implied in Sinclair-Jones-Daley 1970. The significance of transition-probabilities within idioms was explicitly suggested, although not developed, by Damerau (1971:58f.):

[O]ne expects idiom structures of the type 'immediate constituent' to be characterized, in linguistic texts, by very high forward transitions from IMMEDIATE to CONSTITUENT, and high backward transitions from CONSTITUENT to IMMEDIATE. In lexical analysis of linguistic texts, this word pair should be treated as a unit and the transition probabilities may help us to isolate such units.

Furthermore, a version of this measure has been utilized in a Biblical-Hebrew study (Kaddari 1966) where it was found that "the ratio of the total frequency throughout the Bible of a component [of a particular combination] to its frequency in close proximity to a second (or subsequent) component [of that combination]" (ibid.:117; orig. Hebrew) provided a good general indicator of the compositionality or, alternatively, compounding of certain collocations of nouns joined (sometimes) by 'and' or 'or'. (Note that Kaddari measures this ratio only in respect of the least frequent, hence, most 'favourable' component, and that the frequency of the 'combination' to which the ratio relates is the total of all collocational associations amongst the components in question, not, as in our analysis [see above, Ch. 5, Sect. D], just one, grammatically-structured, sequence.)

However, (average) transition-probability scores give no weight to differing frequencies. Thus, $x \rightarrow y$ will always be .5 if the frequency of x is exactly twice the frequency of xy regardless of the actual frequencies involved. One way of overcoming this problem might be to grade scores of equal transition-probability according to descending frequency of occurrence of collocation. But, *prima facie*, this is rather crude as it would still class a collocation that occurred 45 out of 100 times lower than one that occurred five out of ten times. Intuition suggests that although transition-probability, the ratio of collocation-occurrences to collocate-occurrences, is of fundamental significance, this has to be weighed against the need to take into account substantially different frequencies of collocations.

We decided to resolve the problem of balancing the collocation-collocate ratio and collocation-frequency through the information (specifically communication) theory measure known as 'redundancy', which seems particularly well-suited to our needs as it utilizes both aspects and places resulting scores along a single scale between 1% and 100%.

To convert a transition probability into a redundancy percentage requires the calculation of entropy (H), maximum entropy (Hmax), and relative entropy (Hrel), all expressed in binary digits or bits (u.).

The relevant formulae in full are as follows:

$$p = \frac{xy}{x} ; H = \log_2 \frac{1}{p} ; H_{max} = \log_2 xy ; H_{rel} = \frac{H}{H_{max}} ; R = 100 \times (1 - H_{rel}).$$

(p: transition-probability; xy: frequency of collocation; x: frequency of component of collocation.)

We utilize a binary system in our calculations for the sake of continuity with previous studies which chose a binary base because of its significance in relation to decision-making procedures and its seeming compatibility with electronic, computational, and neurological systems. Notice that our application of entropy (and hence of redundancy) differs from that of other linguistic and information theory studies which usually use H in relation to the entropy of a system (e.g., a corpus) as a whole where $H = -\sum(p.i) \times (\log_2 p.i)$. Both the application and the symbolism of entropy in information theory and linguistics are rather different from those of their thermodynamic origins, a point sometimes criticized (see, e.g., Bruneaux 1984:10).

To illustrate the application of the formulae, we use as examples the two instances already mentioned. In the first, the collocation xy occurs 5 times and the collocate x ten times. In the second xy occurs 45 times and x 100 times.

$$1. \quad H(x \rightarrow y) = \log_2 \frac{1}{.5} = 1u.$$

$$H_{\max}(x \rightarrow y) = \log_2 10 = 3.322u.;$$

$$H_{\text{rel}}(x \rightarrow y) = \frac{1}{3.322} = 0.301u.;$$

$$R(x \rightarrow y) = 1 - 0.301 = 0.699 \times 100 = 69.9\%.$$

$$2. \quad H(x \rightarrow y) = \log_2 \frac{1}{.45} = 1.152u.;$$

$$H_{\max}(x \rightarrow y) = \log_2 100 = 6.644u.;$$

$$H_{\text{rel}}(x \rightarrow y) = \frac{1.152}{6.644} = 0.173u.;$$

$$R(x \rightarrow y) = 1 - 0.173 = 0.826 \times 100 = 82.7\%.$$

Backward $\langle R \ x \leftarrow y \rangle$ and average $\langle R \ x \leftrightarrow y \rangle$ redundancies can easily be established. Redundancy may be regarded as a measure of the degree of 'expectedness' or 'predictability' of an item in a particular environment, given the frequencies of the terms involved. The measure is extremely simple to use and the validity of results can easily be checked, using the formulas provided above. Unlike simple transition-probability, its application neatly coincides with the statistical principle that the strength of a conclusion increases with an increase in data leading to that conclusion.

Note that redundancy will not distinguish collocations with a transition-probability of 1; for each of these $R = 100\%$. Thus, as a matter of practicality as well as of linguistic and statistical common-sense, only collocations the components of which each occur at least twice should be assessed, because, by definition, any item occurring just once will have a redundancy of 100%, seeing that it can and must only collocate with just one other item. Remaining 100% redundant collocations must be graded according to frequency of each collocation as a whole.

As a statistical measure, redundancy has the disadvantage that as corpus-size increases so the redundancy of any collocation, including a statistically expected one (i.e., a collocation of statistically independent items), also increases. Although this flaw is probably not especially relevant to the present work (it is unlikely that many of the collocations we examine are statistically 'expected'), it suggests that we should pay attention more to the relative position of a collocation on a scale of redundancy than to its absolute redundancy value.

Redundancy attempts to capture the fact that we can 'predict' the elements of certain sequences on the basis of exposure to just a part of it, this predictive facility being a result both of strength of collocational association between components (transition-probability) and frequency of occurrence of sequences. Moreover, to some extent at least, redundant statistical 'information' seems to coincide with redundant semantic 'information':

It is clear that a high level of redundancy in, say, the works of an individual author is an indication of the excessive repetition by him of various words and expressions, i.e., of "poor" literary style; in contrast thereto, the low redundancy in the works of certain great authors can characterize the brilliance and unconventionality of their language. (Yaglom-Dobrushin-Yaglom 1960:27).

Following the recommendation of Mel'chuk 1960:12 (quoted in a different context in Ch. 5, Sect. F), we have chosen to utilize only one point of transition in each collocation, treating multiple components of relatively long collocations as single units. This means that in a three-item collocation xyz , we shall be measuring the relationship $xy \rightarrow z$ or $x \rightarrow yz$, but not $x \rightarrow y \rightarrow z$. Partly this is because it greatly facilitates analysis and comparison of results if a five-item collocation can be treated like a two-item one, but also, if this procedure is not adopted (as Mel'chuk's analysis implies), collocations containing a lower number of components will be unfairly advantaged against those with a higher number, as the collocation of w items is, in a corpus of n items, approximately n times less probable than that of a collocation of $w-1$ items. In fact, however, we discovered (see Ch. 10, Sect. B, 2; E) that longer collocations tended to 'overscore' by this process, because, as they are (again out of statistical necessity) likely to occur less often in a corpus than shorter collocations, the transition probability of $xy \rightarrow z$ or $x \rightarrow yz$ is likely to approach 1.

As stated in Chapter 1, we are not overtly concerned with the 'psychological reality' of the units and processes that we examine. But it seems likely that the recognition and comprehension of 'idioms' is significantly aided by high levels of transition-probability. Taylor (1953:419) claims that high transition-probabilities influence 'readability', as measured by 'cloze procedure', allowing one "to complete a familiar but not-quite-finished pattern... by mentally closing up the gaps" (ibid.:415). On the other hand, Swinney and Cutler (1979) tested the significance of transition-probabilities for the recognition of idioms, and found that in a phrase-completion experiment involving (possible) idioms, just under half the phrases were completed as idioms by subjects; they concluded that the results did not favour the influence of transition-probability. But the phrases they used in the experiment (Swinney & Cutler 1979:533f.) have markedly different levels of idiomaticity (compare, e.g., *hold on* and *lost his marbles*), and we should predict these to have correspondingly different transition-probabilities. Swinney and Cutler seem to assume, like many others, that an expression is either an idiom or a non-idiom, but this is both counter-intuitive and runs against our own thesis. Swinney and Cutler's evidence against the psychological influence of transition-probability in idiom-recognition would have been definitive only if tested against a group of expressions which had been shown independently to have been 'equally idiomatic'. As no break-down of their evidence is provided, we cannot check to what extent decrease in transition-probability relates to decrease in 'idiomaticity'. This, of course, is part of the goal of the analysis that we can now begin.

PART IV

TESTING THE HYPOTHESIS

CHAPTER 8

CORPUS AND DATA

A. THE CORPUS

The corpus which forms the object of inquiry of the analysis used to test the statistical hypothesis outlined is the complete Masoretic Text (MT) of the Hebrew Bible, from which certain anatomical terms and their collocational environments are extracted as data.

Our hypothesis predicts that the statistical isolation and grading of 'idioms' proposed will be consonant with linguistic intuitions on these matters. Although it is true in general that our semantic intuitions about a dead language are less trustworthy than those of a modern one, in the case of the biblical corpus we can test our views against the (published) fruits of the intuitions and analyses of generations of Christian, Jewish, and secular biblical scholars developed by them as by modern scholars through exposure to 'good', 'bad', 'standard', and 'odd' features of Biblical Hebrew (cf. Sawyer 1972:34). It is likely in the case of Biblical Hebrew (or any other language) that these intuitions are more valid in connection with syntactic and morphological features than with semantic ones. However for Biblical Hebrew the stylized nature of parallelism in much of the literature can assist our intuitions about simple semantic relationships like antonymy and synonymy (but Barr [1983:279] rightly urges caution in its use). And in respect of the data of the present analysis, we possess a relatively rich scholarly literature on anatomical terms in Semitic languages from a philological/literary perspective (see below for some examples) or as part of an essentially non-language-oriented analysis (e.g., the analysis of Akkadian medical terms in Adamson 1974-84, a biblical 'materia medica' in Schmidt 1743, and an attempt to enumerate a complete Hebrew medical vocabulary in Malchi 1928).

The MT constitutes a 'closed corpus', but this is not in itself an obstacle to linguistic inquiry (see Ch. 3, Sect. D, 2). Neither, in respect of the very limited collocational analysis that we propose, is it a substantial problem that the contents of the corpus are heterogenous in terms of, for example, subject-matter and style (see, e.g., Frye 1983:206) and date and dialect of composition (see, e.g., Morag 1974), nor that the corpus as a whole reflects literature rather than 'transcribed speech' (and a rather artificial literature to boot given the fact that it was consciously composed and/or edited as sacred literature probably leading to the favouring of certain linguistic forms and the rejection of others - see, e.g., Abramson 1971:1). This is because the anatomical terms at the heart of our data are in any language 'essential' or 'basic' expressions that will tend to occur regardless of style, register, or date of composition.

The limited data and goals of the analysis also means that it should be possible to use the MT as a corpus for the analysis, even though its 304,901 words (according to Masoretic calculation; the number would be greater were bound morphemes reckoned separately) falls well short of the "twenty million running words" that Halliday (1966b:159) thinks necessary for a full-scale collocational analysis (of English).

B. THE VOCABULARY

One reason for selecting anatomical terms in particular as the data for testing our hypothesis is that there is likely to be extant in Biblical Hebrew a substantial number of restricted collocations built around terms that otherwise refer to parts of the body. Partly this is due to the antiquity of Semitic anatomical vocabulary. (See Makkai 1972:200 for the relationship of idiomaticity and antiquity of idiom-components in English; see Bergsträsser 1928:183ff. for the Proto-Semitic status of certain anatomical terms, Holma 1911:x and Lacau 1970 for their presence in Egyptian, and Greenberg 1966 for their presence in 'Afroasiatic' more generally; see Lacau 1970:147 for the primitive morphology of anatomical terms in Hamito-Semitic, and *ibid.*:3 *et passim* for their continued existence over millenia within a language-family [although the reference of a particular term will sometimes shift to a different part of the body; for an Indo-European example of the same phenomenon, see Bloomfield 1935:425] - Kovács [1961:405] believes this stability derives from the fact that, with certain other vocabularies, body-part terms "se trouvent en relation avec la réalité la plus concrète".) Also, the evidence of other languages leads us to expect that 'body-part idioms' will be well-attested in Biblical Hebrew as well. Holma (1911:viii) writes of

die allen Sprachen gemeinsame Neigung, die Namen der Körperteile auf leblose Dinge der umgebenden Natur zu übertragen (cf. Caird 1980:172f.)

(connected, presumably, to 'pre-scientific' man's personalizing of natural phenomena; see Frankfort et al. 1949:24,49), and his claim is borne out by Pearsall Smith's discovery that:

The first... great source... of idiom is nothing less than the human body itself. About almost every external, and many of the internal parts of the human body, are clustered whole constellations of phrases and figures of speech of extraordinary vividness and variety. (Smith 1925:249; cf. Bloomfield 1935:149)

Smith actually lists approximately one thousand such expressions. For a more recent statement of the substantial proportion of English idioms involving parts of the body see Wright 1978. Dhorme 1923:161ff. is a detailed summary of the situation in Biblical Hebrew. The ubiquity of anatomical idioms is to some extent a function of the high frequencies of anatomical terms (see Makkai 1972:202; 1978:421), but it is likely that the perceptual immediacy of the body and its parts is also relevant. In Biblical Hebrew at least, terms for the non-exposed organs do not participate to such an extent in body-part idioms:

En dehors du coeur, les parties [du corps] internes ne figurent que très rarement à l'état de métaphores. La chose se comprend d'elle-même si l'on songe que l'assimilation d'un objet à une partie du corps suppose que cette partie est constamment sous les yeux et fournit le terme de comparaison. (Dhorme 1923:109)

A particular reason why a large number of anatomical terms might be expected in the Bible concerns its general reference, namely God, especially a God who intervenes in the everyday lives and concerns of humanity. It is probably due in part to the Old Testament restriction on direct representations of God that we have such an extensive written relic of the community under Him, but for men to even write about God leads almost inevitably to the use of anthropomorphic/phatic language (see Robinson 1913:65), especially given the anthropocentric nature of divine activity. Amongst instances of this language are items referring to the most basic elements of a person, namely the bodily organs:

[S]criptural references to God are in form highly anthropomorphic. God is constantly spoken of as possessing human features, qualities, and feelings. There is reference to His face, eyes, ears, hands, arms, heart, 'bowels' (of compassion), feet and footsteps. He is said to see, hear, smell, speak, descend, remember and forget, grieve, and so forth. (Brown 1955:79)

The existence of Hebrew body-part idioms has long been recognized implicitly or explicitly. Several collocations involving an anatomical term are translated by 'exegetical' (i.e., non-literal) compound words in the LXX (see Tov 1977; e.g., ערל־שפתים 'uncircumcised of lips' is *alogos* 'speechless' or *isxno-pho:nos* 'thin-voiced, shrill voiced'; איש־שפתים 'man of lips' is *eulalos* 'sweetly-speaking'). Jones (1983:130f.) notes that the translators of the *Geneva Bible* (1560) version of *Ezekiel* provided idiomatic renderings in the text and 'word-for-word' equivalents in the margin. Examples given are 'impudent', *hard of face* (2.4, קשה־פנים); 'of an unknown tongue', *with deep lips* (3.5, עמק־שפה); 'consecrate', *fill the hand* (43.26, טילא יד); 'mark well', *set the heart* (44.5, שים לב). Large-scale studies of anatomical terms, including collocations, such as Dhorme 1923 and McCurley 1968 utilize, as their titles imply, a comparative approach, and tend to stress the similarities rather than the differences amongst the languages analyzed. Substantial, comparative, analyses are also found in Gruber 1980 which deals with ancient Semitic 'body language', and a similar approach characterizes studies which only incidentally contain analyses of body-part data; for example, Greenfield 1965 and Greenstein 1979, etc. Analysis of a variety of anatomical expressions is available to the non-linguistic-specialist via Wolff 1974a.

C. THE USE OF COMPUTERS

Computerized techniques are generally advocated for collocational work (see, e.g., Berry-Rogghe 1974:17; Sinclair-Jones-Daley 1970; Nir 1978:211; Sinclair 1966:410,428), and we decided to use this approach in the pursuit of the hypothesis outlined. We acquired from Oxford University Computer Services for a notional charge a computer-readable magnetic tape of the BHS standard edition of MT, prepared at the University of Michigan. (An apparently far superior version of the MT was available from the Centre Informatique et Bible, Maredsous, Belgium, but the cost was beyond the project's means; other superior versions, produced by Gérard Weil (Lyons) and by Emanuel Tov (Jerusalem), might be ready in 1987, and an excellent version of the Pentateuch and Former Prophets produced by Peter Morris at Lampeter and Edward James at Imperial College, London, is already available.) It was on (a corrected version of) the text encoded there that our analysis was conducted.

The principle of using a computer even for relatively small amounts of data is to be strongly defended, as computerized listings, once established, provide an easier and securer source of collocational data than traditional published concordances for the following reasons (amongst others).

First, published concordances do not systematically 'centre' items, making it difficult to establish both pre- and post-collocations (see below, Sect. E) of an item at a given verse. Where an item is 'centred', the length of 'span' on either side of it is likely to be less than can be achieved with a computerized concordance. Secondly, concordance entries are listed according to, first, morphological form, and, secondly, order of appearance in the Bible. Both features tend to split up collocational units over the listing, rather than presenting them together. Thirdly, where concordances and lexica, give explicit collocational information, this is done in an unsystematic way, covering only those combinations that the compilers feel to be semantically or theologically 'interesting'. Furthermore, even the information that is provided is not necessarily accurate. For example, ES claims that the collocation בטן-אם occurs at Psalms 71.6, but the entry in ES supporting this does not correspond to the text of BHK/S. Again, in its collocational information for בטן ES cites just two instances of בטן בלא , only noting a further occurrence at Job 15.2 under בלא . Fourthly, once created, a computerized concordance data-base can be manipulated to yield linguistic information of a different nature, which might be far less easy to inspect in a published concordance or lexicon.

However, as indicated in the next section, an account of how data to test the statistical hypothesis of Ch. 7 were chosen and collected, reliance on computational techniques can hinder early analysis of the subject matter, and falsely encourage expectations of the amount of data that it is feasible to analyze. Our experiences should serve as a warning to other linguists not to embark on this type of work unless they have substantial experience in using a mainframe and a good awareness of 'systems analysis'.

As explained below, the amount of data originally intended for analysis, was sharply reduced. Of course, statistical theses are served better by more rather than less data. However, it should be borne in mind that our analysis of Biblical Hebrew anatomical terms is intended simply to function as a test of a particular statistical hypothesis, and this hypothesis is in a sense only an adjunct, albeit a significant one, to the overall thesis pursued in the present work, namely, that collocational techniques supplemented by statistical analysis serve a valid and useful role in the study of meaning in general, and of the meaning of 'idioms' in particular. The thorough proving/disproving of our hypothesis would require a major work in its own right; the most to be expected within the confines of the present study, where the hypothesis forms but a component of a more general analysis, is that it provides sufficient data and analysis to indicate whether or not the hypothesis is on the right lines. As Ch. 10 shows, the evidence collected was enough to start to demonstrate the validity of the hypothesis; the limited analysis, of course, also lays the foundations for future more rigorous testing.

D. THE METHOD AND EXTENT OF DATA COLLECTION

We isolated, mainly on the basis of information in McCurley 1968, 116 Hebrew lexemes each of which it was claimed referred at least sometimes to a part of the human body. We decided to ignore the 57 items occurring ten times or less, as being probably of insufficient value to the statistical analysis. Several hapax- and dis-legomena could only tentatively be identified as anatomical terms in any case.

Eventually, though, only thirteen of this revised inventory of 59 items were analyzed. The reduction was due in large part to computer-related difficulties.

During the period that most of our data-collection was due to take place, the University of Hull's ICL 2960 operating under GEORGE3 was continually 'crashing'. As the jobs submitted were necessarily particularly long (see below), our data-collection especially suffered from this. Eventually the 2960 was replaced by a 3980 operating under VME. Transfer of files from the 2960 to the 3980 and installation and 'teething-troubles' of the new machine added to the delays. On top of this, a new version of OCP (see below) for VME took a long time arriving and yet longer to install to even a minimum standard of acceptability.

The hardware problems were exacerbated by poor quality software. The biblical text as encoded on our magnetic tape represented a completely uncoded (in terms of syntax, morphology, or lemmatization) version of BHS, having only the minimum of morphological segmentation. As we did not have the time to develop programs to achieve such analysis (and were unaware of any computer implementation of the method described in Price 1969), the data, once obtained from the computer, had to undergo a thorough non-computer-aided inspection. To make matters worse, the 'Michigan' text is replete with errors and these had to be isolated. Both factors diverted considerable time away from the collection and examination of collocational data.

An even more important software problem related to the concordance-making package used, namely, the *Oxford Concordance Program* (OCP). The mainframe version (one for microcomputer is planned for 1987), written in FORTRAN, employs a laborious sorting strategy which requires a massive amount of computer central processing unit (cpu) time and space for the work-files that it creates during analysis. However, it was not only OCP's lack of speed that delayed us but also a 'bug' in (the implementation of) OCP 1.0 running under GEORGE3 which effectively reduced OCP's speed by at least half (and, of course, doubled the time in which it could abort because of a computer 'crash' - see above).

As a general rule we should expect that for any language, and particularly for a relatively agglutinating language like Biblical Hebrew, as a lexeme increases in frequency, the number of different morphological forms realizing the lexeme will also rise, and so will the number of selection commands required by OCP (at least in the 'bugged' version) to isolate all the occurrences of the lexeme. In view of this, it was decided to ignore all lexemes occurring more than 200 times.--

A centred concordance utilizing as large a span as possible was then produced through OCP and other means (e.g., by use of a mainframe editor) for the 45 selected items (59 items of frequency greater than ten minus fourteen of frequency greater than 200). This concordance was itself fed through OCP to produce two concordances, one according to the alphabetical order of collocates to the left of the item, and the other according to the alphabetical order of collocates to the right of the item.

However, another factor now contributed to the contraction of these 45 items to the thirteen actually analyzed in Ch. 9. As we commenced 'manual' identification and study of the collocations from the concordance listings (no further mechanized techniques were used in the data-collection and -analysis procedures), it became clear that because collocations usually occurred infrequently (a frequency of four or above is not common), analysis of the idiomaticity attaching to such collocations necessitated detailed study of the immediate narrative context of each occurrence - any idiomaticity, that is, had to be demonstrated, it was in no way self-evident.

In retrospect, because of the limited number of data we were eventually able to analyze, our aims would probably have been better served had we analysed either very few (three or four) of the highest frequency anatomical terms (those occurring more than 500 times in Biblical Hebrew and Biblical Aramaic in descending order of frequency are **פניים**, **יד**, **עין**, **נפש**, **ראש**, **לב** [excluding **לכב**], and **פה**) or a subset of closely related anatomical terms (e.g., expressions for the hand/arm); either of these approaches might well have produced a good number of superficially 'synonymous', 'antonymous', etc. collocations, the actual, idiomatic, meanings of which could have been neatly compared.

E. OPERATIONAL DEFINITIONS

The following descriptions and definitions are operational for the purposes of the analysis in Chs. 9-10.

A collocation is a syntactically instantiated combination of a stable collocate (or 'node') and an unstable collocate. A stable collocate consists of an anatomical term in isolation or a sequence of words which include an anatomical term. An unstable collocate is the (syntactically structured) lexical material remaining in a restricted collocation when the stable collocate is removed. A pre-collocation is formed when a stable collocate appears at the end of a collocation. A post-collocation is formed when a stable collocate begins a collocation.

Generally speaking, in the present work we ignore collocations of prepositions and anatomical terms - such prepositional phrases are instead treated as (parts of) stable collocates. Because prepositional phrases are so common, our analysis would have run the risk of becoming bogged down in discussion of prepositional vagaries, rather than examining lexical association on a larger scale. But this does not mean that we (operationally) consider as identical an anatomical term in isolation and an anatomical term following a preposition.

Pronominal suffixes, object-markers, and definite articles are ignored for the purposes of isolating collocations, although their presence, if relevant, may be discussed in analysis of a collocation. This is for ease of analysis, it does not imply a denial of the fact that many 'idioms' critically involve 'grammatical words', pronouns, etc. Compare *make up* 'compose', *make it up with*, 'be reconciled', *make up to* 'flatter', and *make it up to* 'compensate' (data from Mitchell 1971:57).

To be included in our analysis, a collocation must occur in the same form at least twice. By 'form', we mean the form of the deep-structure syntactic unit realized by the surface combination of stable and unstable collocates. Surface-structure differences in themselves are not critical in distinguishing collocations. For example, surface-structure variations in the inflection of a noun, an adjective, or a verb (of a given conjugation - see below) are not considered significant. (This is not without danger - see Sinclair-Jones-Daley 1970:118; Firth 1968:181.)

Conversely, mere formal juxtaposition of items does not of itself render a sequence a further instance of a particular collocation of these items, even if the order of the items is the same both times. For example, נַפְשׁוֹ וְגוּפוֹ 'soul and body' (?) is not reckoned as a collocation, because in one occurrence, at Psalms 31.10, the conjunction וְ links the two nouns within a single noun-phrase whereas at its other occurrence, at Prov. 13.25, וְ conjoins two sentences each of which contains one of the nouns. This is not to deny that נַפְשׁוֹ and גוּפוֹ constitute a significant association (cf. Psalms 44.26), but they do not represent a collocation in the sense with which we are concerned in this work.

Because a collocation is defined in terms of syntactic as well as lexical bonding, no item within a collocation is conflated with another item of the same stem but a different morphological category. For example, a collocation in which a consonantal stem (root) is realized as a noun is not identified with a collocation which is similar except that the root is there realized as an adjective (indicated by its morphology or by its syntactic function as an adjective - though formally it might be a participle). Similarly, verb conjugations (בנינים) are not conflated unless they represent active and passive variants - intensive and causative (typically, piel and hiphil) forms are not accepted, for present purposes at least, as 'transforms' of simple-declaratives (qal). For instance, צמחה בטן (qal) 'the womb swells' (Num. 5.27), לצמחה בטן (hiphil, although this is disputed - see Rashi *in loc.*, BHK, and BDB) 'to make the womb swell' (Num. 5.22), and בטן צמח 'swelling/swollen belly' (adjective) (Num. 5.21), does not constitute a single collocation, for the reasons outlined.

Collocations are always cited as (Verb-phrase +) Noun-phrase (or [Verb-Object-] Subject), even if this order is not manifested in the surface-structure occurrences of a given collocation. For example, the surface-structure form כל ברכיים הלכנו סים at Ezk 7.17; 21.12 is presented as סים כל-ברכיים הלכו 'runs (with) water all knees' (Ch. 9; 10:01).

F. METHOD OF PRESENTATION

The thirteen anatomical terms selected from the original list of 116, preceded by the number of its position on that list and followed by a common translation, are as follows: 09, בטן 'stomach, womb'; 10, ברך 'knee'; 25, זקן 'beard'; 26, זרוע 'arm'; 28, חיק 'chest'; 29, חך 'palate'; 40, ימין 'right hand'; 41, ירך 'thigh'; 44, כליות 'kidneys'; 46, כף 'palm'; 49, כתף 'shoulder'; 53, לחי 'jaw, cheek'; 55, לשון 'tongue'.

The main heading for the collocations attaching to each of these thirteen items, consists of (1) the number of the item (09, 10, 25, etc.), (2), the item itself, (3) in brackets the frequency of the item in the Hebrew part of the Bible (based on ES).

This is followed by a list of parallel verses (marked by '||') if any exist. A 'parallel' verse must occur in what is generally accepted to be a 'duplicate passage' of some length. Typically, parallels occur between Kings and Chronicles. Prov. 18.8 and 26.22, for example, are not reckoned as parallel verses, because they do not occur in a context of more substantial duplication. If a pair of generally accepted parallel verses do not realize in identical fashion the clause containing the relevant anatomical term, the verses are not 'parallel' for our purposes (e.g., for ימין, 1 Kings 22.19 and 2 Chr. 18.18). The number of parallel verses is subtracted from the total in the main heading and the revised figure is given, in brackets, at the end of the list of parallel verses.

Following the list of parallels is a list of 'recapitulations' (marked by '=') if any. 'Recapitulation' is the term we give to an instance of a sequence, usually of at least half a verse in length, which repeats an earlier occurrence simply to 'foreground' it in the discourse structure. A verse containing a recapitulation is often a near-duplication of the verse in which the expression originally occurred, but it does not constitute a 'parallel' verse - it is a deliberate repetition within a single narrative framework, and is not 'gratuitous' in the way that the Chronicler's duplication of DtrG might be said to be. An example of a large-scale recapitulation is the 'repetition' of Exodus 29 in Lev. 8 in order to show that the instructions of Exodus 29 were actually carried out. Similarly, at Judges 13.7 a formula from v. 5 is recapitulated. However, although recapitulations have a narrative significance greater than that of 'parallel verse' repetitions, they are like 'parallel passages' inasmuch as the new occurrence adds nothing to our knowledge of the semantics of any collocation (or word) found there - to repeat what one has just said does not improve an interlocutor's understanding of what was said, but simply draws his or her attention more strongly to the fact that it was said. The adjusted total, minus parallels if any and minus recapitulations, follows any statement of recapitulations in brackets.

After the main heading and lists of parallels and recapitulations is a statement and analysis of all pre-collocations based on the anatomical term studied, and this is followed by a similar description of all post-collocations.

Every pre-collocation attaching to an anatomical term is assigned a number of the form xx:yy where xx is the number of the anatomical term and yy is the position of the unstable collocate in an alphabetic ordering, starting from 01 (numbers 1-9 are listed as 01-09 to facilitate the programming described in Ch. 10, Sect. A). Post-collocations of the anatomical term are then numbered according to the same pattern, with the yy numbers commencing at one plus the yy number of the final pre-collocation.

The first line or first few lines of an entry for a collocation consists of (1) the number (xx:yy) of the collocation, (2) the form or forms of the collocation occasionally interrupted by '/' to indicate the point of transition between stable and unstable collocates (normally this type of slash will have a space either side of it; a slash without surrounding spaces usually marks alternative forms - the collocation at Ch. 9, 41:04 is an exception), (3) the frequency of the collocation followed by a '/' followed by the frequency of the form of the stable collocate that appears in the collocation, (4) the frequency of the collocation followed by '/' followed by the frequency of the unstable collocate (again, as specified in the particular collocation), (5) a simple, 'shorthand', statement of the morphological type of nouns within the collocation arranged in the order that the nouns occur in the collocation (see below), (6) a list of passages in which the collocation occurs, and, sometimes (7), citation of passages of some relevance to the collocation, which are not necessarily discussed in the analysis that follows.

Regarding (2), if no transition-marker (usually ' / ') is present, the point of transition in a pre-collocation comes immediately before the anatomical term or before a preposition immediately preceding it - in a post-collocation the point of transition comes immediately after the anatomical term. Note the significance of space between maqeph and a following noun in the given form(s) of a collocation; this indicates that suffixed material irrelevant to the collocation (see above, Sect. E) intervenes between the two collocates; of course, maqep without space links two components as construct and absolute.

Regarding (3)-(4), statistics for the absolute frequency of a stable or an unstable collocate are usually based on inspection of the entries in ES, including explicit collocational data provided there. Figures for unstable collocates do not take into account any 'parallel' and 'recapitulating' occurrences of the unstable collocate, although, except in the case of very-high-frequency unstable collocates, they are reduced by the number of any 'recapitulating' and 'parallel' occurrences of the collocation. In line with our definition of (restricted) collocations, in calculating the occurrences of a multi-word stable or unstable collocate, it is instances of the realization of the deep-structure form instantiated by the collocate with which we are concerned, not simply formal orthographic 'copies' of the collocate.

קָטַן, נָשָׂא, and נָשָׂא are registered by BDB as masculine and feminine (although one gender tends to predominate), and the statistics for verbs in collocations based on these terms reflect this. Otherwise, the figures for nouns and verbs represent the total occurrences of the form or forms of a stable or unstable collocate as given in the heading. Where a noun functions as a subject of a verb, the only occurrences of the verb selected are those corresponding to the number and gender of the noun. Where a noun functions as an object, figures for the verb are for all realizations of a particular conjugation regardless of number and gender. For the purposes of this study dual and plural forms were conflated as 'plurals'.

The figures yielded in (3)-(4) assume just one 'point of transition' in a collocation, between stable and unstable collocate. As we shall see (Ch. 10, Sects. B, 2; E), this arrangement is not really adequate as it tends to create 'cranberry collocates', which automatically receive high redundancy scores. However, the method allows for simple calculation, and has been suggested before (see Ch. 5, Sect. F, 2).

Regarding (5), two examples illustrate what is meant. 'S+C; P+A' means that the first noun is only attested within the collocation in singular-construct form, and the second only in plural/dual-absolute form. '[S+[A+C]]+[P+C]' means that a particular noun-collocate is attested in singular-absolute, singular-construct, and plural/dual-construct forms (i.e., it is unattested only as a plural/dual-absolute). The information makes explicit what is generally conveyed implicitly by the form of the collocation given in (2). Only the four categories (S, P, A, C) mentioned are used.

Following the heading for each collocation is a short study of the occurrences of the collocation. As stated above this was necessitated by the relatively low frequencies of collocations and the ensuing uncertainty about the status of their 'idiomaticity'. We stress that the analyses provided do not aim at comprehensive description of collocations or analysis of passages, merely at provision of sufficient information to decide to what extent they are idiomatic.

Any collocation which has all its tokens within a very few verses of each other, is marked as 'Data restricted'. Results from these data are not included in the main tabulations of results in Ch. 10 (Sects. B, D).

For the remaining collocations, objective judgement in the matter of idiomaticity is very difficult, especially when data are so limited. Certainly, we do not assume that our intuitions alone are a safe guide to idiomatic values, even of expressions as universally attested as anatomical idioms (see above, Sect. B) - Bloomfield (1935:150) urges caution in this respect. To help alleviate the problem, we have tried to use in a fairly consistent way three terms, operationally related for present purposes, namely, 'association', 'symbol', and 'index'.

'Association' is used in an everyday way - a collocation forms an association with a particular meaning not directly expressed by the collocation if in the immediate environment (i.e., within a verse or two) of the collocation this meaning is expressed literally. An English example would be *He was white as a sheet; frightened out of his wits*, where from the evidence presented we cannot say that *white as a sheet* 'means' 'frightened', merely that it is associated with it. Clearly an association can become so strong that the meaning previously associated with a collocation can become directly expressed by the collocation. If so the collocation then becomes either an index or a symbol of the meaning with which it was once only associated.

Symbol and index are adopted from traditional semiotics; the former refers, in our usage, to a collocation that directly (i.e., non-'associatively') expresses a meaning which, if it can be inferred at all from the compositional meaning of the collocation, represents an idiosyncratic, 'not immediately obvious', implication of or association with the literal meaning of the collocation. An index differs from a symbol in that the meaning conveyed, even though this is not the meaning literally expressed by the collocation, is an obvious, self-evident, implication of or association with the literal meaning of the collocation. For example, in respect of *הכה לחי* 'strike the cheek' (Ch. 9, 53:01) it is unclear at times whether the meaning conveyed is 'humiliate' (symbolic) or 'attack, hurt' (indexical). The distinction between symbolic and indexical is rarely clear-cut and presupposes an analysis of 'natural' as opposed to 'conventional' signs and of universal *versus* culturally-conditioned perceptions of obviousness. Nevertheless, it is usually clear enough that a particular collocation is 'more' symbolic than indexical or *vice-versa*, and the distinction seems particularly useful for the purposes of analyzing idiomaticity.

Of course it is to be expected that many of the collocations will possess an insubstantial level of idiomaticity (they would not be classed as 'idioms' by a native-speaker). Often, however, although a collocation as such is not idiomatic (i.e., the relationships amongst the collocates are fully regular), it will contain one or more collocates that express a 'figurative' meaning of some sort (cf. Ch. 10, Sect E). In describing this (as well as in describing idiomatic collocations), we utilize traditional terminology, in particular, metaphor, metonymy, and synecdoche. The last two features are very common in Biblical Hebrew, perhaps reflecting what Wolff (1974a:8) calls 'synthetic thinking' - whereby an anatomical term refers both to the actual body part and at the same time, through a sort of synecdoche, to the person to whom the body part belongs (leading eventually to their use as reflexive pronouns or incorporation within 'compound prepositions'; see, e.g., McCurley 1968:7,230ff.). (Frankfort et al. [1949:21] regard the process as an aspect of specifically 'mythopoeic' speculation.) For example, at Job 4.4, where the first colon has, 'Your words strengthened the faltering', the parallel colon should perhaps be rendered not so much 'And the weak knees you supported' as 'And the weak-kneed you supported'. It should be emphasized that by the use of these terms from traditional rhetoric, we do not mean to imply that biblical writers always or even usually consciously manipulated the meanings of anatomical, or any other, terms for a particular aesthetic or stylistic effect. Rather, we assume that these figurative processes are inherent in the natural development of any communicative system, and are quite uncontrived.

Alongside the three terms mentioned we also occasionally use the expression 'hypostasis'. By this we refer to those occasions where a part of the body is presented as acting independently of the person to whom it belongs (contrast the use of the same term in Bloomfield 1935:148). The phenomenon is common in the Bible (see Bullinger 1898:861ff. for Old and New Testament examples, presented as instances of 'personification'). Contrast, for example, non-hypostatic דברתי בלשוני 'I spoke with my tongue' (Psalms 39.4) and פי דברתי 'my mouth spoke' (Psalms 66.14); an English example of the same phenomenon is *the ear of the musician discerns many sounds*. It is sometimes unclear whether such usages are intended literally, or whether they represent synecdoches of the person to whom the anatomical term belongs. This is especially true in respect of poetic diction where fluidity of images, hypostatic and synecdochical, might be intended or at least catered for by the author - thus, for example, at Psalms 73.9, ולשונום חתלך בארץ permits an image both of a tongue stretching out across the land, communicating evil, and of evil people wandering from place to place to pervert God's will (cf. de Boer 1968:264: "The commanding tongue of the wicked is proceeding over the earth").

The evidence of this analysis is presented in the next chapter. In Ch. 10, we describe how statistics about the collocations examined were produced, and present the results of, and some conclusions arising from, the statistical analysis.

G. INDEX OF COLLOCATIONS SELECTED

Notes: D after frequency indicates 'data restricted'; brackets indicate that entry is duplicated, and has already been listed under a different number. Translations are only of literal readings. Glosses in quotation-marks are from NBB.

NUMBER	HEBREW FORM	ENGLISH GLOSS	FREQUENCY
09:01	בן־בטן	Son of the womb	02
09:02	חדרי־בטן	Chambers of the stomach	04
09:03	יצא מבטן	Come out from the womb	04
09:04	יצר ב/מבטן	Fashion in the womb	04
09:05	מילא בטן	Fill the stomach	03
09:06	פרי־בטן	Fruit of the womb	11
09:07	תוסיים בבטן	Twins in the womb	02
09:08	ב/מבטן־אם	In/from the womb of the mother	06
10:01	הלכו סוים כל־ברכיים	All knees run with water	02
10:02	ילד על־ברכיים	Give birth on the knees	02
10:03	כל־ברך	Every knee	04
10:04	ברעה כל־ברך	Every knee bends	02
10:05	כרע על־ברכיים	Bow down upon the knee	05

25:01	גילח זקן	Shave the beard	02
25:02	גרע כל-זקן	Cut off every beard	02
25:03	פאת-זקן	Edge of the beard	02
25:04	ראש או זקן	Head or beard	02 D
25:05	ראש וזקן	Head and beard	03
26:01	גאל בזרוע	Redeem with the arm	02
26:02	גדול-זרוע	Great of arm	02
26:03	הושיעה לו זרוע	His arm saved him	05
26:04	חיזק זרוע	Strengthen the arm	02
26:05	ימין וזרוע	Right hand and arm	03
26:06	שבר זרוע	Break the arm	07
26:07	זרוע-יהוה	Arm of Yahweh	02
26:08	זרוע-סלד-בבל	Arm of the king of Babylon	02 D
26:09	זרוע נטויה	Extended arm	14
26:10	זרוע-עוז	Arm of strength	03
26:11	זרוע-פרעה	Arm of Pharaoh	03 D
26:12	זרוע-קודש	Arm of holiness	02
26:13	זרוע-רשע	Arm of the wicked	02
28:01	אשת-חיק	Wife of the bosom	02
28:02	השיב אל-חיק	Return to the bosom	02
28:03	השכיב בחיק	Lay in the bosom	02 D
28:04	לקח סחיק	Take from the bosom	02
28:05	נשא בחיק	Lift into the bosom	03
28:06	שכב בחיק	Lie in the bosom	02

29:01	טעם חד	The palate tastes	02
29:02	פתוק לחד	Sweet to the palate	02
29:03	דבקה לחד לשון	The tongue sticks to the palate	03
40:01	אחד מיסין	One from the right side	02
40:02	אישר יד-ימין	Blocked of the hand of the right side	02
40:03	הושיעה לו ימין	His right hand saved him	03
40:04	השיב ימין	Return the right hand	02
40:05	חומה סיסין וטסאול	A wall on the r.s. and left s.	02 D
40:06	חיבקה ימין	The right hand embraces	02
40:07	חמש מיסין	Five from the right side	04
40:08	יד-ימין	Hand of the right side	09
40:09	יסין ימין	The right hand is a r.h. of	02 D
40:10	ירד-ימין	Thigh of the right side	02 D
40:11	ישב לימין	Sit at the right side	02
40:12	נטה ימין וטסאול	Turn right side and left side	03
40:13	סר ימין וטסאול	Turn right side and left side	09
40:14	עין-ימין	Eye of the right side	03
40:15	עמד על-ימין	Stand at the right side	04
40:16	שוק-ימין	Leg of the right side	07
40:17	יסין או טסאול	Right side or left side	02
[40:18	יסין וזרוע	Right hand and arm	03]
40:19	יסין וטסאול	Right side and left s.	13
40:20	יסין-יהוה	Right hand of Yahweh	04
40:21	יסין-ישימון	Right side of Jeshimon	02 D
40:22	יסין-שקר	Right hand of falsehood	02 D

41:01	חגר חרב על-ירך	Gird a sword on the thigh	02
41:02	יוצאי-ירך	Outgoings of the thigh	03
41:03	כף-ירך	Palm of the thigh	04 D
41:04	נגע בכף-ירך	Touch the palm of the thigh	02 D
41:05	ספק על-ירך	Slap against the thigh	02
41:06	שם יד תחת-ירך	Place a hand under the thigh	02
[41:07	ירך-ימין	Thigh of the right side	02]
41:08	ירך-יעקוב	Thigh of Jacob	03
41:09	ירך-מזבח	Thigh of the altar	02
41:10	ירך-משכן	Thigh of the Tabernacle	04
44:01	בוחן-כליות	Examiner of the kidneys	03
44:02	חלב-כליות	Fat of the kidneys	02
44:03	יותרת על-כבד על-כליות	'Remnant' upon liver upon k.	05
44:04	שתי-כליות	The two kidneys	07
44:05	כליות ולב	K. and heart	03
46:01	הושיע סבף	Save from the hand	04
46:02	הכה כף	Strike the hand	04
46:03	הציל סבף	Save from the hand	08
46:04	חסס בכפויים	Wrong in the hands	03
46:05	יגיע-כפויים	Toil of the hands	04
46:06	יצק על-כף	Pour over the hand	02 D
46:07	כל-סקום		
	אשר דרכה בו כף-רגל	Wherever the sole of the foot treads	02
46:08	מזכרות וכפוח	"Snuffers and saucers"	02
46:09	סחא כף	Strike the hand	02
46:10	פילא כף	Fill the hand	02

46:11	סלוא־כף	Fulness of hand	02
46:12	סנוח לכף־רגל	Rest for the sole of the foot	02
[46:13	נגע בכף־ירך	Touch the palm of the thigh	02]
46:14	נשא כפיים	Raise the hands	03
46:15	נחן בכף	Give into the hand	02
46:16	ספק כפיים	Clap hands	03
46:17	עשה כף	Work the hand	02
46:18	פרש כפיים	Extend the palms	09
46:19	רחץ בנקיון כפיים	Wash the hands in innocence	02
46:20	שם כף	Place the hand	02
46:21	שם נפש בכף	Place the soul in the hand	04
46:22	שמן אשר־על־כף	Oil that is upon the hand	06 D
46:23	תחת כפות־רגל	Under the sole of the foot	02
46:24	חקע כף	Strike the hand	05
46:25	ב/מ־כף־אויב	In/from the hand of the enemy	06
46:26	כף אחת עשרה	"One saucer weighing ten gold	
	זהב סלאה קטורה	shekels, full of incense"	12 D
46:27	כף־איש	Hand of a man	02
46:28	פרש כפיים אל־יהוה		
		Extend the palms to Yahweh	02
46:29	הכה כף אל־כף	Strike hand on hand	02 D
46:30	כפות וכלים	"Saucers and vessels"	02
46:31	כפות וסנקיות	"Saucers and flagons"	03
46:32	כפות־זהב שתים־עשרה	"Twelve golden saucers"	02 D

46:33	כפות-ידיים	Palms of the hands	03
[46:34	כף-ירך	Palm of the thigh	04]
46:35	כף-כֹהֵן	Palm of the priest	04 D
46:36	כף-סִדוֹן	Hand of Midian	02 D
46:37	מִכַּף-סֶלֶךְ	From the hand of the king	05
46:38	עַל-כַּף-פַּרְעֹה	Upon the hand of Pharoah	02 D
46:39	כף-רֶגֶל	Sole of the foot	18
46:40	מִכַּף-רֶגֶל וְעַד-קֶדֶקֶד	From the sole of the foot to the pate	03
46:41	כַּף שְׂמְאֵלִית	Left hand	04 D
46:42	פָּרַשׁ כַּפָּיִם שְׁמַיְמָה	Extend the palms to heaven	02 D

49:01	בין כתפיים	Between the shoulders	02
49:02	גיהנום אל-כתף-יבוס	Valley of Hinnom to the Jebusite slope	02
49:03	חמש על-כתף-הבית	Five at the side of the house	02 D
49:04	כל-כתף	Every shoulder	02
49:05	נשא על-כתף	Carry on the shoulder	06
49:06	נחן כתף סוררת	Present a rebellious shoulder	02
49:07	נחן על-כתף	Place on the shoulder	03
49:08	עבר אל-כתף	Cross to the slope	03
49:09	שם על-כתפיים	Place on the shoulders	02
49:10	שתי-כתפיים	Two shoulders	03 D
49:11	כתפות-אפוד	S.s of the ephod	03 D
49:12	כתף-בית	Side of the house	07
49:13	כתף ימנית	Right side	05
49:14	כתף-שער	Side of the gate	05
53:01	הכה לחי	Strike the cheek	04
53:02	נחן חכים בלחיים	Put hooks in the jaws	02
53:03	נחן לחי	Present the cheek	03
53:04	לחי-חסור	Jaw of an ass	03 D

[55:01	דבקה לחד לשון	The tongue sticks to the palate	03
55:02	דיברה לשון	The tongue speaks	05
55:03	הגחה לשון	The tongue murmurs	04
55:04	החליק לשון	Smooth the tongue	02
55:05	כבד־לשון	Heaviness of tongue	03
55:06	ככתב וכלשון		
	According to writing and according to speech		04
55:07	כל־לשון	Every tongue	03
55:08	לא־חרץ לבני־ישראל לשון	None sharpened a tongue towards the Sons of Israel	02
55:09	למשפחות לשונות	By clan and by tongue	02 D
55:10	מילה בלשון	A word in the tongue	02
55:11	רננה לשון	The tongue shouts for joy	02
55:12	שנו לשון	Sharpen the tongue	02
55:13	תחת לשון	Under the tongue	04
55:14	לשון־זהב	Tongue of gold	02 D
55:15	לשון־חכמים	T. of the wise	02
55:16	לשון־ים	T. of the sea	03
55:17	כלשון־עם ועם		
	According to the speech of each people		03
55:18	לשון רסיה	Deceitful tongue	02 D
55:19	לשון־שקר	T. of falsehood	05

CHAPTER 9

ANALYSIS OF BIBLICAL DATA

9. בֶּטֶן (72)

PRE-COLLOCATIONS

09:01. - בֶּטֶן/בְּנוֹי-בֶּטֶן. 2/46 2/4602 ([S+P]+C; S+C). Isaiah 49.15; Job 19.17. Cf. Prov. 31.2.

At Isaiah 49.15a בֶּטֶן is synecdochical of the mother (thus, 'her son'), and the collocation as a whole has an intensifying value ('her own son'):

הֲתִשְׁכַּח אִשָּׁה נוֹלְדָה לָרַחֵם בֶּן-בֶּטְנָהּ

"Does a woman forget her baby at the breast,
or fail to cherish the SON OF HER WOMB?" (JB)

(retaining MT's pointing of רַחֵם as an infinitive construct *contra* BHK/S and NEB). The use in the same colon of the root רַחֵם, yielding words to do with 'womb' as well as with 'compassion', adds an extra stylistic flavour to בֶּטֶן here. A similar (synecdochical/intensive) value is attached to the Aramaizing version of the collocation at Prov. 31.2:

פֶּה־בְּרִי וּפֶה־בְּרֶ־בֶּטְנִי וְסָה בְּרֶ־נֶדְרֵי

"What, my son! What, SON OF MY WOMB!

What, son of my vows!" (JB).

(כְּנוּי־חֶבֶה] is here used as a 'term of endearment' [כְּנוּי־בֶּטְנִי according to ESD.) In both instances the collocation might have a specialized ('idiomatic') indexical value of, say, 'natural (as opposed to adopted) child', but there is insufficient evidence to confirm this.

The interpretation of the whole of Job 19.17,

רוּחִי זָרָה לְאִשְׁתִּי וְחַנְתִּי לְבְנֵי בֶּטְנִי,

is uncertain. KB explains our collocation here as "the sons of the womb which has carried me = my own brothers", and this indexical value seems to be favoured on grounds of narrative consistency by Rowley (1980:136); for the same reason, it is unlikely that בֶּטְנִי refers by synecdoche to Job's wife (mentioned in the first half of the verse) or one of his concubines (see LXX). Note also another instance of בֶּטְנִי meaning 'my mother's womb' or 'the womb that enclosed me', at Job 3.10a, quoted at 09:03.

09:02. דברי-בטן. 4/26 4/12 (P+C; S+A). Prov. 18.8; 20.27,30; 26.22.

At Prov. 18.8 (if original; cf. LXX) and its duplicate at 26.22 our collocation seems to refer to the mind under an image of the stomach, where gossip is pondered like food that is enjoyably digested:

דברי נרגן כפתלהסים והם ירדו חדריי-בטן,

"A gossips words are savoury morsels,
gulped down into the INNER MAN" (NEB).

NEB's rendering of the collocation here does insufficient justice to the gastronomic figure. For בטן as 'mind, memory' cf. Prov. 22.18.

At Prov. 20.27 the דברי-בטן refers to a person's hidden character:

נר יהוה נשמת אדם חפש כל-חדרי-בטן

"Man's spirit is the lamp of Yahweh,
searching his DEEPEST SELF" (JB).

For the imagery, compare Yahweh as נולבן בליות (44:01); see Loewenstamm 1987 (where נר in the first colon is rendered 'one who digs/searches'). Three verses later, the same value of 'secret thoughts' is represented by our collocation in parallelism with רע 'evil' or 'intention' (see BHS; KB; NEB).

Thus, although at Prov. 18.8 and 26.22 we may claim that חֲדָרֵי-בֶטֶן metaphorically represents mental digestion by physical (cf. 09:05), the contexts of the uses of the collocation in Proverbs 20 suggest that there בֶטֶן expresses a reasonably well-established metonymic sense of 'mind' (cf. Prov. 22.18; see Dhorme 1923:133f. and Bullinger 1898:582, where John 7.38 is also noted), or, simply, 'innermost part' (as in Modern Hebrew, e.g., בֶטֶן הַאֲנִיָּה "'bowels" of the ship'; ESD) - see KB and compare Holma (1911:94) on Akkadian *buTnu* (?*budnu*) 'inside (of a mine)' and Dhorme (1923:134) on בֶטֶן שְׂאוֹל at Jonah 2.3b cf. לִבְבֵי יַמַּיִם, v. 4a; a compressed allegorical detail, 'the belly of the whale which is the same as Sheol', is perhaps intended - cf. Sawyer 1972:13f.).

09:03. - יצא סבטן/סבטן. 4/23 4/785 (S+[A+C]). Job 1.21^a; 3.11;
38.29; Qoh. 5.14.

The relevant passages (with translations from NEB) are given below.
The second passage might be dependent on the first (but see Gordis
1968:253):

נרם יצאתי סבטן אסי ונרם אשוב שמה

"Naked I CAME FROM THE WOMB,

naked I shall return whence I came" (Job 1.21a^a);

כאשר יצא סבטן אסו נרום ישוב ללכת כשכא

"As he CAME FROM THE WOMB of mother earth, so must he return,

naked as he came" (Qoh. 5.14a);

כי לא סגר דלתי בטני ויסתר עסל סעיני:

למה לא פרחם אמות סבטן יצאתי ואגוע

"[B]ecause it did not shut the doors of the womb that bore me

and keep trouble way from my sight.

Why was I not still-born,

why did I not die when I CAME OUT OF THE WOMB?" (Job 3.10-11);

הישלמטר אב או סייהוליד אגלי-של:

סבטן סי יצא הקרח וכפר שמים סי ילדו

"Has the rain a father?

Who sired the drops of dew?

Whose WOMB GAVE BIRTH TO the ice,

and who was the mother of the frost from heaven [?]"

(Job 38.28-29).

In each instance, it can be seen that the collocation is used as part of a longer stretch of poetic metaphor concerned with birth (including generation of natural phenomena). In respect of the first two passages, the metaphor is specifically of birth as a sort of reverse death. In the light of the poetic or 'extended metaphorical' environments of the collocation, we cannot claim that the expression is 'indexical' of be born. The evidence we have allows us to claim only a vividly metaphorical figure, not an expression which has been in any way 'lexicalized' (for the latter claim, we should require usage in more prosaic contexts).

That the expression is, thus, 'unidiomatic' is indicated too by the occurrence of a synonymous variant with רחם, which is restricted to an obviously 'poetic' context at Job 38.8, (cf. vv. 28f.; 3.10) and Jer. 20.17f. (cf. Job 3.10-11), and at both Jer. 1.5 (quoted in 09:04) and Num 12.12,

אֲלֵינָא חֲתִי כִסֵּת אֲשֶׁר בְּצִאתוֹ מִרְחִם אִמּוֹ וַיֵּאכֵל חֲצִי בִשְׂרֹו

"I entreat you, do not let her be like a monster,

coming from its mother's womb with flesh half corrupted" (JB),

the collocation is best understood as a literal expression within vivid descriptions of activity in the womb. (Rashi's understanding of אִמּוֹ ... אֲשֶׁר at Num. 12.12, "since he [the only person who could declare her clean] has come out of the same womb", also requires a 'literal' reading.)

As BDB points out, יצא alone (without סבטן or סרחם) is used in connection with birth at Gen. 25.25f. and 38.28ff. (both J); again, though, the contexts make it clear that 'come out, one before another (from the womb)' is intended rather than simply 'be born'. That יצא in isolation was no more used as a (lexicalized) index of 'be born' than was סבטן/סרחם יצא is probably indicated as well by Exodus 21.21 (E), where ויצאו ילדיה 'so her children go forth' clearly, from context, refers to premature/still-birth - it seems unlikely that יצא would be used with such a negative meaning, if it existed as a fixed, lexicalized, metaphor of successful birth, especially within the context of legal regulations where gross ambiguity, presumably, would generally be avoided.

09:04. יצא ב/סבטן. 4/14 4/37 (S+A). Isaiah 44.2,24; 49.5; Jer. 1.5^a.

For God as 'potter' (יוצר) in the creation of humanity, see Gen. 2.7 (J) and Psalms 139.16 (MT is difficult here). Isaiah 49.5a,

יהוה יצרו סבטן לעבד לו

"[T]he Lord who FORMED ME IN THE WOMB to be his servant" (NEB), and Jer. 1.5,

בטרם אצרך בבטן ידעתיד ובטרם תצא פרחם הקדשתיד נביא לגוים נחתיד

"Before I FORMED YOU IN THE WOMB I knew you for my own; before you were born I consecrated you, I appointed you a prophet to the nations" (NEB),

occur in a Call to the Prophet - the similarity in diction is a result of this shared *Gattung*. Similarly, in Isaiah 44,

יהוה עשד ויצרד סבטן

"[T]he Lord your maker, ... who FASHIONED YOU FROM BIRTH"

(v. 2a; NEB)

and

יהוה גאלד ויצרד סבטן

"[T]he Lord, your ransomer, who FASHIONED YOU FROM BIRTH"

(v. 24a; NEB),

the use of the collocation is associated with Yahweh's declaration of Jacob as his עבד - vv. 1a, 2b, 21a,b, 26; note especially v. 21a: יצרתיך עבד־לי אתה. Its employment is, thus, consistent with Deutero-Isaiah's overall message, which casts Israel corporately in the role of 'prophet' (to the Gentiles).

Although we have no evidence that the collocation actually symbolized 'declare someone a prophet', it is clear that the expression was strongly associated with a call to the prophetic order, and could have developed into a symbol for it. The semantic specialization of our collocation is indicated, indirectly, by the absence of any 'prophetic' context for the superficially synonymous עשה בנטן at Job 31.15.

09:05. - וְיִמְלֵא בִטְנֵי 3/46 3/111 (S+C). Psalms 17.14; Job 15.2; 20.23.
Cf. Ezek. 3.3; Job 32.18ff.; Qob. 11.5.

On the assumption that the 'literal meaning' of the collocation is 'fill the stomach', thus, indexically, 'eat to satisfaction', its use in the following two passages seems to be symbolic, expressing greedy acquisition of material wealth - Psalms 17.14a (Q):

וַיִּצְפוּנָךְ חִמְלָא בְטוֹם יִשְׁבְּעוּ בָנָיִם

"CRAM THEIR BELLIES from your stores,

give them all the sons they could wish for" (JB),

"GORGED AS THEY ARE with thy good things, blest with many sons"

(NEB, which reads חִמְלָא, with LXX, as a niphal);

Job 20.23a:

יִהְיֶה לְמִלְא בִטְנֵוֹ יִשְׁלַח־בּוֹ חֲרוֹן אַפָּי

"When he is about to FILL HIS BELLY,

God shall cast the fury of his wrath upon him" (AV).

(NEB, with the Hexaplar text, omits this instance of the collocation; for our interpretation, note חָיַל בָּלַע 'gulp down wealth' at v. 15a).

But at Job 15.2 the collocation seems to have a more literal reference:

הֲחָכֵם יַעֲנֶה דַעְת־רִוּחַ וַיִּמְלֵא קִדְיָם בִטְנֵוֹ

"Does a wise man answer with airy reasonings,

or FEED HIMSELF on an east wind?" (JB).

Wind here is metaphorical of vain thoughts and words - the image of the flatulent stomach impatiently storing things to say is found also at Job 32.18-20 (see Dhorme 1923:134; cf. 09:02).

It is not certain, though, even in the first two passages, that the collocation as such is indeed symbolic. The expression might be better regarded as exhibiting a particular, natural, use of טילא as 'satisfy' (isolated by BDB), with which we may compare טטנ טטן at Prov. 18.20, and a particular, again natural, use of בטן as '(the seat of) desire' (compare the transition of נפש from 'throat', i.e., organ of thirst, to 'desire'; see Wolff 1974a:15ff.). At Ezek. 3.3 both the physical stomach and its 'mental' associations seem to be implied; Ezekiel makes his בטן not only 'eat' (האכיל) the scroll but also 'inwardly digest' its message (see Bullinger 1898:826, where Jer. 15.16a, ונשאנו דבריהם ואכלם 'I heard your words and devoured them', is also noted).

09:06. - פריי-בטן/בטן. 11/72 11/103 (S+C; S+[A+C]). Gen. 30.2; Deut. 7.13; 28.4,11,18,53; 30.9; Isaiah 13.18; Micah 6.7; Psalms 127.3; 132.11.

The original context of this collocation might have been as it is in its modern reflex in the *Ave Maria* (see Luke 1.42) as well as in Deuteronomy that of a blessing/curse formula.

Although Gen. 30.2 and Micah 6.7 (בכור) allow the more specific meaning 'firstborn' (cf. the *Ave Maria*), the clear normal sense of the collocation is (singular) 'child' or (collective) 'children' - this is indicated by the parallelism of, e.g., Isaiah 13.18b,

וּפְרִי־בֶשֶׂן לֹא־יִרְחֹמוּ עַל־בְּנֵי־לֵאֲחָחוּס עֵינָם

"[W]ho have no pity on LITTLE CHILDREN

and spare no mother's son" (NEB)

(LXX renders *tekhna* both times), and Deut. 28.53a,

וְאָכַלְתָּ פְרִי־בֶשֶׂן בֶּשֶׂר בְּנֵיךָ וּבָנוֹתֶיךָ

"Then you will eat YOUR OWN CHILDREN, the flesh of your sons and daughters" (NEB)

(where the 'sex-inclusiveness' of the collocation is demonstrated).

Fruit of the womb means 'what is produced by/in the womb' as פְּרִי־
הַגֶּפֶן 'fruit of the vine' in the Sabbath Kiddush means 'what is
produced by the vine' (grapes). The naturalness of relationship
between the literal and 'idiomatic' senses here means that the
relationship is indexical rather than symbolic.

According to KB, the collocation is conveyed in contracted form at Lam. 2.20 by פְּרִיָם "fruit of their wombs" (NEB), indicating that the idiomatic value of the collocation was well-established. Certainly this indexical meaning had so suppressed the independent/original senses of its constituents that the BH writers found no difficulty in applying the collocation to the children of males or groups of persons including males (although this might simply echo pre-scientific beliefs - compare the story, ridiculed by Lucian, of the transfer of the embryonic Dionysus from the womb of Semele to the thigh of Zeus). Contrast this Old Testament usage with the unease about the meaning of the collocation when applied to David which Luke betrays at Acts 2.30 where he renders *karpos te:s koilias* 'fruit of the womb/body' in the LXX of Psalms 132.11 (and standardly) as *karpos te:s osfuos* 'fruit of the loins'. Note, though, that for the Deuteronomist the compositional, 'de-indexicalized', value of the collocation was sufficiently transparent to allow the expression to be associated with the formally similar phrases פְּרִי־אֲדָמָה/בְּהֵמָה (Deut. 28.4,11; 30.9).

09:07. - תַּנְאֻשִׁים בְּבֶטֶן - 2/7 2/2 (P+A; S+C). Gen. 25.24; 38.27.

(Rashi records a fanciful explanation for the variation in spelling of the first component.) No idiomaticity evident. J describes the labour of Rebecca and Tamar in very similar terms.

POST-COLLOCATIONS

09:08. סבטן-אם־ב. 6/17 6/201 (S+C; S+C). Judges 16.17; Psalms 22.11; 139.13; Job 1.21; 31.18; Qoh. 5.14.

For Job 1.21 and Qoh 5.14 (יציא סבטן-אם־), see 09:03. Here סבטן-אם־ is to be interpreted literally. Elsewhere, the collocation introduced by סִּי־ appears to have an indexical value of 'from the time of birth of', or as suggested by Rowley (1980:202) in connection with Job 31.18, 'always, all my life':

כי סנעורי גדלני כאב וסבטן אפי אנהה

'Since I can remember I have brought him up like a father,

ALL MY LIFE I have given her guidance'

(reading piel for MT's qal of גדל; NEB makes more changes - in our interpretation, the pronouns refer to, respectively, the orphan of v. 17b and the widow of v. 16b).

This interpretation, 'always', is well-suited also at Judges 16.17a,

סורה לא־עלה על־ראשי כי־נזיר אלהים אני סבטן אפי

"No razor has touched my head... because I am a Nazirite, consecrated to God FROM THE DAY OF MY BIRTH" (NEB)

and might be appropriate at Psalms 22.11,

עליד השלכתי סרחם סבטן אפי אלי אתה

'From the womb I was thrust upon you,

You have ALWAYS been my God'.

At first sight, it might appear that the collocation is merely a pleonastic version (cf. ESD) of **מִבְּטֶן**, for which BDB notes the same indexical sense of 'from the time of birth, always' - e.g., Judges 13.5a,

וְסוּרָה לֹא־יַעֲלֶה עַל־רֹאשׁוֹ בִּי־נָזִיר אֱלֹהִים יִהְיֶה הַנֶּעַר מִן־הַבֶּטֶן

"[A]nd no razor shall touch his head, for the boy is to be a Nazirite consecrated to God FROM THE DAY OF HIS BIRTH" (NEB)

(cf. 16.17, above), and Psalms 58.4b. Thus, in isolation, **מִבְּטֶן** shares this indexical sense with **מִרְחֹם** as indicated by the parallelism of the two forms at Psalms 22.11 (see above) and 58.4. Moreover, Targum Yerushalmi's **מִן טַלְיֹתָהוֹן** 'from their youth' and Peshitta's *men kyonhu:n* 'by their nature' for MT **מִכְרַתֵּיהֶם** at Gen. 49.5, might indicate a further member, **מִכּוֹר** (כּוֹר 'female pudenda'), of the 'from the womb' > 'always' colligation (although the indexical value of the colligation seems to vary slightly from context to context). However, in view of the fact that **מִבְּטֶן** is the only member of the colligation to occur with **אִם** in this indexical sense (**מִרְחֹם־אִם**'s only occurrence is literal: see 09:03 on Num. 12.12), it is possible that **מִבְּטֶן־אִם** has a specifically emphatic/intensive value ('from the very start of my life').

Our collocation is introduced by א rather than ב only at Psalms 139.13b,

חֲסִינוּ בְּטֶן אִמִּי

'You covered me with/knitted me into my mother's womb', reflecting a theme also found at Job 10.11. The indexical meaning which we have seen to be associated with אִמִּי-טֶן is not natural here, and the versional evidence for emending the preposition to ב is not very strong - LXX's *antelabou mou ek gastros me:tros mou* 'You helped me out of my mother's womb' (?) appears to represent an expository paraphrase or a Hebrew text substantially different from MT.

10. ברך (25)

PRE-COLLOCATIONS

10:01. כל־ברכים / הלכו סים. 2/3 2/2 (P+A; P+A). Ezek. 7.17; 21.12.

The two passages from Ezekiel are as follows:

כל־הידיים תרפינה וכל־ברכים תלכנה סים (7.17);

"[While their hands hang limp and THEIR KNEES RUN WITH URINE"

(7.17; NEB);

ונס כל־לב ורפו כל־ידיים ובהתה כל־רוח וכל־ברכים תלכנה סים

(21.12b).

"[All hearts melt, all courage fails, all hands fall limp, ALL MEN'S KNEES RUN WITH URINE" (21.12; NEB).

AV's rendering, "all knees shall be weak as water", assumes the imagery here to be similar to that of נס לב 'the heart melts' also at Ezek. 21.12 (cf. Joshua 7.5b:

ונס לבב־העם ויהי לים

"At this the COURAGE of the people MELTED and flowed away like water" [NEB]).

Dhorme (1923:156) renders "Et tous les genoux s'en iront en eau", but on the basis of the use of הִלַךְ in

והגבעות חלכנה חלב ובִל־אִפְיָקִי יְהוּדָה יִלְכוּ סִיָּם

[And the hills [shall] FLOW WITH milk.

All the streams of Judah shall BE FULL OF water"

(Joel 4.18a; NEB)

and of יָרַד in

וְחָרְדָּנָה עֵינָיו דָּמְעָה

"[T]hat our eyes may RUN WITH tears" (Jer. 9,17; NEB)

(cf. 14.17; see Driver 1953:260:n.1), we prefer to interpret הִלַךְ in the collocation, not as 'turn into', but 'run down, run with', thus, 'all knees run with water' (i.e., 'water runs down the knees').

NEB's rendering of the collocation does justice to the syntactic facts, and the meaning is consistent with LXX's 'all thighs shall be dirtied with moisture' (see also 10:02 for LXX's use of *me:ros* 'thigh' for MT בִּרְךָ). Probably the collocation gained an additional stylistic flavour through association with the well-known 'euphemistic' use of בִּרְךָ discussed in, e.g., Driver 1953; Holma 1911:96; McCurley 1968:205,224; Toll 1982. Driver (1953) notes a similar Akkadian idiom of extreme fear, *shina:teshum uzarrabu*: 'and they released their urine', and a different Biblical Hebrew expression of the same image at Job 18.11:

סָבִיב בְּמַתְהוֹ בְּלִהוֹת וְהִפִּיצָהוּ לְרִגְלָיו

"The terrors of death suddenly beset him

and make him piss over his feet" (NEB)

(but cf. Rowley 1980:129).

For Biblical Hebrew, our evidence is that the collocation represents a vivid metaphor (not an idiom), 'explained' by its association with commoner figurative expressions of panic, which is peculiar to Ezekiel in the same way that פק נרכים 'shaking of knees' is a special figure of Nahum (2.11); however, both prophets draw on the standard Israelite symbolism of the knee as a point at which weakness is most obviously or critically displayed.

In view of the obscene connotations of this collocation as a whole and of its components, נרכים ('genitals') and סים ('urine'), individually, it is surprising that in Modern Hebrew we should find the expression סיי-נרכים 'water of the knees' in a quite neutral sense of 'shallow water' (i.e., 'water up to the knees', derived from Ezek. 47.4; ESD).



10:02. יִנְוֹלַד עַל־בְּרֵכִי- 2/10 2/241 (P+C). Gen. 30.3; 50.23.

The expression is difficult; we have chosen to approach its analysis through its actual (albeit figurative) meaning(s) in context. The two verses in which it occurs are as follows:

וְחָאָפְרָה הִנֵּה אֶפְתִּי בִלְהָה בֵּא אֵלַיהָ וְחָלַד עַל־בְּרֵכִי וְאֵבְנָה גַם־אֲנֹכִי כַסְנָה

'So she (scil., Rachel) said, Look, here is Bilhah, my servant.

Make love to her. Then she can GIVE BIRTH ON MY KNEES so that I too will be 'be-sonned' - from her' (Gen. 30.3);

וַיֵּרָא יוֹסֵף לְאֶפְרַיִם בְּנֵי שְׁלֹשִׁים

גַּם בְּנֵי סָבִיר בֶּן־מְנַשֶּׁה יִלְדוּ עַל־בְּרֵכִי יוֹסֵף

'And Joseph lived to see Ephraim's great-grandchildren;

Even the children of Makir (the son of Manasseh) WERE BORN ON Joseph's KNEES' (Gen. 50.23).

Gen. 30.3 could be seen to involve the collocation in an idiomatic expression of adoption of a child. But this interpretation is difficult to square with the context of Gen. 50.23, where, if Joseph is 'adopting' Machir's sons, the 'adoption' is very different from that of Gen. 30.3 - there is no transfer of responsibility or ownership from the children's natural parents to Joseph, rather, Joseph simply accepts them as legitimate descendants. A tradition represented by Targum Onkelos and Rashi understands both instances of the collocation to refer to the rearing of a child (as Bullinger 1898:61). But why should Machir or Joseph wish the latter to bring up the former's children? Finally, it has been argued that the significance of the expression differs from passage to passage. Thus, Dhorme (1923:156f.) believes that the use of the collocation at Gen. 30.3 simply implies the longevity of Joseph. Compare Samaritan בִּימֵי '(they were born) in the days of (Joseph)'

On the assumption that the figure is of adoption, many commentators believe the underlying image here to be of a birth taking place on the knees of a midwife (cf. Job 3.12a: *מדוע קדמוני ברבתיים* 'Why did knees ever first greet me'); thus, it is possible that Gen. 30.3 refers to a contract whereby the adoptive mother acts as midwife to the natural mother. If so, then at Gen. 30.3, the collocation has quite literal value, although referring to an action of symbolic significance. The problem with this interpretation is that, unless we assume that the collocation at Gen. 50.3 has nothing to do with the expression at Gen. 30.3, it requires an almost incredible change in contextual restrictions enabling the expression to be applied not just to a man but to a great-grandfather, and to signify 'legitimize' rather than 'adopt'.

An alternative view of the origins of the expression is that it is, to some degree, figurative or 'stereotyped' from the start, that it actually means 'bear a child for someone to set it on his or her knees' (cf. NEB at Gen. 30.3). This has the advantage that it requires no major shift in significance from Gen. 30.3 to Gen. 50.23, and that it facilitates a variety of implications from context to context - for example, adopting, suckling, cherishing. Sitting on the knees in order to suckle or to be comforted is a common image in the Old Testament and elsewhere (Dhorme 1923:156f. - cf. Judges 16.19; 2 Kings 4.20; Isaiah 66.12; Job 3.12 [but see above]), and this image might in turn be connected with adoption/recognition. It might be that this simple symbolism (of an 'adoptive' parent tenderly holding the child on its knee) developed into a specific ritual whereby an adoptive child touched or passed through the knees of its new parent - see Selman 1980:127 and Margalith 1986:402f. for summaries of parallels from the Ancient Near-East and beyond. Compare Gen. 48.12,

וַיּוֹצֵא יוֹסֵף אֹתָם מֵעַם בְּרַכְיוֹ וַיִּשְׁתַּחוּ לְאִפְיוֹ אֶרְצָה

'And Joseph moved them from where they were standing by his knees, and they bowed each of them with his face to the ground', which perhaps refers to acceptance of grandchildren, although the details of the ceremony are unclear (see von Rad 1972:415). The ritual might have in its background the sense בָּרָךְ 'genitals' and the notion of the solemnly binding nature of a contract ratified by touching the genitals (cf. 41:06; note LXX's rendering of בְּרַכְיִים at Gen. 50.23 by *me:roi* 'thighs', perhaps euphemistic for 'genitals').

The safest conclusion about this collocation, in view of the limited data for the expression as such, is, we believe, that it is 'idiomatic' only to the extent that its reference is compressed, only insofar as it means 'bear a child to set on the knees of someone'. The precise implication of such knee-setting varies from context to context, but probably has a loose connection with adoption/recognition of a child.

10:03. כַּל־בָּרֶךְ/בָּרְכִיִּים. 4/11 4/5290 (S+C; [S+P]+A). 1 Kings 19.18; Isaiah 45.23; Ezek. 7.17; 21.12.

For the texts, see 10:01,04. Notice that each instance of the collocation is closely associated with another anatomical term. The collocation itself is not idiomatic. In the Ezekiel passages, although the expression constitutes part of a metaphor, its reference is to the knee (perhaps used euphemistically) as such (see 10:01). On the other hand, at Isaiah 45.23, בָּרֶךְ might be synecdochical for the person *qua* worshipper (although NEB prefers to render literally) and is almost certainly so at 1 Kings 19.18 (cf. NEB).

10:04. כל־ברך/ברכיים / ברעהו / 2/4 2/13 (=10:03). 1 Kings 19.18;
Isaiah 45.23.

The relevant verses are as follows:

והשערתי בישראל שבעה אלפים

כל־הברכים אשר לא־כרעו לבנעל וכל־הפה אשר לא־נשק לו

"But I will leave seven thousand in Israel, ALL WHO have not BENT
THE KNEE to Baal, all whose lips have not kissed him"

(1 Kings 19.18; NEB);

כי־לי חברע כל־ברך השבע כל־לשון

"[That to me EVERY KNEE SHALL BEND,

every tongue shall swear" (Isaiah 45.23b; NEB).

In both instances the action described is symbolic of worship and specifically of professing subservience to a divinity. In connection with Baal, obedience is also expressed by kissing him, presumably in the form of his idol (compare a similar gesture in the context of a royal investiture at Psalms 2.12); in contrast, confession of Yahweh, who, at least in the orthodox Judaeen cult, had no cultic representation, required the devotee to signify his acceptance of Yahweh's rule in binding words (השבע כל־לשון; Isaiah 45.23b) - a linguistic and literal affirmation rather than, or at least alongside, a gestural and symbolic one.

10:05. כרע על־ברכיו. 5/10 5/30 (P+C). Judges 7.5,6; 1 Kings 8.54; 2 Kings 1.13; Ezra 9.5. Cf. Job 4.4.

At a compositional level the collocation might appear to be pleonastic. However, instances of כרע independent of ברך indicate that its original central meaning was not 'kneel', but 'bend down, crouch' (cf. Gen. 49.9: כרע רבץ כאריה "crouch and stretch like a lion"; NEB), applied mainly to animals (cf. כרעים as a non-human anatomical term); the original significance of על־ in the collocation might then be 'against', thus, 'bend against the knee', i.e., 'kneel'. When ברך is the subject of כרע, the verb can mean 'kneel' (1 Kings 19.17; Isaiah 45.23b, both quoted in 10:04) or 'shake' (Job 4.4b: וברכים כרעות האם 'and [people with] knees that shake you strengthen'; cf. Isaiah 35.3, where כשל 'stumble' is used for כרע).

At Judges 7.5f. the collocation has a literal, compositional, value:

וְכָל יֹתֵר הָעָם כָּרְעוּ עַל־בְּרִכֵּיהֶם לִשְׁתוֹת מַיִם (v. 6b)

"[B]ut all the rest of the people BOWED DOWN UPON THEIR KNEES to drink water" (AV).

But in the Old Testament kneeling is frequently associated with religious contexts (cf. כרע at Psalms 22.30; 72.9; Esther 3.2,5; 2 Chr. 7.3; UT 76.ii.18), and the use of our collocation reflects this.

At 2 Kings 1.13b the gesture is clearly associated with intercession:

וַיִּכְרַע עַל־בְּרִכָיו לִנְגַד אֵלֵיהֶוּ וַיִּתְחַנֵּן אֵלָיו

"[A]nd [he] KNELT DOWN before [Elijah] and pleaded with him"

(NEB).

And at 1 Kings 8.54 and Ezra 9.5, the collocation is conjoined with פָּרַשׁ כַּפָּיִם, also associated with/symbolic of intercession (see 46.18):

וַיְהִי כַּכֹּלֹת שְׁלֹמֹה לְהִתְפַּלֵּל אֶת כַּל־הַתְּפִלָּה וְהִתְחַנֵּן הַזֹּאת

קָם סִלְפָּנִי מִזִּבְחַ יְהוָה סָכַרַע עַל־בְּרַכְיוֹ וּכְפִיּוֹ פָּרַשׁוֹת הַשָּׁמַיִם

'When Solomon had finished this prayer and supplication to the Lord, he arose from before the altar of the Lord, where HE HAD BEEN KNEELING with HIS HANDS SPREAD OUT to heaven'

(1 Kings 8.54; NEB);

וּבִסְנֹחַת הָעֶרֶב קָמְתִי מִתְּחִילָתִי וּבְקִרְעִי בְגָדִי וּסְעִילִי

וְאֶכְרַעַה עַל־בְּרַכְיִי וְאֶפְרַשְׁהָ כַּפֵּי אֱלֹהֵי הַשָּׁמַיִם

'Then, at the evening sacrifice, I rose from my humiliation and, in my rent robe and mantle, I KNELT DOWN and SPREAD OUT MY HANDS to the Lord my God' (Ezra 9.5; NEB)

(cf. Ezra 9.8, which makes it clear that Ezra's prayer is intercessory).

Hence, we see that our collocation develops in its association with intercession, from supplication to a human (albeit someone having a special relationship with God) to supplication to God. At Daniel 6.11, an Aramaic version of our collocation seems to be associated with praying in general, rather than intercession in particular, thus evidencing a further, natural, semantic transition.

25. זקן (19)

PARALLELS: 2 Samuel 10.5||1 Chr. 19.5 (18).

PRE-COLLOCATIONS

25:01. - גילח זקן. 2/12 2/18 (S+C). Lev. 14.9; 2 Samuel 10.4. Cf. Lev. 21.5; Jer. 41.5.

2 Samuel 10.4 concerns the humiliation of David's envoys:

ויקח חנון את־עבדיו דוד ויגלח את־חציו זקנם

ויכרת את־סדויהם בחציו עד שתותיהם וישלחם

"So Hanun took David's servants, and he SHAVED OFF half THEIR BEARDS, cut off half their garments up to the buttocks, and dismissed them" (NEB).

The collocation here is not itself symbolic, but a literal description of a symbolic act. In view of Hanun's information that David's envoys were actually spies (v.3), the act might well have had symbolic value beyond that of shaming (see McCurley 1968:176f.) - Greengus (1969:43:n.28) notes that in Mesopotamia "occurrences of facial mutilation... all derive from situations where individuals were punished for breaking or contesting agreements".

At Lev. 14.9a the collocation has no symbolic value beyond its function within a context of ritual cleanliness:

והיה ביום השביעי יגלח את־כל־שערו

את־ראשו ואת־זקנו ואת־גבת עיניו ואת־כל־שערו יגלח

'On the seventh day, he is to shave off all his hair. The hair of his head, of HIS BEARD, his eyebrows - all his hair HE IS TO SHAVE'.

Lev. 21.5a,

לא־יקרחה קרחה בראשם ופאת זקנם לא יגלחו

"Priests shall not make bald patches on their heads as a sign of mourning nor cut the edges of their beards" (NEB),

presumably prohibits a type of mourning mutilation, as does Lev. 19.27:

לא תקפו פאת ראשכם ולא תשחית את פאת זקנד

"You shall not round off your hair from side to side,

and you shall not shave the edge of your beards" (NEB).

A quite specific, cultically objectionable, form of shaving appears to be meant, for at other passages there is evidence that disfiguring the beard was an acceptable token of bereavement in Israel as well as her neighbours (see, e.g., Jer. 41.5; Micah 1.16, quoted below, 25:02); Holm (1911:37) notes tearing out of the beard as a sign of mourning in Babylon (cf. Ezra 9.3, quoted below, 25:05).

25:02. כל־זקן / גרע. 2/2 2/14 (S+C; S+A). Isaiah 15.2; Jer. 48.37.

The form of the collocation presented and the associated figures assume, with BDB, KB, and Mandelkern, that גרועה is a qal passive participle employed predicatively, thus, 'every beard will be cut off'; we reject ES's understanding of גרועה as a noun, "הסקום בלחי" "שהזקן גולח בסנו" (the collocation would thus translate as 'every beard becomes a bare chin').

On the literary relationship of the two passages, see, e.g., Kaiser 1974:60f. and Driver 1909:214. The context clearly indicates, that the collocation expresses a symbolic act of mourning for the defeat of a nation:

על־נבו ועל סדבא מואב ייליל בכל־ראשיו קרחה כל־זקן גרועה:

בחוצותיו חגרו שק על גנותיה וברחבתיה כלה ייליל ירד בבני

'Over Nebo, over Medeba, Moab will weep.

On every head baldness - EVERY BEARD, SHORN.

In his squares they wear sackcloth.

Up on his rooves and down in his streets the whole land wails,

Prostrate with grief'. (Isaiah 15.2b-3).

(Compare Micah 1.16:

קרחי וגזי על־בני תענוגיד

הרחבי קרחתך כנשר כי גלו ססך

"Shave the hair from your head in mourning

for the children of your delight;

make yourself bald as a vulture,

for they have left you and gone into exile" [NEB],

and, as Bullinger [1898:604], Jer. 47.5a: באה קרחה אל-עזה.) Note that זקן here means 'beard' and does not bear a synecdochical value ('a person with a beard'); cf. ברך in כל-ברך (10:03).

גרע is only definitely used of 'shaving' in this collocation (although KB finds the same usage in the difficult text of Ezek. 5.11), adding strength to the argument for amending MT. Many manuscripts have גדע 'hew down/off' at the two passages - LXX appears to have also read זרנוע for זקן (cf. 26:06 on 1 Samuel 2.31).

25:03. - פאת-זקן. 2/11 2/79 (S+C S+C). Lev. 19.27; 21.5.

For texts, see above, 25:01. According to Rashi, at Lev. 19.27 on our collocation, the 'corners of the beard' are "the tip of the beard and its sides, these making together five corners: two on each cheek, above near the head (the temples) - where it (the cheek) is broad and has therefore two corners (thus four on the two sides) and one at the bottom, on the chin, on that spot where is the junction of the two cheeks". Cf. פאת-פנים 'edge of the face' at Lev. 13.41a and פאת ראש 'fringe, temple' at 19.27a. Both times our collocation occurs in relation to "an attempt to make oneself unrecognizable in face of the dangers emanating from the 'soul' of a dead person" (Noth 1977:143).

25:04. זקן / ראש 2/2 2/99 (S+A; S+A). Lev. 13.29,30.

Data restricted. However, we examine the collocation in view of its connection with 25:05. Lev 13.29-30 reads as follows:

ואיש או אשה כִּי־יהיה בו נגע בראש או בזקן :

וראה הכהן את־הנגע והנה פִּרְאָהוּ עִמָּק כִּן־העור ובו שער צהב דק

ושפא אתו הכהן נחק הוא צרעת הראש או הזקן הוא

"When a man, or woman, has a sore on the HEAD OR CHIN, the priest shall examine it; and if it seems deeper than the skin and the hair is yellow and sparse, the priest shall pronounce him ritually unclean; it is a scurf, a malignant skin-disease of the HEAD OR CHIN" (NEB).

NEB, like BDB and JB, renders זקן 'chin' here. Marcus (1977:54)

disputes the validity of this:

In Lev 13:29,30 [זקן] appears in hendiadys with [ראש] "head," and therefore it might be argued that the chin is indicated, although in Ezek 5:1 the same pair occurs in a context of hair being shaven. However, the entire section (vv 29-37) has to do with recognizing leprous afflictions in areas of hair, while a later section (vv 40-44) has to do with afflictions of the scalp. Since v 33 indicates that the patient shall shave in the vicinity of the scab ([נחק]), said to be on the [זקן], and the following verse mentions that the scab has not spread to the skin, it is clear that hair (of the head) and beard are mentioned here as the areas of diagnosis and not the scalp or chin.

If Marcus's arguments are accepted, then it seems likely that אֵן שֵׁשׁ זָקָן is a meristic 'idiom' meaning 'hair', in view of the fact, ignored by Marcus, that the woman (אִשָּׁה) of v. 29 can hardly have a beard. Of course, this fact could also be used as an argument in favour of rendering זָקָן 'chin' here; however, Marcus's interpretation, and our development of it are consistent with an idiomatic value which we shall see (25:05) to be associated with the conjunctive form of this collocation.

25:05. - אֵן שֵׁשׁ וְזָקָן . 3/3 3/350 (S+C; S+C). Lev. 14.9; Ezek. 5.1; Ezra 9.3.

Collocations 25:04 and 25:05 are disjunctive and conjunctive realizations of the word-pair אֵן שֵׁשׁ - זָקָן , the components of which complement each other by parallelism at Lev. 19.27 and 21.5a (quoted above, 25:01) and Isaiah 7.20; Psalms 133.2. We have already suggested that the disjunctive collocation has a meristic value of 'hair'. This can hardly be true, though, for the conjunctive collocation at Lev. 14.9a (quoted at 25:01), where our expression, with $\text{עֵינָיו גְּבוּחַ עֵינָיו}$ 'his eyebrows', spells out what the preceding and succeeding כָּל־שֵׁעָרוֹ 'all his hair' means - it has literal, 'enumerative', reference, and cannot be meristic. At Ezek. 5.1a, where the collocation occurs in the context of a symbolic gesture, a meristic value is possible, although the repetition of the preposition עַל־ seems to serve to isolate 'head' and 'beard':

$\text{קַח־לְךָ חֶרֶב... וְהַעֲרַבְתָּ עַל־רֹאשְׁךָ וְעַל־זָקָנְךָ}$

'Take a sword and run it over your HEAD and over your BEARD'.

However, at Ezra 9.3 the form of the collocation is that of a 'compound noun' (see below), 'the hair of my-head-and-my-beard', and here a merismus, 'my hair', is quite likely:

וּכְשָׁעִי אֶתְהַדְדַּרְתִּי הַזֶּה קִרַּעְתִּי אֶת־בְּגָדֵי וּפְעִילִי

וְאֶכְרַטְתָּה כְּשֶׁעָרַר רֵאשִׁי וּזְקָנִי וְאֶשְׁבַּה כְּשֹׁמֵם

'When I heard this I tore all my clothes.

I pulled at MY HAIR and sat down dumb-founded'.

Note that this 'idiomatic' meaning, if such it be, of the conjunctive collocation is associated with the only instance of רֵאשִׁי וּזְקָן- without material intervening between the conjunction ו and the second noun (אֶת- at Lev. 14.9; עַל- at Ezek. 5.1).

Thus, we believe that the collocation זָקָן וְרֵאשִׁי/ו אֶת/ו constitutes a merismus, 'hair (of all the head)', when no material intervenes between the con/disjunctive marker and the second noun. This conclusion is consistent with that of Kaddari (1966), who also finds in our collocation a "composite semantic unit" (יחידה סמנטית) meaning 'hair'. Possibly at the level of the word-pair, זָקָן - רֵאשִׁי, always occurring in that order, has a semantic specialization as well - note that its use seems to be particularly associated with 'cultic' life - leprosy at Lev. 13-14; mourning at Ezra 9.3; anointing at Psalms 133.2; ritual mutilation at Lev. 19.27; 21.5.

26. זרוע (91)

PARALLELS: 2 Samuel 22.35||Psalms 18.35; 1 Kings 8.42||2 Chr. 6.32
(89).

PRE-COLLOCATIONS

26:01. גאל בזרוע. 2/11 2/51 (S+A). Exodus 6.6; Psalms 77.16. Cf.
Lev. 25.49.

The collocation is presumably used as a covenant-tradition formula at
Psalms 77.16a,

גאלת בזרוע עמך

"WITH thy STRONG ARM THOU DIDST REDEEM thy people" (NEB),

recalling specifically Exodus 6.6,

והוצאתי אתכם סבלת מצרים... וגאלתי אתכם בזרוע וטויה

"I will release you from your labours in Egypt.... I will REDEEM
you WITH ARM outstretched" (NEB).

MT of Psalms 77.16 in its present form (זרוע for זרועד) might then
be defended on the grounds that it (unconsciously) recalls the longer
form of the Exodus collocation (גאל בזרוע וטויה); for the rarity of
גאל in the exodus tradition, see Hyatt 1980:166). The collocation
as such is not idiomatic, even though זרוע might have a metonymic
sense of 'strength' - cf. 26:09.

26:02. גדול/גודל-זרוע. 2/45 2/18 (S+C; S+C). Exodus 15.16; Psalms
79.11. Cf. Deut. 11.2.

The collocation is not idiomatic. At Exodus 15.16a, in view of the mythological nature of the surrounding narrative, the actual 'arm' of God might be intended (as NEB; compare the hypostasis of the יָמִין - יהוה at v. 6; see 40:20); otherwise, זרוע is metonymic, 'through your great power' - this is perhaps more likely in view of the abstract nouns that precede the collocation:

תפל עליהם אימתה ופחד בגדל זרועך ידסו כאבן

"[T]error and dread fell upon them:

through the MIGHT OF THY ARM they stayed stone-still" (NEB).

At Psalms 79.11 NEB interprets זרוע metonymically:

תבוא לפניך אנקת אסיר כגדל זרועך הוחר בני תמותה

"Let the groaning of the captives reach thy presence

and in thy GREAT MIGHT set free death's prisoners".

JB, however, interprets anatomically - "by your MIGHTY ARM rescue those doomed to die!". Possibly the verse is meant to recall the Song of Moses.

26:03. זרוע- / ל- .הושיעה 5/45 5/20 (S+C). Isaiah 59.16; 63.5;
Psalms 44.4²; 98.1. Cf. Judges 7.2; 1 Samuel 25.26,33; Job 40.14.

Isaiah 59:16 and 63.5 represent 'formula variants' of the same motif.

וירא כִּי־אֵין אִישׁ וַיִּשְׁתּוֹסֵם כִּי אֵין סִפּוּיַע

וַחֲוֹשֶׁעַ לוֹ זָרְעוֹ וַצְדִקְתּוֹ הִיא סִסְכַּתְהוּ

"[He] saw that there was no man to help

and was outraged that no one intervened;

so HIS OWN ARM BROUGHT HIM VICTORY

and his own integrity upheld him" (59.16; NEB);

וַאֲבִישׁ וַאֲיִן עֲזָר וַאֲשְׁתּוֹסֵם וַאֲיִן סוּפֵד

וַחֲוֹשֶׁעַ לִי זָרְעִי וַחֲסָתִי הִיא סִסְכַּתְנִי

"I looked for a helper but found no one,

I was amazed that there was no one to support me;

yet my OWN ARM BROUGHT ME VICTORY,

alone my anger supported me" (63.5; NEB).

The parallelism in both instances with an abstract object (צְדִקָּה,
(חֲסָתִי) suggests that זָרְעוֹ here has metonymic force, 'strength' (cf.
Bullinger 1898:877).

At Psalms 44.4 the collocation occurs twice (in deep structure):

כי לא בחרבם ירשו ארץ וזרועם לא־הושיעה לסו

כי־יסיגד וזרועך ואור פניך כי רציחם

"[I]t was not our fathers' swords won them the land,

nor THEIR ARM THAT GAVE THEM THE VICTORY,

but thy right hand and THY ARM and the light of thy presence;

such was thy favour to them" (NEB).

NEB's literal, anatomical, rendering of זרוע is probably justified in view of the association with 'right hand'; however, the third salvatory item, אור פנים, might suggest a more abstract, metonymic sense. In poetic diction, of course, ambiguity of interpretation is not unexpected. Whatever the precise meaning, the passage illustrates three points about our collocation. First, although זרוע is the subject of the collocation, and is, therefore, 'hypostatic' in form, the parallelism with בחרבם indicates that it is 'instrumental' in semantic effect: 'his arm/strength saved him' means 'he saved himself by using his arm/strength'. Secondly, the collocation is semantically 'analyzable', transparent, as shown by the adversative construction, 'not their זרוע but his זרוע saved them'. Thirdly, the noun of the collocation is substitutable, 'your right hand saved them' - see below.

The collocation occurs again (if we reject BHK's proposal) in conjunction with יָסִין at Psalms 98.1b. Vv. 1b-2 read:

הוֹשִׁיעָה־לּוֹ יָסִינוּ וּזְרוּעַ קְדָשׁוֹ:

הוֹדִיעַ יְהוָה יְשׁוּעָתוֹ לְעֵינֵי הַגּוֹיִם גְּלַח צְדָקָתוֹ

"[H]IS right hand and holy ARM have WON HIM VICTORY.

The Lord has made his victory known;

he has displayed his righteousness to all the nations" (WEB).

As before it is uncertain whether זְרוּעַ has metonymic or anatomical value here, in view of the more abstract referents that follow (also חֶסֶד and אֲמוּנָה in v. 3).

Evidence from 'colligational' variants of the collocation, using יָסִין or יָד for זְרוּעַ (see Dhorme 1923:138ff. for the interchangeability of *hand* and *arm* in Hebrew and Akkadian), suggests that the colligation as a whole was developing an idiomatic value. This value might be characterized as 'behaving presumptuously, as though God'. For example, in each of the following passages, a human party is represented (by God) as believing itself worthy of an acclamation applicable to Yahweh alone:

וגם־אני אודד כי־תושע לך יְסִינֶךָ

"Then I in my turn will acknowledge

that YOUR OWN RIGHT HAND CAN SAVE YOU" (Job 40.14; NEB);

פן־יִתְפָּאֵר עָלֵי יִשְׂרָאֵל לֵאמֹר יְדֵי הַוְשִׁיעָה לִּי

"Israel will claim the glory for themselves and say that it is
THEIR OWN STRENGTH THAT HAS GIVEN THEM THE VICTORY"

(Judges 7.2b; NEB).

(With the second passage compare Judges 6.36f.) In the light of this understanding, at 1 Samuel 25.26, יָדוֹ לֹו הַוְשִׁיעַ refers to 'high-handed, presumptuous, behaviour' - Yahweh has intervened to stop David behaving outside the law, as though he were God:

סָנַעַד יְהוָה סָבֹא בְדַסִּים וְהוֹשַׁע יָדְךָ לָךְ

'Yahweh has restrained you from committing murder and LETTING
YOUR OWN HAND SAVE YOU'.

Cf. Smith 1899:226 on v. 31 (where LXX assumes our collocation - MT's omission of יָד here merely emphasizes its synecdochical value, as standing for the possessor of the hand): "David will be happier in future days, if he now restrains himself from taking vengeance on Nabal... instead of waiting for the deliverance promised by God".

In these passages, then, we see evidence for a development in the meaning of the collocation, or, better the colligation לו הושיע זרוענו/ידו/ימיו. First, with זרוע the expression is used in the cult, perhaps as a cultic cry of triumph, to describe Yahweh's defence of himself and his people. On the one occasion that it is applied to human beings (Psalms 44.4), this is merely to deny that they could make the same claim. Secondly, with ימיו, it is used alongside the collocation with זרוע and in the same context; however, this form of the colligation is also used, ironically, by Yahweh of a human (Job) who over-reaches himself. Thirdly, the collocation with יד is used (in Judges) in the same way as that with ימיו; however, this final form of the colligation is used by one human being of another with the, idiomatic, implication, because of the contexts of the collocations with זרוע and ימיו, that the addressee has usurped Yahweh's description, hence 'behave presumptuously'.

26:04. חִיזֵק זְרוּעוֹתַי. 2/21 2/64 (P+C). Ezek. 30.24; Hosea 7.15.

The context of Ezek. 30.24 suggests that here the collocation expresses strengthening of the bones and muscles of the arm (cf. 26:06,08):

וְחִזְקֵתִי אֶת־זְרוּעוֹת פַּרְעֹה

"Then I will STRENGTHEN THE ARMS of the king of Babylon...

but I will break Pharaoh's arms" (NEB).

This seems to be true also at Hosea 7.15a:

וְאֲנִי יִסְרַתִּי חִזְקֵתִי זְרוּעֹתָם (retaining MT)

'I have trained (them), I have MADE THEIR ARMS STRONG'.

For the diction here, compare, as Wolff (1974b, *in loc.*), Job 4.3:

הֲנֵה יִסְרַתִּי רַבִּים וַיִּדְּיִם רַפּוֹת חִזְקֵךְ.

The same sense is found at Prov. 31.17 where אִיפֹס is used for חִיזֵק in an image of military origin:

חָגְרָה בְּעוֹז פְּתוּיָהּ וְתֹאמֶץ זְרוּעוֹתֶיהָ

"She girdeth her loins with strength, and STRENGTHENETH HER ARMS"

(AV).

Hence, the collocation does not bear the idiomatic sense of 'encourage' attached to חִיזֵק יָדַיִם.

We do not consider *החזיק זרוע* at Ezek. 30.25 to be a by-form of our collocation, likening it instead to *יד החזיק* (Zech. 14.13) and *ימין החזיק* (Isaiah 41.13), in both of which the verb has the sense of 'hold, grasp'. This meaning makes excellent sense in the context of Ezek. 30.25, where, having said that he will break the arms of Pharaoh but strengthen those of the Babylonian king, Yahweh now promises to 'hold up' the arms of the latter while those of the former dangle (*נפל*) helplessly.

26:05. *ימין - וזרוע*. 3/17 3/97 (S+C; S+C). Isaiah 62.8; Psalms 44.4; 98.1.

For the texts of Psalms 44.4 and 98.1b (where BHK's proposal would remove the collocation), see 26:03. Isaiah 62.8a reads:

נשבע יהוה בימינו ובזרוע עזו

"The Lord has sworn with raised RIGHT HAND AND mighty ARM" (WEB).

The status of this expression as a collocation is uncertain. In the two Psalms passages, *ימין* and *זרוע* is each, individually, a syntactic subject of the third person singular verb *הושיעה* (feminine), and each of the two nouns is also attested independently of the other as a subject of *הושיעה* (see 26:03). Thus, in the two Psalms texts, we suggest that the apparent function of the present collocation as a 'compound-subject' of *הושיעה* be regarded as only a surface-structure phenomenon representing in contracted form the deep-structure presence of two tokens of *הושיע*, each taking as subject a different one of the two nouns.

In these passages the (deep-structure) duplication of the idiom **הושיעה לִי זרוע/יטין** has, presumably, an emphatic result (even though the purpose of the duplication might have been more for reasons of metre, traditional diction, etc.). Similarly, in the Isaiah passage an emphatic message is conveyed; we might render:

'Yahweh has adjured himself MOST BINDINGLY'.

(The association of both upper limbs in the context of a particularly solemn vow [cf. 40:22] is attested as well at Daniel 12.7a:

וירם יטין וזרוע וישבע בְּחַי הַעוֹלָם

"[H]e raised his RIGHT HAND AND his LEFT to heaven and swore by him who lives for ever" [JB].)

In Isaiah, it seems possible that the emphatic meaning has been divorced from the deep-structure combination of the **הושיעה לִי זרוע/יטין** idioms as a whole, and associated instead only with the nouns (subjects) of these idioms. Thus, in Isaiah, **יטין** and **זרוע** is each used, at the level of deep-structure, to complete the phrase 'swear by ---'. But even in Isaiah, we may not regard our collocation as anything more than a surface phenomenon. The non-'compound-noun' status, or 'noun-phrase-independence', of each noun is indicated by the explicit repetition of the preposition - had **יטין וזרוע** truly coalesced into a 'compound-noun' we should have expected **ביטין וזרוע**, **וזרוע-טין**, or the like.

Thus, the collocation appears to represent various stages along the road to syntactic stabilizing of the word-pair יָמִין - זְרוּעַ into an 'emphatic' idiom, encouraged by the association with 'emphatic' contexts of the word-pair. The specific (idiomatic) association of 'collocational-bonding' and emphatic context is also indirectly attested by the lack of collocational-bonding and (consequent) lack of emphatic context at Isaiah 63.12a:

סוֹלִיד לַיְמִין כְּשֶׁה זְרוּעַ הַפְּאֲרָהוּ

"[W]ho at the RIGHT HAND of Moses

set to work with his glorious ARM" (JB).

26:06. שִׁבְרִי/וּשְׁבַרְכֶּהּ זְרוּעֵי נְוֹתַי כִּי. 7/88 7/108 ([S+[A+C]]+[P+C]). Jer. 48.25; Ezek. 30.21,22,24; Psalms 10.15; 37.17; Job 38.15. Cf. Job 31.22.

At Ezek. 30.21ff., in a rather brutal, extended, figure, Pharoah's arms are portrayed as broken, so that he cannot wield a sword:

בְּיָאֵדְךָ אֶת־זְרוּעַ פְּרַעֲהַ פִּלְדֵי־מַצְרַיִם שִׁבְרָתִי

וְהִנֵּה לֹא־חִבְשָׁה לַחַת רַפְאוֹת לְשׁוֹם חֲתוּל לַחֲבִשָׁה לַחֲזָקָה לְתַפֵּשׁ בַּחֶרֶב

"Man, I have BROKEN THE ARM of Pharoah king of Egypt. See, it has not been bound up with dressings and bandage to give it strength to wield a sword" (v. 21; NEB).

Here, clearly, the collocation expresses a loss of military power - indeed, KB claims that in vv. 22 and 24 זְרוּעוֹת bears the metonymic value of זְרוּעִים (in Daniel 11) 'armies'.

At Jer. 48.25a the collocation, with singular noun and passive verb, is a vivid metaphor of humiliation and/or military defeat (cf. Wolff 1974a:67):

נגדעה קרן מואב וזרעו נשברה

"Moab's horn is hacked off and his STRONG ARM IS BROKEN" (WEB).

גדע (קרן) also appears at Lam 2.3, quoted at 40:04; compare זרע at 1 Samuel 2.31, regarded by ESD as a symbol of humiliation equivalent to שבר זרוע, though it might better be interpreted as a symbol/index of fatal injury; note also LXX's apparent reading, זרע 'seed'.)

The passive form of our collocation also occurs at Job 38.15b,

וזרוע רמה חשבר,

where the presence of the adjective רמה probably means that the image is of

"BREAKING THE ARM raised to strike" (JB),

as a metaphor for stopping evil.

Even at Psalms 37.17, the collocation (passive) seems to occur again as part of a longer metaphor:

טוב־מעט לצדיק מהסון רשעים רבים:

כי זרועות רשעים חשברנה וסוסך צדיקים יהוה

"The little the virtuous possesses

outweighs all the wealth of the wicked,

since THE ARMS the arms of the wicked ARE DOOMED TO BREAK,

and Yahweh will uphold the virtuous" (vv. 16-17; JB).

The (metaphorical) point of the collocation here seems to be that the arms of the wicked man will break under the weight of his treasure. Without his arms an evil man cannot even hold himself up; but Yahweh acts as a support (סוֹמֵךְ) to the righteous.

In all these four passages, then, the extended-metaphorical or graphically descriptive environments of the collocation prohibit us from regarding it as in any way a 'lexicalized' or 'institutionalized' symbol or index.

At Psalms 10.15a no arm-breaking imagery is demanded by the context and זְרוּעַ is probably simply metonymic of 'power':

שֹׁבֵר זְרוּעַ רָשָׁע

'BREAK THE POWER of wicked men'.

At Job 31.22 the (passive) collocation (with אֲזָרוּעַ for זְרוּעַ) is used as part of a fully literal account of the anatomical consequences of evil-doing:

בְּחַפִּי בְּשִׁכְמָהּ תִּפּוֹל וְאֲזָרְעִי תִּקְנָה תִּשְׁבֵּר

"[T]hen may my shoulder-blade be torn from my shoulder,

my ARM WRENCHED OUT of its socket" (NEB).

POST-COLLOCATIONS

26:07. זרוע־יהוה. 2/45 2/6639 (S+C; S+A). Isaiah 51.9; 53.1. Cf. Psalms 44.24.

The imagery of Isaiah 51.9-10 utilizes the 'arm of Yahweh' in a vivid hypostasis (cf. יד־יהוה as a "poetic figure" for 'Holy Spirit' in Modern Hebrew - on the basis of Ezek. 37.1; ESD):

עורי עורי לבשי־עז זרוע יהוה עורי כי־פי קדם דרות עולמים

הלוא את־היא הפחצבת רהב פחוללת חנין:

הלוא את־היא הפחצבת ים פי תהום רבה

השטה פנסי־ים דרך לעבר גאולים,

"Awake, awake, put on your strength, O ARM OF THE LORD,

awake as you did long ago, in days gone by.

Was it not you

who hacked the Rahab in pieces and ran the dragon through?

Was it not you

who dried up the sea, the waters of the great abyss,

and made the ocean depths a path for the ransomed?" (NEB).

(The 'epizeuxis' or 'duplication', עורי עורי, is characteristic of the book of Isaiah - see Bullinger 1898:194f. where the same phenomenon is noted at 6.3; 21.9; 26.3; 28.10; 40.1; 51.17; 52.1; 57.19.) The semantic intention, though, must be synecdochical - Deutero-Isaiah's monotheism would hardly permit him to accept, at a level other than that of the poetic, the independence of Yahweh's arm from Yahweh himself.

Nonetheless, Deutero-Isaiah uses the imagery of Yahweh's arm as a symbol of Yahweh's effective kingship over the (historicized) forces of chaos elsewhere (cf. 26:10,12), and it is likely that this picture is present also at Isaiah 53.1b:

וְזָרוּעַ יְהוָה עַל סִיּוֹנָהּ;

'And THE ARM OF YAHWEH - to whom has it been revealed?'

If so an irony is intended - Yahweh's 'arm', associated by the prophet in his audience's mind with cosmic victory and the deliverance of Israel (cf. 26:09) is to be made manifest in a way which overturns traditional Israelite values ('For the wisdom of this world is foolishness with God'), through weakness and humility and death. At another level of meaning, in line with our interpretation of Isaiah 51.9 זָרוּעַ here is also synecdochical: 'To whom has Yahweh revealed HIMSELF?'. JB and NEB, by rendering זָרוּעַ at Isaiah 53.1b with "power", miss the relationship with the other Deutero-Isaianic passages, especially 52.10a (חֲשַׁף יְהוָה אֶת־זָרוּעַ קִדְשׁוֹ; see 26:12).

26:08. זָרוּעוֹת־סִלְדֵי־בַבֶּל. 2/21 2/133 (P+C; S+C; N+A). Ezek. 30.24,25.

Data restricted. No idiomaticity evidenced. זָרוּעוֹת here probably has anatomical reference, although KB claims that the sense is metonymic, 'armed forces' - see 26:04,06 (compare Modern Hebrew, where זָרְעוּ refers to a 'branch' of the armed forces - i.e., army, navy, or air-force; ESD).

26:09. נטויה ן זרוענ-ן 14/67 14/27 (S+[A+C]). Exodus 6.6; Deut. 4.34; 5.15; 7.19; 9.29; 11.2; 26.8; 1 Kings 8.42||2 Chr. 6.32; 2 Kings 17.36; Jer. 27.5; 32.17; Ezek. 20.33,34; Psalms 136.12. Cf. Jer. 32.21.

The origins of the collocation are almost certainly in the tradition of the exodus from Egypt (all passages, with the exception of Jer. 21.5; 27.5; 32.17; Ezek. 20.33f. refer to this; 1 Kings 8.42 probably alludes to it - see below). Typical of the environments in which it occurs is Deut. 4.34:

או הנסה אלהים לבוא לקחת לו גוי סקרב גוי בטסת באחת ובסופתים
ובטלחת וביד חזקה ובזרוע נטויה ובסוראים גדלים ככל אשר-עשה לכם
יהוה אלהיכם בטערים לעיניך

"Or did ever a god attempt to come and take a nation for himself away from another nation, with a challenge, and with signs, portents, and wars, with a strong hand and AN OUTSTRETCHED ARM, and with great deeds of terror, as the Lord your God did for you in Egypt in the sight of you all?" (NEB).

The frequency of the expression may be due to its inclusion in the Israelite 'credo' or declaration of 'heils-geschichtlich' events (Deut. 26.5-10; Gray [1977:225] thinks 1 Kings 8.42 implies that "the foreigner's introduction to Yahweh" was such a 'credo'), through which it would have become well-known. Possession of, or acting with, an 'outstretched arm' is one of the most frequently cited of Yahweh's 'exodus characteristics'. In the exodus context, it is possible that the expression developed a metonymic symbolism of 'powerful(ly)' - however, the fact that the collocation is always used in conjunction with at least one other 'exodus characteristic', suggests that the figure of an actual outstretched arm was, at least sometimes, evoked by the collocation. The original figure might be of the divine hand stretched out like, or with, a sword leading the column of captive Israelites and pointing it to freedom - cf. 1 Chr. 21.16a:

שָׁלַח יְהוָה... וַחֲרַבוּ שְׁלוֹפָה בְיָדוֹ נְשׂוּיָה עַל־יְרוּשָׁלַם.

Rashi at Deut. 7.19 claims the figure refers specifically to the sword used to kill the Egyptian firstborn.

The collocation is often associated with a more common formula, **בְּכַף יָד** חֲזִקָה. That both collocations were largely synonymous in their symbolic values is indicated by the replacement by **בְּכַף גְּדוּלָה** '(with) great power' of (1) **יָד חֲזִקָה** at Deut. 9.29, (2) **זְרוּעַ גְּדוּלָה** at Exodus 32.11 and Neh. 1.10, and apparently (3) both collocations at Deut. 4.37 (cf. v. 34, quoted previously). (Note also the equivalent of our collocation in some ancient versions for the second **יָד חֲזִקָה** in MT of Exodus 6.1.) These data indicate that both collocations were tending to lose their figurative value, being directly apprehended in a symbolic sense - 'powerful(ly)'. A similar sense, 'by force, forcefully', attaches to both collocations in Modern Hebrew (see ESD). Notice the typically idiomatic narrowing of implication in this symbolic value of our expression - whereas the outstretched arm, **זְרוּעַ**, is protective and redemptive, the outstretched hand, **יָד**, of Yahweh is always punitive or judgmental, as EDB points out (cf. Isaiah 9.11,16,20; Jer. 21.5 [see below]; for the 'hand' as punitive more generally, see Bullinger 1898:879f.). (The association of **יָד גְּדוּלָה** with punishment is itself 'idiomatic'. **קְצֵרָה יָד** 'the hand is [too] short' is used in contexts not of punishment, but of salvation - Isaiah 50.2; 59.1; cf. Num. 11.23. **יָדוֹ גְּדוּלָה** [Isaiah 9.20] has lost its original connotations in Modern Hebrew, where it means 'he is [still] able to' [see ESD].)

In Jeremiah and Ezekiel, the symbolic sense 'powerful(ly)' persists, in contexts other than that of the first exodus. At Jer. 27.5a and 32.17, it is to Yahweh's mighty power, no longer in the exodus but in creation, that the collocation refers:

אנכי עשיתי את־הארץ את־האדם ואת־הבהמה... בכחי הגדול ובזרועי
הנשירה

"I by my great power and OUTSTRETCHED ARM made the earth, man and
the animals" (27.5a; JB).

At Jer. 21.5 there is a clever blending of יד חזקה and נשירה זרוע
which manages to convey an ominous message of condemnation for Israel
wrapped in traditional language of salvation:

ונלחמתי אני אתכם ביד נשירה ובזרוע חזקה ובאף ובחמה ובקצף גדול

"I myself will fight against you in burning rage and great fury,
with AN OUTSTRETCHED HAND and A STRONG ARM" (NEB).

At Ezek. 20.33f. no modification of the expression is made - the
cliched expression of redemption spells doom for Israel:

והוצאתי אתכם... ביד חזקה ובזרוע נשירה ובחמה שפוכה

"I will bring you out... by my strong hand, my OUTSTRETCHED ARM
and outpoured wrath" (v. 34; NEB).

It is as though the prophets proclaim: 'You have always let these
words flow comfortably over you. Now you will be forced to consider
what they really mean'. The 'mighty power' exercised by Yahweh in the
exodus is simply an aspect of that authority which can be made
manifest in which ever situation God so wishes. This is made
especially clear in the Ezekiel passage where the collocation links an
account of the original exodus with a description of the new one
(after 586): "In D the hand and arm are instruments of divine
redemption, but here they are symbols of judgment. Yahweh will
exercise his kingship... both as leader and as judge" (Wevers
1982:120).

26:10. זרוע־עוז־כַּיִן. 3/45 3/93 (S+C; S+(A+C)). Isaiah 62.8; Psalms 89.11; Job 26.2. Cf Isaiah 51.9.

(BHK proposes עוז וזרוע for MT וזרועַ at Psalms 44.4.) The collocation combines a symbolic object, 'arm', with its typical metonymic value, 'strength'. For Isaiah 62:8a (where a Cairo genizah fragment has קדשו for MT עזו), see 26:05. A literal, albeit mythological, description is conveyed at Psalms 89.11 where Yahweh's 'arm of strength' is associated with the cultic manifestation of his kingship (cf. 26:07):

אמה דבאת כחלל רהב בזרוע עוז פורת איביך

"Thou didst crush the monster Rahab with a mortal blow
and scattered thy enemies with thy STRONG ARM" (NEB).

We have assumed the presence of our collocation at Job 26.2:

מה־עזרת ללא־כח הוטעת זרוע לא־עז

"What help you have given to the man without resource,
what deliverance you have brought to the POWERLESS!" (NEB).

However, the syntax of the last three words is uncertain. If the literal meaning is 'the arm of no-strength', then the collocation is present and, as in NEB's interpretation, stands synecdochically for the weak person to whom the arm belongs. But if the sense is 'the arm of him who has no strength', then our collocation disappears - the (ironic) image conveyed is of the comforters assisting in battle Job, whose arms have grown weary from struggle.

26:11. זרוע-כוח-פרעה. 3/66 3/274 ([S+P]+C; S+A). Ezek. 30.21,24,25.

Data restricted. No idiomaticity evidenced - see 26:04,06,08.

26:12. זרוע-קודש. 2/45 2/137 (S+C; S+C). Isaiah 52.10; Psalms 98.1.

Compare 26:10 (and see the same for the possibility of this collocation at Isaiah 62.8; BHK would remove it at Psalms 98.1). In both instances Yahweh's 'holy arm' is his (mythological) instrument for displaying cosmic power and maintaining cosmic order. See 26:03 for the text of Psalms 98.1b. Isaiah 52.10 has:

חשף יהוה את-זרוע קדשו לעיני כל-הגוים

וראו כל-אפסי-ארץ את ישועת אלהינו

"The Lord has bared his HOLY ARM in the sight of all nations,
and the whole world from end to end shall see the deliverance of
our God" (NEB).

Whybray (1981:167f.) claims the figure here is of Yahweh "throw[ing] back the encumbering folds of the garment in order to be able to use his sword".

26:13. זרוענות/רשע/רשעים. 2/66 2/259 ([S+P]+C; [S+P]+A). Psalms
10.15; 37.17. Cf Job 38.15.

BDB regards רשע at Psalms 10.15 as the abstract noun 'wickedness' -
we have given the benefit of the doubt to ES and Mandelkern, in both
of which it is listed under the adjective 'wicked (person)'. Both
instances occur in combination with טבר - see 26:06. In the first
passage זרעו is metonymic, 'power', in the second the plural noun is
used literally within a metaphorical description.

28. חיק (38)

RECAPITULATIONS: Exodus 4.7=4.7 (i.e., second occurrence in verse recapitulates first) (37).

PRE-COLLOCATIONS

28:01. אשת-חיק. 2/34 2/224 (S+C; S+C). Deut. 13.7; 28.54. Cf. Deut. 28.56

The passages from Deuteronomy are as follows;

אחיד בן-אסד או בנד או-בתד או אשת חיקד או רעד

'Your brother, your own mother's son, or your daughter or the WIFE OF YOUR BOSOM or your friend' (13.7a);

באחיו ובאשת חיקו וביתר בניו

"[With his brother, or the WIFE OF HIS BOSOM, or his own... children" (28.54b; NEB).

Bosom, presumably, has a metonymic value of 'dear' (perhaps 'dearest' in a polygynous society), thus, JB, "the wife you cherish", unless it is merely synecdochical - 'your wife'. That the collocation as such is not idiomatic is indicated by the manipulation of the initial component in Deut. 28.54ff. (אשת-חיק followed by או-ש-חיק). Rashi's gloss at Deut. 13.7, השוכנת בחיקד, seems to connect this collocation with that of 28:06.

28:02. השׁיב אל־חִיקָךְ. 2/6 2/357 (S+C). Exodus 4.7=4.7; Psalms 79.12.

At Exodus 4.7, as in the preceding verse, חִיקָךְ probably means 'fold' of a garment (as BDB; KB; NEB):

וַיֹּאמֶר הֲשִׁב יָדְךָ אֶל־חִיקְךָ וַיִּשָׁב יָדוֹ אֶל־חִיקוֹ

וַיֵּצֵא וְהִנֵּה־שָׁמָּה כְּבָשָׂרוֹ

"[He said,] 'PUT your hand BACK INTO YOUR BOSOM.' HE PUT his hand BACK INTO HIS BOSOM and when he drew it out, there it was restored, just like the rest of his flesh" (JB).

Cf., e.g., the use of פֶּה 'mouth' for the top of a garment at Exodus 28.32 (see Dhorme 1923:85) and חֹזֵן 'chest' as 'fold' at Neh. 5.13. No special symbolism is attached to the action described, and the collocation as a whole is not idiomatic here.

As NEB's rendering indicates, at Psalms 79.12 our collocation is near in meaning to variants with כָּדָר (Jer. 32.18a) and שִׁלַּם (Isaiah 65.6b):

וְהֲשִׁב לְשִׁכְנוֹיָנוּ שְׂבַע־תַּיִם אֶל־חִיקֶם חֲרַפְתָּם אֲשֶׁר חֲרַפְוֹךְ אֲדֹנָי

"As for the contempt our neighbours pour on thee, O Lord, TURN IT BACK sevenfold ON THEIR OWN HEADS" (NEB).

Cf. Neh. 3.36a:

וְהֲשִׁב חֲרַפְתָּם אֶל־רֵאשָׁם

"Turn back their reproach upon their own heads" (NEB).

Possibly the expression also alludes to the imagery of **חָשִׁיב אֶל־לִבְּךָ** (e.g., Deut. 4.39a; Lam. 3.21) 'recall, consider'. Thus, we might render 'Make them remember their insult, and then pay them back for it'. It is unclear whether the primary value of **חֵיק** here is 'physical' ('chest') or (by metonymy) 'mental' (e.g., 'feelings'). Compare **בְּחֵיק נִשָּׂא** (28:05) for **חֵיק** as the place where malediction is borne (Psalms 89.51) and for the change in object, from concrete to abstract, of the collocation's verb.

Perhaps the collocation is present in 'broken' form at Psalms 74.11 (Q):

לִמָּה תִּשְׁיֵב יָדְךָ וְיָמִינְךָ כִּקְרֹב חֵיקְךָ בְּלֶה

"Why dost thou HOLD BACK back thy hand,

why keep thy right hand within THY BOSOM?" (NEB; ignoring Masoretic punctuation).

(Whybray [1981:168] compares the image with that of Isaiah 52.10 - see 26:12.) Compare also Psalms 35.13b, where NEB's rendering interprets **חֵיק** as synecdochical for the whole person of the supplicant:

וַחֲפֹלְתִי עַל־חֵיקִי תִשׁוּב

"When my prayer CAME BACK UNANSWERED" (NEB).

If **עַל־** is especially significant, a preferable translation might be:

'Even my praying turns against me'.

A synecdochical value for **חֵיק** is also possible at Psalms 79.12 (see above), without altering the symbolic meaning of the collocation, 'punish/remind', there.

28:04. לקח בחיקי-ם. 2/4 2/939 (S+[A+C]). 1 Kings 17.19; Prov. 17.23.

No idiomaticity evidenced.

28:05. ושא בחיקי. 3/15 3/594 (S+C). Num. 11.12; Isaiah 40.11; Psalms 89.51.

At both Num. 11.12 and Isaiah 40.11, the collocation occurs within a simile (introduced by כ), and an overall context, of loving care:

האנכי הרייתי את כל־העם הזה אם־אנכי ילדתיהו

כי־תאמר אלי שאתו בחיקך כאשר ישא האמן את־היונק

"Am I their mother? Have I brought them into the world, and am I called upon to CARRY THEM IN MY BOSOM, like a nurse with her babies...?" (Num. 11.12; NEB);

כרעה עדרו ירעה בזרעו יקבץ טלאים ובחיקו ישא עלות ינהל

"He is like a shepherd feeding his flock,

gathering lambs in his arms,

HOLDING THEM AGAINST HIS BREAST

and leading to their rest the mother ewes" (Isaiah 40.11; JB).

חֵיק might have anatomical or 'clothing' reference (cf. 28:02) - the precise value of ח in this expression is uncertain. For the 'nursing father' of Num. 11.12 and the 'shepherd' of Isaiah 40.11, compare 28:06, noting especially 2 Samuel 12.3 for the second motif. There is insufficient evidence to regard the collocation as a regular, or 'lexicalized', metaphor of care (*contra* Dhorme [1923:102,108] on the basis of a semantically cognate Akkadian idiom of a king's affection for his subjects). Contrast שִׁיתָ בְּחֵיק at Ruth 4.16, which some claim to have symbolic value, referring to a "gesture of adoption" (Gray 1967:423; cf. KB).

If Dhorme's claim about our collocation were correct, then we might render Psalms 89.51,

זָכַר אֲדֹנָי חֲרַפְתָּ עַבְדֶּיךָ שָׂאתִי בְּחֵיקִי כָּל־רָבִים עַמִּים,

with

'Remember, Lord, how your servants were insulted

Even though I was KINDLY DISPOSED TO all the great nations'.

However, the context suggests a more likely symbolic meaning for the collocation here of 'continue to recall' or 'bear a grudge against'; its use has perhaps been influenced by זָכַר in the parallel colon. Thus, the second half should be rendered:

'As I bear in my heart (the bitter memory of) all the great nations'.

For the imagery and its significance, compare perhaps Exodus 28.29:

ונשא אהרן את־שמות בני־ישראל בחשן המשפט על־לבו בבאו אל־הקדש

לזכרן לפני־יהוה תמיד

"Thus, when Aaron enters the Holy Place, he shall carry over his heart in the breast-piece of judgement the names of the sons of Israel, as a constant reminder before the Lord" (NEB).

28:03. השכיב בחיקו. 2/15 2/8 (S+C). 1 Kings 3.20².

28:06. שכב בחיקו. 2/15 2/198 (S+C). 2 Samuel 12.3; 1 Kings 1.2. Cf. Micah 7.5.

(Data for 28:03, the causative [hiphill] version of 28:06, are restricted to one verse.) The relevant passages, with NEB equivalents, are:

ולרש אין־כלל כי אם־כבשה אחת קטנה אשר קנה ויחיה ותגדל עמו ועם־בניו
יחדו ספתו תאכל ומכסו תשתה ובחיקו תשכב ותהי־לו כבת

"[The poor man had nothing of his own except one little ewe lamb. He reared it himself, and it grew up in his home with his own sons. It ate from his dish, drank from his cup and NESTLED IN HIS ARMS; it was like a daughter to him" (2 Samuel 12.3);

יבקשו לאדני המלך נערה בתולה ועסדה לפני המלך ותהי־לו סכנה
ושכבה בחיקך וחם לאדני המלך

"Let us find a young virgin for your majesty, to attend you and take care of you; and let her LIE IN YOUR BOSOM, sir, and make you warm" (1 Kings 1.2);

ותקם בתוך הלילה ותקח את־בני שאצלי ואסתך ישנה ותשכיבהו בחיקה
ואח־בנה הסת השכיבה בחיקי

"[S]he got up in the middle of the night, took my baby from my side while I, your servant, was asleep, and LAID IT IN HER BOSOM, PUTting her dead child IN MINE" (1 Kings 3.20);

אל־תא־סוֹנוֹ בְרַע אֶל־תִּבְטְחוּ בְאֵלוֹף

טִשְׁכַּבְתָּ חִיקָךְ שֹׁמֵר פִּתְחֵי־פִיֶּךָ:

בִּיָּבֵן סוֹבֵל אֵב בֵּת קִסָּה בְּאִמָּה כִּלְהָ בַחֲסֻתָּהּ

אִיבֵי אִישׁ אֲנָשִׁי בֵּיתוֹ

"Trust no neighbour, put no confidence in your closest friend;

seal your lips even from the WIFE OF YOUR BOSOM.

For son maligns father,

daughter rebels against mother,

daughter-in-law against mother-in-law,

and a man's enemies are his own household" (Micah 7.5-6).

In the first three passages, therefore, the image conveyed by both forms of our collocation is of a parent of one sex holding a child (possibly an only child) of the opposite sex. 'on the chest, in the lap' seems to have quite a vague reference (cf. 1 Kings 3.20: *סֵאצֵּל|וּבְחִיק*). That this parent-child imagery could be applied to a relationship between sexual partners is indicated by 28:01 and, significantly, in view of the use of our collocation at v. 3 of the same chapter, by 2 Samuel 12.8a:

וְאַחַתָּה לְךָ... אֶת־נָשָׁי אֲדוֹנֶיךָ בְּחִיקָךְ

"I gave you your master's... wives to be your own" (NEB).

Compare, as BDB, Gen. 16.5. According to NEB (and JB; LXX), this second value is correct at Micah 7.5, as well. However, in view of the reference of the following verse to parent-child antagonism, it is likely that *שׁוֹכַבְתָּ חִיקָךְ* means 'your young daughter'.

At 1 Kings 1.2, LXX interprets *בְּחִיקוֹ* as a synecdoche, *met autou* - cf., e.g., Job 19.27b:

כָּלֵב כָּלֵתִי בַחֲקִי

"My heart failed ME" (NEB).

But if a more 'literal' figure is intended here, our evidence about the collocations and their associated imagery suggests that it is possible that the standard interpretation of 1 Kings 1.1ff. be revised, so that Abishag is seen not as a means of sexual stimulus for the king but as a child-substitute to channel warmth (not lust) and affection to the king in his old age. The concluding sentence of the passage,

וְהַמֶּלֶךְ לֹא יָדָעָהּ

"[Blut the king had no intercourse with her" (1 Kings 1.4b; JB), can then be viewed not as an implication of David's impotence, but as a statement of the honourable nature of his relationship with Abishag ('This was not a sexual relationship'), perhaps inserted specifically to allay the suspicions of prurient readers/listeners.

At 1 Kings 1.2 and Micah 7.5, our collocation is to be regarded as a 'symbol', seeing that in neither passage is it associated, through parallelism, etc., with a clear 'explanation' of its meaning. In line with our interpretation of the various passages, we should claim that the symbolic value of the qal collocation is 'be treated like someone's own child' and of the hiphil collocation, 'treat a person as one's child'. The nominalization in Micah yields a further symbol of 'child'. The contexts in which the forms of the collocation occur suggest that in these symbols 'child' refers to an only child of sex opposite to the parent's.

(In the light of this understanding, it is possible that *[anakeimenon] eis ton kolpon* at Luke 16.23 and John 13.23 implies that Lazarus and Peter were accepted as 'sons' by, respectively, Abraham and Jesus.)

29. טח (18)

PRE-COLLOCATIONS

29:01. טח טעם. 2/2 2/4 (S+A). Job 12.11; 34.3.

Both instances of the collocation occur within basically the same figure in Job:

הלא־אזן סלין תבחן וחד אכל יטעם־לו

"Does not the ear test what is spoken as the PALATE SAVOURS food?" (12.11; NEB).

This seems to be more naturally introduced at Job 34.3 than at 12.11 (which is transposed with v. 10 by NEB).

As in 29:02, טח is the organ of taste. Specifically, in both instances of the collocation, טח is presented as the organ which can 'evaluate' whether food is good or bad, just as, in the parallel, the 'ear' can judge (בחן) whether an argument is valid or not (cf., as Lacau 1970:62, Arabic exponents of the root טח meaning 'instruct' and 'wisdom'). The complementary nature of intellectual and gustatory judgment is also found in respect of the verb טעם, which can be used in the sense of 'discern' as well as 'taste' (cf. Psalms 34.9; Prov. 31.18). A similar range of meaning is expressed by the corresponding noun - compare *saveur* and *sagesse*, both derived from *sapor*, *sapientia* (Lacau 1970:62).

29:02. פתוק על-לחך/לחך. 2/5 2/11 (S+C). Prov. 24.13; Song 2.3. Cf. Song 5.16.

Prov. 24.13b has:

ונופת פתוק על-לחך

"[A]nd the honeycomb so SWEET UPON THE TONGUE" (NEB).

NEB's rendering of לחך as 'tongue' is justifiable in view of the frequency of the association of לחך with לטון (see 29:03), but we prefer to render the collocation here as 'against your palate', the image being that of a boy slowly savouring a piece of honeycomb.

NEB (and JB) render לחך as a metonymy, 'taste' at Song 2.3b:

בצלל חסדתי וישבתי ופריו פתוק לחבי

"To sit in its shadow was my delight,

and its fruit was SWEET TO MY TASTE" (NEB).

However, a literal rendering, 'its/his fruit is sweet to my palate', is also adequate. Alternatively, חבי here is synecdochical for 'me'.

From the notion of the palate as the organ that discerns sweetness comes the rather odd figure at Song 5.16a, where the palate ("nearly = *mouth*"; BDB - a sense shared by Arabic and Syriac cognates), or a metonymic extension from it (ESD notes a post-Biblical use of לחך as 'speech'), is presented as actually being 'sweet' or 'full of sweetness':

חבו שפתקים וכלו שפתקים

"His WHISPERS ARE SWEETNESS, wholly desirable" (NEB).

POST-COLLOCATIONS

29:03. - דבִּקְנָהּ אֶל־חֲדָה/לַחֲדָה לְשׁוֹן - 3/3 3/89 (S+C; S+C). Psalms 137.6;
Job 29.10; Lam. 4.4. Cf. Ezek. 3.26; Psalms 22.16; Job 6.30; 20.12f.;
33.2. -

The texts (all with NEB equivalents) in which the expression, or a
hiphil variant of it, occurs are as follows:

אֶם־אֲשַׁכַּח יְרוּשָׁלַם חֲשַׁכָה יִסְוִי:

חֲדַבֵּק־לְשׁוֹנִי לַחֲכִי אֶם־לֹא אֲזַכְרֶכִי

"If I forget you, O Jerusalem,

let my right hand wither away;

let my TONGUE CLING TO THE ROOF OF MY MOUTH

if I do not remember you " (Psalms 137:5-6a);

שָׂרִים עֲצְרוּ בַסִּלִּים וְכַף יָשִׁימוּ לְפִיהֶם:

קוֹל־נְגִידִים נִחְבְּאוּ וּלְשׁוֹנָם לַחֲכָם דַּבְּקָה

"[M]en in authority broke off their talk

and put their hands to their lips;

the voices of the nobles died away,

and every man HELD HIS TONGUE" (Job 29.9-10);

דַּבֵּק לְשׁוֹן יוֹנֵק אֶל־חֲכִיו בְּצַמָּא עוֹלָלִים שָׂאֵלוּ לֶחֶם פֶּרֶשׁ אֵין לֶחֶם

"The sucking infant's tongue

CLEAVES TO ITS PALATE from thirst;

young children beg for bread

but no one offers them a crumb" (Lam. 4.4);

לשונך אדבִּיק אל־חֶכֶךְ וּנְאֻלַּמָּה

"I will FASTEN YOUR TONGUE TO THE ROOF OF YOUR MOUTH and you will be unable to speak" (Ezek. 3.26a).

Oesterley (1959:547) believes that at Psalms 137.6, the collocation refers to the worshipper's inability to offer spoken/sung worship, in the same way that חֲכַחַשׁ יְמִינִי (for MT חֲשַׁכַּח יְמִינִי) 'my right hand fails' in the previous verse expresses inability to play an instrument in divine service. On this interpretation, then, the collocation has a similar symbolic value to the one it has at Job 29.10.

However, if we retain MT and accept NEB's rendering of שָׁכַח in the previous verse as 'wither away', what our collocation seems to convey is a physical illness leading to immobilization of the tongue and inability to use the palate. If קָח is read for קָח at Psalms 22.16a (as BHK/S; NEB), this passage provides a further instance of לָשׁוֹן and קָח being associated in the description of physiological symptoms (here, specifically, shock). (Holma [1911:25] reports Akkadian *ikku kurri* 'short-palated, short-throated' designating a respiratory disorder, but see McCurley 1968:14: "*ikku*... [is] not part... of the body at all".) Of course, inability to move the tongue implies removal of the power of speech, but it seems more likely that the intended implication of the collocation here is as a sign of physical distress. Compare, however, JB, which renders שָׁכַח as NEB, but translates our expression as "May I never speak again".

A more certain 'sign-of-illness' usage of the collocation is evidenced at Lam. 4.4, where dryness of the mouth as a symptom of malnutrition is expressed. דָּמ might, in fact, mean 'throat' rather than 'palate' here (cf. Arabic *xalq*, *xulqu:m*, which Holma [1911:25] glosses as 'Gaumen', 'Kehle'), or the role of the palate as the organ of taste as well as that of speech (see Wolff 1974a:77) might be reflected. לְשׁוֹן is collocated with דָּמ , *qua* organ of taste/discernment, at Job 6.30 and 20.12f.

At Job 29.10, however, the expression refers to the respectful silence of local nobles. Thus, it has a similar symbolic value to שִׁים כָּף לִפֵּה in the previous verse. The extended poetic/metaphorical context suggests a rather vivid image, of the tongue suddenly stopping talking and holding itself still as the speaker's attention is totally occupied by the presence of Job.

Inability to speak is also conveyed by the causative version of our collocation at Ezek. 3.26, where it contrasts with $\text{אֶפְתָּח אֶחְפִּיד}$ in v. 27. Note though, that we cannot speak of a 'symbol' here, merely an 'association', as the meaning of the collocation is immediately 'explained' (by וְנֹאֲלָם).

Possibly there is an allusion to this idiomatic use of the collocation at Job 33.2:

$\text{הַנְּהִינָא פִּתְחִיתִי פִּי דְבַרָּה לְשׁוֹנִי בְּחִבִּי}$

"Now as I open my mouth,

and my tongue shapes words against my palate" (JB).

Here the second colon recalls our collocation by phonetic contrast (דבקה for דברה), just as, in the preceding colon, פתחתי פי recalls it by phraseological contrast (see the preceding remarks on Ezek. 3.26f.).

Thus, our evidence is that דבקה לחד לשון was quite strongly associated with silence in Biblical, as in Modern (see ESD), Hebrew, although the poetic/'explanatory' contexts in which it occurs do not allow us to claim that it was a symbol of silence (except, possibly, at Psalms 137). But Lam. 4.4, at least, indicates that the collocation, like the word-pair דך - לשון (Avishur 1984:677f.), could be applied to other contexts.

40. יָסִין (139)

PARALLELS: 2 Kings 22.2||2 Chr. 34.2; Psalms 60.7||108.7 (137).

RECAPITULATIONS: Exodus 29.22=Lev. 8.25 (136).

PRE-COLLOCATIONS

40:01. - אחד יָסִין/יָסִין. 2/20 2/660 (S+A; S+[A+C]). Zech. 4.3;
2 Chr. 3.17. Cf. Judges 16.29.

Although the data are insufficient to make any claims about 'idiomaticity', both instances of the collocation have a context of tall objects and a sacred location:

ושנים זיתים עליה אחד יָסִין הגולה ואחד על־שפאלה

"[W]ith two olive-trees standing by it, ONE ON THE RIGHT of the bowl and another on the left" (Zech. 4.3; NEB);

ויקם את־העמודים על־פני החיכל אחד יָסִין ואחד פה־שפאול

"He erected the two pillars in front of the temple, ONE ON THE RIGHT and one on the left" (2 Chr. 3.17a; NEB).

40:02. יד-ימיני / איטר 2/9 2/2 (=40:08). Judges 3.15; 20.16.

The texts from Judges, with NEB equivalents, are as follows:

ויקם יהוה להם פושיע אח־אהוד בן־גרא בן־היסיני איש אטר יד־ימינו

[The Lord... raised up a man to deliver them, Ehud son of Gera the Benjamite, who was LEFT-HANDED" (3.15a);

שבע סאות איש בחור אטר יד־ימינו

כל־זה קלע באבן אליהשערה ולא יחטא

"There were also seven hundred picked men..., LEFT-HANDED men, who could sling a stone and not miss by a hair's-breadth"

(20.16).

Both KB and BDB relate אטר to an Arabic verb meaning 'bend'. The root occurs just once elsewhere in Biblical Hebrew (except in a proper name), at Psalms 69.16, where the context suggests a meaning near to that of אטם 'block, close' (there is no need to emend, as BHK, to אטא: the two items are semantically closely related roots each deriving from an identical biliteral root plus a distinctive 'determiner' - cf., e.g., Driver 1950:340f.).

If we assume a connection with אטא, then, our collocation literally means something like 'blocked of the right hand'. AV and NEB interpret this as 'left-handed' (as in Modern Hebrew; see ESD), but another tradition, represented by LXX and Vulgate, interprets the expression as 'ambidextrous' - cf., as KB, 1 Chr. 12.2:

נשקו קשת סיסינים ופספסאלים באבנים ובחצים בקשת פאחי שאול סבניסן

"They carried bows and could sling stones or shoot arrows with the left hand or the right; they were Benjamites, kinsmen of Saul" (WEB).

Gray (1967:263; cf. *ibid.*:384) thinks that the expression "might refer to the training of boys for left-handed fighting, which was the more effective since the shield was normally carried on the left arm". JB uses "left-handed" in the first passage and "who could fight with both hands" in the second. On either interpretation, the biblical writers at both passages set up an ironic contrast between those who are 'blocked of the right hand' and those who are 'sons of the right hand' (Benjaminites). (For the ironic nature of the Ehud saga, see Alter 1981:37ff.; Good 1981:33.) Whatever the precise interpretation, clearly the conveyed sense of the collocation is symbolic (idiomatic), for 'blocked of the right hand' can only indirectly mean 'left-handed' or 'ambidextrous'.

40:03. - / יסינ - .הושיעה ל- 3/97 3/11 (S+C). Psalms 44.4; 98.1; Job 40.14. Cf Psalms 18.36; 20.7; 138.7.

For texts and interpretation, see 26:03. As shown there, this collocation provides a 'bridge' between the less idiomatic member of the colligation with זרוע and the more idiomatic one with יד.

40:04. הָשִׁיב יָמֶיךָ - 2/97 2/357 (S+C). Psalms 74.11; Lam. 2.3.

Although many (e.g., BHK/S; JB; NEB) would re-position the athnach (for NEB's rendering here, see 28:02 - Brockington does not note the emendation, however), MT's punctuation has this collocation at Psalms 74.11 (Q):

לָמָּה חָשִׁיב יָדְךָ וַיִּסְיֹנֵךְ סָקַרְבַּ חֵיקְךָ כִּלְהָ

"Why WITHDRAWEST THOU thy hand, even THY RIGHT HAND?

pluck it out of thy bosom" (AV).

Lam. 2.3 reads:

גָּדַע בַּחֲרֵי אָפַי כְּלִי-קֶרֶן יִשְׂרָאֵל הָשִׁיב אַחֲרָי יָמֶיךָ סָפְנֵי אוֹיֵב

וַיִּבְטֵר בִּי-עֵקֶב כַּאֲשֶׁר לַחֲבֵה אֲכַלָּה סָבִיב

"In his anger he hacked down the horn of Israel's pride,

he WITHDREW HIS HELPING HAND when the enemy came on;

and he blazed in Jacob like flaming fire

that rages far and wide" (NEB).

On the first occasion, and probably the second, 'withdrawing the hand' is a 'live' metaphor of cessation of military activity. This is true as well of הָשִׁיב יָד at Joshua 8.26 and Isaiah 14.27. However, outside of a military context הָשִׁיב יָד comes to mean simply 'refrain from doing, stop' - Ezek. 18.8; 20.22 (if original; cf. NEB); Lam. 2.8a:

לֹא-יִהְיֶה שִׁבִּיב יָדוֹ מִבְּלֹעַ

'He did not CEASE destroying'.

40:05. - וַשֹּׁשְׁבֵי־אֵיִן - חוֹסֶה סִיטִין - 2/4 2/69 (S+A; S+C; S+C). Exodus 14.22,29.

Data restricted. Exodus 14.29 is a repetition "in the manner of P" (Driver 1909:30) of v. 22, which reads:

וַיָּבֹאוּ בְנֵי־יִשְׂרָאֵל בַּחוּד הַיָּם בַּיַּבֶּשֶׁת וְהַמַּיִם לָהֶם חָסָה סִיטִינָם וַשֹּׁשְׁבֵי־אֵיִלָם
"[A]nd the Israelites went through the sea on the dry ground,
while the waters made A WALL FOR THEM TO RIGHT AND TO LEFT"
(NEB).

Our collocation, or at least its last two words, seems to share the meristic value of 40:19; thus, "a wall all around us". Cf. 1 Samuel 25.16a, referring to David's men, which KB⁹ (s.v. חוֹסֶה) appears to claim, alludes to the Exodus passage:

חוֹסֶה הָיוּ עָלֵינוּ גַם־לַיְלָה גַם־לַיּוֹם
"They were as good as a wall round us, night and day" (NEB).

If so, עָלֵינוּ 'over, around us' is semantically parallel to יֵטִין וַשֹּׁשְׁבֵי־אֵיִלָם, a meristic value which also seems to be indicated by Nahum 3.8, with which BDB compares the Exodus passage:

מַיִם סָבִיב לָהּ... מַיִם חוֹסֶתָהּ
'Waters surrounded her, a wall of sea'.

40:06. - חִיבְקָה יֵטִין - 2/97 2/10 (S+C). Song 2.6; 8.3.

The collocation occurs in virtually identical verses:

שֹׁשְׁבֵי־אֵיִלָם תַּחַת לְרֵאשִׁי וְיָטִין תַּחְבֵּקֵנִי
"His left arm was under my head, HIS RIGHT ARM WAS ROUND ME".
(Song 2.6; NEB).

The figure conveyed here is, presumably, of a lover with one hand around a girl's waist, and the other holding up her head to kiss her (see Goulder 1986:62 for an alternative interpretation).

40:07. חֲמִשָּׁנָה סִימִין. 4/7 4/248 (S+A; S+A). 1 Kings 7.49; 2 Chr. 4.6,7,8.

The collocation is literal, 'five on the right' (cf. 40:01), with *יָמִין* used in a purely 'locational' sense, and the context always of temple furniture in the Solomonic Temple.

40:08. יָד־יָמִין. 9/97 9/1257 (S+C; S+C). Gen. 48.17; Judges 3.15; 7.20; 20.16; 2 Samuel 20.9; Jer. 22.24; Ezek. 39.3; Psalms 73.23; 121.5. Cf. Judges 5.26; Isaiah 48.13; Psalms 21.9; 26.10; 74.11; 80.18; 89.26; 138.7; 139.10.

The collocation is, presumably, a grammatically specific realization of the common word-pair *יָד - יָמִין* (see the references cited above; cf. Avishur 1984:364f.; Boling 1960:233; Dahood 1967:44f.). *יָמִין* here can hardly signify 'right hand' - 'hand of the right hand' is meaningless for practical purposes. Rather, within this collocation *יָמִין* bears its more primitive sense (thus, KB; ESD) of 'right side' or 'right' (BDB). For *יָמִין* as 'right side', note, perhaps, Psalms 91.7a:

יפל סצדך אלף ורבבה סיסיןד

"A thousand may fall at your side,

ten thousand close at hand" (NEB).

(צד here is, perhaps, specifically 'left side' - cf. Dahood 1967:44f. on יד as 'left hand' when יסין; in this respect, note 2 Samuel 20.9f., where Joab holds Amasa's beard by his right hand, יד-יסין, and stabs him with the sword in his left hand, יד?)

That יד-יסין and יסין, in its 'secondary' sense of 'right hand', are equivalent is illustrated strikingly by Gen. 48.17-18:

וירא יוסף כי-ישית אביו יד-יסינו על-ראש אפרים וירע בעיניו...

ויאמר... לא-כן אבי כי-זה הבכר שים יסיןד על-ראשו

"When Joseph saw that his father was laying his right hand on Ephraim's head, he was displeased.... He said, 'That is not right, my father. This is the elder; lay your right hand on his head.'" (NEB).

At first sight, the collocation appears as a simple synonym of יסין 'right hand'. There seems to be no clear and consistent semantic motive for using the longer form for the shorter. However, it is possible, though this is an argument *ex silentio*, that יד-יסין was particularly favoured over יסין, when no explicit contrast with שסאול 'left (hand)' was present. Compare vv. 17f. of Genesis 48 (just quoted) with vv. 13f. יד-יסין might be characterized, then, as an optional 'allo-form' of יסין, the constraint on its use being the negative one that no explicit, formal, contrast with שסאול be present.

Following this argument, we find the data to be fairly well structured. Where there is a contrastive structure, between 'left hand' and 'right hand', if one of the contrasting forms is 'contracted' (i.e., it lacks יד) then the other form must be contracted; that is to say, ימין 'right hand' never contrasts with יד שפאול and יד-שפאול 'left hand' never contrasts with ימין. Where one of the forms is 'expanded' (i.e., יד is present), then the other form must be 'expanded' as well. This situation is evidenced at two passages:

ויחזיקו ביד-שפאולם בלפדים וביד-ימיןם השופרות

"[They] grasped the torches in their left hands and the trumpets in their right" (Judges 7.20a; NEB);

והכיתי קשתך סיד שפאולך וחציד סיד ימיןך אפיל

"I will strike the bow from your left hand and dash the arrows from your right hand" (Ezek. 39.3; NEB).

(Note that, atypically, שפאול precedes ימין here - cf. 40:19.)

Where there is no contrastive structure, then the non-contrastive forms may be, at random, contracted or expanded. This third situation is the one evidenced by the normal interchangeability of יד and יד- and of ימין and יד-שפאול (only at Judges 3.21). Using a pseudo-programming notation:

if CONTRAST

then

((ימין if שפאול) and (שפאול if ימין)) and

((יד-ימין if יד-שפאול) and (יד-שפאול if יד-ימין))

else

((יד-ימין or ימין) and

((יד-שפאול or שפאול)).

If it could be proved that יָסִין developed the sense 'right hand' specifically as a contraction of יָד־יָסִין, this would demonstrate a high level of 'idiomaticity', or loss of descriptive function, for our collocation. However, this process is not assured, and Judges 3.20 and Ezek. 39.3 both evidence an obvious 'compositionality' for the expression. Thus, it is safer to conclude that, from a synchronic perspective, יָד־יָסִין is a literal, pleonastic, version of יָסִין.

40:09. - יָסִין - יָסִין. 2/97 2/95 (S+C; S+C). Psalms 144.8,11.

See 40:22 for texts. Data restricted, and BHK proposes deletion of the second occurrence. A semantically redundant construction ('their right hand is a right hand of...') used *metri causa*.

40:10. - יָד־יָסִין. 2/97 2/23 (S+C; S+C). Judges 3.16,21.

Data restricted. No idiomaticity evidenced. Cf. 40:08,14.

40:11. יושב לימינו - 2/6 2/766 (S+C). 1 Kings 2.19; Psalms 110.1. Cf. Psalms 61.8; 89.37.

The passages are as follows:

וַתָּבֹא בַת־שֶׁבַע אֶל־הַמֶּלֶךְ שְׁלֹמֹה... וַיָּקָם הַמֶּלֶךְ לִקְרֹאתָהּ וַיִּשְׁתַּחֲוּ לָהּ וַיֹּשֶׁב עָלֶיהָ
כִּסֵּאוֹ וַיֹּשֶׁם כִּסֵּא לֵאמֹר הַמֶּלֶךְ וַחֲשֵׁב לְיָמֵינוּ

"So Bathsheba went to King Solomon...; the king rose to meet her and bowed before her; he then sat down on his throne; a seat was brought for the mother of the king, and she SAT DOWN AT HIS RIGHT HAND" (1 Kings 2.19; JB);

נָא אִם יְהוָה לֵאדֹנָי שֶׁב לְיָמֵינוּ עַד־אֲשֵׁית אִיבִיד הַדָּם לְרַגְלֶיךָ

"The Lord said to my Lord, SIT THOU AT MY RIGHT HAND, until I make thine enemies thy footstool" (Psalms 110.1; AV).

(The suggestion of Keel [1978:263] that in the second passage the collocation means 'dwell at the south side of, i.e., in a palace to the south of, the temple' should probably be discounted in view of the clear meaning of the collocation in Kings and the evidence of Ezek. 16.46, where יושב, not לימינו, is found after 'dwell'.) In neither place does the collocation itself seem to be idiomatic, although לימינו appears to symbolize/be associated with a place of honour (cf. Psalms 45.10 and, as KB³, Ephesians 1.20). Alternatively, or in conjunction with this interpretation, לימינו symbolizes assistance/protection (cf. Oesterley 1959:463):

כִּי־יַעֲמֵד לְיָמֵינוּ אֲבִיוֹן לְהוֹשִׁיעַ מִשִּׁפְטֵי וַפְּשָׁו

"For he stands AT THE poor man's RIGHT SIDE to save him from his adversaries" (Psalms 109.31; NEB).

40:12. וַיִּסֹּךְ וַיִּשְׁאַל. 3/13 3/107 (=40:19). Num. 20.17; 22.26;
Prov. 4.27. Cf. Exodus 15.12.

40:13. סָר יָסִין וַיִּשְׁאַל. 9/13 9/161 (=40.19). Deut. 2.27; 5.32;
17.11,20; 28.14; Joshua 1.7; 23.6; 1 Samuel 6.12; 2 Kings 22.21|2 Chr.
34.2.

In Numbers the collocation with וַיִּסֹּךְ means '(not) turn right or left'; at 20.17b, where the Samaritan version has סוּר for MT וַיִּסֹּךְ,

דַּרְךְ הַמִּלַּךְ וְלֹא לָא וַיִּסֹּךְ וַיִּשְׁאַל עַד אֲשֶׁר־נַעֲבֹר גְּבוּלְךָ

"We will keep to the king's highway; we will not TURN OFF TO RIGHT OR LEFT until we have crossed your territory" (NEB),

the context is of proceeding in a straight line along an open road and not deviating from it (or letting one's animals graze by it - Rashi), whereas at 22.26b the scene is of inability to progress because a road is blocked:

וַיַּעֲמֵד בַּמְּקוֹם צָר אֲשֶׁר אֵין־דֶּרֶךְ לַנְּטוֹת יָסִין וַיִּשְׁאַל

[He] stood in a narrow place where there was no room to TURN EITHER TO RIGHT OR LEFT" (NEB).

At Prov. 4.27, however, the deviation conveyed is moral:

אַל־תִּטְּיִסִין וַיִּשְׁאַל הַסֵּר רַגְלְךָ מִרָע

"SWERVE NEITHER TO RIGHT NOR LEFT,

and keep clear of every evil thing" (NEB).

As in 40:12, so in the collocation with סור, a negative expression (לא, אל, לבלתי) always precedes, and the collocation develops from spatial deviation ([Num. 20.17;] Deut. 2.27; 1 Samuel 6.12) to legal/moral transgression. The omission of any explicit object deviated from at Prov. 4.27 (quoted above) might indicate that the collocations were developing into specifically moral idioms (לא- meaning simply 'stay good'). Note also 2 Samuel 2.19b, where 'he didn't turn to the right or to the left' is expressed by ולא-נטה ללכת על-הימין ועל-השמאל - the placing of הלך between נטה and the prepositional phrase serves to emphasize the literal, spatial, significance of נטה in this context. Primarily, however, both collocations are idiomatic to the extent that they participate in the merismus of ימין ושמאל 'right and left' (40:19). The fact that ימין ושמאל is meristic ('any way at all') means that our collocations are also pleonastic seeing that the semantic specification of both נטה and סור already implies 'direction' (to 'turn' means to turn in a given direction). This pleonastic function of ימין ושמאל in connection with נטה/סור is well illustrated by its omission at Job 23.11b:

דרכו שפתי ולא-אט

"I have followed his way and not turned from it" (NEB).

In Modern Hebrew, the idiomatic value of the collocation with סור has become more marked, meaning 'carry out instructions to the letter' (סלא בדיקנות את הדבר שהטל עליו; ESD).

40:14. - עין-יסיין/יסיין. 3/136 3/80 (S+C; S+[A+C]). 1 Samuel 11.2;
Zech. 11.17².

No idiomaticity evident. The collocation occurs each time in a figure of the violent blinding of a person as a token of his/her utter defeat. Compare, perhaps, עין הצייל at 2 Samuel 20.6. יסיין here is 'right side' (cf. 40:08,10). עיין should perhaps be read for עין יסיין at Zech. 11.17b (see BHK/S).

40:15. - עמד על-יסיין. 4/8 4/434 (S+C). Zech. 3.1; Psalms 109.6; 1 Chr. 6.24; 2 Chr. 18.18. Cf. Psalms 109.31.

The relevant verses, with NEB equivalents, are as follows:

והשטן עמד על-יסיין לשטנו

"[With the Adversary STANDING AT HIS RIGHT HAND to accuse him"
(Zech. 3.1b);

הפקד עליו רשע ושטן יעמד על-יסיין

"They say, 'Put up some rascal to denounce him,
an accuser to STAND AT HIS RIGHT SIDE.'" (Psalms 109.6);

ואחיו אסף העמד על-יסיין

"Heman's colleague Asaph STOOD AT HIS RIGHT HAND"
(1 Chr. 6.24a);

ראיתי את-יהוה יושב על-כסאו וכל-צבא השמים עמדים על-יסיין ושטאלו

"I saw the Lord seated on his throne, with all the host of heaven
IN ATTENDANCE ON HIS RIGHT and on his left" (2 Chr. 18.18b).

In the first two passages, the collocation is associated with the evil, accusatory, intent of '(a) Satan' - in the second passage it is perhaps intended to contrast with the salvatory implications of עָמַד לְיָמִין at v. 31, quoted in 40:11. The 'idiom' here, though, is not our collocation as such, but rather its sub-sequence עָמַד עַל־, which pertains to Satan in particular (cf. 1 Chr. 21.1; see Williamson 1982:143f.), but is also used in other contexts - cf., as BDB (s.v. עָמַד, qal, 6.c), 2 Chr. 20.23; Daniel 8.25; 11.14. The sense of the expression in these instances is 'stand up against (as an enemy)', although in our two passages, a related, judicial, sense, comparable to English *stand against (in law)* (cf. Judges 6.31), is, perhaps, better suited.

In Chronicles, the legal context and adversarial implication are absent; neither does עָמַד עַל־יָמִין convey, like לְיָמִין (see 40:11), any connotation of 'in a place of highest honour' - the angels are positioned both sides of Yahweh (2 Chr. 18.18; cf. 2 Kings 22.19), and there is nothing to suggest that the levitical clan of Merari was less favoured than that of Asaph, because the former stood left of the latter (1 Chr. 6.24,29).

In sum, our collocation has fully literal reference in Chronicles; elsewhere it has strong 'symbolic' associations, but these relate to the sub-sequence עָמַד עַל־ rather than to the collocation as a whole.

40:16. שוק-ימין. 6/39 6/11 (S+C; S+A). Exodus 29.22=Lev. 8.25; Lev. 7.32,33; 8.26; 9.21; Num. 18.18.

A P *terminus technicus*, the collocation refers to a part of the sacrificial animal reserved for the priests except when a priestly sacrifice is involved - see Noth 1977:72. It is idiomatic only to the extent that it is specifically the hind thigh (ibid.; BDB) which is signified.

POST-COLLOCATIONS

40:17. או שסאול/שסאול - יסין/יסין - 2/136 2/2 (S+[A+C]; S+[A+C]).
Gen. 24.49; 2 Samuel 2.21.

In both instances, this disjunctive collocation implies a choice between turning one way or the other, in contrast to its more common conjunctive partner (40:19) where the choice is simply between moving in a straight line and deviating in whatever direction from that line:

ועתה אם־ישכם עשים חסד ואמת את־אדני הגידו לי

ואם־לא הגידו לי ואפנה על־יסין או על־שסאל

"Now tell me if you will keep faith and truth with my master.

If not, say so, and I will turn ELSEWHERE" (Gen. 24.49; NEB);

ויאמר לו אבנר נטה לך על־יסינד או על־שסאלך ואחז לך אחד מהנערים

וקח־לך את־חלצתו ולא־אבה עשהאל לסור סאחריו

"Abner said, 'Turn aside to RIGHT OR LEFT, tackle one of the young men and win his belt for yourself.' But Asahel would not abandon the pursuit" (2 Samuel 2.21; NEB).

At Gen. 24.49, the implication of the last clause might not be, as NEB (and Rashi) interprets, geographical (hence, indexical), 'so that I might go elsewhere', seeing that as Rebecca clearly is the girl whom Abraham's servant had been instructed to seek there would be no reason for further searching. Rather, the clause might have an intellectual (hence, symbolic) value, 'so that I can decide what to do'. The form and sense of the clause would, thus, constitute a structural and semantic parallel to the disjunction in the following verse:

לא נוכח דבר אליך רע או־טוב

"[We can say nothing for or against" (NEB).

For the parallelism (in these verses, chiasitic) right||good and left||bad, compare Gen. 48.14; Qoh. 10.2 (see Wolff 1974a:68), and Jonah 4.11b, where both intellectual and ethical indecision might be intended:

אשר לא־ידע בין־ימינו לשפאלו

'Who don't know what's best to do'

(Bullinger [1898:608], however, claims the figure to be of "extreme youth"; according to ESD, Modern Hebrew לשפאלו בין ימינו implies naivete).

At 2 Samuel 2.21, the use of the collocation implies that Asahel must choose which way to turn, left or right, and this contrasts with the conjunctive collocation at v. 19, where what is important is that Asahel doesn't veer from his course at all, not the particular direction that he might choose.

40:18. יִסִּיּוֹן וְזָרוּעַ. 3/97 3/17 (S+C; S+C). Isaiah 62.8; Psalms 44.4; 98.1. Cf. Isaiah 63.12.

=26:5.

40:19. וַשִּׁמְאוֹל וַיִּשִּׁין. 13/39 13/13 (S+A; S+A). Num. 20.17; 22.26; Deut. 2.27; 5.32; 17.11,20; 28.14; Joshua 1.7; 23.6; 1 Samuel 6.12; 2 Kings 22.21|2 Chr. 34.2; Isaiah 54.3; Prov. 4.27. Cf. Exodus 14.22,29; 2 Samuel 2.19; 16.6; 1 Kings 22.19; Zech.12.6; Daniel 12.7; 2 Chr. 18.18.

The comparative data provided are of other conjunctions of וַיִּשִּׁין and וַשִּׁמְאוֹל, where additional material, possessive-pronominal and/or prepositional, comes between at least one of the nouns and the sign of conjunction ו. The frequency of co-occurrence (i.e., not specifically conjunctive structures) is striking - וַיִּשִּׁין, in about 30% of its occurrences, associates with וַשִּׁמְאוֹל, and וַשִּׁמְאוֹל associates in 75% of its occurrences with וַיִּשִּׁין. The large number of instances where the two items are joined by a conjunction seems to reflect the claim of Avishur (1984:329ff.) that, historically, syndetic structures precede parallelism, etc. - the syndetic form (at least) occurs in Ugaritic (UT 52:63f.). The tendency to perceive resulting combinations as conveying 'stereotyped' meanings is suggested by the marked preference for one particular order of the terms - 'left-right' occurs just four times (Judges 7.20; Ezek. 39.3; Song 2.6; 8.3); perceptual and psychological factors might have originally affected the choice of order. Typically, as well, the terms are used with directional ('right, south'; 'left, north') rather than anatomical value.

All but once, the collocation comes after *וְשָׂרָה* or *סוּר*, both of which express geographical or moral deviation (see 40:12,13). Thus, idiomatically, within this colligation *יָמִין* and *שְׂמֹאל* possess a 'directional' sense ('rightward', 'leftward'), which is morpho-syntactically unmarked (by preposition or postposition). As already stated (see 40:12,13), the colligation *לֹא* [לֹא] *וְשָׂרָה/סוּר יָמִין וְשְׂמֹאל* is superficially pleonastic, although an emphatic value might be intended: 'You may turn neither right nor left'. If a genuine choice of two directions were conveyed we should expect a disjunction (*וְ*) to link the two nouns, as at Gen. 24.49; 2 Samuel 2.21 (see 40:17). Instead *וְשְׂמֹאל יָמִין* should be regarded as expressing a merismus - 'anywhere, everywhere'. This is especially true when, as typically, moral deviation is concerned, for in this context turning 'right' or 'left' can hardly be relevant. A merismus, 'everywhere', also suits the context of Isaiah 54.3 (which perhaps deliberately alludes to the original exodus-tradition formula in which the collocation first occurs):

כִּי־יִסֹּן וְשְׂמֹאל חֲפָרְצֵי וְזָרַעְדָּ גוֹיִם יִירֶשׁ וְעָרִים נְשָׁפוֹת יוֹשִׁיבוּ

"[F]or you will burst out TO RIGHT AND TO LEFT.

Your race will take possession of the nations,

and people the abandoned cities" (JB).

Here, however, specific direction, 'north and south', might be intended (cf. Whybray 1981:185).

Even when **יָסִין** and **שָׁמַיִל** are combined with prepositions or other material, their conjunction may still have a meristic value, 'all around', although this is not demanded - cf. 2 Samuel 16.6; 1 Kings 22.19; Isaiah 9.19; Zech. 12.6; 2 Chr. 18.18. See 40:5 for Exodus 14.22, 29.

40:20. **יָסִין יְהוָה**. 4/97 4/6639 (S+C; S+A). Hab. 2.16; Psalms 118.15, 16². Cf. Exodus 15.6; Psalms 77.11.

At Psalms 118.15b-16 the hypostasis seems to be used as poetic variation for Yahweh himself, who is referred to in the immediately preceding and following verses:

יָסִין יְהוָה עֲשֵׂה חַיִּל:

יָסִין יְהוָה רוֹסֵסָה יָסִין יְהוָה עֲשֵׂה חַיִּל

"YAHWEH'S RIGHT HAND is wreaking havoc,

YAHWEH'S RIGHT HAND is winning,

YAHWEH'S RIGHT HAND is wreaking havoc!" (JB).

The passage is concerned with Yahweh's demonstration of his effective kingship over the forces of chaos, particularly as instanced by the Red Sea miracle - Exodus 15.2a is duplicated at v. 14 of this psalm, and the structure of Psalms 118.15f. might be intended to reflect Exodus 15.6:

יָסִין יְהוָה ... יָסִין יְהוָה ...

(although repetition of phrases is perhaps just a stylistic quirk of the author of this psalm; cf. Bullinger 1898:345). For a similar poetic hypostasis of Yahweh's hand/arm in this context, see 26:07 on Isaiah 51.10.

At Hab. 2.16 the collocation again has literal, although not this time hypostatic, value, as the place where the כוס־יהוה is held:

שחה גם־אתה והערל תסוב על־יך כוס יסין יהוה

"[Y]ou too shall drink until you stagger.

The cup IN THE LORD'S RIGHT HAND is passed to you" (WEB).

40:21. יסין־ישימון. 2/97 2/13 (S+C; S+A). 1 Samuel 23.19,24.

Data restricted. ישימון is either a place-name, 'Jeshimon', or 'wilderness'. יסין here is 'south side'. BDB compares Psalms 89.13a, יסין וצפון 'north and right, north and south', and points out that the geographical sense derives from the 'standard' orientation (northwards in European cultures) in Israel to the east. Note that in Egypt, a different standard orientation was employed, so *imm* meant 'west' (Lacau 1970:118). At 1 Samuel 23.24, the use of אל־ישימון for יסין at v. 19 might be an instance of 'free variation' (cf. English [*to*] *the south of/south from*) or might reflect a conflation (or confusion) of two propositions, the first of David and his men living south of Jeshimon, the second of the Ziphites marching (ויקום וילכו) toward this position.

40:22. יִטְיִן־שָׁקֶר. 2/97 2/108 (S+C S+A). Psalms 144.8,11. Cf. Isaiah 44.20.

Data restricted. The collocation occurs twice in identical environments:

אֲשֶׁר פִּיהֶם דְּבַר־שׁוֹא וַיִּטְיִנוּם יִטְיִן שָׁקֶר

"[W]hose every word is false

and all their oaths are PERJURY" (Psalms 144.11; NEB).

(For the structure of the passage, cf. Psalms 26.10: אֲשֶׁר־כִּידִיהֶם זִפָּה
(ויטְיִנוּם פִּלְאָה שָׁחַד.) BHK proposes deletion of the second occurrence, NEB prefers to remove the first. For NEB's interpretation of the figure as a symbol of perjury, compare Isaiah 62.8, quoted at 26:05. Alternatively, the imagery may be of the clasping of (right) hands to confirm an agreement - Keel (1978:96) compares 2 Kings 10.15, Ezek. 17.18, Prov. 6.1, and Ezra 10.19.

41. ירד (34)

RECAPITULATIONS: Gen 24.2=24.9; Exodus 25.31=37.17 (32).

PRE-COLLOCATIONS

41:01. חגור חרבנין על־ירד/ירד־ 2/13 2/6 (S+[A+C]; S+[A+C]). Judges 3.16; Psalms 45.4. Cf. Exodus 32.27; Judges 3.21; Song 3.8.

For details of the underlying, non-idiomatic, image, BDB draws attention to 2 Samuel 20.8b (Q):

ויואב חגור פדו לכשו ועליו חגור חרב סצפדת על־סחניו בתערה

"Joab was wearing his tunic and over it a belt supporting a sword in its scabbard" (NEB).

The form of the collocation, with שים for חגור, at Exodus 32.27 indicates that the expression was amenable to compositional analysis. BHK/S's proposal to read ירבד for MT ירד at Psalms 45.4 is unnecessary despite the versional evidence - as a 'noun of inalienable possession' ירד does not seem to require a possessive-pronominal suffix if the 'owner' of the thigh is co-referential with the subject of the verb governing ירד (cf., e.g., Ezek. 21.17, quoted at 41:05).

41:02. יוצאי-ירדן. 3/23 3/14 (P+C; S+C). Gen. 46.26; Exodus 1.5; Judges 8.30.

The passages in which the expression occurs, with NEB equivalents, are as follows:

כל-הנפש הבאה ליעקב מצרימה יצאי ירכו סלבד נשי בני-יעקב כל-הנפש
ששים ושש

"The persons belonging to Jacob who came to Egypt, all his DIRECT DESCENDANTS, not counting the wives of his sons, were sixty-six in all" (Gen. 46.26);

ויהי כל-הנפש יצאי ירד-יעקב שבנים נפש ויוסף היה במצרים

"There were seventy [Israelites who entered Egypt with Jacob]... all told, all DIRECT DESCENDANTS of Jacob. Joseph was already in Egypt" (Exodus 1.5);

ולגדעון היו שבנים בנים יצאי ירכו בני-נשים רבות היו לו

"Gideon had seventy sons, his OWN OFFSPRING, for he had many wives" (Judges 8.30).

At Gen. 46.26 (P) the collocation refers, as a symbol or an index (depending on the interpretation of the components - see below), of children and subsequent descendants. It is equivalent to בנים in the following verse. The same sense is evidenced at Exodus 1.5 (also P); in this respect בני-ישראל at v. 7 might have the precise value of 'descendants of Jacob/Israel' (cf. Hyatt 1980:57).

At Judges 8.30, the collocation is introduced as a description of the type of children born to Gideon. NEB's "his own offspring" lacks continuity with the other uses of the collocation, which clearly do not refer only to immediate progeny; furthermore, it spoils the contrast, on which the succeeding narrative depends, between the seventy sons of Gideon's wives and the son of his concubine. We, therefore, prefer to see in this use of the collocation a (folk-)legal implication of 'rightful, primary heirs', a status denied Abimelech - the difference in lawful position of the two types of child is clear from Judges 9.18:

וַתְּדַרְגוּ אֶת־בָּנָיו שִׁבְעִים אִישׁ... וַתַּסְלִיכוּ אֶת־אֲבִיסָד בֶּן אִמּוֹ

"Today you have... butchered his seventy sons... and made Abimelech, the son of his slave-girl, king" (NEB).

Possibly this same implication exists for the other instances of the collocation; more likely, though, we see in this collocation an example of a figure caught at two stages of its development - first, 'descendants', secondly, 'legitimate descendants'.

Although the value(s) of the collocation as a whole is not in doubt, its underlying componential meaning is less clear. At first glance, the expressions יצִיאֵי-טֶמִיִּים (2 Chr. 32.21^a) and צִאֲזֵאֵי-טֶמִיִּים (Isaiah 48.19), both meaning, literally, 'those who come out from your bowels', seem to provide parallels. We might, on this basis, conclude that BH speakers could sometimes assign the physiological functions of childbirth to men. On this interpretation, a woman provides her husband with a sort of surrogate 'thigh' or 'womb' (טֶמִיִּים) from which children can 'come out'. On the other hand, KB³ claims that צִאֲזֵאֵי 'descendants' is a metaphorical use of a term from plant growth; if so, perhaps, our collocation involves imagery of the type exemplified by 'stem of Jesse'.

However, neither understanding takes sufficient account of evidence for תָּרַי as the male generative organ (see 41:06), or of the more primitive morphology of our collocation (simple *qal* participle as opposed to derived nouns). The syntax of יִצְאֵי-יָרֵךְ suggests that originally it meant not 'those who come out of the "thigh"' (implying either a 'transferred childbirth', already mentioned, or a sort of '*homunculus*' notion of sperm - cf. Wolff 1974a:237), but rather 'outgoings of the "thigh"' (either copulatory emissions or 'erections' of the penis to the same end). Probably, this obscene background had been largely forgotten by the time it was incorporated into the P and DtrG narratives, although the large numbers of descendants with which the collocation is always associated, implying extraordinary virility, might echo the idiom's origins. (But the number seventy might have a different symbolic function - on the calculation of this figure in the P instances of the collocation, see von Rad 1972:403; a slightly different interpretation is offered by Rashi, at Gen. 46.26. At Judges 8.30 the number seventy is significant within the whole narrative of Abimelech's fortunes; cf. Judges 9.2ff.)

If the precise background of the collocation, and the specific meaning of ירך had been forgotten, then it is possible that the collocations based on טעיים were formed by analogy - if it was possible for a child to come out of its father's thigh (part of the leg, not penis), then why could it could not also come out of his 'bowels'. (Mis)interpretation of the original collocation, yielding a sense more properly belonging to יוצאים טירך, would have aided this process - as might the desire to avoid the use of the still marginally obscene ירך (for possible evidence of which, see LXX at Exodus 1.5: *eks Iako:b*).

41:03. כף-ירך/ירך-ך. 4/30 4/76 (S+C; S+[A+C]). Gen. 32.26², 33².

Data restricted. The context here determines the meaning of כף to be 'socket' (of the hip-joint) (KB); presumably, the bone is likened to an arm with a half-closed palm (כף) at the end of it. Vesalius uses עין 'eye' similarly, as in עין-הכתף 'shoulder-blade socket' (Hyrtl 1879:226). According to Rashi (at Gen. 32.26), כף refers to the whole of the thigh-bone (ירך signifying the external thigh), and is so-called "because the flesh on it... has the form of the hollow part of a pot-ladle (כף)" (for similar imagery, compare כף קלט at 1 Samuel 25.29: see Dhorme 1923:150). The distribution of the collocation is too restricted for us to decide whether it was a figure improvised by the author of the narrative, an established 'idiomatic' figure, or a medical *terminus technicus*.

41:04. נגע ב/כפ-ירדך. 2/3 2/78 (S+C; S+C). Gen. 32.26,33.

Data restricted. Cf. 41:03. For נגע ב as a semantically insignificant by-form of [נאח-], see the lexica and GK 119k. An adequate rendering of נגע here needs to highlight its frequently-attested negative connotation, 'touch so as to harm'.

41:05. ספק אל/על-ירדך. 2/4 2/7 (S+A). Jer. 31.19; Ezek. 21.17.

The relevant verses are:

כי-אחרי שובי נחמתי ואחרי הודעי ספקתי על-ירדך

בשתי וגם-נבלסתי כי נשאתי חרפת נעורי

"Yes, I turned away, but have since repented;

I understood, I BEAT MY BREAST.

I was deeply ashamed, covered with confusion;

yes, I still bore the disgrace of my youth" (Jer. 31.19; JB);

זעק והילל בן-אדם כי היא היתה בעמי היא בכל-נשיאי ישראל

סגורי אל-חרב היו את-עמי לכן ספק אל-ירדך

"Cry, man, and howl; for all this falls on my people, it falls on Israel's princes who are delivered over to the sword and are slain with my people. Therefore BEAT YOUR BREAST IN REMORSE"

(Ezek. 21.17; NEB).

Probably the use of -לָא for -לָו in the Ezekiel passage simply reflects the interchangeability of the two prepositions, especially in Ezekiel (see BHS at Ezek. 21, *passim*; more generally, see KB s.v. לָו , 8, 12). The collocation appears both times as a "token of consternation" (BDB), although at Jer. 31.19 it is associated with, as gestural re-inforcement of, expressions and feelings of remorse, whereas at Ezek. 21.17 the collocation seems rather to symbolize distress, agitation, of a more general nature ("a sign of grief"; Wevers 1982:124). 'Beat the breast', the equivalent offered by JB and NEB, is not entirely satisfactory as it is too closely connected to 'remorse' in European culture. Gruber (1980:380ff.) notes two Akkadian equivalents of the collocation.

41:06. ויאמר אברהם אלעבדו זקן ביתו המטל בכל־אשר־לו שיסגנא ירך תחת ירך. 2/2 2/3 (S+C; S+C). Gen. 24.2=24.9; 47.29.

The collocation occurs in the following passages:

ויאמר אברהם אלעבדו זקן ביתו המטל בכל־אשר־לו שיסגנא ירך תחת
ירכיו: ואשביעך ביהוה... אשר לא־תקח אשה לבני סבנות הכנעני... :
וישם העבד אחידו תחת ירך אברהם אדניו וישבע לו על־הדבר הזה

"Abraham said to his servant, who had been long in his service and was in charge of all his possessions, 'PUT YOUR HAND UNDER MY THIGH: I want you to swear by the Lord... that you will not take a wife for my son from the women of the Canaanites.... So the servant PUT HIS HAND UNDER HIS master Abraham's THIGH and swore an oath in those terms" (Gen. 24.2-3,9; NEB);

ויקראו יס־ישראל לסות ויקרא לבנו ליוסף ויאמר לו אסגנא סצאתי חן
בעיניך שיסגנא ירך תחת ירכי ועשית עמדי חסד ואמת אל־גנא תקברני
במצרים: ... ויאמר אנכי אעשה כדברך: ויאמר השבעה לי וישבע לו

"When Israel's time to die drew near he called his son Joseph and said to him, 'If I enjoy your favour, PLACE YOUR HAND UNDER MY THIGH AND PROMISE to be kind and good to me, do not bury me in Egypt....' 'I will do as you say', he replied. 'Swear to me' he insisted. So he swore to him" (Gen. 47. 29-31a; JB).

The gesture described in this J expression shifts in significance from being merely associated with taking an oath in the first passage ("put his hand under his... thigh and swore") to symbolizing the oath itself in the second ("So he swore") - the action of the collocation and the imprecatory words function as gestural and linguistic equivalents of one oath-making ceremony. The Syriac version, accepted by NEB, has an 'explanation' ('that I may make you swear by Yahweh'), following the last instance of the collocation. If MT is to be reconstructed on this basis, then we have an association throughout, and the collocation is never actually symbolic.

Malul (1985) connects the collocation's figurative value with the enigmatic פִּדְיוֹן יָדָיו (Gen. 31.42,53), which he renders 'the thigh of Isaac'. פִּדְיוֹן יָדָיו:

symbolizes the family and ancestral spirits of Isaac. In it is reflected the custom of the oath by the thigh..., an oath to which one had recourse when the continuity and cohesion of the family were at stake. (Malul 1985:200)

Malul might be right in positing this relationship, but it is not so clear-cut as he implies. Our collocation has to do with, specifically, (1) the wishes of a dying patriarch; (2) the future relations of the patriarch's family with a foreign country. Jacob's pact with Laban (the context of פִּדְיוֹן יָדָיו) involves neither feature.

Malul believes that רָר here means 'penis' (cf. von Rad 1972:254: see Frymer-Kensky 1984:20f. for רָר referring to the female genitalia at Num. 5.21ff.; cf. also Song 7.2 and BHK/S's and KB's emendation of רָרִי at Prov. 31.3b), although his claim that the oath involved "touching the procreative organ" (ibid.) pays scant regard to the preposition in our collocation. Rashi, too, seems to hold to this interpretation of רָר , but he supplies a different, and perhaps superior, account of the symbolism implied:

As circumcision was the first commandment given to him and became his only through much pain it was consequently dear to him and therefore he selected this as the object upon which to take the oath. (Rashi at Gen. 24.2)

Steiner (1985), who also accepts that the collocation means 'to touch the penis', considers that its use at Gen. 47.29 concerns the manumission of Joseph and re-instatement within his father's kin-group. Although other aspects of the narrative might be seen to favour this interpretation, the different context of Gen. 24.2 suggests that a rather more general oath-binding force is effected by or associated with the gesture described.

Whether we render רָר 'thigh' or 'penis', the collocation should be compared with other imprecatory expressions which refer to touching a 'vital' part of the body, like Akkadian *napishta lapa:tu* 'touch the throat' and *tule saba:tu* 'touch the breast' (see McCurley 1968:164f.).

POST-COLLOCATIONS

41:07. ירד-יטין. 2/23 2/97 (S+C; S+C). Judges 3.16,21.

=40.10.

41:08. ירד-יעקוב. 3/23 3/350 (S+C; N+A). Gen. 32.26,33; Exodus 1.5.

No idiomaticity evidenced, but see 41:02 for the special meaning of ירד at Exodus 1.5.

41:09. ירד-מזבח. 2/23 2/255 (S+C S+A). Lev. 1.11; 2 Kings 16.14.

Rashi (at Lev. 1.11) indicates that the same meaning of ירד is involved as at 41:10:

ושחט אתו על ירך המזבח צפנה לפני יהוה

"He shall slaughter it before the Lord at the north SIDE OF THE ALTAR" (Lev. 1.11a; NEB);

ויתן אתו על-ירך המזבח צפונה

"[A]nd put it on the north SIDE OF THIS ALTAR"

(2 Kings 16.14b; NEB).

Note that both collocations refer to cultic furniture, and that even outside of P a north or south direction is associated with the collocation. At 2 Samuel 3.27a, LXX appears to have read סִירְד־הַשֹּׁמֵר (cf. BHK/S), with יָרֵךְ in the same sense, for MT אֶל־חֹדֶן הַשֹּׁמֵר, but no 'compass-directional' lexeme is associated with this passage.

41:10. יָרֵךְ־מִשְׁכָּן. 4/23 4/88 (S+C; S+A). Exodus 40.22,24; Num. 3.29,35.

All four passages are from P. Here, as in 41:09, יָרֵךְ has a metonymic value (possibly a lexicalized metonymy) of 'side' (cf. Rashi at Exodus 40.22; McCurley 1968:220,234):

וַיִּתֵּן אֶת־הַשְּׁלֶחָן בְּאֵהֶל מוֹעֵד עַל יָרֵךְ הַמִּשְׁכָּן צָפוֹנָה מִחוּץ לַפְּרֹכֶת:

וַיִּשֶׂם אֶת־הַסֵּנֶרֶה בְּאֵהֶל מוֹעֵד נֹכַח הַשְּׁלֶחָן עַל יָרֵךְ הַמִּשְׁכָּן נֹגֵבָה

"He put the table in the Tent of the Presence on the north SIDE OF THE TABERNACLE outside the Veil.... He set the lamp-stand in the Tent of the Presence opposite the table at the south SIDE OF THE TABERNACLE" (Exodus 40.22,24; NEB);

מִשְׁפַּחַת בְּנֵי־קָהַת יָחֲנוּ עַל יָרֵךְ הַמִּשְׁכָּן דְּיָסוּנָה

"The families of Kohath were stationed on the south, AT THE SIDE OF THE TABERNACLE" (Num. 3.29; NEB);

עַל יָרֵךְ הַמִּשְׁכָּן יָחֲנוּ צָפוֹנָה

"[T]hey were stationed on the north, AT THE SIDE OF THE TABERNACLE" (v. 35; NEB).

Dhorme believes that the anatomical background ('thigh') has influenced the usage of ירך in this derived sense, noting that the direction associated with ירך here is always north or south:

On se tourne la face à l'est (מקדם), la hanche gauche est tournée vers le nord, la droite vers le sud. (Dhorme 1923:98)

The collocation itself is not idiomatic.

44. כליות (31)

RECAPITULATIONS: Exodus 29.13,22=Lev. 8.16,25 (29).

PRE-COLLOCATIONS

44:01. בוחן כליות. 3/20 3/6 (S+C; P+A). Jer. 11.20; 17.10; Psalms 7.10.

The expression occurs in the following passages (all with NEB equivalents):

ויהוה צבאות שפט צדק בוחן כליות ולב
אראה וקפחתי פהם כי אלוך גלית את־דרכי
"O Lord of Hosts who art a righteous judge,
TESTING THE HEART and mind,
I have committed [גלותי] my cause to thee;
let me see thy vengeance upon them" (Jer. 11.20);
אני יהוה חקר לב בוחן כליות
ולחת לאיש כדרכיו כפרי טעלליו
"I, the Lord, search the mind
and TEST THE HEART,
requiting man for his conduct,
and as his deeds deserve" (Jer. 17.10^a);

יגטר־נא רע רשעים וחכונן צדיק

ובחן לבות וכליות אלהים צדיק

"Let wicked men do no more harm,

establish the reign of righteousness,

THOU WHO EXAMINEST both HEART and mind, thou righteous God"

(Psalms 7.10).

At a compositional level, within the collocation כליות (and associated לב) is metonymic of 'inner thoughts, feelings' (even, perhaps, 'conscience'; cf., as ESD, the Talmudic saying: שחי כליות בו - for the motif represented, compare 1 Samuel 16.7. As in the word-pair לב-כליות, the metonymic value of לב is probably not clearly differentiated from that of כליות. In respect of בחן, we assume a lexicalized, or 'dead', metaphor, 'test', not, as Keel (1978:184ff.), a 'live' figure from metallurgy, 'assay' (for the metaphorical application of metallurgical terms to biblical soteriology, see Sawyer 1972:46).

The different immediate environments of the collocation בחן כליות, בחן כליות ולב, indicate that it was not a fixed legal term. However, in all passages, the collocation is associated with Yahweh in his role as 'judge' (שופט; cf. Psalms 7.12) or 'investigator' (חוקר). Moreover, in the Jeremiah passages the expression is closely associated with requital in particular. We find this same specific context for an equivalent Greek expression at Revelation 2.23:

*hoti ego: eimi ho ereuno:n nefrous kai kardias kai do:so: humin
hekasto: kata ta erga humo:n*

"[T]hat I am the searcher of men's hearts and thoughts, and that
I will reward each one of you according to his deeds" (NEB)

(cf. Bullinger 1898:568; this is the only New Testament instance of
nefroi 'kidneys'). Thus, there is some evidence that the
collocation with following **לב** developed a particular idiomatic
association in Biblical Hebrew (although this cannot be confirmed from
the Old Testament itself).

44:02. חלב־כליות־ . 2/11 2/35 (S+C; P+C). Deut. 32.14; Isaiah 34.6.

The passages are as follows:

חֶמְצָא בֶקֶר וְחֶלֶב צֹאן אֲסִיחֶלֶב כְּרִים וְאֵילִים בְּנֵי־בָשָׁן וְעֵתוּדִים עִמְּחֶלֶב
כִּלְיֹת חֶמְצָא וְדַם־עֵגֶב חֲשֵׁת־חֶמְצָא

"[C]urds from the cattle, milk from the flock, with rich food of
the pastures, rams of Bashan's breed, and goats, RICH FOOD OF THE
wheat's EAR, and blood of the fermenting grape for drink"

(Deut. 32.14; JB);

סֶדֶם כְּרִים וְעֵתוּדִים סֶחֶלֶב כִּלְיֹת אֵילִים

"[T]he FAT OF rams' KIDNEYS, and the blood of lambs and goats"

(Isaiah 34.6a; NEB).

At Deut. 32.14, NEB moves כליֹוֹת to before כְּרִיִּים ("lambs' kidneys") leaving חֲטָה חֶלֶב (attested also at Psalms 81.17) "the finest flour of wheat". Thus, on NEB's understanding, our expression disappears as a repeated collocation. If, like JB, we accept MT, חֲטָה חֶלֶב כְּלִיֹוֹת might mean 'the choicest of wheat' (cf. BDB and KB, which provide other instances of חֶלֶב meaning 'best'), from the kidneys as the richest meat (cf. JB), or 'the fat of the kernels of wheat' (cf. Rashi), comparing the large size of the kernels or ears to that of kidneys (but there is no further biblical evidence for חֲטָה חֶלֶב in this sense). On either interpretation, our collocation, as a whole, is not idiomatic. At Isaiah 34.6, the expression is to be interpreted literally.

44:03. וְיִחַרְתָּ עַל־כֶּבֶד / עַל־כְּלִיֹוֹת 5/5 5/5 (S+A; S+A; P+A). Lev. 3.4,10,15; 4.9; 7.4.

This *P terminus technicus* is used in connection with the sacrifices of זֶבַח שְׁלֵמִים, חֲטָאת, and אָשָׁם. It is found all five times in exactly the same environment:

וְאֵת שְׁתֵּי הַכְּלָיִם

וְאֵת־הַחֶלֶב אֲשֶׁר עַל־כִּיֹסֶהוּ אֲשֶׁר עַל־הַבְּסָלִים

וְאֵת־הַיִּתְרָת עַל־הַכֶּבֶד עַל־הַכְּלִיֹוֹת

יִסְרֹף.

"[H]e shall remove...

the two kidneys

with the fat on them beside the haunches,

and the LONG LOBE OF THE LIVER WITH THE KIDNEYS" (NEB);

"[T]he two kidneys,
the fat that is on them and on the loins,
the FATTY MASS WHICH HE WILL REMOVE FROM THE LIVER AND KIDNEYS"
(JB).

JB's interpretation here rests on the close structural parallelism between, on the one hand, חלב and כליות and כסלים and, on the other hand, יוהרה and כבד and כליות - the אשר על-... אשר על-... construction of the first part matching the אשר על-... אשר על-... construction of the second. JB assumes that the חלב of the first part is connected, with both the following noun-expressions, 'kidneys-and-loins'; thus, in the second part, יוהרה is connected with the 'liver-and-kidneys'.

NEB, however, regards יוהרה as connected only to the first of the following nouns, כבד, and this position seems to be supported by Exodus 29.13a;

וְאֵת הַיּוֹהֵרֶת עֲלֵה־כֶבֶד וְאֵת שְׁתֵּי הַכְּלִיֹּת וְאֵת־חֹלֶב אֲשֶׁר עֲלֵיהֶן,

and its 'recapitulation' at Lev. 8.16a;

וְאֵת יוֹהֵרֶת הַכֶּבֶד וְשְׁתֵּי הַכְּלִיֹּת וְאֵת־חֹלֶבָן

"[T]he long lobe of the liver, and the two kidneys with their fat" (NEB).

Rashi went one stage further than NEB, and related יִוְתַרְתָּ to neither of the following nouns, that is, he considered three distinct referents to be involved. He understands יִוְתַרְתָּ to mean 'lobe (of the liver)', meaning the "midriff which parts the respiratory from the digestive organs" (see Rashi on Lev. 3.4, n.2). Thus, יִוְתַרְתָּ is connected by Rashi with the liver at a semantic level, but not at a formal level, in respect of our collocation or any other structure wherein יִוְתַרְתָּ and כְּבֵד collocate - for example, he interprets יִוְתַרְתָּ כְּבֵד at Lev. 8.16 as "the lobe besides some of the liver". Within our collocation Rashi renders עַל both times as 'in addition to' (as BDB, s.v. עַל, II.4.c).

Whatever the precise significance of the collocation, the difficulty in interpreting seems to arise not from any idiomatic specialization of one or more of the lexical items involved, but from the compactness of the syntax and the uncertainty of the reference of יִוְתַרְתָּ.

44:04. שְׂתֵי-כַלְיוֹת. 7/20 7/140 (P+C; P+A). Exodus 29.13,22=Lev. 8.16,25; Lev. 3.4,10,15; 4.9; 7.4.

The collocation appears in P as a standard, literal, description of a part of sacrificial beasts (פֶּרֶךְ, עֶז, כֶּשֶׁב, אֵיל).

POST-COLLOCATIONS

44:05. בליותני ולבני. 3/29 3/51 (P+[A+C]; S+[A+C]). Jer. 11.20;
20.12; Psalms 26.2. Cf. Jer. 12.2f.; 17.10; Psalms 7.10; 73.21; Prov.
23.15f.

For Jer. 11.20, see 40:01. Jer. 20.12 replicates this almost exactly:

ויהוה צבאות בחן צדיק ראה כליות ולב

אראה נקמתך בהם כי גלית אחריבי

"O Lord of Hosts, thou dost test the righteous,

and search the DEPTHS OF THE HEART;

to thee have I committed [גלית] my cause,

let me see thee take vengeance on them" (NEB).

Psalms 26.2(Q) reads:

בחנני יהוה ונסני צרפה כליותי ולבי

"Test me, O Lord, and try me;

put my HEART AND MIND to the proof" (NEB).

Both nouns within the collocation are effectively equivalent symbols of 'thought, feeling' (cf. 44:01). See McCurley 1968:43 for the interchangeability of names of internal organs as a whole, and Dhorme 1923:131 for that of heart and kidneys, as symbols, in particular. Possibly the duplication of these equivalent metonymies within the collocation has a meristic-intensive, idiomatic, significance: '(examine) all thoughts and passions', '(examine) thoroughly'.

Moreover, the expression evidences an (idiomatic) association with a particular context. At Prov. 23.15f. it is enjoyment that is localized at the heart and kidneys, and at Psalms 73.21, feelings of distress, either psychological (NEB) or physical (JB) (cf. Akkadian *kali:tu* 'anger'; Holma 1911:82). But at Jer. 12.2f. and 17.10, the word-pair לב - כלייה is, like the present collocation, found within a legal context. Thus, our collocation constitutes a syntactically-structured expression of the idiomatic specialization of this word-pair (equivalents of which are found, with literal reference, in parallelism in Akkadian [Holma 1911:82], and in Ugaritic in the mythological text UT 1001:3 in conjunctive form - see Avishur 1984:592; KB³). As suggested at 44:01, the present collocation preceded by בוחן, represents a further level of specialization (specialized association).

The association, as reflected in the word-pair, of heart and kidneys seems to be due to the fact that both organs are hidden (cf. Dhorme 1923:131), or that they constitute the most vital parts of the body (cf. Holma 1911:82 on Akkadian witchcraft texts), or that they exhibit "natural paralleling" (Avishur 1984:599), or a mixture of all these. It is, perhaps, the strength of collocational association of the word-pair components which has led to their 'inflectional harmony' ('homoeoptoton' in Bullinger 1898:177) at Psalms 7.10 (see 44:01).

46. קב (193)

PARALLELS: 2 Samuel 22.1||Psalms 18.1; 1 Kings 7.50||2 Chr. 4.22;
1 Kings 8.22,38||2 Chr. 6.12,29; 2 Kings 18.21||Isaiah 36.6; 2 Kings
19.24||Isaiah 37.25; 2 Kings 20.6||Isaiah 38.6; 2 Kings 25.14||Jer.
52.18 (185).

RECAPITULATIONS: Exodus 9.29=9.33; 25.29=37.16; 29.24=Lev. 8.27;
Judges 8.6=8.15 (181).

PRE-COLLOCATIONS

46:01. הושיע סכף. 4/21 4/184 (S+C). Judges 6.14; 1 Samuel 4.3; 2 Kings 16.7².

46:03. הצייל/נצל סכף. 8/21 8/204 (S+C). 2 Samuel 14.16; 19.10; 22.1²||Psalms 18.1; 2 Kings 20.6||Isaiah 38.6; Hab. 2.9; Ezra 8.31; 2 Chr. 32.11. Cf. Jer. 15.21; Micah 4.10; Prov. 6.3.

(The different frequencies reflect the more general fact that typically סך follows הצייל but not הושיע - see Sawyer 1972:70f.) Both collocations occur with following אויב (הושיע - 1 Samuel 4.3; הצייל - 2 Sam. 19.10; 22.1; Ezra 8.31), as does גאל סכף (Micah 4.10). The parallelism of 2 Samuel 19.10b indicates that פילט is a fourth synonymous verb within the collocation:

הסלך הציילנו סכף איבינו והוא פלטנו סכף פלשתים

"The king has SAVED US FROM OUR enemies and FREED US FROM THE POWER OF the Philistines" (NEB).

פילט appears to be a fifth (see Psalms 71.4 and 2 Chr. 30.6 - note also, as McCurley 1968:100, UT 3 Aqht rev. 13f: *wypltk... byd btlit* [*'nt*]), and פדה (Jer. 15.21) a sixth:

והצלתיד סיד רעים ופדתיד סכף נרצים

"I will DELIVER YOU FROM the wicked,
I will RESCUE YOU FROM the ruthless" (NEB).

(For the differences amongst these and other verbs of salvation, see Sawyer 1972, *passim*.) The parallelism of Jer. 15.21 and Psalms 71.4 and the slight divergence in the parallel texts of 2 Samuel 22.1 and Psalms 18.1,

ביום הציל יהוה אתו סבף כל־איביו וסבף שאול (2 Sam. 22.1b)

ביום הציל־יהוה אותו סבף כל־איביו וסיד שאול (Psalms 18.1b),

demonstrates an equivalence within the collocation of כף and יד (see also Exodus 18.10; Deut. 7.8). Thus we appear to have a colligation of verbs of salvation with certain nouns denoting the hand (see Dhorme 1923:149 for the interchangeability of כף and יד in this context) - פרק סיד (Lam. 5.8) is a seventh member of the colligation. Except at 2 Kings 16.7 and Prov. 6.3, the 'saviour' required by the colligation is God or God's agent - its use in the first passage might, therefore, be a stylistic device to heighten the portrayal of Ahaz's decadence or Tiglath-pileser's hubris:

וישלח אחז מלאכים אל־תגלת פלכר... לאמר... עלה והושעני סבף סלד־ארם
וסבף סלד ישראל

"Ahaz sent messengers to Tiglath-pileser... to say, '... Come and SAVE ME FROM the king of Aram and FROM the king of Israel... '"
(NEB).

At Prov. 6.3a the implication of its use might be that if the young man follows the advice provided he will be able to save himself without having to rely on divine help:

עשה זאת אפוא בני והנצל כי באת בכף־רעך

"[D]o this, my son, to EXTRICATE YOURSELF - since you have put yourself IN THE POWER OF your neighbour" (JB).

According to Sollamo (1979:303) **מִכַּף** has not attained the status of a preposition equivalent to **מִן**, but functions, like its more common partner **דִּיּוֹ**, as a semi-preposition - this opinion is based on the LXX's tendency to utilize a noun corresponding to **מִכַּף/דִּיּוֹ** in rendering the two prepositional phrases. The fact that in our collocation the possessor of the 'hand' normally is a human being is evidence that **מִכַּף/דִּיּוֹ** has not gone as far down the path of becoming a preposition as, say, **לְפָנָיו**. On the other hand, the absence of plural forms of **מִכַּף/דִּיּוֹ** gives some indication that the collocation was not intended to vividly evoke a picture of a captive being dragged from a captor's grip. We should expect that a semi-preposition might eventually develop purely prepositional reference ('from'), but even at Hab. 2.9b, where, perhaps, if we reject NEB, no human captor is intended, the English versions agree that **מִכַּף** has more than merely prepositional value:

לְהוֹצִיל מִכַּף-רָע

"[T]o save yourself FROM THE GRASP OF wicked men" (NEB);

"[A]nd so evade the HAND OF misfortune" (JB);

"[T]hat he may be delivered FROM THE POWER OF evil" (AV).

Elsewhere, individual contexts have to be checked to determine when **מִכַּף/דִּיּוֹ** is metonymic (and, to some degree, pleonastic) 'from the control of' (cf. 46:36 on Judges 6.2,14), and when semi-prepositional, 'from (the hands of)'.

The fact that in the colligation verbs can be exchanged indicates a more or less literal interpretation of any constituent collocation, and the manipulation and separation of components at Prov. 6.3, points in the same direction. Thus, the colligation, is 'idiomatic' only to the extent that in it טִיִּד/טָבָה bears a figurative (metonymic, semi-prepositional) sense. Contrast the quite literal significance of, for example, לִקַּח טַעַל כַּפַּיִם at Lev. 8.28.

46:02. חכה כף/כף. 4/102 4/485 (S+(A+C)). 2 Kings 11.12; Ezek. 21.19,22; 22.13. Cf. Ezek. 6.11.

Passages relevant to the discussion are:

ויסלכו אתו וימשיחו ויבדכו ויאסרו יחי המלך

"[A]nd they made him king, and anointed him; and they CLAPPED THEIR HANDS, and said, God save the king" (2 Kings 11.12; AV);

חכה כפד ורקע ברגלך ואסר-אח אל כל-תועבות רעות בית ישראל

אשר בחרב ברעב ובדבר יפלו

"BEAT YOUR HANDS TOGETHER, stamp with your foot, bemoan your vile abominations, people of Israel. Men will fall by sword, famine, and pestilence" (Ezek. 6.11; NEB);

ואתה בן-אדם הנבא והד כף אל-כף

ותכפל חרב שלישתה חרב חללים היא

"Son of man, prophesy and CLAP YOUR HANDS.

Let the sword be twice, three times, as cruel,

the butcher's sword" (Ezek. 21.19; JB);

וגם-אני אכה כפי אל-כפי והנחתי חסתי

"I too will CLAP MY HANDS TOGETHER and abate my anger"

(v. 22a; NEB);

והנה הכיתי כפי אל-כפאך אשר עשית

ועל-דמך אשר היו בתוכך

"See, I STRIKE WITH MY CLENCHED FIST IN ANGER at your ill-gotten gains and at the bloodshed within your walls" (Ezek. 22.13; NEB);

יען סחאך יד ורקעך ברגל וחשפת בכל-שאטך בנפש אל-אדם ישראל

"Because you CLAPPED YOUR HANDS and stamped your feet, and exulted over the land of Israel with single-minded scorn"

(Ezek. 25.6; NEB).

Although in diction similar to Ezek. 25.6, the context of the collocation with intervening א (cf. BDB, s.v. א , III.4) at Ezek. 6.11 (see 46:09) hardly allows us to view it here (Ezek. 6.11), with Wevers (1982:61), as a symbol, albeit ironic, of malicious joy (as at 25.6). Rather it describes a gesture of distressed agitation. The apparent application of the same action to opposite emotional states (cf. 46:09) exemplifies a sort of gestural *Didd* (for which, on a linguistic plane, see Barr 1983:173ff.).

'Clap one's hands together' at Ezek. 21.19 seems to be linked either to the following words as a gesture symbolizing command (to the sword) or to the preceding words as a gestural 'Amen' to the words of prophecy. The context of the collocation two verses on (see below) does not clarify the matter.

At Ezek. 22.13 (and, probably, at 21.22) the collocation appears to be symbolic/indexical of release of anger - cf. 46:16 on Num. 24.10.

In Kings, the collocation describes congratulatory applause in the context of a declaration of kingship - cf. 46:24 on Psalms 47.2.

Thus, although each use of the collocation seems to be 'symbolic' or 'indexical' of a particular intent, there is no consistency to the figure conveyed (as also in Modern Hebrew; see ESD). We might compare the variety of possible messages that can be transmitted or reinforced by clapping of the hands in our own culture (warning, anger, pleasure, displeasure, congratulation, etc.); these exist alongside more primary, physiological, functions of the act, such as making oneself warm or releasing tension.

46:04. חֶסֶם בְּכַפַּי. 3/6 3/45 (S+A; P+C). Jonah 3.8; Job 16.17; 1 Chr. 12.18. Cf. Isaiah 59.6; Psalms 58.3.

The verses in which the collocation occurs are as follows:

וַיִּשְׁבוּ אִישׁ סִדְרָתוֹ הַרְעָה וּכְפֹלֵת אֲשֶׁר בְּכַפָּיהֶם

"Let every man abandon his wicked ways and his HABITUAL VIOLENCE" (Jonah 3.8b; NEB),

"[A]nd let everyone renounce his evil behaviour and the WICKED THINGS HE HAS DONE" (idem; JB);

עַל לֹא־חֶסֶם בְּכַפַּי וְתַפְלְתִּי זָכָה

"[Y]et my HANDS WERE FREE FROM VIOLENCE and my prayer was sincere" (Job 16.17; NEB),

"Not for any INJUSTICE IN MINE HANDS: also my prayer is pure" (idem; AV);

וְאִם־לִרְסוּתִי לַצַּרִּי בְּלֹא־חֶסֶם בְּכַפַּי יִרְאֵה אֱלֹהֵי אֲבוֹתֵינוּ וַיּוֹכַח

"[B]ut if you come to betray me to my enemies, INNOCENT THOUGH I AM OF ANY CRIME OF VIOLENCE, may the God of our fathers see and judge" (1 Chr. 12.18b; NEB),

"But if it is to betray me to my enemies, WHEN I HAVE DONE NO WRONG, then may the God of our ancestors take note and give judgement" (idem; JB).

In each instance, we prefer, at least in respect of the collocation, the second translation given to that of NEB. At Jonah 3.8, the parallelism with רעה supports an 'immorality' rather than a 'violence' interpretation for the collocation, and the same is suggested by v. 10a, where it is reported only that the Ninevites

שבו סדרתם הרעה

"abandoned their wicked ways" (NEB);

if רעה referred to something significantly different from 'evil' in general, then we should have expected a corresponding report of its demise at v. 10. Again, at Job 16.17, the parallel colon, which concerns absence of immoral thought, suggests, against NEB (and JB), that רעה refers correspondingly to immoral behaviour in general, rather than violence in particular - for the parallelism of (moral) action and thought, cf. 46:19 and Psalms 58.3 (see below). This more general moral application seems to be appropriate too at 1 Chr. 12.18, where LXX has

kai ei tou paradounai me tois exthrois mou ouk en ale:theia xeiros

'But if to betray me to my enemies DECEITFULLY [lit., 'NOT IN TRUTH OF HAND']'.

(BHS claims *ale:theia* replaces an original *adikia* 'unrighteousness', supporting even more strongly a non-'violence' interpretation for חסם - in the 'original' LXX text, then, the clause containing the collocation would have agreed with MT in referring to David rather than the representatives of the southern tribes.)

Psalms 58.3 is textually problematic,

אִף־בְּלֵב עוֹלָה תִּפְעֲלוּן בְּאָרֶץ חֶסֶם יְדֵיכֶם תִּפְלֹטוּן

but, assuming that *בלב עולת* in the first colon means 'iniquities in the heart, evil thoughts', then *חסם ידיכם*, in the second colon would seem to mean, like *חסם בכפיים*, 'evil actions', rather than, specifically "the violence that you have done" (NEB).

An expanded form of the collocation appears at Isaiah 59.6. Vv. 6b-7a read:

טַעֲשִׂיהֶם טַעֲשִׂי־אוֹן וּפְעֵל חֶסֶם בְּכַפֵּיהֶם:

רָגְלֵיהֶם לָרֹעַ יִרְצוּ וַיִּסְהָרוּ לְשַׁפַּךְ דָּם נָקִי

"[T]heir works breed trouble

and their HANDS ARE BUSY WITH deeds of VIOLENCE.

They rush headlong into crime

in furious haste to shed innocent blood" (NEB).

Here, the collocation could refer to immorality of a general nature or, as in NEB's (and JB's) understanding, to sins of violence in particular, depending on which colon, the first or the fourth, is considered the more significant for its interpretation.

On our understanding of the collocation, as referring to misdemeanour of a general kind rather than specifically to criminally violent behaviour, the expression involves a weakening of the 'primary' sense of עָוֹן in Biblical Hebrew ('violence') - this weakened sense ('wrong') is also found outside the collocation.

Outside of the instances (including Isaiah 59.6) of our collocation, when בְּ follows עָוֹן , it has a clear 'locational' value, 'inside' (cf. Isaiah 60.18; Jer. 6.7; Amos 3.10; Psalms 58.3). This suggests that in the collocation the second component, עָוֹן , is itself idiomatic in the same way that it is in 46:01,03,15, etc. The collocation as a whole might then convey an idiomatic value of 'have iniquity at one's control' (carrying with it, perhaps, an implication of abuse of one's position of authority).

46:05. יגוע-כפוי/כפויים. 4/79 4/15 (S+C; P+H+A+G). Gen. 31.42; Haggai 1.11; Psalms 128.2; Job 10.3.

The collocation occurs in the following passages (all with NEB equivalents):

את־עניי ואת־יגיע כפי ראה אלהים ויוכח אטש

"But God saw MY LABOUR and my hardships, and last night he rebuked you" (Gen. 31.42b);

ואקרא חרב על־הארץ ועל־ההרים ועל־ההרדג ועל־התירוש ועל־היצהר ועל אשר תוציא האדמה ועל־הבהמה ועל כל־יגיע כפויים

"So I have proclaimed a drought against land and mountain, against corn, new wine, and oil, and all that the ground yields, against man and cattle and all the PRODUCTS OF MAN'S LABOUR"

(Haggai 1.11);

יגיע כפיד כי תאכל אטריד וטוב לד

"You shall eat the FRUIT OF YOUR OWN LABOURS, you shall be happy and you shall prosper" (Psalms 128.2);

הטוב לד כיתעסק כיתחטאס יגיע כפיד

ועל־נצח רשעים הופעת

"Dost thou find any advantage in oppression, in spurning the FRUIT OF ALL THY LABOUR and smiling on the policy of wicked men?" (Job 10.3).

At Gen 31.42 the parallelism indicates that כפי is, as interpreted by NEB, synecdochical for Jacob in his role as 'labourer'; thus, the collocation as a whole here is non-idiomatic 'my labour' (as KB³; contrast KB) - cf. Psalms 9.17:

בפעל כפיו נוקש רשע

"the wicked man is trapped in HIS own devices" (NEB)

(reading נוקש as niph'al from יקש for MT's qal participle of נקש).

A synecdochical explanation of כפיים is possible in the other three instances of the collocation, and NEB has chosen this option at Psalms 128.2 ("your... labours"). In the remaining two passages, it might be that the collocation as a whole conveys a symbolic meaning of 'artefacts, handiwork', 'man-made objects' (cf. כעשה ידיך at Qoh. 5.5 - see BDB, s.v. כעשה, b.1). Thus understood, at Haggai 1.11, we see a progression from (inanimate) nature through animals (non-human and human) to non-natural, constructed, objects. At Job 10.3, the symbol is applied to God, anthropomorphically.

The collocation witnesses to an extension in reference of יגיע from 'labour' to 'results, fruits, of (hard) labour': see, e.g., Deut. 28.33 (פרי אדמתך); Jer. 20.5 (יקר) - the same process occurs with פועל, פעולה, and עמל - see Fohrer 1968:101f.; Bullinger 1898:549ff. Thus, for the collocational meaning BDB compares פרי "earnings" (NEB) at Prov. 31.16.

46:06. יִצַק עַל־כַּף־. 2/11 2/43 (S+C). Lev. 14.15,26.

Data restricted. Cf. 46:15. The expression occurs in variations of regulations governing a cleansing ceremony. For יִצַק עַל־ meaning 'pour into (the cupped palm)', as distinct from 'pour over', compare, as BDB (s.v. יִצַק, 1), 2 Kings 4.4: וַיִּצַק עַל כַּלְהַכְלִיִּים. Note that here עַל־כַּף is used when liquid is contained directly in the cupped hand, whereas at Num. 5.18 בַּיָּד is used to signify holding in the hand of a container of liquid (see v. 17).

46:07. כַּפ־רֹגֶל / כַּפ־רֹגֶל / בְּלִמְקוֹם אֲשֶׁר דָּרְבָה בּוֹ. 2/9 2/2 (S+C; S+A; S+C; S+C). Deut. 11.24; Joshua 1.3. Cf. Deut. 2.5; 11.25; Joshua 14.9.

The collocation has an indexical meaning of 'wherever one goes' being a pleonastic version of a similar expression with רֹגֶל alone (not כַּפ־רֹגֶל) at Joshua 14.9 which in turn is pleonastic and synecdochical for דָּרְבָה (Deut. 1.36). A short version follows a long one at Deut. 11.24f. In the context of the subjugation of Canaan, the use of the verb דָּרַךְ here perhaps carries undertones of the military expression דָּרַךְ קִטָּה.

46:08. מַזְטָרוֹת וּבָפוֹת. 2/4 2/3 (P+A; P+A). 1 Kings 7.50||2C. 4.22;
2 Kings 25.14||Jer. 52.18. Cf. 2 Kings 12.14.

The collocation occurs as part of an inventory of cultic equipment, normally (except at 2 Kings 25.14) with *מַזְטָרוֹת* intervening. No idiomaticity is evident.

46:09. מָחָא בָּךְ. 2/26 2/4 (S+A). Isaiah 55.12; Psalms 98.8.

(The figure for *מָחָא* includes *מָחָה* at Num 34.11.) Both instances of the collocation occur as part of "a universal call to praise" (Gray 1979:67), and describe gestures associated with/symbolic of expression of joy at Yahweh's activity in international events viewed as a facet of His role in upholding the cosmic order:

כִּי־בִשְׂמֵחָה תֵצְאוּ וּבְשָׁלוֹם תֵּוָבְלוּ

הַהָרִים וְהַגְּבֻעוֹת יִפְצְחוּ לְפָנֵיכֶם רִנָּה וְכָל־עֵשִׂי הַשָּׂדֶה יִמְחָאוּ־בָּךְ

"You shall indeed go out with joy

and be led forth in peace.

Before you mountains and hills shall break into cries of joy,

and all the trees of the wild shall CLAP THEIR HANDS"

(Isaiah 55.12; NEB);

וְהַרְוֹת יִמְחָאוּ־בָּךְ יַחַד הַרִים יִרְנְנוּ:

לְפָנֵי־יְהוָה כִּי בָא לִשְׁפֹט הָאָרֶץ

"Let the rivers CLAP THEIR HANDS,

let the rivers sing aloud together

before the Lord; for he comes

to judge the earth (Psalms 98.8-9a; NEB).

Note that the thematic correspondence is matched by one of poetic diction with **הרים** 'mountains' and **רנן** (root) 'shout praises' occurring each time in the parallel colon.

At Ezek. 25.6 (see 46:02), **יד** replaces **כף** in the collocation and is associated with *Schadenfreude* rather than a more positive rejoicing. Perhaps this negative value is, partly, a function of the use in this passage, as claimed by BDB, of the piel of **סחם** (but see ES, KB, Mandelkern, GK 74e).

In Biblical Aramaic **סחם** occurs once, at Daniel 4.32b, with **יד** in the phrase

ולא איתוי די יסחם בידה

"[N]o one may LAY HAND UPON him" (NEB)

- compare, as BDB, **סחי ביד** (pacl) 'hinder' attested outside Biblical Aramaic.

Dhorme (1923:150) indicates that it is **כף** specifically in the sense of 'palm' which provides the rationale for its use in preference to that of **יד** in collocations with verbs meaning 'strike' - "Lorsqu'on bat des mains, ce sont les paumes qui se heurtent".

46:10. טילא כף. 2/77 2/111 (S+C). Lev. 9.17; Psalms 129.7.

46:11. טלוא-כף/כף. 2/102 2/38 (S+C; S+[A+C]). 1 Kings 17.12; Qoh.
4.6.

(It is unclear which of 46:10 and 46:11 is the 'basic' form of the collocation.) The relevant passages for both forms of the collocation, with NEB equivalents are:

ויקרב את־הסנחה ויטלא כפו ססנה ויקטר על־הסנבה

"He brought forward the grain-offering, TOOK A HANDFUL of it, and burnt it on the altar" (Lev. 9.17a);

חַיִּיהוּת אֱלֹהֶיךָ אֲפִישׁ־לִי מַעֲוֹג כִּי עִשְׂמֵלָא כַּף־קֶמַח בַּכַּד וּמַעֲשֵׂי־שֶׁשֶׁן בַּצִּפְתָּה

"As the Lord your God lives, I have no food to sustain me except A HANDFUL of flour in a jar and a little oil in a flask"

(1 Kings 17.12a);

יִהְיוּ כַחצִיר גֹּזֵה שְׂקֵרֶת שֶׁלֶף יִבֶּשׁ:

שְׁלֵא טֵלָא כֶּפֶן קוֹצֵר וְחֲצוֹן טַעֲמֵר

"[L]et them be like grass growing on the roof,

which withers before it can shoot,

which will never FILL A mower's HAND

nor yield an armful for the harvester" (Psalms 129.6-7);

טוֹב טֵלָא כַּף נַחַת סַפְלָא חֲפָנִים עַל וְרַעוּת רוּחַ

"Better ONE HAND FULL and peace of mind, than both hands full and toil that is chasing the wind" (Qoh. 4.6).

Rashi, BDB, and KB³ relate the expression at Lev. 9.17a to מְלוּאֵ־קוֹמֵץ 'a fist-full', also attested in connection with the flour (סוּלֶמֶת) of the grain-offering (עֹלֹתָהּ) at Lev. 5.11f. and 2.2 (cf. 6.8):

וְקִיץ שֵׁשׁ סֵלִים קִמְצוּ סֵלֶמֶת וּשְׂשֹׁנִים עַל כָּל־לֶבְנוֹתָהּ

"[O]ne of [them] shall scoop up A HANDFUL of the flour and oil with all the frankincense" (NEB).

But, according to Noth (1977:79), מְלוּאֵ־קוֹמֵץ is a "stereotyped technical expression", whereas מְלוּאֵ־כֶף is "a more general turn of speech". That no specific, standard, measure was intended by מְלוּאֵ־כֶף is indicated by the Psalms passage - grass can hardly be quantified in the same way as flour!

The nominal form, 46:11, in Kings also seems to refer to an indeterminate, albeit small, quantity of a substance, מִקְצֵה, similar to סוּלֶמֶת in Leviticus. It is perhaps significant that in MT (but see BHK/S at Lev. 9.17) מִקְצֵה is always singular within the verbal and nominal collocations - the sense (of the nominal collocation) seems to be 'whatever can be grasped within a single hand', as an index of 'a small amount'.

This idiomatic interpretation is supported by the evidence of Qoh. 4.6, where the nominal collocation is in antithetic parallelism with $\text{סְלוֹא־הַפְּנִיִּים}$ (Exodus 9.8; Lev. 16.12), the meaning of which, in this passage at least, seems to be 'an unspecified amount able to be contained in two hands', thus, indexically, 'a substantial amount'. For the association of one hand with little and two hands with a lot, compare לְקַטְצִים 'by fistfuls, in great abundance' at Gen. 41.47 (McCurley 1968:236) with סְלוֹא־קִטְצִים 'a small amount', already noted. Qoheleth might also intend a contrast between the type of substances normally associated with each collocation - flour, lowly-valued, but useful to one's survival, as opposed to crushed incense (Lev. 16.12) or ashes (Exodus 9.8), sometimes valuable, but of little practical use.

Note, finally, that the collocation of סֵלָא with כַּף , חֹפֶן , and קִטְצִים differs substantially in meaning from the well-known collocation סֵלָא יַד (see McCurley 1968:152f. for this and related idioms of 'commission' in BH and Akkadian, and Wallis 1981, which includes analysis of a relevant Hittite text). At 2 Kings 9.24a,

$\text{וַיִּהְיוּ סֵלָא יָדוֹ בְּקֶשֶׁת}$

"Jehu SEIZED his bow" (NEB),

סֵלָא יַד might, under the influence of our idiom, mean literally 'Jehu took a handful of bow', the expression arising because of the very small area of the total bow that actually comes into contact with the hand (however, KB claims the sense to be 'put the arrow upon the bow').

46:12. סנווח לכף־רגל־. 2/2 2/5 (S+A; S+C; S+C). Gen. 8.9; Deut.

28.65. Cf. Joshua 3.13.

Indexical of '(not even) a stopping-place' in contexts of continuous wandering - see 46:39.

46:13. ונוע ב/כף־ירד־. 2/3 2/78 (S+C; S+C). Gen. 32.26,33.

=41:04.

46:14. ונשא כפ־י. 3/65 3/594 (P+C). Psalms 63.5; 119.48; Lam. 2.19.

Cf. Psalms 141.2; Lam. 3.41.

(There seems no good reason for interpreting the verb here as 'use, activate' rather than 'raise' *contra* Reif 1983:241.) The collocation definitely occurs in the following passages:

כִּן אֲבָרַכְךָ בְּחַיֵּי בְשֵׁם אֱלֹהִים כָּפִי

"And so I bless thee all my life

and in thy name LIFT MY HANDS IN PRAYER" (Psalms 63.5; HEB);

וְאֲשָׂא־כָפִי אֶל־מִצְוֹתֶיךָ אֲשֶׁר אֲהַבְתִּי וְאֲשִׁיחָה בְּחֻקֶיךָ

"I STRETCH OUT MY HANDS to your beloved commandments,

I meditate on your statutes" (Psalms 119.48; JB);

שָׂא אֶלָּיו כָּפִיךָ עַל־נֶפֶשׁ עוֹלָלִים הַנְּטוּסִים בְּרֵעַב בְּרֵאשׁ כָּל־חֻצוֹת

"[LIFT UP THY HANDS toward him for the life of thy young children that faint for hunger in the top of every street"

(Lam. 2.19; AV).

MT of Lam. 3.41,

נשא לבבנו אל־כפים אל־אל בטטים

'Let us LIFT our hearts to (OUR) HANDS to God in heaven',
is uncomfortable, although comprehensible ('Let us send the prayers in
our hearts to God, by lifting up our hands toward Him'), and NEB re-
vocalizes the first אל־ 'to' to mean 'not' (cf. Gruber 1980:41), to
yield another instance of our collocation and the following
translation:

"[L]et us LIFT UP our hearts, not OUR HANDS,
to God in heaven".

The collocation is associated with various prayerful contexts. At
Psalms 63.5, it seems to refer to a gestural confirmation of praise
(ברך), although Gruber (1980:39) thinks adoration is symbolized
here (cf. v. 4a: כי־טוב חסדך מחיים "Your love is better than life
itself"; JB). At Psalms 119.48 (which might be to some extent the
result of dittography of the previous verse), the action is again
associated with love, although NEB understands it as a symbol of
welcome ("I will welcome thy commandments"). At Lam. 2.19, the
gesture is symbolic of intercession (cf. Gruber 1980:40). If present
at Lam. 3.41 (see above), the collocation there would appear to
describe a ritual action symbolic of superficial penitential prayer
which contrasts with prayer from the לבב. At Psalms 141.2 the
nominalized form of the collocation has 'prayer' (תפלה) as a
parallel, serving as a symbol or at least a gestural confirmation of
this mental/linguistic activity:

תכון תפילתי קטרח לפניך בטאח כפי סנחת-ערב

"Let my prayer be like incense duly set before thee
and my RAISED HANDS like the evening sacrifice" (NEB).

The evidence we have leads us to believe that in all these instances, except, perhaps, at Lam. 2.19, the collocation itself is not symbolic but describes, in literal terms, an action that is symbolic. For the somewhat ambiguous nature of the gestural symbol (intercession, prayer, praise, 'formalism'), compare נשא ידיו , which also occurs just three times in Biblical Hebrew (the collocation with singular noun, normally symbolizing 'swear', is much more common - see, e.g., Ezek. 20, *passim*, cf. Dhorme 1923:145): it is associated at Lev. 9.22 with blessing (cf. post-biblical נשא כפיים 'give a blessing'; ESD), at Psalms 28.2 with supplication, and at Psalms 134.2 with praising (cf. Gruber 1980:35).

46:15. נחן בכף- 2/17 2/1921 (S+C). Judges 6.13; Jer. 12.7.

At Jer 12.7b,

נחתי את־יְדוֹדוֹת נַפְשִׁי בְּכַף אֵיבִיָּה

"I have GIVEN my beloved INTO THE POWER OF her foes" (NEB),
the following נחן איבים points to a connection between this collocation
and 46:01,03. This relationship is of antonymy - 'deliverance unto'
as opposed to 'deliverance from'. Assuming MT (cf. BHK/S), Judges
6.13-14a clearly demonstrates this:

וַיֹּאמֶר... גִּדְעוּן... וַעֲחָה נִטְשָׁנוּ יְהוָה וַיַּחֲנֶנּוּ בְּכַף־סַדִּיָּן:

וַיִּפֹּר אֵלָיו יְהוָה וַיֹּאמֶר לְדָ... וְהוֹשַׁעְתָּ אֶת־יִשְׂרָאֵל מִכַּף סַדִּיָּן

"Gideon said, '.... But now the Lord has cast us off and
DELIVERED US INTO THE POWER OF the Midianites.' The Lord turned
to him and said, '... Go... to FREE Israel FROM THE POWER OF the
Midianites....'" (NEB).

A similar contrast between נחן ביד and הושיע סיד is found at Neh.
9.27. Note that at Judges 6.13, נחן בכף is not merely 'semi-
prepositional', '(deliver) unto', for the expression is equivalent to
נחן ביד at v. 1, and that יד here has a specific metonymic value
of 'power, grip, control' is indicated by v. 2a:

וַחֲזָז יַד־סַדִּיָּן עַל־יִשְׂרָאֵל

'The HAND of Midian was (too) strong upon Israel'
(Midian, here, presumably, is viewed eponymously).

When כף does have a completely literal (non-semi-prepositional/metonymic) value, '(place in someone's) hand(s)', על- is used for כ in the collocation (Gen. 40.11, 21; Num. 5.18; 6.19); see Abramson 1971:13 for another example of על- indicating 'literalness'.

46:16. ויחרר אף בלק אל-בלעם ויספק את-כפיו 3/79 3/8 (P+[A+C]). Num. 24.10; Job 27.23; Lam. 2.15.

Two distinct idioms appear to be represented (cf. BDB). At Num. 24.10a, the collocation describes a gestural re-inforcement of anger or frustration (חרה אף) - contrast KB, which regards the collocation here as describing here an "Abwehrgestus"):

ויחרר אף בלק אל-בלעם ויספק את-כפיו

"At that Balak was very angry with Balaam [and] BEAT HIS HANDS TOGETHER" (NEB).

Elsewhere, על- ספק כפיים על- might, colloquially, be rendered 'give a slow hand-clap to', functioning with שרק (alliteration has perhaps affected the choice of word-pair) as a symbol of contempt:

ישפק עלימו כפיו וישרק עליו מסקמו

"His downfall is GREETED WITH APPLAUSE,
and hissing meets him on every side" (Job 27.23; JB);

ספקו עליך כפים בלעברי דרך שרקו ויניעו ראשם על־בה ירושלם

"All who pass your way CLAP THEIR HANDS at the sight;
they whistle and shake their heads
over the daughter of Jerusalem" (Lam 2.15a; JB).

For the ambiguity of symbolism (anger, contempt), compare the variety of meanings associated with **כה** (46:02). If a variant with **יד** exists at Isaiah 2.6b, so that for MT

ובילדיו נכרים ישפיקו

we read

ובילדיו נכרים ישפיקו

"[That CLAP foreigners BY THE HAND" (JB),

a further symbolic value is evidenced, for the meaning of the collocation here would appear to be close to that of **כה** in Proverbs (see 46:24), '(strike hands to) ratify an agreement'.

The text of Job 34.37 is uncertain - if **כפיו** is to be 'understood' (as ellipsis; BDB) or supplied (by emendation; BHK) after **בינונו** 'amongst us he claps' (?), the collocation would appear to be a gestural symbol of contempt (see Rowley 1980:223f.), contempt of court specifically, perhaps (cf. JB).

At Jer 48.26b, we ought, perhaps, with LXX, read our collocation for MT **ספק סואב בקיאו** "Moab will wallow in his vomit" (JB). Thus:

וספק סואב כפיו והיה לשחק גמ־הוא

'Moab will CLAP HIS HANDS IN GLEE,

but he too will be an object of laughter'.

The contextual association (drunken joy) of the collocation is, again, different from others we have seen.

46:17. עָשָׂה בְּרֵי/כַפֵּי- 2/141 2/2525 ([S+P]+C). Prov. 10.4; 31.13.

The underlying figure in the two instances is, perhaps, the same. At Prov. 31.13b,

וְהָעֵשׂ בְּחֵפֶז כַּפֵּיהָ

'And she **MAKES** with gladness **HER HANDS**',

clearly means

'She gladly toils at her work'.

The idiom here seems to involve a similar semantic process to that evidenced in יָד שָׁלַח (שָׁלַח יָד; cf. Prov. 31.19) and שָׁלַח יָד (שָׁלַח יָד*) [the nominal form has been revived in Modern Hebrew]; see Greenstein 1979 for these and Akkadian parallels).

At Prov. 10.4,

רָאשׁ עֲשָׂה בְּרֵדְסִיהָ וַיֵּד חֲרוּצִים תַּעֲשֶׂיר

parallelism suggests that עֲשָׂה should be pointed as a feminine participle (MT masculine). NEB does not (according to Brockington) amend, but renders as though it has amended:

"Idle **HANDS MAKE** a man poor;

busy hands grow rich".

If thus amended, this second instance of our collocation disappears. But if MT is accepted, and respected, the meaning of the first colon seems to be

'A pauper is one who makes an idle hand',

that is,

'A pauper is one who works idly'.

If a single collocation is indeed attested in both passages, the extant evidence indicates that it needs to be accompanied by a semantically adverbial expression (*work gladly, idly, etc.*).

46:18. פִּרַשׁ בְּפִי (פִּרַשׁ qal and piel). 9/65 9/64 (P+C). Exodus 9.29=9.33; 1 Kings 8.22||2 Chr. 6.12; 1 Kings 8.38||2 Chr. 6.29; Isaiah 1.15; Jer. 4.31; Psalms 44.21; Job 11.13; Ezra 9.5; 2 Chr. 6.13. Cf. 1 Kings 8.54; Psalms 88.10; Prov. 31.20.

The qal form of the collocation always occurs in the context of prayer, usually intercessory, to the divine. Gruber (1980:31) thinks that at Job 11.13 and Psalms 44.21 (see below), there is an additional connotation of 'worship'. For the semantic range of the idiom compare פִּרַשׁ בְּפִי (10:05). Gruber (1980:36) claims that "פִּרַשׁ בְּפִי" 'supplicate' is derived from a gesture of pleading that one's empty hands be filled" (see also Keel 1978:322; cf. Gruber 1980:44 on שָׂטַח בְּפִי at Psalms 88.10); the same image viewed from a different perspective seems to underlie the collocation with singular noun as a gesture of almsgiving (Prov. 31.20). Keel (1978:312f.) suggests a possibly "exorcistic" or 'numinous-averting' origin for the gesture, in Egypt at least.

In terms of its overall idiomatic status, the gesture described is definitely symbolic of prayer/intercession (as indicated by the NEB renderings accompanying the texts below), only at Psalms 44.21 and Job 11.13, for at these places there is no term for, or content of, prayer stated in the immediate environment (in other words, one has to 'guess' that the gesture does refer to prayer):

אם־שכחנו שם אלהינו ונפרש כפינו לאל זר

If we had forgotten the name of our God

and SPREAD OUR HANDS IN PRAYER to any other" (Psalms 44.21);

אם־אתה הכינות לבך ופרשת אליו כפך

"If only you had directed your heart rightly

and SPREAD OUT YOUR HANDS TO PRAY to him" (Job 11.13).

Probably, however, the use of the collocation at Exodus 9.29 should also be regarded as symbolic in the same way, for here פרש כפיים seems to function as a 'synonym' of העתיר אל־ "intercede with" (NEB) at the beginning of the previous verse:

ואמר אליו משה כצאתו את־העיר אפרש את־כפי אליהוה

הקלות יחדלון והברד לא יהיה־עוד לסען חדע כי ליהוה הארץ

"Moses said, 'When I leave the city I will SPREAD OUT MY HANDS IN PRAYER to the Lord. The thunder shall cease, and there shall be no more hail, so that you may know that the earth is the Lord's....'" (NEB).

Comparison with Exodus 8.25a yields further evidence of this synonymy:

וַיֹּאמֶר מֹשֶׁה הֲגַה אֲנֹכִי יוֹצֵא סַעֲסָד וְהִעֲרַחְתִּי אֶל־יְהוָה וְסָר הָעָרֶב מִפָּרְעֹה

"Moses answered, 'As soon as I leave you I will intercede with the Lord. Tomorrow the swarms will depart from Pharaoh....'" (NEB).

Elsewhere, the symbolic value of the collocation is less clear and we may only infer a more general type of association between the gesture described and prayerful activity. See 10:05 for this usage at Ezra 9.5 and 1 Kings 8.54.

The collocation with piel verb occurs twice. At Isaiah 1.15a, it describes a gesture re-inforcing the תפלה of the parallel colon:

וּבְפִרְשֵׁיכֶם כַּפֵּיכֶם אֲעִלִּים עֵינַי מִכֶּם גַּם כִּי־תִרְבּוּ תְּפִלָּה אֵינֹנִי שֹׁמֵעַ

"When you LIFT YOUR HANDS OUTSPREAD IN PRAYER,

I will hide my eyes from you.

Though you offer countless prayers, I will not listen" (NEB).

Probably at Jer. 4.31a the expression describes a gesture of pleading in distress (cf. Gruber 1980:29; KB: "imploring mercy"), although hardly prayer; NEB (and JB?), however, seems to interpret the reference as a physiological index of pain:

כִּי קוֹל כַּחֲוֵלָה שֹׁמַעְתִּי צָרָה כַּסֹּבְבִירָה קוֹל בְּחִיצִיּוֹן חֲחִיפָה תִּפְרֹשׂ כַּפָּיָה

"I hear a sound as of a woman in labour,

the sharp cry of one bearing her first child.

It is Zion, gasping for breath,

CLENCHING HER FISTS" (NEB).

According to Gruber (1980:41) פָּרַט יָדַיִם (piel) is the post-exilic equivalent of פָּרַט כַּפַּיִם (qal and piel), although it seems to have a rather wider range of reference - at Isaiah 25.11 it has literal reference to a swimming action, at Isaiah 65.2 it symbolizes Yahweh's pleading to Israel, at Psalms 143.6 it symbolizes the worshipper's longing for or adoration of Yahweh (cf. וַשָּׂא כַּפַּיִם, 46:14), and, with intervening ב (but not in versions), at Lam. 1.17 it symbolizes distressed pleading (cf. Jer. 4.31).

46:19. אֶרְחֹץ בְּנִקְיוֹן כַּפַּיִם. 2/65 2/2 (S+A; P+C). Psalms 26.6; 73.13. Cf. Gen. 20.5; Psalms 24.4; Job 9.30.

The collocation describes a gesture symbolic of innocence:

אֶרְחֹץ בְּנִקְיוֹן כַּפַּיִם וְאֶסְבֵּב אֶת־סוּבְחַת יְהוָה

"I WASH MY HANDS IN INNOCENCE

to join in procession round thy altar, O Lord"

(Psalms 26.6; NEB);

אֲדַרְרִיק זְכוּתִי לִבְבִּי וְאֶרְחֹץ בְּנִקְיוֹן כַּפַּיִם

"So it was all in vain that I kept my heart pure

and WASHED MY HANDS IN INNOCENCE" (Psalms 73.13; NEB).

(In Modern Hebrew the collocation has also acquired the negative sense attached to English *wash one's hands of something*; see ESD.) Oesterley (1959:193) notes the possibility of a connection with the ablution ritual of Exodus 30.18ff. (but this relates to priests only). However, the idiom is probably related, as BDB suggests, to the ceremony of Deut. 21.6ff. (communal hand-washing after discovery of a murder victim whose assailant is undetected; cf. Kosmala 1968:105).

The collocation is 'nominalized' at Gen. 20.5b,

בְּחַם־לִבִּי וּבְנִקְיִן כְּפִי עָשִׂיתִי זֹאת

"It was with a clear conscience and IN ALL INNOCENCE that I did this" (NEB),

and Psalms 24.4a:

נָקִי כַפָּיִם וּבִרְ־לֵבָב אֲשֶׁר לֹא־נִשְׂא לִשְׂוֹא נַפְשִׁי

"HE WHO HAS CLEAN HANDS and a pure heart,
who has not set his mind on falsehood" (NEB).

The parallel with בְּחַם־לֵבָב / בִּרְ־ (cf. Psalms 73.13) each time indicates the 'abstract' nature of the cleansing expressed in the collocation (cf. Job 17.9: שֹׁהַר־יָדַיִם וְצִדִּיק; note also דָם נְקִיָּנָא 'clean, innocent blood', i.e., blood belonging to a blameless person). Possibly, חַם־לֵבָב carries the implication of innocence of intent, whereas נְקִיִּין־כַּפָּיִם implies innocence of action (see Rashi at Gen. 20.5; Oesterley 1959:187, "outwardly and inwardly of upright life"; Bullinger 1898:582). Mays 1969:119 and, apparently, KB see an abbreviated reference to the collocation at Hosea 8.5b:

עַד־מָתַי לֹא יִנְכַּלּוּ נְקִיִּין

"How long... ere they attain to innocency?" (AV).

A variant of our collocation with בְּבוֹרַת הַזֵּבֶה for בְּנִקְיִין רַחֵץ is found at Job 9.30 (Q),

אִם־הִתְרַחֵצְתִּי בְּסִי־שֶׁלֶג וְהִזִּיכֹתִי בְּבוֹרַת כֶּפֶר

'If I wash all over in snowy water,
and RINSE MY HANDS WITH INNOCENCE'.

(There is also a 'nominalization' at Job 22.30, but text and interpretation here is difficult - cf. 2 Samuel 22.21||Psalms 18.21.) Our interpretation rejects the view that at Job 9.30 בּוֹר, like בּוֹרִיתָ, means 'potash' (KB, NEB), a view which seems to disregard the extant collocational evidence. The interpretation of שֶׁלֶג in the parallel colon as 'soapwort' remains possible, although less plausible - 'soap' is, at least, no better a parallel for 'purity' than 'snow'!

46:20. שָׁם כִּפָּה/כִּפָּה. 2/102 2/581 (S+[A+C]). Job 29.9; 40.32.

(We understand the suffix at Job 40.32, with Mandelkern, as singular, not, as ES, plural.) At Job 40.32 the action described by the collocation is symbolic of threat:

שִׁים־עֲלֶיךָ כִּפֶּךָ זָכֵר סִלְחָה אֶל־חֹסֶף

"If ever you LIFT YOUR HAND against him,

think of the struggle that awaits you, and let be" (NEB).

Compare, perhaps, שִׁיתָ יָדְךָ עָלַי at Job 9.33:

לֹא יִשְׁׁבִינֵנוּ סוֹכֵיחַ יֵשֶׁת יָדוֹ עַל־שְׁנֵינוּ

"There is no arbiter between us,

to LAY HIS HAND on both" (JB).

Contrast the same expression used as a figure of protection at Psalms 139.5:

אַחֲרַי וְקִדְמַי צִרְחָנִי וְחִשְׁתָּ עָלַי כַּפְּךָ

"Thou hast kept close guard before me and behind

and hast SPREAD THY HAND over me" (NEB).

For Job 29.9, where the gesture described (שים כף לפה) is associated with respectful silence, see 29:03, and compare similar expressions with יד at Judges 18.19; Micah 7.16; Job 21.5; 40.4 (see BDB s. v. פה, 1.b).

46:21. שם נפש בכף. 4/17 4/6 (S+C; S+C). Judges 12.3; 1 Samuel 19.5; 28.21; Job 13.14. Cf. Psalms 119.109; Job 12.10.

The collocation is found in the following passages:

ואראה כי־אינד מושיע ואשיסה נפשי בכפי ואעברה אל־בני עמון ויחנם
יהוה בידי

"When I saw that we were not to look for help from you, I TOOK MY LIFE IN MY HANDS and marched against the Ammonites, and the Lord delivered them into my power" (Judges 12.3a; NEB);

וישם אח־נפשו בכפו ויד אח־הפלשתי ויעש יהוה חסועה גדולה לכל־ישראל
Did he not TAKE HIS LIFE IN HIS HANDS when he killed the Philistine, and the Lord won a great victory for Israel?"

(1 Samuel 19.5a; NEB);

ותרא כי־נבהל סאד ותאסר אליו הנה שפעה שפחתך בקלד ואשים נפשי בכפי
ואשטע את־דבריך אשר דברת אלי

"[She] saw that he was much disturbed, and she said to him, 'I listened to what you said and I RISKED MY LIFE to obey you....'"

(1 Samuel 28.21; NEB);

אשא בשרי בטני ונפשי אשים בכפי

"I put my flesh between my teeth

I TAKE MY LIFE IN MY HANDS" (Job 13.14; JB).

Although the contexts of the first two passages might lead us to think that the figure here is of diverting all one's energy (שׁוֹנֵן) into one's hands in order to fight, the other contexts in which the collocation occurs require the sense 'risk all, expose one's self to mortal danger'. In none of its immediate environments is the collocation connected, by, for example, parallelism, with a clarification of its significance; hence, we may assume that the expression is actually a symbol of 'risk', rather than being connected with this meaning in a more general, 'associative', way. Compare וְשׁוֹנֵן "unter Lebensgefahr" (KB³, s.v. שׁוֹנֵן, 7) at Lam. 5.9.

The subject of the verb is always co-referential with the 'possessor' of the שׁוֹנֵן and הָיָה. This, coupled with the fact that in certain environments שׁוֹנֵן and הָיָה function similarly (cf., e.g., הָיָה/שׁוֹנֵן לֵב 'pay attention', and the use of הָיָה as opposed to הָיָה to designate a literal placing of something on or in the hands [see 46:15; cf. Exodus 29.24]), might permit us to explain the imagery of the figure by reference to הָיָה בְּחַזְקוֹ 'deliver into the power of' (46:15) - our collocation could then have an underlying sense of 'deliver one's life into one's own keeping (instead of relying on outside, including divine, protection)'.
 .

However, a different interpretation of the figure, which does not exploit a metonymic interpretation of כף as 'control', might be suggested by Job 13.14 where the parallelism perhaps implies that the image of an actual hand is intended. If so, שפן might more properly denote 'neck' (cf. Psalms 66.9, וְלִלְוִי וְשֹׁנֵי; Wolff 1974a:14f.) - a 'soul' or 'life' can hardly be held in the hand! (But, according to Gray [1967:340], at Judges 12.3 שפן alludes to Jephthah's life-after-death destroyed by his daughter's sacrifice. Cf. Job 12.10.)

The versional variants of MT at Psalms 119.109 perhaps indicate that early translators were unaware of the idiomatic meaning, 'risk', of our collocation, or that they were unhappy with the worshipper's claim to independence from God's control that its imagery implied:

נפשי בכפי תמיד ותורתך לא שכחתי

"Every day I TAKE MY LIFE IN MY HANDS,

yet I never forget thy law" (NEB).

The contracted form of the collocation at this place indicates that the use of the verb שים is not essential for the collocation to convey its idiomatic sense, and this is borne out by Modern Hebrew where the collocation with שים exists alongside a variant with שול (see ESD).

46:22. אֲשֶׁר-עַל-כַּף / שֹׁן. 6/7 6/144 (S+A; S+C). Lev.
14.16,17,18,27,28, 29.

Data restricted. No idiomatic value.

46:23. כפות־רגלי־ תחת. 2/6 2/506 (P+C; P+C). 1 Kings 5.17^a; Mal. 3.21.

At Mal. 3.21a, the figure is a vivid metaphor of a conqueror treading down enemies:

ועסותם רשעים כי יהיו אפר תחת כפות רגליכם

"[Y]ou shall trample down the wicked, for they will be ashes UNDER THE SOLES OF YOUR FEET".

At 1 Kings 5.17, however, כפות־רגליים might simply be synecdochical for the person of David (K, LXX) or Solomon (Q) and the collocation as a whole an expansion of תחתיו 'under him, subordinate to him'. Thus, WEB, which retains Kethibh:

דוד אבי... לא יכל לבנות בית לשם יהוה... מפני הסלחמה אשר סבבהו עד תתיהוה אתם תחת כפות רגלי

"[My] father David could not build a house in honour of the name of the Lord his God, because he was surrounded by armed nations until the Lord made them SUBJECT TO HIM".

At first sight it appears that the images in both passages could have been expressed equally well by תחת רגליים (e.g., Psalms 47.4). However, although within the collocation כף כפ־רגל is indeed often semantically redundant (see 46:39), it is possible that in the present collocation כף conveys a metonymic value of 'control' (cf. 46:03,15). Thus, in the figure that the collocation represents the enemies would be not only תחת רגליים 'subjugated' but also תחת כפיים 'under control' (cf. תחת ידיים, Gen. 16.9). (It is possible, of course, that no such distinction in symbolic significance between 'under the feet' and 'under the hand' was originally perceived - see McCurley 1968:156f.) The collocation as a whole also has an emphatic value, 'totally subjugated', characteristic of the use of כפ־רגל (see 46:39).

46:24. כף/כפיים חקע. 5/91 5/65 (חקע I & II in ES) ([S+A]+[P+C]).
 Nahum 3.19; Psalms 47.2; Prov. 6.1; 17.18; 22.26. Cf. Job 17.3.

(Many manuscripts read a singular construct form at Prov. 6.1b.) At Nahum 3.19b the gesture described is either, like כף טחא (46:09), symbolic of *Schadenfreude* (as KB³, NEB), or, like כפיים כפיים (46:16), symbolic of contempt, over the fall of Babylon:

כל שפעי שפעד חקעו כף עליך

"[A]ll who have heard of your fate CLAP THEIR HANDS IN JOY"

(NEB).

At Psalms 47.2 the immediate context indicates that the collocation describes a gestural re-inforcement of royal acclamation (cf. **הבה בך**, 46:02) or of rejoicing (as KB³), albeit of a rather artificial nature given that defeated nations (v. 4) could hardly be expected to genuinely enjoy this status:

כל־העמים תקעו־בך הריעו לאלהים בקול רנה

"CLAP YOUR HANDS all you nations;

acclaim our God with shouts of joy" (NEB).

The use of **כל־העמים** as subject here indicates a fair degree of idiomaticity as 'peoples', unless viewed 'eponymously' (cf. Caird 1980:135f.) as 'national representatives', do not have 'a hand' with which to clap.

In Proverbs, as BDB points out, the collocation describes a "gesture ratifying a bargain, specif. pledging oneself to become surety... (all **אֶרְבּוּל**)" - compare 40:22. At Prov. 6.1 the gesture is merely associated, as re-inforcement, with a verbal transaction:

בני אֶרְבּוּל לרעך תקעת לזר כפיך

"My son, if thou be surety for thy friend,

if thou hast STRICKEN THY HAND with a stranger" (AV)

- it is only the linguistic action which is said to have legal consequences:

נִקְשַׁת בְּאֶרְבֵי־פִיךָ וְלִכְדָּת בְּאֶרְבֵי־פִיךָ

"Thou art snared with the words of thy mouth,

thou art taken with the words of thy mouth" (v. 2; AV).

Again at Prov. 17.18a,

אדם חסר־לב חוקע כף

"A man void of understanding striketh hands" (AV),

the gesture is not established as a symbol of a transaction, as it is accompanied by an 'explanation' in the following colon,

ערב ערבה לפני רעהו

"[A]nd becometh surety in the presence of his friend" (AV).

The same seems to be true at Prov. 22.26 and, with יד for כף, at Job 17.3 (where, probably, with BHK and KB, we should interpret יחקע as a qal rather than, as MT, niph'al). Our interpretation of the collocation in this context differs from that of WEB and JB (except at Job 17.3), which consistently render it by expressions of the type 'give a guarantee'; thus, they see an 'idiom', where we find merely a description of an accompanying gesture. We accept, though, that at Proverbs 17.18 and 22.26 the use of a participial form might betoken development of the collocation into a financial *terminus technicus* - compare Modern Hebrew חקינת-כף 'hand-shaking, vow' (ESD). Possibly, the full form of this (later) idiom was חקע יד/כף ל (cf. Prov. 6.1; Job 17.3), thus formally distinct from the 'rejoicing' collocation, without following preposition, at Nahum 3.19 and Psalms 47.2.

POST-COLLOCATIONS

46:25. [ב/ב-קב-ב-ל-אויב-י]. 6/37 6/251 (S+C; [S+A1]+[P+C]). 1 Samuel 4.3; 2 Samuel 19.10; 22.11|Psalms 18.1; Jer. 12.7; Micah 4.10; Ezra 8.31.

The collocation always follows a verb of deliverance from or to - see 46:01,03,15. It occurs as well in variant forms with יד replacing קב and/or צר replacing אויב. The 'enemy' signified is always of Israel or individual Israelites or a righteous person (Job 6.23), except at Jer. 44.30 (Pharaoh's enemies), and what is delivered from or to is always human (including corporate), except at Jer. 20.5 (precious artefacts) and Psalms 78.61 (תפארתו, referring to Israel or, as NEB and Oesterley 1959:362, the ark), and, except, possibly, at Psalms 31.9 and 107.2, אויב/צר always refers to an actual and specific 'enemy'.

The collocation as such does not appear to be idiomatic, although within it as within 46:01,03,15, **ב/מִכַּף** might sometimes be idiomatically reduced in meaning into the status of a mere preposition 'to/from', rather than possessing a literal or a metonymic value of 'from/into the hand, power, of'. The appropriate value is usually difficult to ascertain; for example, at 2 Samuel 22.1, our collocation seems to be semantically indistinct from **הוֹשִׁיעַ סְאוֹיְבִים** at v. 4 and **הִצִּיל סְאוֹיֵב** at v. 18. Both idiomatic and metonymic translations are offered by NEB at 2 Samuel 19.10b (see 46:03). Occasionally, context helps to decide the matter - thus, for instance at Ezra 8.31b, the mention of the 'hand of God' makes it more likely that the 'enemy' was perceived as having a real 'hand' with which to threaten the returning Jews (cf. 46:15 on Judges 6.13f.):

וַיִּדְּ-אֱלֹהֵינוּ הַיְתָה עָלֵינוּ וַיִּצִּילֵנוּ מִכַּף אֹיֵב וְאֶרֶב עַל-הַדֶּרֶךְ

"The hand of our God was upon us, and he saved us FROM ENEMY ATTACK and from ambush on the way" (NEB).

46:26. קטורת סלאה זהב עשרה זרה כף אחת 12/26 12/12 (S+A).

Num. 7.14,20,26,32,38,44,50,56,62,68,74,80.

Data restricted. No idiomatcity is evidenced in the overall collocation which states part of the gifts of altar-dedication presented by each tribe, at least according to the fancy of the author of Num. 7 - contrast Lev. 9, and see Noth 1968:63ff. NEB renders

"one saucer weighing ten gold shekels, full of incense", although the difference in weight between this item and that of the vessels that precede lends some support to rendering כף here as 'ladle' - cf. Modern Hebrew כפית 'spoon' (but see Kelso 1948:22, where evidence against this view is presented). In the one interpretation the point of metaphorical contact between כף and 'saucer' is the similarity of saucer and flattened palm in shape and function; in the other, the metaphor is based on the positional similarity of the hand at the bottom of the arm and the bottom of a spoon at the end of its handle.

46:27. כף-איש. 2/76 2/1333 (S+C; S+A). 2 Samuel 14.16; 1 Kings 18.44.

At 1 Kings 18.44a, the expression has literal value within a simile of smallness (cf. 46:11?):

עב קטנה ככף-איש

"[A] cloud no bigger than a MAN'S HAND" (NEB)

At 2 Samuel 14.16a כף has semi-prepositional or metonymic value, 'from (the power of)' (see 46:03), and האיש probably refers to the גאל-הדם of v. 11:

כי ישמע המלך להציל את-אמתו סכף האיש

"[F]or [the king] will listen, and he will save me from THE MAN" (NEB).

46:28. אל-יהוה / פרש כפוי. 2/7 2/145 (P+C; N+A). Exodus 9.29=9.33; Ezra 9.5.

See 46:18 and 10:05. In Exodus, the gesture is probably symbolic of intercession; at Ezra 9.5, it is associated with intercessory prayer.

46:29. אל-כף/כף / הכה כף/כף. 2/4 2/2 (46:02; S+[A+C]). Ezek. 21.19,22.

Data restricted. A gesture symbolic of command or assent is described both times, unless once the gesture is associated with anger (see 46:02).

46:30. וְכַל־כְּלִי־ בַפֶּתַח. 2/14 2/74 (P+A; P+C). 2 Kings 25.14||Jer.
52.18; 2 Chr. 24.14.

No idiomaticity is evident in this enumeration of cultic vessels.
כֵּן here bears the same sense it has in 46:26.

46:31. וְסִנֹּקִיּוֹת־בַּיָּד בַּפֶּתַח־בַּיָּד. 3/79 3/3 (P+[A+C]; P+[A+C]). Exodus
25.29=37.16; Num. 4.7; Jer. 52.19.

No idiomaticity evidenced. The expression is always found in lists of
cultic objects, specifically those connected with the שְׁלֹחַן־הַפְּנִיִם
(Num. 4.7).

46:32. בַּפֶּתַח־זָהָב / שְׁתֵּי־עֵשְׂרֵה. 2/2 2/34 (P+C; S+A; P+C; S+A).
Num. 7.84,86.

Data restricted. See 46:26.

46:33. כפוח־ידיים/ידי- 3/65 3/274 (P+C; P+[A+C]). 1 Samuel 5.4;
2 Kings 9.35; Daniel 10.10.

The expression occurs in the following passages (all with NEB
equivalents):

והנה דגון נפל לפניו ארצה לפני ארון יהוה וראש דגון ושתי כפות
ידיו כרותות

"Dagon had again fallen face downwards before the Ark of the
Lord, with his head and his two HANDS lying broken off"

(1 Samuel 5.4);

ויילכו לקברה ולא־מצאו בה כי א־הגלגלת והרגלים וכפות הידים

"But when they went to bury her they found nothing of her but the
skull, the feet, and the PALMS OF THE HANDS" (2 Kings 9.35);

והנה־ייד נגעה בי ותניעני על־ברכי וכפות ידי

"Suddenly a hand grasped me and pulled me up on to my HANDS and
knees" (Daniel 10.10).

In the last passage the collocation refers, literally, to the 'palms of the hands' as, like *בְּרַכְיִים*, flat areas upon which the body rests. But at 1 Samuel 5.4 *כַּפּוֹת* seems to refer to each hand as a whole, not to any one part of it (cf. WEB). If *יד* here means 'hand', it is pleonastic ('the hands of the hands'); however, it might bear the sense of 'arm' rather than 'hand' (thus, 'the hands of/upon the arms') - the same variation in reference is attested for the Akkadian cognate *idu* (Dhorme 1923:138). At 2 Kings 9.35 the collocation might have the same meaning, although the parallelism with *גְּלִגְלָתָא* could indicate that *כַּף* refers specifically to the skeletal structure of the hand - cf. *סַפְרֵק כַּף-הַיָּד* 'comb of the palm of the hand, metacarpus' in later medicine (Hyrzl 1879:196).

46:34. כִּפְיֵרְדָּ/יֵרְדָּ. 4/76 4/30 (S+C; S+[A+C]). Gen. 32.26^z, 33^z.

=41:3.

46:35. כִּפְיֵבוֹהֶן. 4/76 4/432 (S+C; S+A). Lev. 14.15,18,26,29.

Data restricted. No idiomaticity evident.

46:36. כִּפְיֵסְרִין. 2/76 2/59 (S+C; S+A). Judges 6.13,14.

Data restricted. See 46:15. Some LXX mss. omit second occurrence.

Cf. יֵד־סְרִין (Judges 6.1f.; 8.22; 9.17).

46:37. סִבְּרָה/סִבְּרָה/סִבְּרָה. 5/21 5/1075 (S+C; [S+P]+C). 2 Kings
16.7²; 20.6||Isaiah 38.6; 2 Chr. 30.6; 32.11.

Always in the context of actual deliverance from a king, the collocation is idiomatic only to the extent that in it סִבְּרָה is sometimes reduced in meaning so that it becomes synonymous with סִבְּרָה 'from' (cf. 46:01,03,15,25). In fact, NEB renders סִבְּרָה as a metonymy, "from the grip" only once, at 2 Chr. 32.11.

46:38. וְאֵלֶּיךָ פָּרַעַה. 2/11 2/274 (S+C; S+A). Gen. 40.11,21.

Data restricted. No idiomaticity evident:

וְאֵלֶּיךָ פָּרַעַה

"[Plut the cup INTO PHAROAH'S HAND" (NEB).

Possibly וְאֵלֶּיךָ is used in deliberate preference to אֵלֶּיךָ to emphasize the 'literalness' of the collocation (cf. 46:15; but note אֵלֶּיךָ בְּיָדֶיךָ at v. 11). Contrast וְאֵלֶּיךָ פָּרַעַה (Gen. 41.35; Exodus 18.10; Deut. 7.8; 2 Kings 17.7) where אֵלֶּיךָ has a metonymic value.

46:39. כַּף־/כַּפּוֹת־רַגְלִי/רַגְלִי־/רַגְלִי־ 18/141 18/231 ((S+P)+C; [S+[A+C]]+[P+C]). Gen. 8.9; Deut. 2.5; 11.24; 28.35,56,65; Joshua 1.3; 3.13; 4.18; 2 Samuel 14.25; 1 Kings 5.17; Isaiah 1.6; 60.14; Ezek. 1.7²; 43.7; Mal. 3.21; Job 2.7. Cf. 2 Kings 19.24||Isaiah 37.25; Ezek. 6.11.

At Gen. 8.9a,

וְלֹא־סָצְאָה הַיּוֹנָה סִנוּחַ לְכַף־רַגְלָהּ

'But the dove didn't find a resting-place for the SOLE OF HER FOOT',

(assuming that סִנוּחַ is 'locational', 'resting-place'), the collocation seems to refer to the 'base', the splayed foot, of the dove's leg. In view of the evidence of other passages (see below), the collocation might have an 'intensive' value - 'nowhere to rest even her foot'.

At Deut. 2.5a NEB renders

אֲלֵי־חַתְּמוֹתֵיכֶם בְּמִדַּת כַּף־רַגְלֵיכֶם עַד סָדֵד כַּף־רַגְלֵיכֶם

by

"[D]o not provoke them; for I shall not give you any of their land, not so much as a FOOT'S-breadth"

(cf. JB; KB). Rashi, however, finds a slightly different implication for סָדֵד־כַּף־רַגְלֵיכֶם:

"Even only treading with the feet".

Whereas the interpretation of WEB and others assigns to כָּרַדְכָּרַגַּל a pleonastic value (if possession of the land has already been denied, it is unnecessary to prohibit ownership of a 'foot's-breadth' of it), on Rashi's understanding the phrase relates to violation of territory through use (marching through it) and, thus, adds distinct information to the preceding prohibition on the ownership of territory - incidentally, Rashi's interpretation implies that the prohibition with regard to Seir was stronger than that in respect of Moab (v. 9). Clearly, though, on either interpretation the collocation with כָּרַד is 'intensive', ensuring that a statement about territorial rights is crystal clear - cf. Bullinger (1898:462) on *oude be:ma podos* at Acts 7.5 as an instance of "epitasis... Addition or Conclusion by way of emphasis"; the Greek expression here is the same as the LXX rendering at Deut. 2.5.

At Deut. 11.24a,

כָּל־הַמָּקוֹם אֲשֶׁר תִּדְרֹךְ כַּרְדְּכָרַגְלֶיכֶם בּוֹ לָכֶם יִהְיֶה

(repeated almost *verbatim* at Joshua 1.3), the collocation appears to be synecdochical:

'Wherever YOU tread is yours'.

As at Deut. 2.5, the collocation is associated with an 'intensive' statement of territorial rights. In this use of the collocation, כָּרַד is pleonastic whether it means 'foot' or 'sole' - where the leg treads the foot *must* tread, where the foot treads the sole *must* tread too (see 46:07).

At Deut 28.56a the subordinate clause

אשר לא־נסתה כפ־רגלה הצג על־הארץ שהתענוג וסרד

"[The woman who has never even tried to put a FOOT to the ground, so delicate and pampered she is" (NEB),

is a hyperbolic and ridiculing description of the 'delicate woman' הרכה - no equivalent description is associated with her male counterpart, two verses before. Given the contexts of 'over-statement' wherein we have seen our collocation applied, it was perhaps drawn quite naturally into this passage.

At v. 65a of Deut. 28,

לא תרגיע ולא־יהיה סנוח לכפ־רגלך

the collocation is probably pleonastic (finding no rest implies finding no place to rest), and has been introduced to intensify the preceding statement. Thus:

'You will find no rest; you will not even be able to stand still'

- Israel's search for rest will be as fruitless as it was for Noah's dove (see above).

At Joshua 3.13a,

כנוח כפוח רגלי הכהנים... בסי־הירדן

'As the SOLES OF THE FEET of the priests touch the water',

LXX omits כַּפּוֹת, and this reading is supported by MT at 3.15 and 4.9 and also, perhaps, by the prepositional expression בַּיַּם 'in the waters of' - 'legs' or 'feet' are more appropriately 'in' water than 'soles' which we might expect to be 'upon' (עַל-) water, i.e., touching, but not submerged. כַּפּוֹת might have been attracted into this environment though association with the root נָוַח (46:12). If the collocation is original here its use presumably intensifies the magical/miraculous nature of the events described. Similar remarks apply to Joshua 4.18.

MT of Isaiah 60.14a (if original; cf. LXX) has:

והשתחוּוּ עַל-כַּפּוֹת רַגְלֶיךָ בְּלִי-סוּאָצִיד

"[A]ll who reviled you shall bow low at your FEET" (NEB).

The use of the collocation here is pleonastic and serves to intensify the image of humiliation expressed (cf., as McCurley 1968:158, 197:n.33, Esther 8.3, where רַגְלִיִּים alone is used in a similar, but not so 'emphatic', idiom); the choice of a רַגְל- collocation and its stylistic value reflect the influence of Isaiah 49.23a (see Whybray 1981:25):

אֲפִים אֶרֶץ יִשְׁתַּחֲוּוּ לְךָ וְעָפְרוּ רַגְלֶיךָ יִלְחָבוּ

"They shall bow to the earth before you
and lick the dust from your feet" (NEB).

At Ezek. 1.7a כֶּף probably means 'foot, hoof' and רַגַל 'leg' (JB, NEB; in Modern Hebrew, according to ESD, כֶּף on its own can mean 'paw': cf. plant names כֶּף-אֵזֶבֶת/כֶּף-זֶמְלֶה 'goose/wolf/cat-paw'):

ורגליהם רגל ישרה וכף רגליהם ככף רגל עגל

"[T]heir legs were straight and their HOOVES were like the HOOVES of a calf" (NEB).

Here, then, the collocation has a full literal value without any special stylistic connotations. But, in respect of its idiomatic status, it is significant that Ezekiel apparently inflects the collocation as a 'compound noun' (כַּף־רַגְלִיָּהֶם for expected כַּפּוֹת־רַגְלִיָּהֶם) - compare כַּף־פַּעֲמֵי at 2 Kings 19.24||Isaiah 37.25.

Ezek. 43.7a has:

אֶת־מְקוֹמִי בְּסֵאֵי וְאֶת־מְקוֹמִי כַּפּוֹת־רַגְלִי אֲשֶׁר אֲשָׁבוּ שָׁם

"[T]he place of my throne, the place where I set my FEET, where I will dwell" (NEB).

Parallel to a place for sitting, מְקוֹמִי כַּפּוֹת־רַגְלִי here refers to a place for standing - on this understanding the collocation might contribute to a meristic expression 'the place wherein I conduct all my affairs'. Wevers (1982:216), however, seems to interpret מְקוֹמִי כַּפּוֹת־רַגְלִי as Yahweh's 'footstool': "the combination of throne and footstool... betrays the solemnity of Yahweh's transfer to the Temple of the future". Whatever the precise interpretation of the passage, in the collocation כַּפּוֹת־רַגְלִי seems to be pleonastic for simple רַגְלִי, and occurs within an 'emphatic' statement of purpose.

The evidence we have outlined indicates, first, that כף-רגל is frequently pleonastic in the referential information that it conveys for רגל in isolation, and secondly, that the collocation often helps to emphasize or intensify a particular message. This emphatic function is reflected too . . . in the idiomatic meanings of collocations 46:23 and 46:40, in which the present expression participates. That the collocation is more or less 'idiomatic' is indicated as well by the association of כף with the meaning 'sole' which is only (although, as we have seen, not always) found in this specific collocation - contrast Isaiah 59.6f. and Ezek. 6.11 where כף forms a different association with רגל. (At Lev. 11.27 הולך על-כפיו means 'walking on their "hands"', i.e., on all-fours, as opposed to walking on the feet alone; the precise reference is not, in our view, to 'soles' [KB] or 'palms' [BDB].)

46:40. ועד־קדקוד־ / סכף־רגל־. 3/3 3/3 (S+C; S+C; S+C). Deut.
28.35; 2 Samuel 14.25; Job 2.7^a. Cf. Isaiah 1.6.

(KB³ compares *Mari ishtu cuprim adi sha:rtim sha qaqqadim* "von Fussnagel bis zum Kopfhaar".) The collocation occurs in the following passages (all with NEB equivalents):

יככה יהוה בשחין רע על־הברכים ועל השקים אשר לא־חובל להרפא סכף
רגלך ועד קדקודך

"May the Lord strike you on knee and leg with malignant boils for which you will find no cure; THEY WILL SPREAD FROM THE SOLE OF YOUR FOOT TO THE CROWN OF YOUR HEAD" (Deut. 28.35);

וכאבשלום לא־היה אי־שיפה בכל־ישראל להלל סאד סכף רגלו ועד קדקדו
לא־היה בו טום

"No one in all Israel was so greatly admired for his beauty as Absalom; he was without flaw FROM THE CROWN OF HIS HEAD TO THE SOLE OF HIS FOOT" (2 Samuel 14.25);

ויצא השטן סאח פני יהוה ויד אח־איוג בשחין רע סכף רגלו ועד קדקדו

"And Satan left the Lord's presence, and he smote Job with running sores FROM HEAD TO FOOT" (Job 2.7^a).

The Deuteronomy and Job passages both have the collocation in the same longer sequence ...הכה בשחין רע. However, at Deut. 28.35 the collocation is isolated from the rest of the sequence, although the semantic/stylistic unity of the two parts of the sequence (cf. Tsumura 1983) is not brought out by NEB's rendering. Given that in Job the collocation, within the longer sequence, has an obvious meristic implication of 'all over' (cf. Abramson 1971:16), the Deuteronomy passage witnesses to the beginning of a process of restriction of this meristic value to the collocation independent of its occurrence within the longer sequence. In the grammatical environment of the Deuteronomy passage, where the collocation follows the verb of a subordinate clause, its meristic value is most likely adverbial: '(cannot be healed) at all'.

In Samuel the collocation is used to describe Absalom's perfection. The meristic force of the collocation ('all over') is similar to that evidenced in the Job passage. We can speculate that a more original form of the text here lacked the final *לֹא־הָיָה בּוֹ שׁוֹם* (perhaps the result of dittography from *לֹא־הָיָה אִישׁ יִפָּה* in the preceding half of the verse) and that the collocation had the same adverbial function after *לְהַלֵּל שָׂאֵד* (in view of *שָׂאֵד*, this function is also intensive) as it has after *לְהַרְפֹּא* at Deut. 28.35: '(there was none) to be so utterly praised'.

At Isaiah 1.6a, a variant of our collocation with, perhaps *metri causa*, *קִדְקוֹד* for *רָאשׁ*, occurs:

סכף־רגל ועד־ראש אין בו סתם פצע וחרובה וסכה טריה

"FROM HEAD TO FOOT there is not a sound spot in you -
nothing but bruises and weals and raw wounds" (NEB).

Again, there is a meristic implication, 'nowhere at all', and the immediately following clause recalls לא־היה בו סום of the Samuel passage. The same form of the collocation is used, as noted by ESD, in a very similar context (Israel under the image of a disease-ridden body) by Bialik in אכן חציר העם (1857):

אכן נבל העם סלא נקלה ורוט

כלו רקב וססוס סכף רגל עד־ראש

The similarity of diction between Job 2.7 and Deut. 28.35 and, to a lesser degree, between Isaiah 1.6 and 2 Samuel 14.25, indicates that the collocation had relatively strong 'formulaic' moorings. Perhaps it originated within a curse formula (see Deut. 28.35). Although we have said that the collocation has a meristic value, the application of the merismus, except possibly at Deut 28.35, is always to the human body, or society viewed under the image of a body (at Deut. 28.35, the collocation is closely associated with anatomical description); we should require evidence that the collocation could mean 'all over' something other than the body for this idiomatic value to be non-trivial.

If the expression is idiomatic, beyond any trivial meristic effect, it is so, perhaps, because of the intellectual background that its use evokes, of sickness as the result of evil living or of curse. Possible indirect evidence of this 'idiomaticity' is at Lev. 13.12, where the possibility is stated of leprosy (צרעת) covering the skin of a victim וְעַד רַגְלָיו וְעַד רֵאשׁוֹ 'from his head to his feet'. In view of the fact that this phrase occurs, like our collocation, in a context of bodily disfigurement, P's phraseology might be deliberately different from that of the collocation, in order not to evoke in readers/listeners the forementioned 'intellectual background' associated with the collocation - the leper's problem was medical, not moral!

Compare the 'distributional' merismus ('everybody' - as opposed to the 'spatial' merismus, 'everywhere') of ראש וזנב 'head and tail', metaphorically, 'noble and ignoble', at Isaiah 9.13 and 19.15; ראש is collocated contrastively with זנב at Deut. 28.13,44.

46:41. כפֿי־ שטאַליח. 4/76 4/6 (S+C). Lev. 14.15,16,26,27.

Data restricted. No idiomaticity evident.

46:42. פֿרש כפֿי־ שטײַם/שטײַם. 2/7 2/406 (P+C; P+A). 1 Kings 8.22;
2 Chr. 6.13.

Data restricted (2 Chr. 6.13 is an expansion of the preceding verse's incomplete duplication of 1 Kings 8.22). See 46:18.

49. כהף (67)

PARALLELS: 1 Kings 7.39||2 Chr. 4.10; 2 Kings 11.11²||
2 Chr. 23.10² (64).

RECAPITULATIONS: Exodus 27.14,15; 28.7,12,25,27=38.14,15;
39.4,7,18,20; Ezek. 12.6=7 (57).

PRE-COLLOCATIONS

49:01. בין כהפיו. 2/10 2/403 (P+C). Deut. 33.12; 1 Samuel 17.6.

At 1 Samuel 17.6 'between his shoulders' should, perhaps, be interpreted as an 'idiom', 'behind him' (see Marcus 1978:113:n.14; McCurley 1968:209). A more literal interpretation is also quite plausible in the context:

וּמַצְחָת נְחֹשֶׁת עַל־רִגְלָיו וּבִידוֹן נְחֹשֶׁת בֵּין כַּהְפָּיו

"He had bronze greaves [reading plural] on his legs and a bronze javelin ACROSS HIS SHOULDERS" (JB).

(WEB's rendering of our collocation here as "one of his weapons" assumes a meaning of כהף which is not clearly attested elsewhere in Biblical Hebrew [see Barr 1983:329] and destroys the parallelism with the preposition plus anatomical term of the previous clause.)

The interpretation of Deut 33.12 as a whole is difficult. MT of v. 12b has:

חָפָּף עָלָיו כָּל־הַיּוֹם וּבֵין כַּתְּפָיו שָׁכַן

'Covering him all the time while he dwells between his shoulders'.

On the basis of the Samuel passage, this could mean that Benjamin dwells 'behind' God - a figure of protection. Assuming an 'idiomatic' reading at Samuel ('behind him'), the collocation would, thus, have evolved from expressing a 'live' metaphor of protection in Deuteronomy to signifying little more than prepositional reference in Samuel.

It is possible, though, that the two instances of the collocation are not so clearly related. Avishur (1980:131f.) finds the same 'protective' figure but relates it to an Egyptian (sculptured) image of Horus, as a hawk, sitting at the neck of King Khafre and extending a wing each side of Khafre's head - the same comparison is not drawn, however, by Keel (1978:190f.) in his discussion of biblical texts illustrated by this artefact. Perhaps, the figure might be more aptly related to images of hawk-headed Horus, with his arms around the shoulders of Tut-Moses III, demonstrating the use of weapons to the Pharaoh (see Keel 1978:354f.). On this 'Egyptian' interpretation of the figure, the 'locational' reference of *בין כתפיים* is 'in front', rather than, as in Samuel, 'behind'.

A different interpretation is obtained if we assume the possessive suffix attached to כַּחֲפֵיַם here to refer to Benjamin, rather than God. Thus, according to BDB, the figure is "of י' 's dwelling between the shoulders of Benj." (cf. KB³). Others prefer to render כַּחֲפֵיּוֹ 'his slopes' (see Marcus 1978:114:n.14 and Rashi in *loc.*).

49:02. גִּיבֵי-בֹרֵהַנּוֹם אֶל־כַּחֲפֵי-יְבוּסִי. 2/2 2/13 (N+A; S+C; S+A). Joshua 15.8; 18.16.

No idiomatic value beyond that of כַּחֲפֵי in the sense 'slope' (NEB), 'hill' (McCurley 1968:216), or 'border' (see 49:08), and, of course, the compound name (a special kind of 'idiom') גִּיבֵי-בֹרֵהַנּוֹם אֶל־כַּחֲפֵי has the same sense when it precedes עֲקֵרוֹן, יְרִיחוֹ, לוֹז, בֵּית־ים (Joshua 15.11; 18.12,13,19), and, with עַל־ for אֶל־, כְּנֹרַת (Num. 34.11 - cf. BDB: "the mt.-slopes NE. of the lake"; KB: "slopes east the Gal. Sea").

49:03. חֹמֶשׁ עַל־כַּחֲפֵי-הַבַּיִת. 2/2 2/248 (S+C; S+C; S+A). 1 Kings 7.39².

Data restricted. No idiomaticity beyond that of 49:12. Contrast the value of the preposition עַל־ here, 'next to (a facade)', used of טְרוֹלֵי "trolleys" (NEB), with that of אֶל־ at 1 Kings 6.8, 'in (a facade)', used of an entrance (פֶּתַח).

49:04. בל־כחף. 2/17 2/5290 (S+C; S+A). Ezek. 29.7,18.

At Ezek. 29.18a בל־כחף has literal reference:

נְבוּכַדְרֶאצַּר... הַעֲבִיד אֶת־חֵילוֹ עִבְדָּה גְדֹלָה אֶל־צָר בְּלִירָאשׁ סָקֶרַח וּבְלִי־כַחֲף
פְּרוּשָׁה

"[L]ong did Nebuchadrezzar... keep his army in the field against Tyre, until every head was rubbed bare and EVERY SHOULDER chafed" (NEB).

Chafed shoulders are "the result of carrying loads" (Wevers 1982:162).

In view of the military associations of כחף here, there seems no good reason to amend to כף (in line with LXX, as BDB, KB [but not KB³], JB, Wevers 1982:161) at v. 7a (Q) of the same chapter:

בְּחַפְשָׁם כִּד בְּכַף חֲרוּץ וּבְקַעַת לָהֶם בְּלִי־כַחֲף

"[W]hich splintered in the hand when they grasped you, and tore their ARMPITS" (NEB)

- the implication of MT is that Egypt has caused damage to Israel's military strength.

49:05. אל-על-בבתה/בתה- (נשא gal & niphal). 6/26 6/626
(S+IA+C). Num. 7.9; Isaiah 30.6; 46.7; 49.22; Ezek. 12.6=7,12. Cf.
2 Chr. 35.3.

The passages in which the expression occurs are as follows:

ולבני קהת לא נתן כי-עבדת הקדש עליהם בכתף ישאו

"He gave none to the Kohathites because the service laid upon them
was that of the holy things: these they had to CARRY THEMSELVES
ON THEIR SHOULDERS" (Num. 7.9; NEB);

טשא בהסות נגב

בארץ צרה וצוקה... ישאו על-כתף עירי חיליהם ועל-דבשת גסלים אוצרתם
על-עם לא יועילו

"Oracle on the beasts of the Negeb.

Through the land of distress and anguish,...

they BEAR their riches ON donkeys' BACKS,

their treasures on camels' humps,

to a nation that is of no use to them" (Isaiah 30.6; JB);

ישאנה על-כתף יסבלנה ויניחנה תחתיו ויעמד ססקומו לא ישיט

"[T]hey HOIST IT SHOULDER-HIGH and carry it home;

they set it down on its base;

there it must stand, it cannot stir from its place"

(Isaiah 46.7a; NEB);

הנה אשא אל-גוים ידי ואל-עמים ארים נסי

והביאו בניך בחצן וכנתיד על-כתף הנשאנה

"Now is the time: I will beckon to the nations

and hoist a signal to the peoples,

and they shall bring your sons in their arms

and CARRY your daughters ON THEIR SHOULDERS" (Isaiah 49.22; NEB);

לעיניהם על־כתף חשא בעלטה תוציא פניד חכסה ולא תראה את־הארץ כי־
סופת נחזיד לבית ישראל

"When dusk falls TAKE your pack ON YOUR SHOULDER, before their eyes, and carry it out, with your face covered so that you cannot see the ground. I am making you a warning sign for the Israelites" (Ezek. 12.6; NEB);

והנשיא אשר־בתוכם אל־כתף ישא בעלטה

"Their prince will SHOULDER his pack in the dusk" (v. 12a; NEB).

(The use of אל־ for על־ at Ezek. 12.12 is probably just an instance of lexical 'free variation' by Ezekiel [cf. 41:05], although BHK notes some support for amending to על־.)

The idiomatic value, if any, of the collocation is difficult to assess. The fact that it is never followed by a possessive pronoun indicates that על־כתף is not approaching the status of a 'semi-preposition' ('upon'). But the consistent use of the singular form of the noun perhaps indicates that the reference is not entirely literal - a vivid image of carrying might be expected to use a plural/dual. Nonetheless, the contexts in which the collocation occurs do refer to the actual carrying of a physical load (although an intellectual burden is sometimes also implied; see below).

There is, perhaps, a clue to an idiomatic implication in the fact that those who are said to bear על-כתף always do so under some duress. An apparent exception to this rule is Isaiah 46.7, but here the use of the collocation might be ironic. Thus, just possibly, the collocation conveyed not only a literal reference 'bear upon the shoulders', but also had an implication of 'as an unwanted burden'.

It is noticeable as well that the expression with על- is associated with travelling to or from afar in Ezek. 12 and Isaiah 30 and 49. Possibly, then, it was used as an index of preparation for travel as well as a symbol of a burdensome task (perhaps with indexical and symbolic values combining to signify an unwanted journey).

If the foregoing analysis is correct, then the use of נכתף at Num. 7.9 (and 2 Chr. 35.3) could imply a negation of (part of) this idiomatic value of נשא על-כתף: the bearing upon the shoulder of objects holy to Yahweh is a task undertaken willingly, not out of fear.

Stylistic considerations sometimes seem to have influenced the use of the collocation. Thus, at Ezek. 12.12 the prince (נשיא) carries not only a physical load (כלים, v. 4) but also a 'burdensome oracle' (נשא, v. 10) from God - compare נשא at Isaiah 30.6. At Isaiah 49.22 נשא על-כתף is, perhaps, in deliberate chiasmic parallelism with נשא יד ('raise the hand' as a commanding or threatening gesture).

49:06. נחן כחף סוררת. 2/2 2/1921 (S+A). Zech. 7.11; Neh. 9.29.

Both times the collocation appears in contexts of refusing to listen (see Couroyer 1981:225; McCurley 1968:114):

ויסאנו להקשיב ויחננו כחף סוררת ואזניהם הכבירו טשטוע

"But they refused to listen, they TURNED THEIR BACKS ON ME IN DEFIANCE, they stopped their ears and would not hear"

(Zech. 7.11; NEB);

ולא־שמענו לסצותיך ובטשפטיך חטאו־בם... ויחננו כחף סוררת וערפם הקטנו
ולא שמענו

"[They] did not heed thy commandments; they sinned against thy ordinances.... STUBBORNLY THEY TURNED AWAY in mulish obstinacy and would not obey" (Neh. 9.29; NEB).

KB renders the expression 'turn a stubborn shoulder'. BDB sees the underlying image as that of an animal refusing to accept the yoke (cf. Clines 1984:197). The use on each occasion of an accompanying anatomical figure (הקשה עורף, הכביד אוזן) indicates that the collocation was perceived as a 'live' metaphor of rebelliousness.

With this collocation, contrast נחן עורף־ 'present the back' (where the possessor of the 'back' and the subject of the verb are not co-referential) with a metaphorical meaning of 'cause to retreat' (McCurley 1968:188).

49:07. על־כתף/כתפות־ וַחַךְ. 3/10 3/1921 ([S+P]+C). Exodus
28.25,27=39.18,20; 1 Kings 7.39.

No idiomaticity evident, beyond that of 49:10,12.

49:08. וַעֲבַר אֶל־כַּתֵּף־. 3/12 3/464 (S+C). Joshua 15.10; 18.18,19.

(LXX's source-text appears to have lacked the collocation at Joshua 18.19.) The subject of the collocation is always גְּבוּל, which takes a number of verbs of movement other than עָבַר, including יָרַד and נָסַח (niph'al) at Joshua 15.10 alone. The collocation as a whole is not idiomatic, although כַּתֵּף is used throughout in a well-attested (lexicalized?) metaphorical sense of 'slope': "Les épaules de la montagne seront... les étages qu'il faut gravir pour atteindre le sommet" (Dhorme 1923:94). The image of the 'shoulder' of an object as that portion of it which slopes outward and downward from its highest and most central point of elevation also underlies the metaphorical use of כַּתֵּף as an architectural term (see 49:12). Probably, כַּתֵּף retains this sense at Joshua 18.18a:

וַעֲבַר אֶל־כַּתֵּף סוּלֵי־הָעֲרִבָה צְפוֹנָה

"IT PASSES TO the northern side of THE SLOPE facing the Arabah"
(NEB).

But if MT is amended on the basis of LXX from סוּלֵי־הָעֲרִבָה to בֵּית־הָעֲרִבָה, then כַּתֵּף could bear here, as elsewhere, a weakened sense of 'edge' (regardless of elevation - cf. Dhorme 1923:94f.; the notion of slopes as borders derives, presumably, from a period when settlements were typically associated with 'tels').

49:09. שם על־כתפיי־/וֹת־. 2/3 2/581 (P+C). Exodus 28.12=39.7; Judges 16.3.

No idiomaticity evident, although, as Margalith (1987:68ff.) has pointed out, the archaeological facts dictate that Judges 16.3 (Samson's removal of the gates of Gaza) be understood as mythological rather than historical description (Margalith sees a reflection of the same myth at v. 29). For the meaning of כַּתְפוֹת at Exodus 28.12, see 49:10.

49:10. שְׁתֵּי־כַתְפֵי־/וֹת־נָרָא. 3/14 3/142 (P+C; P+[A+C]). Exodus 28.7,12,27=39.20.

Data restricted. The expression refers to the 'shoulder-pieces' (כַּתְפוֹת: note that in Modern Hebrew the corresponding singular noun is given by ESD not as כַּתֵּף but as כַּתְפָּה [kitpa:]; cf. כַּתְפָּה [k-te:fa:] 'shoulder-strap') of the ephod or to the shoulders (כַּתְפֵּיִם, dual) of Aaron that wear them. Compare the use of הַשֵּׁ in the description of the ephod at Exodus 28.32 (see McCurley 1968:222 for similar instances).

POST-COLLOCATIONS

49:11. כַּתְפוֹת־אֶפֶוד. 3/10 3/42 (P+C; S+A). Exodus 28.12,25,27=39.7,18,20.

Data restricted. No idiomaticity evident, beyond כַּתְפוֹת as 'epaulets, shoulder-pieces'. See 49:10.

49:12. כַּתֵּף־בַּיִת. 7/26 7/432 (S+C; S+A). 1 Kings 6.8; 7.39³; 2 Kings 11.11²||2 Chr. 23.10²; Ezek. 47.1.

According to Haak (1983:277, as Dhorme 1923:95; McCurley 1968:220), כַּתֵּף in architectural descriptions "refers to the portion of an entrance or gate which extends from the edge of the opening outward until the next corner". The frequency of כַּתֵּף in this sense suggests that it expresses a lexicalized, or 'dead', metaphor, 'side' (cf. English *wing [of a building], leg [of a chair]*). Cf. 49:02,08 for a geographical lexicalized metaphor of כַּתֵּף. (Note also, as BDB, כַּתֵּף 'handle [WEB], undersetter [AV]', at 1 Kings 7.30,34.) However, according to Haak (1983:276), כַּתֵּף־הַבַּיִת does not mean 'side, wing of the house', but represents an idiom meaning "the facade of the main entrance to the temple 'porch'".

49:13. יסוּיחַ כַּתֵּף/כַּתֵּף. 5/43 5/26 (S+[A+C]). 1 Kings 6.8; 7.39||2
Chr. 4.10; 2 Kings 11.11||2 Chr. 23.10; Ezek. 47.1,2.

(The parallelism of 1 Kings 7.39 and 2 Chr. 4.10 is not exact.) No
idiomaticity evident - כַּתֵּף is employed here in a 'lexicalized
metaphor' as an architectural term (see 49:12); the expression
contrasts at 2 Kings 11.11||2 Chr. 23.10 with כַּתֵּף הַשַּׁמַּאֲלִיחַ.

49:14. כַּתֵּף־שַׁעַר־בַּיִת/שַׁעַר־בַּיִת. 5/26 5/291 (S+C; [S+[A+C]]+[P+A]). Ezek.
40.18,41, 44²; 46.19.

The collocation is not idiomatic, although כַּתֵּף represents a
lexicalized metaphor, 'side (of a gate)'; cf. 49:12.

53. לחי (20)

PARALLELS: 1 Kings 22.24||2 Chr. 18.23 (19).

PRE-COLLOCATIONS

53:01. [על־לחי/לחיי־י] הבה. 4/13 4/485 ([S+A]+[P+C]). 1 Kings
22.24||2 Chr. 18.23; Micah 4.14; Psalms 3.8; Job 16.10.

The expression occurs in the following passages:

ויגש צדקיהו בן־כנענה ויבה את־סיכיהו על־הלחי ויאמר אי־זה עבר
רוח־יהוה פאתי לדבר אותך

"Then Zedekiah son of Kenaanah came up to Micaiah and STRUCK HIM
IN THE FACE: 'And how did the spirit of the Lord pass from me to
speak to you [אתך]?' he said" (1 Kings 22.24; NEB);

עתה תתגדדי בת־גדוד פצור שם עלינו בשבט יכו על־הלחי את שפט ישראל
"Now gather thyself in troops, O daughter of troops: he hath laid
siege against us: they shall SMITE the judge of Israel with a rod
UPON THE CHEEK" (Micah 4.14; AV);

כי־הכית את־כל־איבי לחי שני רשעים שברת

"Thou dost STRIKE all my foes ACROSS THE FACE
and breakest the teeth of the wicked" (Psalms 3.8; NEB);

פגרו עלי בפיהם בחרפה הכו לחיי יחד עלי יחסלאון

"My enemies whet their eyes on me,

and open gaping jaws.

Their insults STRIKE LIKE SLAPS IN THE FACE,

and all set on me together" (Job 16.10; JB).

Marcus (1977:55) groups together as an idiom of humiliation all instances of the collocation, for which he provides formal and semantic cognates from other Semitic languages. However, at 1 Kings 22.24 the action described appears to be a symbol (almost an index) of Zedekiah's indignation, rage, or frustration, rather than, primarily at least, of Micaiah's humiliation. This interpretation also appears the more likely at Psalms 3.8 in view of the parallel, although here the collocation and its parallel might be indices of Yahweh's utter defeat of the worshipper's enemies.

At Micah 4.14 the collocation probably is symbolic of the humiliation of the king (שופט) at the hands of invaders. But if it is the besieged inhabitants of Jerusalem that constitute the subject of the second colon (plural as opposed to singular in the first colon), then possibly the collocation implies angry striking of the king by his subjects.

If at Job 16.10 *בחרפה* means "reproachfully" (AV) then the collocation there is almost certainly, as in JB's interpretation, associated with (perhaps, symbolic of) humiliation (complementing the first clause as a symbol of scorn - cf. McCurley 1968:166). However, if *בחרפה* means 'with a sword' or the like (see BHK; cf. WEB), then the figure is indexical of physical attack (cf. above on Psalms 3.8), but applied metaphorically to social ostracization.

For the humiliation imagery, compare 53:03, and contrast Ugaritic *hdy lxm* 'cut the face' (see Marcus 1977:57) as a mourning rite. An 'undertone' of the image might be present at Judges 15.16 (*בלחיהחפור*) (הכיתי אלף איש).

53:02. נתתי חחים בלחיי. 2/2 2/2 (P+A; P+C). Ezek. 29.4^a; 38.4.

In LXX, the collocation is omitted at Ezek. 38.4 (prophecy against Gog); its presence in MT is a late addition based on Ezek. 29.4 (Q) (Wevers 1982:202):

נתתי חחים בלחייך והדבקתי דגתיאריך בקשקשתיך והעליתיך סתוד יאריך

"I am going to PUT HOOKS THROUGH YOUR JAWS,
make your Nile fish stick to your scales,
and pull you out of your Niles" (JB).

The figure is of a captive nation (Egypt) symbolized as a beast led by a rope connected to a hook or a thorn (KB) through its face (cf. Job 40.26), and might reflect actual Assyrian practice (Gray 1977:691). A similar figure occurs at 2 Kings 19.28b||Isaiah 37.29b:

וששתי אחי באפד וסחגי בשפתיד והשני־בתיד בדרך אשר־באת בה

"I will put a ring in your nose
and a hook in your lips
and I will take you back by the road
on which you have come" (NEB).

See also Ezek. 19.4,9,

ויבאתו בחחים אל־ארץ מצרים

"[A]nd they dragged him with hooks to the land of Egypt"
(v. 4b; NEB),

and, perhaps 2 Chr. 33.11a,

וילכדו את־מנשה בחחים

"[They] captured Manasseh with hooks" (JB).

For ב נתן in the collocation, cf. Deut. 15.17:

ולקחת את־הסרצע ונתחת באזנו

"[Y]ou are to take an awl and DRIVE IT THROUGH his ear" (JB).

53:03. נָחַן לְחַיִּי/לְחַיִּי-לְחַיִּים. 3/14 3/1921 ([S+A]+[P+[A+C]]). Deut.
18.3; Isaiah 50.6; Lam. 3.30.

At Deut. 18.3 (if original - KB reads הַחֲלָבִים, though KB³ merely suggests it) לְחַיִּים refers to the 'jowls' of a sacrificial animal, given to a priest. In the other two instances נָחַן לְחַיִּים ל bears the sense of 'offer one's face to'. Isaiah 50.6 reads:

גִּוִי נִחַתִּי לַסֹּכִים וְלַחַיִּי לַפְרָשִׁים

פָּנַי לֹא הִסְתַּרְתִּי מִכֹּלֹסוֹת וּרְקָ

"I OFFERED my back to those who struck me

MY CHEEKS to those who tore at my beard;

I did not cover my face

against insult and spittle" (JB).

Here, the parallelism with נָחַן 'back' indicates that the collocation describes in literal terms an action (offering the face so that the beard could be removed), albeit a stylized, cultic, action (Sawyer 1972:43), the significance of which (see McCurley 1968:176f.) is clarified by its association with actions symbolic of punishment (the preceding phrase) and of humiliation (the following colon). The significance of the action described by the collocation is similarly 'explained' by a following clause at Lam. 3.30:

יָחַן לְמַכּוֹתָיו לְחַיִּי יִשְׁבַּע בְּחִרְפָּה

"Let him TURN HIS CHEEK to the smiter

and endure full measure of abuse" (NEB).

Thus, in its idiomatic application, the collocation shares (a portion of) the imagery of 53:01.

POST-COLLOCATIONS

53:04. לחי"חפור. 3/5 3/42 (S+C; S+A). Judges 15.15,16².

Data restricted. No idiomaticity evident. KB³ avers the use of the collocation's referent as a "Waffe b. Primitiven".

55. לשון (117)

PRE-COLLOCATIONS

55:01. - לשון / לשון לשון דבוקהם 3/89 3/3 (S+C; S+C). Psalms 137.6;

Job 29.10; Lam. 4.4.

=29:03.

55:02. - דיברנהן לשון - 5/112 5/506 (S+[A+C]). Isaiah 32.4; Jer. 9.7;
Psalms 12.4; 37.30; Job 33.2.

For the text of Job 33.2 see 29:03. Elsewhere, the expression occurs
in the following passages:

ולא חשמינה עיני ראים ואזני שפעים חקשכנה:

ולבב נסהרים יבין לדעת ולשון עלגים תפהר לדבר צחות

"The eyes that can see will not be clouded [pointing as hophal],
and the ears that can hear will listen;
the anxious heart will understand and know,
and the MAN who stammers WILL at once SPEAK plain"

(Isaiah 32.3-4; NEB);

חץ שחוט לשונם סרסה דבר

בפיו שלום אתרעהו ידבר ובקרבו ישים ארבו

"Their TONGUE is as an arrow shot out; it SPEAKETH deceit:

one speaketh peaceably to his neighbour with his mouth, but in
heart he layeth his wait" (Jer. 9.7^a; AV);

שוא ידברו איש אתרעהו שפת חלקות בלב ולב ידברו:

יברח יהוה כלשפתי חלקות לשון מדברת גדלות

"One man lies to another:

they talk with smooth lip and double heart.

May the Lord make an end of such smooth lips

and the TONGUE THAT TALKS so boastfully!" (Psalms 12.3-4; NEB);

פי צדיק יהגה חכמה ולשונו תדבר טשפט

"The mouth of the virtuous man murmurs wisdom

and his TONGUE SPEAKS what is right" (Psalms 37.30; JB).

In the Isaiah passage NEB's assumption of a synecdoche in the final colon, "the man who stammers", spoils the hypostatic imagery of the previous clauses, which NEB itself accepts: "the eyes... will see", etc. Cf. JB: "the tongue of stammerers will speak clearly". Similarly at Jer 9.7a, assuming MT, the image is hypostatic, of a tongue acting like an arrow.

At Psalms 12.4 a synecdoche might be intended (Yahweh will 'cut off' people having lips that flatter and possessing tongues that utter proud things), and this interpretation is favoured by what seems to be an instrumental (non-hypostatic) use of שפתות in the previous verse: 'speaking with smooth lips' - this interpretation holds even if we retain MT's punctuation against NEB's apparent, although unnoted in Brockington, re-positioning of the athnach. Probably, though, the image at v. 4 is of mutilation of lips and tongues viewed as hypostatic agents, which is how they appear as well in the next verse:

אשר אמרו ללשוננו נוביר שפתינו אתנו כי אדון לנו

"They said, 'Our tongue can win the day.

Words are our ally; who can muster us?'" (NEB)

- compare the hypostasis of tongue and lips at Psalms 73.9 (see, e.g., Gray 1965:103,289 for evidence of similar imagery in the mythology of Ugarit).

The combination of לשון and פה as subjects of verbs of speaking at Psalms 37.30 indicates a hypostatic image again, although in this instance the presence of צדיק in the preceding and following verses suggests that a synecdochical figure (the tongue standing for the righteous speaker) was also in the psalmist's mind - the combination of metonymic and synecdochical images is included by Bullinger (1898:609ff.) under "metalepsis" or "double metonymy" (cf. 55:18,19).

At Job 33.2a, the image with פה is not hypostatic (פה is patient not agent of פתח); לשון in the second colon, however, is hypostatic ('my tongue speaks in my mouth'), as it is in the collocation with דבק for דבר to which this clause perhaps alludes (see 29:03), although the imagery here is probably not vivid but represents a stereotyped speech-opening formula, meaning 'I am ready to speak'.

Except possibly, then, in the last passage discussed, the force of the collocation as such is literal, with לשון viewed as (hypostasized) agent or in synecdoche for a speaker.

55:03. - הגבחה לשון. 4/89 4/12 (S+C). Isaiah 59.3; Psalms 35.28; 71.24; Job 27.4. Cf. Psalms 37.30; Prov. 8.7.

At Isaiah 59.3 לשון is presented, like each of the three preceding anatomical terms, as a hypostatic agent of iniquity:

כי כפיכם נגאלו בדם ואצבעותיכם בעון
שפתותיכם דברו־שקר לשונכם עולה תהגה
"Your hands are stained with blood
and your fingers with crime;
your lips speak lies
and YOUR TONGUE UTTERS UTTERS INJUSTICE" (NEB).

The occurrence of phrases structurally similar to the collocation in parallel cola at Job 27.4 (דיברה שפה 'the lip speaks') and Psalms 71.24 (רונה שפה 'the lip shouts for joy' in v. 23) requires again 'literal' (i.e., hypostatic) interpretations of our collocation in these passages. Psalms 71.24a:

גם־לשוני כל־היום תהגה צדקתך
"All the day long MY TONGUE SHALL TELL of thy righteousness"
(NEB),

might be an "inexact quotation" (Oesterley 1959:333) of Psalms 35.28 (note also the similarity of Psalms 71.24b and 35.26a):

ולשוני תהגה צדקך כל־היום תהללך
"Then MY TONGUE WILL SHOUT your goodness
and sing your praises all day long" (JB)
(NEB renders לשוני as a synecdoche, "I", here).

The parallelism of דיבר and הגה at Isaiah 59.3, Psalms 37.30, and Job 27.4 indicates that the two verbs are, in this collocation, effectively synonyms. The replacement in the collocation of לשון by פה (Psalms 37.30) and חך (Prov. 8.7), and the parallelism of לשון and שפה (Isaiah 59.3; Job 27.4; cf. Prov. 8.7) indicates that the meaning of לשון is, as in 55:02, simply that of an organ of speech viewed, as we have seen, 'hypostatically'.

55:04. - החליק לשון/לשון. 2/112 2/7 (S+[A+C]). Psalms 5.10; Prov. 28.23. Cf. Psalms 12.3f; Prov. 6.24.

(KB³ suggests, plausibly, that the collocation should be restored at Jer. 23.31b, where MT has:

הלקחים לשונם וינאמו נאם

"[W]ho concoct words of their own and then say, 'This is his very word.'" [NEB].)

החליק is 'smooth' (Isaiah 41.7: פטיש), figuratively, 'make comfortable'; thus, when applied to oneself, 'feel untroubled' (Psalms 36.3, followed by אל-). Compare

סחליק על-רעהו

'Who makes his neighbour feel (falsely) at ease' (Prov. 29.5a)

(but KB understands as an ellipsis of our collocation, as NEB: "who flatters his neighbour"). החליק לשון 'to smooth (with) the tongue' specifies how the feeling of comfortableness is caused, with 'tongue' used metonymically for 'speech', and the collocation as a whole meaning 'agree with, flatter', contrasted with הוכיח 'argue with' at Prov. 28.23:

טוביח אדם אחרי חן ימצא ססחליק לשון

"Take a man to task and in the end [אחרייו] win more thanks than the man with a flattering tongue" (NEB).

Compare שפתי חלקות (Psalms 12.4, quoted at 55:02) '(those possessing) lips of smoothness', 'flatterers'. A non-metonymic equivalent of the collocation is אסרים החליק 'use smooth words' (Prov. 2.16; 7.5). For the interchange of לשון, שפה, and אסרים, compare אסרי-דברי-לשון-שפת-שקר (cf. Bullinger 1898:546).

At this occurrence, then, the collocation, in participial form, is 'symbolic' ('one smoothing the tongue' can only indirectly signify 'flatterer'), but the idiomatic value here apparently pertains to a colligation of nouns preceded by החליק rather than to this collocation alone.

However, at Psalms 5.10, where an indicative form of the expression is used, although the implied meaning of the collocation is the same, 'flatter', the collocation appears within a context of an extended, vivid, metaphor, involving other parts of the body:

כי־אין בפיהו נכונה קרבם הוות קבר־פתוח גרונם לשונם יחליקון

"Not a word from their lips [בפיסו] can be trusted,

deep within them lies ruin,

their throats are yawning graves;

THEY MAKE THEIR TONGUES SO SMOOTH" (JB).

(Is the use of the possessive pronoun here a further indication of lack of 'idiomatization' or 'institutionalization' of the metaphor?)

55:05. כבדני־לשון. 3/23 3/6 ([S+P]+C; S+A). Exodus 4.10; Ezek. 3.5,6.

Tigay (1978) examines in detail the expression at Exodus 4.10 (JE),

וַיֹּאמֶר מֹשֶׁה אֶל־יְהוָה בִּי אֲדֹנָי לֹא אִישׁ דְּבָרִים אֲנֹכִי גַם כַּתְּמוּל גַּם כְּשֹׁלֵשׁ גַּם
כִּי דִבַּרְתָּ אֶל־עַבְדְּךָ בִּי כְבֹד־פֶּה וְכִבְד־לָשׁוֹן אֲנֹכִי

"And Moses said unto the Lord, O my Lord, I am not eloquent,
neither heretofore, nor since thou hast spoken unto thy servant:
but I am slow of speech and OF A SLOW TONGUE" (AV),

and its 'parallel', עַרְל שְׂפָתַיִם 'circumcized of lips', at Exodus 6.12,30 (P), concluding that a medically-recognized speech infirmity is conveyed, although this cannot be specified further. As a medical term, כְּבֹד־לָשׁוֹן could refer literally to an overweight tongue (or at least what the physician/patient perceived to be an overweight tongue), or idiomatically to a condition the symptoms of which were believed to be consistent with the speech problems caused by an overweight tongue.

Tigay's exposition is rejected by JB and NEB which render each of כבד־פה and כבד־לשון by a term denoting ineloquence, not medical infirmity; thus, the terms simply emphasize the message contained in לא איש דברים אומי. Clearly, interpretation of the last clause of Exodus 4.10 depends in part on the exact significance of the introductory כי - for example, if כי here is causal a 'medical' interpretation (as Tigay) might be favoured ('I am not an eloquent man, and never have been, because I suffer from speech defects'); if כי is adversative (AV) a non-medical interpretation becomes more likely ('I am not an eloquent man, and never have been; rather, I have always been a poor speaker'). JB and NEB do not render כי explicitly. This is true also of LXX; furthermore, LXX's rendering of our collocation by *braduglossos* 'slow-tongued', is of little use in deciding on a medical or non-medical interpretation, as the expression is a neologism (Tov 1977:205).

If, on the non-medical interpretation, פה and לשון still convey their anatomical senses then the collocation 'heavy of tongue' as a whole is an (indexical) idiom of 'poor speech'; on the other hand, the constituents of the collocation may be metonymic, כבד 'difficult' (see BDB; cf. English *hard*), and פה/לשון 'speech' - the collocation would then represent in the Exodus passage, as apparently in the Ezekiel one (see below), more a 'literal' conjunction of independent metonymic values, 'hard of speech' (cf. *hard of hearing*), than an idiomatic coalescence. On either view, it is possible here that the conjunction of פה and לשון should be regarded as yielding a meristic value, 'I am a poor speaker'.

Ezek. 3.5-6a reads:

כי לא אל־עַם עִמְקֵי שִׁפָּה וְכִבְדֵי לִשׁוֹן אֶתָּה שְׁלוּחַ אֶל־בֵּית יִשְׂרָאֵל:

לֹא אֶל־עַמִּים רַבִּים עִמְקֵי שִׁפָּה וְכִבְדֵי לִשׁוֹן אֲשֶׁר לֹא־תִשְׁמַע דְּבָרֵיהֶם

"You are not sent to people whose SPEECH IS thick and DIFFICULT, but to Israelites. No; I am not sending you out to great nations whose SPEECH IS so thick and so DIFFICULT that you cannot make out what they say" (NEB).

Vaticanus omits the collocation in the first verse and the Syriac versions in the second. Tigay (1978:58) classes the collocation here with וְלִעַג לִשׁוֹן in a similar passage at Isaiah 33.19 as an Israelite reflection of the wide-spread conception amongst speakers of one language that foreign speech consists of unintelligible stammering.

According to him:

[I]n Ezekiel 3,.. "heavy" has been extended from a medical affliction which causes unintelligible speech to a metaphor for speech which is unintelligible because of its foreignness. (Tigay 1978:58; cf. KB)

But if Tigay's medical interpretation of the Exodus passage is rejected, then such a 'medical to non-medical' semantic transfer is unnecessary (note, though, that Tigay finds a similar process in respect of *לעל* in the Isaiah 'parallel'), and the collocation in Ezekiel is open to the same two analyses that we outlined in respect of a non-medical interpretation of Exodus 4.10. Probably the second, less idiomatic, view is appropriate here - the persons mentioned at Ezek. 3.5f. are 'unintelligible' because they are 'difficult of language' (i.e., difficult to comprehend). In the context of describing Ezekiel's mission, the expression might have been deliberately used to associate this with the call of Moses.

We conclude, tentatively, then, that the collocation is an 'idiom', similar to *hard of hearing*; in both instances the idiomatic effect is probably yielded by the oddity of combining an expression of a 'physical' attribute (*heavy, hard*) with that of an 'abstract' object (*speaking, hearing*). The Modern Hebrew expression (from Agnon) כבד-יד ('heavy of hand, unable to write'; ESD) is based on this collocation (Shohet 1968:52).

55:06. ככתבם נאכלשון. 4/6 4/5 (S+C; S+C). Esther 1.22; 3.12; 8.9².

According to Clines (1984:283), the formula in which the first three instances of the expression occur is a piece of "hyperbole... intended to display the super-efficiency of the Persian administrative machine". Each time the collocation is used of an imperial decree.

Thus, for example, Esther 1.22a:

וישלח ספרים אל־כל־פְּדִינֹת הַמֶּלֶךְ אֶל־פְּדִינָה וּפְדִינָה כַּכְתָּבָה וְאֶל־עַם וְעַם
כַּלְשׁוֹן

"Letters were sent to all the royal provinces, to every province
IN ITS OWN SCRIPT and to every people IN THEIR OWN LANGUAGE"
(NEB).

לשון, as frequently, has the metonymic sense of 'language', specifically spoken language (כתבון). The collocation is, presumably, intended to cover the situation of a dispersed subject-people, whose spoken language utilizes various writing systems. In this longer form of the collocation writing-systems are distinguished from spoken languages, the former being a characteristic of a particular geo-political area (פְּדִינָה), the latter of an ethnic grouping (עַם). However, in a contracted form of the collocation at Esther 8.9b both writing-system and spoken language are ascribed to a people (the Jews):

וְאֶל־הַיְהוּדִים כַּכְתָּבָם וְכַלְשׁוֹנָם

"[A]nd also for the Jews IN THEIR OWN SCRIPT AND LANGUAGE" (NEB).

This might indicate that the collocation was tending to become used as an idiom meaning simply 'in such a way as to be understood by'.

ככתבו וכלשונו has developed a different idiomatic sense in Modern Hebrew of 'exactly as instructed' (ESD).

55:07. כל-לשון/לשונות. 3/26 3/5290 (S+C; [S+A]+[P+C]). Isaiah 45.23; 54.17; Zech. 8.23.

The two instances of the collocation in Deutero-Isaiah occur within, broadly, juridical contexts. At Isaiah 45.23, 'tongue' might be hypostatic, or intended as a synecdochical figure for people confessing Yahweh (see 10:03-04). Again, at Isaiah 54.17a לשון might be hypostatic if an image of the tongue as weapon, parallel to כלי (cf. 55:08,12), is intended, metonymic for speech (cf. WEB), or synecdochical for a speaker:

כל-כלי יוצר עליוך לא יצלה וכל-לשון תקום-אחד למשפט חרשי-עי

"[B]ut now no weapon made to harm you shall prevail,

and you shall rebut EVERY CHARGE brought against you" (WEB).

In view of Deutero-Isaiah's 'universalism', both these passages perhaps also involve a metonymic application of 'tongue' as 'language' (i.e., those spoken of in כל-לשון include foreigners) - thus, assuming a synecdochical value for the collocation, we might render rather ponderously as 'each person, Israelite or foreign'. This metonymic value of לשון as 'language' (and, secondarily, 'nation') is to the fore at Zech. 8.23a:

עשרה אנשים סכל לשונות הגוים

'Ten men EACH SPEAKING A LANGUAGE of a foreign country'.

For the primary and secondary metonymic values of לָשׁוֹן, compare Biblical Aramaic עַם אִפְסָה וְלָשׁוֹן (Daniel 3.4,7,29,31; 5.19; 6.26; 7.14).

55:08. - לָשׁוֹן. - לְאִי־חֶרֶץ לְכָל־בְּנֵי־יִשְׂרָאֵל לָשׁוֹן. 2/89 2/2 (P+C; N+A; S+C).
Exodus 11.7; Joshua 10.21.

The two relevant passages with NEB renderings are as follows:

וְהִיחָה צַעֲקָה גְדֹלָה בְּכָל אֶרֶץ מִצְרַיִם...

וְלִכְל בְּנֵי יִשְׂרָאֵל לֹא יִחְרָץ־כֶּלֶב לָשׁוֹן לְאִישׁ וְעַד־בְּהֵמָה

לְסֹנֵן תִּדְעוּן אֲשֶׁר יִפְלֶה יְהוָה בֵּין מִצְרַיִם וּבֵין יִשְׂרָאֵל

"[']All Egypt will send up a great cry of anguish.... BUT AMONG ALL ISRAEL NOT A DOG'S TONGUE SHALL BE SO MUCH AS SCRATCHED, no man or beast be hurt.['] Thus you shall know that the Lord does make a distinction between Egypt and Israel" (Exodus 11.6-7);

וַיְהִי כְּכַלּוֹת יְהוֹשֻׁעַ וּבְנֵי יִשְׂרָאֵל לַחְכוֹתָם מִכָּה גְדוֹלָה־סָאֵד עַד־תַּסֵּם...

וַיִּשְׁבוּ כָל־הָעָם אֶל־הַמַּחֲנֶה אֶל־יְהוֹשֻׁעַ מִקְדָּה בְּשָׁלוֹם

לְאִי־חֶרֶץ לְבְנֵי יִשְׂרָאֵל לְאִישׁ אֶת־לָשׁוֹנוֹ

"When Joshua and the Israelites had finished the work of slaughter and all had been put to the sword... the whole army rejoined Joshua [omitting אֶל־הַמַּחֲנֶה] at Makkedah in peace; NOT A MAN [לְאִישׁ for אִישׁ] OF THE ISRAELITES SUFFERED SO MUCH AS SCRATCH ON HIS TONGUE" (Joshua 10.20-21).

Rashi's interpretation (Exodus 11.7) of לָשׁוֹן לְשׁוֹן as 'whet the tongue, complain, inveigh, against' is followed by BDB, KB, JB, and McCurley 1968:170f. - it assumes that the figure here is similar to that of 55:12. But this meaning seems slightly out of context on both occasions. Why inform us that no-one (no dog) has anything to say against the Israelites when the Egyptians or the Amorites are dying? If we assume an 'idiomatic' meaning here, perhaps it is that, in view of the extreme nature of the slaughter on both occasions, there was no one who dared even to speak, let alone to act, against the Israelites.

We believe that a superior interpretation, although along similar lines, is provided by ESD, which claims that the expression means 'poke out and extend the tongue', hence, 'bark at' (הִשְׁתַּעַר בְּנִיחָה). 'Sharpen the tongue', thus portrays, in a vivid and understandable fashion, the way that a dog, when barking, forms its tongue into a long, flat, pointed object protruding from the mouth. That the action was considered a canine one is evidenced not only by the Exodus passage but also by Judith 11.19. Thus, within the collocation we can retain for לָשׁוֹן the same meaning, 'sharpen', it has elsewhere. Moreover, this interpretation has the advantage that as 'bark' is an activity confined to dogs then the superficial omission of a canine subject in the second passage is unimportant - hearers/readers would be able to 'fill in' this gap on the basis of their tacit knowledge of Hebrew semantics (and, perhaps, also because of their familiarity with the Exodus-saga).

But, of course, in respect of the biblical passages the 'idiomaticity' of the collocation goes beyond the striking figure of 'sharpen the tongue' meaning 'bark', for the literally stated fact that no dogs barked (at the Israelites) is in both passages rather odd (this is not true for Judith 11.19, where the collocation is associated, naturally, with *sheep*) - as we have already noted (Ch. 5, Sect. D), 'contextual oddity' is a frequent property of 'idioms'. Assuming the basic validity of ESD's interpretation and of our inferences from it, we should claim that the actual, symbolic, meaning of the idiom is that 'the peace (of the Israelites) was not disturbed'. This understanding is consistent with the positioning of the collocation in both passages immediately after, and contrasting with, a statement of grievous harm to an enemy of Israel. Incidentally, the 'semantic restriction' of barking to dogs, plus the context of Judith 11.19 indicates that in this collocation **כלב** does mean 'dog' literally - no metaphorical application to humans is intended (cf. Thomas 1960:414ff.).

NEB's interpretation of חרץ as 'scratch', and of the collocation as signifying (lack of) harm does indeed fit the context of both passages, but, although the image of a dog scratching its tongue is understandable (cf. the typical association of dogs with 'lapping' - Judges 7.5; 1 Kings 21.19; 22.38; Psalms 68.24), why, at Joshua 10.21, should the 'tongue' of a person be considered a part of the body especially easy to hurt in warfare? Moreover, the structural similarity between each instance of the collocation, so that in the second passage מֵאִישׁ 'man' corresponds as syntactic subject/semantic patient (cf. Driver 1936:66,154) to כלב 'dog' in the first passage, is purchased at the price of emendation of MT at Joshua 10.21. In contrast, on ESD's interpretation, as outlined, there is no need for emendation, as the lack of a formal subject is not problematic - לְאִישׁ, of course, functions in this understanding as a restrictive phrase, 'to anyone (of the Israelites)', and is, thus, equivalent to לְאִישׁ וְעַד בְּהֵמָה in the first passage.

55:09. לְאִישׁ וְעַד בְּהֵמָה - לְאִישׁ וְעַד בְּהֵמָה. 2/3 2/98 (P+C; P+C). Gen. 10.20,31. Cf. Gen. 10.5.

Data restricted. The expression as such is not idiomatic, "by families and languages" (NEB), although it involves a standard metonymic extension of 'tongue' as 'language'.

55:10. - על- /בלשון- סילה/סילה- 2/8 2/7 (S+[A+C]; S+C). 2 Samuel 23.2; Psalms 139.4.

No idiomaticity evidenced. The distinction between ב and על- might be significant; at 2 Samuel 23.2 the words 'on' David's tongue are the words of Yahweh which David utters, whereas at Psalms 139.4 the words 'in' the worshipper's mouth are unvoiced thoughts not yet loosed by the tongue, but which God marvellously knows even before they are uttered. On the basis of this collocation and 55:13, we could perhaps claim evidence that in 'Hebrew psychology' thoughts are passed 'into' (ב) the tongue, then coded into words and held 'under' (תחת) the tongue, until the speaker is ready to release them when the words pass 'onto' (על-) his or her tongue.

55:11. - רנניִננה לשון- 2/89 2/8 (S+C). Isaiah 35.6; Psalms 51.16.

The collocation as such is not idiomatic. שפה replaces לשון at Psalms 71.23 and עונה, רנן at Psalms 119.172 (cf. Prov. 16.1?). In view of the parallelism at Isaiah 35.6a אלם לשון 'dumb man's tongue' is probably synecdochical for אלם 'dumb man' rather than hypostatic (as NEB, JB):

אז ידלג כעיל פסח וחרן לשון אלם

"Then shall the lame man leap like a deer,

and the TONGUE of the dumb SHOUT ALOUD" (NEB).

NEB interprets לשונוני as synecdochical for the worshipper at Psalms 51.16b,

תרגו לשונוני צדקתך

"[A]nd I WILL SING the praises of thy justice",

although it finds a hypostasis in the following verse:

ופי יגיד תהלתך

"[T]hat my mouth may proclaim thy praise" (v. 17b).

55:12. - שנו לשון. 2/89 2/7 (S+C). Psalms 64.4; 140.4.

The expression occurs in the following verses:

אשר שנונו כחרב לשונם דרכו חצם דבר סר

"[W]ho SHARPEN THEIR TONGUES like swords,

and wing their cruel words with arrows [כחצם רדו for דרכו

חצם]" (Psalms 64.4; NEB);

שנונו לשונם כמו־נחש חמת עכשוּב חמת שפתיו־סו

"THEIR TONGUES ARE SHARP as serpents' fangs;

on their lips is spiders' poison [repositioning athnach]"

(Psalms 140.4; NEB).

Typically, שנו takes חרב or חץ as object, and both occurrences of our collocation compare the tongue to a sword or a serpent's tongue, presumably in the shape of an arrow (Psalms 140.4). For the simile, compare Psalms 57.5; 59.8. Thus, 'sharpen the tongue/speech' is symbolic (because 'indirect'; cf. 55:04) for 'speak maliciously, destructively'. Cf. 55:08.

55:13. - תחת לשון. 4/89 4/506 (S+C). Psalms 10.7; 66.17; Job 20.12;
Song 4.11.

The following four passages contain the collocation:

אלה פיהו פלא ופרסה ותך תחת לשונו עמל ואון

"His mouth is full of cursing and deceit and fraud:

UNDER HIS TONGUE is mischief and vanity" (Psalms 10.7; AV);

אליו פי־קראתי ורום תחת לשוני

"When I uttered my cry to him

and high praise was ON MY TONGUE" (Psalms 66.17; JB)

אפי־חמתיק בפיו רעה יכחידנה תחת לשונו

"Though evil tastes sweet in his mouth,

and he savours it, rolling it ROUND HIS TONGUE" (Job 20.12; WEB);

נפת חטפונה שפתותיך כלה דבש וחלב תחת לשונך

"Your lips drop sweetness like the honeycomb, my bride,

syrup and milk are UNDER YOUR TONGUE" (Song 4.11; WEB).

(At Psalms 66.17, BHK's reading, 'I shall be exalted from being underneath those who hate me', accepted by KB³, would remove the collocation.) Except in the fourth passage, the parallel contains פה (see Avishur 1984:283,594f. for data on the high frequency of לשון||פה), and what is held 'under the tongue' is an abstract object. Thus, the collocation is not idiomatic, although it reflects a 'physical' perception of abstract objects, i.e., words, etc., evidenced as well in

יפלא... לשוננו רנה

'Our tongue is full of praising' (Psalms 126.2)

- compare English *the words are on the tip of my tongue*. The image that the collocation conveys seems to be of the tongue as an organ either of restraint, holding back words until the speaker decides to release them, or of taste, letting a person savour his or her thoughts before expressing them in words (cf. NEB at Job 20.12). BDB's interpretation "הַלְשׁוֹן 'ת', of something held there as a dainty morsel, and ready, when needed, to be brought out" combines the possibilities. BDB rightly compares *שפה תחת שפה* (Psalms 140.4, quoted at 55:12), which provides another example of the interchangeability of *שפה* and *לשון* - cf. 55:04,19 and the use of both terms in Biblical Hebrew to mean 'language'.

At Song 4.11 the image is of the mouth containing sweet foods in a metaphor of kissing. In Modern Hebrew *שפת וקלוב תחת לשון* is a metaphor for flattery (ESD).

POST-COLLOCATIONS

55:14. לשון-זָהָב. 2/89 2/367 (S+C; S+A). Joshua 7.21,24.

Data restricted. The sense of the collocation is 'a tongue-shaped object made of gold' (i.e., a bar of gold formed in a tongue-shaped mould - KB). (In the Middle Ages the expression developed an additional sense of 'faultless, beautiful, speech'; ESD.) There is some Mesopotamian evidence for believing that the collocation as such (rather than the word לשון alone) is 'idiomatic' to the extent that it refers to a quite specific shape and weight of object: "Man sieht..., dass Goldbarren, jedenfalls meist eine Mine schwer, in Zweistromlande in Form von Zungen hergestellt wurden" (Meissner 1903:152). Meissner also notes similar hand- (*kappu*) shaped objects.

55:15. לשון-חכמים. 2/89 2/40 (S+C; P+A). Prov. 12.18; 15.2.

No idiomaticity evident beyond the metonymic application of לשון for 'speech' (cf. 55:04) - 'the words of wise people'. Wolff (1974a:77) claims that לשון: "above all means true (II Sam. 23.2; Isa. 35.6) or false speech (Pss. 5.9; 12.3; 109.2; Isa. 59.3; Prov. 6.17)". The antithetic parallelism at Prov. 12.18 is, perhaps, intended to recall the symbolism of the 'sharp' tongue as a sword (cf. 55:12 and see Avishur 1984:464):

יש בושה כסדרקוה חרב ולשון חכמים סרפא

"Gossip can be as sharp as a sword,

but the TONGUE OF THE WISE heals" (WEB).

Post-biblical Hebrew used the collocation in a special sense of 'language of (early) rabbinic literature' (i.e., the language of the 'wise men' who wrote this literature') to contrast with לשון-תורה 'language of the Torah' (i.e., Biblical Hebrew) - see ESD.

55.16. לשון-ים/ים-ים. 3/89 3/362 (S+C; S+[A+C]). Joshua 15.5; 18.19; Isaiah 11.15.

In Joshua the collocation occurs within geographical narratives. At first glance it represents the same category of figure as שפת-ים 'lip of the sea, shore' (see, e.g., Gen. 2.17); however, with לשון-ים it is not clear, as McCurley (1968:215) points out, whether the figure is of a tongue-shaped area of water which extends into dry land beyond the regular shore-line, thus, a 'bay' (AV, JB) or an 'inlet' (NEB), or of a tongue-shaped area of land which juts out from the regular shore-line into the sea:

"[L]a langue de la mer", quand il s'agit de la Mer Morte (Jos. xv,5; xviii,19), n'est autre que la petite presqu'île qui avoisine à l'ouest l'embouchure du Jourdain. Les Arabes la désignent encore sous le nom de *lisān* "la langue" et les Hébreux pouvaient également l'appeler simplement הלשון "la langue" (Jos. xv,2). (Dhorme 1923:87)

ESD supports the first interpretation of לשון-ים for Modern Hebrew, which would render Dhorme's 'peninsula' sense by לשון-יבשה 'a tongue of dry land'. The first interpretation ('bay, inlet') also gains support from the collocation at Isaiah 11.15 if this refers to the 'Gulf of Suez' (cf. Dhorme 1923:87; JB; KB; BDB). However, AV and NEB regard the reference here as being to an actual, albeit mythological, tongue:

והחרים יהוה את לשון ים-מצרים והניף ידו על-הנהר

"The Lord will divide the TONGUE OF THE Egyptian SEA and wave his hand over the river" (v. 15a; NEB).

This view is supported by the frequent historicization of the watery forces of chaos in the guise of Egypt (Isaiah 30.7; 51.9f.; Ezek. 29.3f.; 32.2; Psalms 87.4: see Gray 1979:164f.; Caird 1980:209f.,227f.; Boonj 1987:19). If it is correct, then לשון-ים in the sense of 'bay' (or, indeed, 'peninsula') would have to be regarded as an idiomatic usage restricted to P.

55:17. כל לשון-ים וים. 3/6 3/5 (S+C; S+A; S+A). Esther 1.22; 3.12; Neh. 13.24.

In Esther the collocation occurs in the same context as 55:06. It is idiomatic only to the extent that לשון means (metonymically) 'language', and וים וים has distributive force, 'each people'. A 'non-distributive' version, כל לשון-ים 'according to his national language', occurs at Esther 1.22b.

55:18. לשון רסיה. 2/23 2/15 (S+A; S+A). Psalms 120.2,3. Cf. Micah 6.12.

(As BDB and KB do not agree which instances belong to רסיה I 'slackness' and רסיה II 'deceit' our figure, like that of ES, refers to all occurrences of רסיה.) Data restricted. The immediate repetition of the collocation is regarded by Bullinger (1898:242) as an instance of the rhetorical device of 'epistrophe' ('like sentence-endings) characteristic of 'Songs of degrees'. Construct equivalents of this appositional collocation are לשון־מרה (Psalms 52.6; cf. Jer. 9.7, quoted at 55:02) and לשון־חרסיה (Zeph. 3.13); a predicative construction occurs at Micah 6.12b:

ולשונם רסיה בפיהם

"[And their tongue is deceitful in their mouth" (AV)

(but LXX apparently reads רסה for רסיה here). At Psalms 120.2-3 within our collocation לשון appears to be both metonymic, of speech, and synecdochical, of the speaker:

יהוה הצילה נפשי מטפת־שקר סלשון רסיה:

סה־יתן לד וסה־יסוף לד לשון רסיה

"'O Lord,' I cried, 'save me from lying lips

and from the TONGUE OF SLANDER.'

What has he in store for you, SLANDEROUS TONGUE?

What more has he for you?" (NEB).

It functions as a variant of the more common לשון־שקר (55:19).

55:19. לשון־שקר. 5/89 5/108 (S+C; S+A). Psalms 109.2; Prov. 6.17; 12.19; 21.6; 26.28. Cf. Jer. 9.2,4.

The collocation occurs in the following passages:

דברו אחי לשון שקר:

ודברי שנאה סבבוני

"They have LIED TO MY FACE

and ringed me round with words of hate" (Psalms 109.2b-3a; NEB);

עינים רמות לשון שקר וידיים שפכות דם־נקי

"[A] proud eye, a FALSE TONGUE,

hands that shed innocent blood" (Prov. 6.17; NEB);

שפת־אמת תכון לעד ועד־ארגימה לשון שקר

"Truth spoken stands firm for ever,

but LIES live only for a moment" (Prov. 12.19; NEB);

פעל אוצרות בלשון שקר חבל נדף סבב־שי־מות

"To make a fortune with the help of a LYING TONGUE,

such the idle fantasy of those who look for death"

(Prov. 21.6; JB);

לשון־שקר ישנא דביו ופה חלק יעשה פדחה

"The LYING TONGUE hates the truth,

the fawning mouth brings ruin" (Prov. 28.26; JB).

If we accept MT (cf. BHK/S) at Psalms 109.2b-3a, the parallel shows לשון to be simply metonymic of 'speech' (as NEB). At Prov. 6.17 our collocation refers to one of seven תועבות; the last two of these are clearly persons rather than characteristics, indicating that here לשון־שקר might not involve just a metonymy, 'deceitful speech', but also a synecdoche, 'liar':

יפיח בזבים עד שקר ומטלח מדנים בין אחים

"[A] false witness telling a pack of lies,

and one who stirs up quarrels between brothers" (v. 19; NEB).

The presence of a human subject in the verses immediately preceding Prov. 26.28 suggests a synecdoche, 'liar', there also. The contexts of Prov. 12.19 and 21.6 are of less use in helping us to decide whether a metonymy alone or a metonymy and a synecdoche is expressed.

The compositional, non-idiomatic, nature of the meaning of the collocation itself is indicated by the use in it of מַטְלַח for לְשׁוֹן to yield the same meaning (Psalms 31.19; 120.2, quoted at 55:18; Prov. 10.18; 12.22; 17.7; cf. Isaiah 59.3, quoted at 55:03) and the replacement of שֶׁקֶר by synonyms (see 55:18).

CHAPTER 10

RESULTS AND CONCLUSIONS

A. INITIAL TABULATION OF DATA

Excluding duplicate collocations, listed under two anatomical terms (40:18=26:05, 41:07=40:10, 46:13=41:04, 46:34=41:03, 55:01=29:03), 151 collocations were analyzed, as recorded in Ch. 9. Data was input to a BASIC program which we had written, and this was implemented on a microcomputer. The data for each collocation consisted of six items (1) the number pertaining to each collocation (in the form xx:yy), (2-4) the frequencies of collocation, stable collocate, and unstable collocate, (5) a value indicating whether or not the occurrences of that collocation constituted 'restricted data', and (6) a value to indicate whether the collocation was verbal or nominal (see below).

Collocations introduced by a verb are called verb-collocations, those not introduced by a verb are called noun-collocations. We decided to make this division and to conduct analysis of results on the basis of it, because we felt that the collocations would be most easily compared within a group of collocations of broadly similar structure. In fact (see Sect. E), our analysis would probably have benefitted if we had only selected structurally homogeneous material from the outset.

Below is a tabulation of all the numerical data processed (Cols. 1-4) and calculated (Cols. 5-12) by the computer. The 12 columns represent the following information. (When, in Sects B-D, 'modified' sets of statistics are supplied, the eleven items of data correspond to the altered values of Cols. 2-12.)

Column 1: Item number;

Column 2: Frequency of collocation;

Column 3: Frequency of stable collocate;

Column 4: Frequency of unstable collocate;

Column 5: Transition-probability of stable collocate;

Column 6: Entropy of stable collocate;

Column 7: Redundancy of stable collocate;

Column 8: Transition-probability of unstable collocate;

Column 9: Entropy of unstable collocate;

Column 10: Redundancy of unstable collocate;

Column 11: Average of transition-probabilities;

Column 12: Average of redundancies.

ITEM	FR	CL1	CL2	P,CL1	H,CL1	R,CL1	P,CL2	H,CL2	R,CL2	AVP	AVR
09:01	2	46	4602	0,043	4,524	18,104	0,000	11,168	8,218	0,022	13,161
09:02	4	26	12	0,154	2,700	42,549	0,333	1,585	55,789	0,244	49,169
09:03	4	20	785	0,200	2,322	46,276	0,005	7,617	20,797	0,103	33,537
09:04	4	14	37	0,286	1,807	52,530	0,108	3,209	38,392	0,197	45,461
09:05	3	46	111	0,065	3,939	28,695	0,027	5,209	23,327	0,046	26,011
09:06	11	72	103	0,153	2,710	56,069	0,107	3,227	51,738	0,130	53,903
09:07	2	7	2	0,286	1,807	35,621	1,000	0,000	100,000	0,643	67,810
09:08	6	17	201	0,353	1,503	63,241	0,030	5,066	33,786	0,191	48,513
10:01	2	3	2	0,667	0,585	63,093	1,000	0,000	100,000	0,833	81,546
10:02	2	10	241	0,200	2,322	30,103	0,008	6,913	12,638	0,104	21,370
10:03	4	11	5290	0,364	1,459	57,813	0,001	10,369	16,169	0,182	36,991
10:04	2	4	13	0,500	1,000	50,000	0,154	2,700	27,024	0,327	38,512
10:05	5	10	30	0,500	1,000	69,897	0,167	2,585	47,320	0,333	58,608
25:01	2	12	18	0,167	2,585	27,894	0,111	3,170	23,981	0,139	25,938
25:02	2	2	14	1,000	0,000	100,000	0,143	2,807	26,265	0,571	63,132
25:03	2	11	79	0,182	2,459	28,906	0,025	5,304	15,863	0,104	22,385
25:04	2	2	99	1,000	0,000	100,000	0,020	5,629	15,084	0,510	57,542
25:05	3	3	350	1,000	0,000	100,000	0,009	6,866	18,754	0,504	59,377
26:01	2	11	51	0,182	2,459	28,906	0,039	4,672	17,629	0,111	23,268
26:02	2	45	18	0,044	4,492	18,209	0,111	3,170	23,981	0,078	21,095
26:03	5	45	20	0,111	3,170	42,280	0,250	2,000	53,724	0,181	48,002
26:04	2	21	64	0,095	3,392	22,767	0,031	5,000	16,667	0,063	19,717
26:05	3	17	97	0,176	2,503	38,776	0,031	5,015	24,015	0,104	31,396
26:06	7	88	108	0,080	3,652	43,461	0,065	3,948	41,560	0,072	42,511
26:07	2	45	6639	0,044	4,492	18,209	0,000	11,697	7,876	0,022	13,042
26:08	2	21	133	0,095	3,392	22,767	0,015	6,055	14,174	0,055	18,470
26:09	14	67	27	0,209	2,259	62,765	0,519	0,948	80,072	0,364	71,419
26:10	3	45	93	0,067	3,907	28,860	0,032	4,954	24,238	0,049	26,549
26:11	3	66	274	0,045	4,459	26,222	0,011	6,513	19,572	0,028	22,897
26:12	2	45	137	0,044	4,492	18,209	0,015	6,098	14,088	0,030	16,149
26:13	2	66	259	0,030	5,044	16,544	0,008	7,017	12,474	0,019	14,509
28:01	2	34	224	0,059	4,087	19,656	0,009	6,807	12,808	0,034	16,232
28:02	2	6	357	0,333	1,585	38,685	0,006	7,480	11,793	0,169	25,239
28:03	2	15	8	0,133	2,907	25,596	0,250	2,000	33,333	0,192	29,465
28:04	2	4	939	0,500	1,000	50,000	0,002	8,875	10,127	0,251	30,063
28:05	3	15	594	0,200	2,322	40,568	0,005	7,629	17,201	0,103	28,885
28:06	2	15	198	0,133	2,907	25,596	0,010	6,629	13,107	0,072	19,352
29:01	2	2	4	1,000	0,000	100,000	0,500	1,000	50,000	0,750	75,000
29:02	2	5	11	0,400	1,322	43,068	0,182	2,459	28,906	0,291	35,987
29:03	3	3	89	1,000	0,000	100,000	0,034	4,891	24,475	0,517	62,238

40:01	2	20	660	0,100	3,322	23,138	0,003	8,366	10,677	0,052	16,907
40:02	2	9	2	0,222	2,170	31,546	1,000	0,000	100,000	0,611	65,773
40:03	3	97	11	0,031	5,015	24,015	0,273	1,874	45,816	0,152	34,915
40:04	2	97	357	0,021	5,600	15,152	0,006	7,480	11,793	0,013	13,472
40:05	2	4	69	0,500	1,000	50,000	0,029	5,109	16,371	0,264	33,185
40:06	2	97	10	0,021	5,600	15,152	0,200	2,322	30,103	0,110	22,627
40:07	4	7	248	0,571	0,807	71,241	0,016	5,954	25,144	0,294	48,193
40:08	9	97	1257	0,093	3,430	48,030	0,007	7,126	30,789	0,050	39,409
40:09	2	97	95	0,021	5,600	15,152	0,021	5,570	15,221	0,021	15,186
40:10	2	97	23	0,021	5,600	15,152	0,087	3,524	22,106	0,054	18,629
40:11	2	6	766	0,333	1,585	38,685	0,003	8,581	10,437	0,168	24,561
40:12	3	13	107	0,231	2,115	42,832	0,028	5,157	23,511	0,129	33,171
40:13	9	13	161	0,692	0,531	85,663	0,056	4,161	43,240	0,374	64,452
40:14	3	136	80	0,022	5,503	22,363	0,038	4,737	25,071	0,030	23,717
40:15	4	8	434	0,500	1,000	66,667	0,009	6,762	22,827	0,255	44,747
40:16	6	39	11	0,154	2,700	48,908	0,545	0,874	74,722	0,350	61,815
40:17	2	136	2	0,015	6,087	14,109	1,000	0,000	100,000	0,507	57,055
40:19	13	39	13	0,333	1,585	70,012	1,000	0,000	100,000	0,667	85,006
40:20	4	97	6639	0,041	4,600	30,303	0,001	10,697	15,752	0,021	23,028
40:21	2	97	13	0,021	5,600	15,152	0,154	2,700	27,024	0,087	21,088
40:22	2	97	108	0,021	5,600	15,152	0,019	5,755	14,804	0,020	14,978
41:01	2	13	6	0,154	2,700	27,024	0,333	1,585	38,685	0,244	32,855
41:02	3	23	13	0,130	2,939	35,038	0,231	2,115	42,832	0,181	38,935
41:03	4	30	76	0,133	2,907	40,759	0,053	4,248	32,011	0,093	36,385
41:04	2	3	78	0,667	0,585	63,093	0,026	5,285	15,910	0,346	39,501
41:05	2	4	7	0,500	1,000	50,000	0,286	1,807	35,621	0,393	42,810
41:06	2	2	3	1,000	0,000	100,000	0,667	0,585	63,093	0,833	81,546
41:08	3	23	350	0,130	2,939	35,038	0,009	6,866	18,754	0,070	26,896
41:09	2	23	255	0,087	3,524	22,106	0,008	6,994	12,509	0,047	17,308
41:10	4	23	88	0,174	2,524	44,213	0,045	4,459	30,962	0,110	37,588
44:01	3	20	6	0,150	2,737	36,673	0,500	1,000	61,315	0,325	48,994
44:02	2	11	35	0,182	2,459	28,906	0,057	4,129	19,496	0,119	24,201
44:03	5	5	5	1,000	0,000	100,000	1,000	0,000	100,000	1,000	100,000
44:04	7	20	140	0,350	1,515	64,956	0,050	4,322	39,378	0,200	52,167
44:05	3	29	51	0,103	3,273	32,626	0,059	4,087	27,942	0,081	30,284

46:01	4	21	184	0,190	2,392	45,534	0,022	5,524	26,583	0,106	36,059
46:02	4	102	485	0,039	4,672	29,974	0,008	6,922	22,417	0,024	26,196
46:03	8	21	204	0,381	1,392	68,301	0,039	4,672	39,101	0,210	53,701
46:04	3	6	45	0,500	1,000	61,315	0,067	3,907	28,860	0,283	45,087
46:05	4	79	15	0,051	4,304	31,727	0,267	1,907	51,192	0,159	41,459
46:06	2	11	43	0,182	2,459	28,906	0,047	4,426	18,429	0,114	23,668
46:07	2	9	2	0,222	2,170	31,546	1,000	0,000	100,000	0,611	65,773
46:08	2	4	3	0,500	1,000	50,000	0,667	0,585	63,093	0,583	56,546
46:09	2	26	4	0,077	3,700	21,275	0,500	1,000	50,000	0,288	35,637
46:10	2	77	111	0,026	5,267	15,957	0,018	5,794	14,718	0,022	15,338
46:11	2	102	38	0,020	5,672	14,987	0,053	4,248	19,055	0,036	17,021
46:12	2	2	5	1,000	0,000	100,000	0,400	1,322	43,068	0,700	71,534
46:14	3	65	594	0,046	4,437	26,318	0,005	7,629	17,201	0,026	21,760
46:15	2	17	1921	0,118	3,087	24,465	0,001	9,908	9,168	0,059	16,816
46:16	3	79	8	0,038	4,719	25,143	0,375	1,415	52,832	0,206	38,988
46:17	2	141	2525	0,014	6,140	14,006	0,001	10,302	8,848	0,007	11,427
46:18	9	65	64	0,138	2,852	52,636	0,141	2,830	52,832	0,140	52,734
46:19	2	65	2	0,031	5,022	16,605	1,000	0,000	100,000	0,515	58,302
46:20	2	102	581	0,020	5,672	14,987	0,003	8,182	10,890	0,012	12,939
46:21	4	17	6	0,235	2,087	48,930	0,667	0,585	77,371	0,451	63,150
46:22	6	7	144	0,857	0,222	92,078	0,042	4,585	36,053	0,449	64,066
46:23	2	6	506	0,333	1,585	38,685	0,004	7,983	11,132	0,169	24,909
46:24	5	91	65	0,055	4,186	35,679	0,077	3,700	38,555	0,066	37,117
46:25	6	38	251	0,158	2,663	49,257	0,024	5,387	32,427	0,091	40,842
46:26	12	26	12	0,462	1,115	76,269	1,000	0,000	100,000	0,731	88,134
46:27	2	76	1333	0,026	5,248	16,005	0,002	9,380	9,633	0,014	12,819
46:28	2	7	145	0,286	1,807	35,621	0,014	6,180	13,928	0,150	24,774
46:29	2	4	2	0,500	1,000	50,000	1,000	0,000	100,000	0,750	75,000
46:30	2	14	74	0,143	2,807	26,265	0,027	5,209	16,104	0,085	21,185
46:31	3	79	3	0,038	4,719	25,143	1,000	0,000	100,000	0,519	62,572
46:32	2	2	34	1,000	0,000	100,000	0,059	4,087	19,656	0,529	59,828
46:33	3	65	274	0,046	4,437	26,318	0,011	6,513	19,572	0,029	22,945
46:35	4	76	432	0,053	4,248	32,011	0,009	6,755	22,844	0,031	27,428
46:36	2	76	59	0,026	5,248	16,005	0,034	4,883	16,999	0,030	16,502
46:37	5	21	1075	0,238	2,070	52,863	0,005	7,748	23,058	0,121	37,961
46:38	2	11	274	0,182	2,459	28,906	0,007	7,098	12,349	0,095	20,628
46:39	18	141	231	0,128	2,970	58,406	0,078	3,682	53,108	0,103	55,757
46:40	3	3	3	1,000	0,000	100,000	1,000	0,000	100,000	1,000	100,000
46:41	4	76	6	0,053	4,248	32,011	0,667	0,585	77,371	0,360	54,691
46:42	2	7	406	0,286	1,807	35,621	0,005	7,665	11,540	0,145	23,580
49:01	2	10	403	0,200	2,322	30,103	0,005	7,655	11,555	0,102	20,829
49:02	2	2	13	1,000	0,000	100,000	0,154	2,700	27,024	0,577	63,512
49:03	2	2	248	1,000	0,000	100,000	0,008	6,954	12,572	0,504	56,286
49:04	2	17	5290	0,118	3,087	24,465	0,000	11,369	8,085	0,059	16,275
49:05	6	26	626	0,231	2,115	54,994	0,010	6,705	27,825	0,120	41,410
49:06	2	2	1921	1,000	0,000	100,000	0,001	9,908	9,168	0,501	54,584
49:07	3	10	1921	0,300	1,737	47,712	0,002	9,323	14,531	0,151	31,121
49:08	3	12	464	0,250	2,000	44,211	0,006	7,273	17,893	0,128	31,052
49:09	2	3	581	0,667	0,585	63,093	0,003	8,182	10,890	0,335	36,992
49:10	3	14	142	0,214	2,222	41,629	0,021	5,565	22,168	0,118	31,899
49:11	3	10	42	0,300	1,737	47,712	0,071	3,807	29,393	0,186	38,553
49:12	7	26	432	0,269	1,893	59,725	0,016	5,948	32,066	0,143	45,896
49:13	5	43	26	0,116	3,104	42,791	0,192	2,379	49,398	0,154	46,094
49:14	5	26	291	0,192	2,379	49,398	0,017	5,863	28,369	0,105	38,883

53:01	4	13	485	0,308	1,700	54,048	0,008	6,922	22,417	0,158	38,232
53:02	2	2	2	1,000	0,000	100,000	1,000	0,000	100,000	1,000	100,000
53:03	3	14	1921	0,214	2,222	41,629	0,002	9,323	14,531	0,108	28,080
53:04	3	5	42	0,600	0,737	68,261	0,071	3,807	29,393	0,336	48,827
55:02	5	112	506	0,045	4,485	34,109	0,010	6,661	25,848	0,027	29,979
55:03	4	89	12	0,045	4,476	30,885	0,333	1,585	55,789	0,189	43,337
55:04	2	112	7	0,018	5,807	14,690	0,286	1,807	35,621	0,152	25,155
55:05	3	23	6	0,130	2,939	35,038	0,500	1,000	61,315	0,315	48,176
55:06	4	6	5	0,667	0,585	77,371	0,800	0,322	86,135	0,733	81,753
55:07	3	26	5290	0,115	3,115	33,719	0,001	10,784	12,814	0,058	23,267
55:08	2	89	2	0,022	5,476	15,442	1,000	0,000	100,000	0,511	57,721
55:09	2	3	98	0,667	0,585	63,093	0,020	5,615	15,118	0,344	39,105
55:10	2	8	7	0,250	2,000	33,333	0,286	1,807	35,621	0,268	34,477
55:11	2	89	8	0,022	5,476	15,442	0,250	2,000	33,333	0,136	24,388
55:12	2	89	7	0,022	5,476	15,442	0,286	1,807	35,621	0,154	25,532
55:13	4	89	506	0,045	4,476	30,885	0,008	6,983	22,264	0,026	26,574
55:14	2	89	367	0,022	5,476	15,442	0,005	7,520	11,738	0,014	13,590
55:15	2	89	40	0,022	5,476	15,442	0,050	4,322	18,790	0,036	17,116
55:16	3	89	362	0,034	4,891	24,475	0,008	6,915	18,647	0,021	21,561
55:17	3	6	5	0,500	1,000	61,315	0,600	0,737	68,261	0,550	64,788
55:18	2	23	15	0,087	3,524	22,106	0,133	2,907	25,596	0,110	23,851
55:19	5	89	108	0,056	4,154	35,856	0,046	4,433	34,374	0,051	35,115

Our main interest, as we have made clear already, was in average redundancy, itemized at column 12. Therefore, we instructed the computer to split the foregoing data into groups, nominal and verbal collocations, and to arrange the data in each group in descending order of average redundancy, omitting from the tabulation any 'data-restricted' items. We suspected, on general statistical grounds (see Ch. 7, Sect. B), that as the number of instances of a collocation declined, so also would the reliability of our measure. Thus, for this first ordering, any item occurring only twice was omitted from the tabulation.

B. REDUNDANCY RESULTS

In view of the fact that the data had already been analyzed quite thoroughly in Ch. 9, we decided to present our results in a simple form, amenable to easy checking.

Each collocation is given in order of its position on column 12. The first line of an entry consists of (a simplified form of) the collocation with its identifying number, immediately preceded by an unbracketed number, indicating its ranking on column 12 when all items of a frequency greater than two are taken into account. If the collocation occurs four or more times, a bracketed number precedes this figure (right at the beginning of the line) to indicate the collocation's position when only collocations of a frequency greater than three are included. As already mentioned, we expected that the reliability of redundancy, or any other statistical phenomenon, as a measure would diminish with a reduction in frequency of data, and the dual ranking (greater than three, . . . greater than two) was introduced to take some account of this. Items of frequency greater than four were too rare to justify further refinement of this procedure. The last item on the first line is the average redundancy of the collocation.

The second, and any subsequent, line of each entry is a very brief note-form summary of the item's description in Ch. 9.

At the end of this 'annotated tabulation' we provide some preliminary remarks about the ranking achieved and suggest some modifications of data. This is prior to the conclusion proper in Sect. E.

1. VERB-COLLOCATIONS

(1) 1. 40:13. סר יסין וטסאול. 64.452%

Pleonastic/emphatic expression containing independent merismus (יסין וטסאול; 40:19). Retained as an idiom in Modern Hebrew.

(2) 2. 46:21. טם נפש בכף. 63.150%

Symbol containing independent metonymy or originally vivid metaphor. Develops 'existential' variant (נפשי בכפי) with same sense. Retained, with variant, as idiom in Modern Hebrew.

3. 29:03. דבקה לחך לשון. 62.238%

Associated, as in Modern Hebrew, with silence; once, perhaps, symbolic of same. Once symbolic/indexical of thirst.

(3) 4. 10:05. ברעה על-ברביים. 58.608%

Three times associated with intercession with human or divine figure; twice (in consecutive verses) describes action with no such association.

(4) 5. 46:03. הצייל סבף. 53.701%

Contains independent metonymy/semi-preposition.

(5) 6. 46:18. פרש כפיים. 52.734%

(Describes gesture) associated with/symbolic of prayer, usually intercessory. Once, of anguished 'secular' pleading, or index of pain.

(6) 7. 26:03. הושיעה לו זרועו. 48.002%

Literal collocation (though זרוע metonymic?), developing colligational variants, with idiomatic value derived from its cultic background.

(7) 8. 09:04. יצר מבטן. 45.461%

Always associated with a call to serve as prophet.

(8) 9. 40:15. עמד על-יסין. 44.747%

Unidiomatic, although containing an expression (עמד על-) associated with military/judicial contexts.

(9) 10. 55:03. הגתה לשון. 43.337%

Hypostatic/synecdochical value for לשון.

(10) 11. 26:06. שבר זרוע. 42.511%

Usually employed as a non-lexicalized, 'vivid', metaphor.

(11) 12. 49:05. נושא על־בחה. 41.410%

With ב, literal; with other prepositions, possibly indexical and symbolic.

13. 46:16. ספק כפיים. 38.988%

(Describes a gesture) symbolic of/associated with anger/frustration and contempt; also drunken joy (if emendation accepted).

(12) 14. 53:01. הבה לחי. 38.232%

(Describes action). symbolic/indexical of anger, humiliation, assault.

(13) 15. 46:24. חקע כף. 37.117%

Normally associated with, as gestural re-inforcement of, contract, perhaps developing into (symbolic) *terminus technicus*. Also symbolic of *Schadenfreude*, and associated with acclamation.

(14) 16. 46:01. הושיע כף. 36.059%

Equivalent to 46:03 (Item (6)).

17. 40:03. הושיעה לו יסיון. 34.915%

A slightly more idiomatic version of 26:03 (Item 7).

(15) 18. 09:03. יצא סבטן. 33.537%

A vivid, hence unidiomatic, metaphor of birth.

19. 40:12. נשה יסיון ושמאול. 33.171%

Equivalent to 40:13 (Item 1).

20. 49:07. נחן עלי־בחה. 31.121%

Literal.

21. 49:08. עבר אלי־בחה. 31.052%

Literal; בחה in geographical sense.

(16) 22. 55:02. דיברה לשון. 29.979%

Hypostatic or synecdochical use of לשון.

23. 28:05. נשא בחיק. 28.885%

Twice within simile, associated with concern; once symbolic of remembering.

24. 53:03. גחך לחי.

28.080%

Once literal (animal anatomy); twice associated with (with accompanying 'explanation') humiliation.

(17) 25. 46:02. הזכה בקף.

26.196%

(Describes gesture). symbolic/indexical of anger, command/assent, congratulation; also distress if הזכה בקף is included.

26. 09:05. סילא בטך.

26.011%

Twice, perhaps, symbolic of acquisition of greedy wealth, but probably represents non-idiomatic coalescence of constituents each with metonymic value.

27. 46:14. וטא כפיים.

21.760%

(Describes gesture) symbolic of/associated with praise/adoration, love/welcome, intercession; also prayer (if וטא-כפיים is included) and superficial, worthless, prayer (if emendation accepted).

In respect of the ranking of bracketed items (frequency four or more), (1), (2), and (3) all possess a consistent symbolic/associative value. Item (4) is not idiomatic, although it contains an idiomatic sub-sequence (but see below). Item (5) (אָפּ אַרײַנפֿירן) probably represents the same 'intercessory' idiom throughout, and this is more certainly true if the two piel forms of the collocation are omitted. The following set of statistics is then yielded:

7 65 58 0.108 3.215 46.615 0.121 3.051 47.924 0.114 47.270%.

But a score of above 50% is restored if the qal nominalization at 1 Kings 8.54 is added:

8 65 58 0.123 3.022 49.814 0.138 2.858 51.212 0.131 50.513%.

More precise specification of data from the sub-50% group, yields further 'idioms', scoring over 50%.

For example, for Item (7) (אָפּ אַרײַנפֿירן), it is noticeable that one of the instances of the collocation differs from the remaining three in respect of not only its preposition (אָ rather than אַ), but also the form of verb used (indicative rather than suffixed participle). By removing this instance, we obtain a more structurally consistent (hence, more likely to be idiomatic) group of data, and the following statistics:

3 10 7 0.300 1.737 47.712 0.429 1.222 56.458 0.364 52.085%.

Similarly, we can isolate an idiom in Item (11) (נשא על-כתף), first by removing the instance of the collocation with preposition ב, secondly, by treating the one occurrence with preposition אל as (an error for) a further instance of על, and thirdly, by subtracting the one instance of this modified form of the collocation in which כח is construct and, thus, cannot share the 'middle' or 'reflexive' value of the four absolute instances, 'lift onto one's own shoulders', meaning (idiomatically) 'take on/be given an unwanted task'. This yields the following figures:

4 4 626 1.000 0.000 100.000 0.006 7.290 21.528 0.503 60.764%.

After modification of these two items, then, the remaining items scoring under 50%, where they are idiomatic at all, do not maintain their idiomaticity in a consistent manner (they have more than one distinct symbolic value) or they express vivid metaphors. Thus, the 50% mark appears to be something of a 'watershed'.

Further examination indicates that this claim holds true when data of frequency three are added. A first exception appears to be Item 3 (דבקה לחך לשון), which has two values, a symbolic and an indexical, although the former ('be silent') predominates. Here again, though, when the data are refined, the high score is found to be more justified, seeing that the indexical value ('be thirsty') is associated with the only instance of the collocation with אל, whereas the symbolic value is found both times with ב (but cf. Ezek. 3.26). The amended set of values for this item is:

2 2 89 1.000 0.000 100.000 0.022 5.476 15.422 0.511 57.721%.

On the other hand, Item 24, נחן לחי, appears to have a consistent 'idiomatic' association with 'humiliation/punishment', but only scores 28%. However, it can hardly be claimed that this expression is an idiom, seeing that it is realized in substantially different surface-structures, and there is no consistency to the inflectional form of the second component. For more on the need of collocational structure at both deep- and surface-levels, see part 2 of this section.

Rather more problematic is the large difference in redundancy values of the apparently synonymous collocations, 1 (1) (וּשְׁטָאוּל) (64%) and 19 (וּשְׁטָאוּל) (33%). Even though it can be plausibly argued that the idiomatic status of the first expression is more assured, by virtue of its frequency, than that of the second, and that a lower degree of collocational bonding in respect of the less frequent collocation might be indicated by the use of the first two components to represent a different grammatical structure (וּשְׁטָאוּל 'you stretched out your hand'; Exodus 15.12), the difference in redundancy scores still remains rather large.

A resolution of the difficulty is achieved if the collocations are conflated, that is, treated as part of a single, idiomatic, colligation. By this procedure we obtain the following statistics for the colligation as a whole:

12 13 268 0.923 0.115 96.879 0.045 4.481 44.445 0.484 70.662%.

We can deal somewhat similarly with the difference in redundancy-value of Items 7 (6), הושיעה לו זרועו (48%) and 17, הושיעה לו ימינו (35%). The 'idiomatic' value of these collocations is distributed over the colligational unit הושיעה לו זרועו/ימינו/ידו. Conflation of the constituent collocations (omitting three non-surface-structure occurrences of our two collocations and one 'recapitulated' occurrence of the third) yields for the colligation as a whole the following approximate statistics:

7 1385 20 0.005 7.628 26.902 0.350 1.515 64.956 0.178 45.929%.

This redundancy figure reflects more accurately the 'almost-idiomatic' status of the colligation.

In addition to the theoretical difficulties caused by conflation, or the assumption of colligations (see Sect. E), its application does not always lead to the desired or predicted results. This is illustrated in connection with a third 'colligational' unit amongst our data, namely Items (4), הצייל סכף (54%), and (14), הושיע סכף (36%). It could be argued that the 18% difference in scores is justified merely because the more frequent 'variant' of an idiom is 'more idiomatic' (see above on Items 1 and 19). It is also possible that a more essential difference in idiomatic status is betokened. As Sawyer points out (see the entries in Ch. 9), הצייל typically occurs with -סן, but this is not true of הושיע. Thus, it could be argued that הצייל סכף, but not הושיע סכף, conceals סכף 'idiomatic sub-sequences', not only the semi-preposition סכף, but also, perhaps, a 'phrasal verb', הצייל סן. Hence, the difference in rank.

Such arguments, though, run counter to our intuitions that Item (4) (and Item (14)) is less 'idiomatic' than the other collocations scoring over 50%, and it would, in fact, seem more desirable to conflate these two collocations (along with all other instances of 'verbs of salvation' plus -ן followed by קָדַם/קָדָם) into a colligation to yield a redundancy figure for the colligation as a whole. On the basis of the colligation's lack of idiomaticity, we should predict its value to be lower than 50%.

In fact, though, this prediction is not upheld. Assuming as data the sum of the frequencies of all forms of the verbs נָאָל (59), יָשַׁע (205), פָּלַט (95), נִצַּל (213), פָּדָה (63), פָּלַט (27), and פָּרַק (10), all occurrences of construct/suffixed forms of קָדַם (23) and קָדָם (203), and all occurrences of the colligation (including those where the prepositional phrase is dominated by one of the verbs only at deep-structure, as well as 'recapitulated' and 'parallel' occurrences), the following set of statistics for the colligation emerges:

121 226 672 0.535 0.901 88.474 0.180 2.473 73.665 0.358 81.070%.

2. NOUN-COLLOCATIONS

(1) 1. 44:03. יוֹחֲרַת עַל־כְּבוֹד עַל־כְּלִיּוֹת. 100.000%

Unidiomatic; technical term.

2. 46:40. מְכַפֵּר־רַגַל וְעַד־קִדְקִד. 100.000%

Contextually-restricted merismus, 'all over, utterly', possibly with specific connotations derived from its formulaic origins. Includes Item (6).

(2) 3. 40:19. יִמִּין וְשִׂמְאוֹל. 85.006%

Always (except possibly, once) meristic and pleonastic, 'in any way whatsoever'.

(3) 4. 55:06. בְּכַתֵּב וּבְלִשׁוֹן. 81.753%

Some evidence of idiomatic value, 'in an understandable way'.

Retained as an idiom, 'exactly as instructed', in Modern Hebrew.

(4) 5. 26:09. זָרוּעַ וְטוֹיָה. 71.419%

(Describes a gesture) associated with/symbolic of '(with) great power, (by) force'; retained in Modern Hebrew.

6. 55:17. כלשון-עם ועם. 64.788%

Unidiomatic; includes a distributional expression עם ועם.

7. 46:31. כפוח וסוקיות. 62.572%

Unidiomatic; contextually restricted.

(5) 8. 40:16. שוקייםין. 61.815%

Technical term, possibly with slight idiomatic specialization, 'hind right thigh'.

9. 25:05. ראש וזקן. 59.377%

Twice it refers, literally, to each of the conjoined referents; once it appears as a 'compound-noun', symbolizing (meristically), like the disjunctive collocation, 'hair'. Appears in three different surface structures.

(6) 10. 46:39. בפרגל. 55.757%

One sense ('sole') of first component is unique to this collocation. The collocation is often pleonastic for the second component, and usually associated with an 'emphatic' context. Some evidence that it has become a 'compound-noun'.

(7) 11. 09:06. פרי-בטן. 53.903%

Indexical, 'child (of mother)', developing into symbolic, 'child (of either parent)'.
.

(8) 12. 44:04. שחי-כליות. 52.167%

Unidiomatic; technical term.

(9) 13. 09:02. חדרי-בטן. 49.169%

Collocation unidiomatic, though בטן is variously a live or a dead ('lexicalized') metaphor, 'mind'. One instance appears in what might be a 'duplicate' passage.

14. 44:01. בוחן-כליות. 48.994%

Strong association with requital in Jeremiah at least, also shared by New Testament equivalent (with following וּלְבָב).

(10) 15. 09:08. סבטן-אם. 48.513%

Three times the expression is literal; elsewhere it could be a pleonastic/emphatic version of סבטן (and variants) in an indexical sense of 'always'.

(11) 16. 40:07. חמט טיסין. 48.193%

Literal, but data restricted to 1 Kings 7:12 Chr. 4 (details of First Temple).

17. 55:05. כבד־לשון. 48.176%

Probably, idiomatic to the extent that 'hard of speaking' (with metonymic values for both Hebrew components) is regarded as only indirectly, or 'oddly', meaning 'unable to speak well'. Frequency just two if occurrences of Ezekiel 3.5f. conflated.

(12) 18. 49:13. בחף יסניח. 46.094%

Unidiomatic; בחף, architectural.

(13) 19. 49:12. בחף־בית. 45.896%

Possibly, slight idiomatic specialization of collocational meaning based on בחף as architectural term.

20. 46:04. חמט בכפיים. 45.087%

Possibly בכפיים is idiomatic, 'at one's control', with collocation as a whole then, perhaps, meaning 'abuse a position of authority for evil ends'. Note surface-structure-variations. Frequency four if פעל־חמט בכפיים included.

(14) 21. 46:05. יוגיע-כפיים. 41.459%

Twice possibly, symbolic, 'handiwork, artefact', unless כפיים always synecdochical.

(15) 22. 46:25. סבף-אויב. 40.842%

Only idiomatic to the extent that סבף is 'semi-prepositional'.

(16) 23. 40:08. יד-יםין. 39.409%

Probably unidiomatic.

24. 41:02. יוצאי-ירך. 38.935%

Twice indexical, 'natural descendant(s)', developing specific symbolic value of 'rightful heir(s)'.

(17) 25. 49:14. כחף-שער. 38.883%

Architectural value for כחף (cf. Items (12)-(13)). To a degree the second component is pleonastic.

(18) 26. 46:37. סבף-סלך. 37.961%

For idiomaticity cf. Item (15).

(19) 27. 41:10. ירד-טשבו. 37.588%

(Lexicalized) metaphorical value for ירד.

(20) 28. 10:03. בל-ברד. 36.991%

ברד at least once synecdochical.

(21) 29. 55:19. לשון-שקר. 35.115%

לשון variously hypostatic, metonymic, synecdochical.

30. 26:05. יטין וזרוע. 31.396%

A word-pair perhaps developing into a syntactically-structured collocation, through its association with 'emphatic' contexts.

31. 44:05. בליות ולב. 30.284%

Conjunction of equivalent metonymies, always within a legal context, possibly yielding a meristic-intensive value to the collocation as a whole.

32. 41:08. ירד-יעקוב. 26.896%

Unidiomatic.

(22) 33. 55:13. תחת לשון. 26.574%

A somewhat strange expression in that it can be applied to abstract and concrete objects; nonetheless, unidiomatic.

34. 26:10. זרוע-עוֹז. 26.549%

Collocation is literal throughout with זרוע having anatomical or metonymic value. Emendation could yield one more or one less instance.

35. 40:14. עין-יָסִין. 23.717%

Literal, although contextually restricted. Frequency just two if two instances at Zech. 11.17 are conflated.

36. 55:07. כַּל־לשון. 23.267%

לשון hypostatic, synecdochical, and/or metonymic.

(23) 37. 40:20. יָסִין-יָהוּהָ. 23.028%

יָסִין hypostatic/instrumental.

38. 46:33. כַּפּוֹת-יָדָיִם. 22.945%

Various literal, anatomical, interpretations.

Metaphorical use of לטון, although once a literal (mythological) value might (also) be intended.

Of the eight items scoring above 50%, four, (2), (4), (6), (7), are clearly 'idiomatic', although we might wish to specify the data more precisely in order to reduce slightly some of the figures. The idiomaticity of Item (3) is less certain, but still possible.

Items (1), (5), and (8) do not appear to be idiomatic in any 'materially adequate' sense. They are all expressions of P, and, at best, might each be classed as a *terminus technicus* of the sacrificial cult (the collocations never have human reference). The eighteen instances of these three collocations are found in just 12 verses (excluding 'recapitulations') of the Pentateuch, all concerned with the same area of reference. They, are, thus, a form of 'restricted data', which it would be desirable to isolate during data-selection, and, perhaps, subsequently omit for purposes of calculation - see below, Sect. E.

Below 50%, the only item which might be regarded as idiomatic is (10), ים-טון, which does seem to represent a special value not expressed by its counterpart with ים. But this too scores just above the 50% mark when the one instance with י for י is removed:

5 10 201 0.500 1.000 69.897 0.025 5.329 30.348 0.262 50.122%.

Item (9), חדריי-בטר, scores only just below 50% (49%), even though it is, apparently, unidiomatic. But if one of its occurrences is regarded as occurring in a 'duplicate passage', its score reduces significantly:

3 25 11 0.120 3.059 11.578 0.273 1.874 45.816 0.196 28.697%.

Somewhat similarly, if the immediately adjacent occurrences of non-idiomatic items (11), (12), and (13) are conflated, each of these collocations scores 40% or less.

When data of frequency three are included, the 'absolute-redundancy' value of 100% for the idiomatic item, 2, and the over-50% score of non-idiomatic item 7 (also (1) and (3)) are caused by the presence within the collocation of one or more 'cranberry collocates' (see Ch. 5, Sect. F, 2). These 'cranberries' are of two kinds. The first type, exemplified by סנקייה in Item 7 is 'language-genuine', that is, it represents an actual lexical item within the language, or at least the available corpus. The second type, which is much more frequent in our data, is the 'analysis-created' cranberry, a uniquely occurring combination of lexemes, which usually have no status as lexical items or lexicalized combinations within the language, but come about simply because of our decision to treat all collocations, of whatever number of constituents, as combinations of two collocates. Any collocation containing a cranberry of either type should be, and very easily can be, marked out in the selection process, because it will automatically obtain a value of over 50% redundancy (and over 0.5 transition-probability) and, thus, needs to be distinguished from high-scoring items which do not have this 'head-start'.

Already, above in connection with 53:03, we have suggested that identity of forms at deep-structure has to be matched on the surface, if we are to be assured of an expression's 'idiomaticity'. This requirement reflects the fact that for a particular sequence of words to be 'idiomatized' within a particular culture implies that speakers have a strong sense of the collocation as a single, coalesced, 'lexical', or 'word-like', unit. Just as an individual lexeme tends not to permit interruption by other lexical material, so we should expect that the more 'idiomatic' a collocation, the less 'interruptable' its (surface) form. Thus, collocations that do not appear in a consistent surface-structure form need to be marked out during selection. For instance, neither Item 6, כִּלְשׁוֹן־עַם וְעַם, as a whole, nor the distributional expression (עַם־וְעַם; cf. GK 123c) within it, represents an idiom, although it scores highly. But the collocation is expressed in two different forms, עַם וְעַם כִּלְשׁוֹן (Esther 3.12; 8.9) and עַם כִּלְשׁוֹן וְעַם (Neh. 13.24). Taking only the first form, the following set of statistics is yielded:

55:17 2 6 5 0.333 1.585 38.685 0.400 1.322 43.068 0.367 40.876%.

We can likewise reduce the rather high value of 49% for Item 14, בּוֹחַן כִּלְיֹת, which has a variable surface-structure form despite its quite strong contextual associations (leading eventually to the development, with following בָּלַי, of an idiomatic value). If we eliminate the interrupted (at surface-structure) instance of the item, a much lower score is yielded:

2 20 6 0.100 3.322 23.138 0.333 1.585 38.685 0.217 30.912%.

These values are similar to those obtained for the related item (31), לב כליות (30.284%), indeed they are identical if the one instance of the latter collocation with nouns in the construct state is omitted. Again, this second collocation has too many surface variations (reversal of elements and/or use of construct-state nouns) to be properly regarded as a lexicalized collocational unit, even though לב and כליות form a significant, syntactically unstructured, collocational association.

However, absence of surface-structure consistency is not a guarantee of lack of 'non-idiom' status. A case in point is that of Item 9, ראש וזקן, which does appear to represent a genuine, meristic, idiom, even though it occurs in different surface forms (and includes a 'cranberry collocate'). In this instance, the idiomatic value of the expression is also shared by its ('data-restricted') disjunctive variant. Conflation of these two into a single colligation, ראש-זקן/זקן-ראש, yields the following set of statistics:

5 5 449 1.000 0.000 100% 0.011 6.489 26.354 0.506 63.177%.

Similarly, the 45% score of Item 20 (חכם בכפיים) reflects well the 'almost-idiomatic' status of the collocation, even though it is once instanced in a divergent, relativized, surface-structure form.

C. COMPARISON WITH TRANSITION-PROBABILITY RESULTS

In order to test our claim, in Ch. 7, Sect. B, that redundancy would provide a better measure of stability, hence, idiomatcity, than transition-probability alone, we instructed the computer to tabulate the data by column 11, average transition-probability.

The following lists the verb-collocations of frequency greater than two ('restricted data' excluded). Bracketted numbers refer to the positions of items when only data of frequency four or greater are taken into account.

	1	29:03	דבקה לחד לשון	0.517
(1)	2	46:21	שם נפש בכף	0.451
(2)	3	40:13	סר יסין ושטאול	0.374
(3)	4	10:05	ברעה על-ברכיים	0.333
(4)	5	40:15	עמד על-יסין	0.255
(5)	6	46:03	הציל סכף	0.210
	7	46:16	ספק כפיים	0.206
(6)	8	09:04	יצר סכטן	0.197
(7)	9	55:03	הגחה לשון	0.189
(8)	10	26:03	הושיעה לו זרועו	0.181
(9)	11	53:01	הכה לחי	0.158
	12	40:03	הושיעה לו יסין	0.152
	13	49:07	נתן על-כתף	0.151
(10)	14	46:18	פרש כפיים	0.140
	15	40:12	נטה יסין ושטאול	0.129
	16	49:08	עבר אל-כתף	0.128

(11)	17	49:05	נשא על־כחף	0.120
	18	53:03	נתן לחי	0.108
(12)	19	46:01	הושיע סכף	0.106
(13)	20	09:03	יצא סבטן	0.103
	21	28:05	נשא בחיק	0.103
(14)	22	26:06	טבר זרוע	0.072
(15)	23	46:24	חקע כף	0.066
	24	09:05	פילא בטן	0.046
(16)	25	55:02	דיברה לשון	0.027
	26	46:14	נשא כפיים	0.026
(17)	27	46:02	הבה כף	0.024

Although the tabulation of bracketted items (of frequency greater than three) more or less agrees with that based on redundancy in its placement of the top three and bottom two items, the first five 'idiomatic' items of the redundancy tabulation, appearing there within a range of 12%, are here distributed over a 31% (.14-.45) range, with Item (10) noticeably separated from its idiomatic partners by substantially less idiomatic collocations.

When items of frequency three are included, note the high position of unidiomatic Item 6 (Item 12 in the redundancy ranking). Beyond this, no significant points of difference between the two tabulations arise.

Below is a similarly-presented tabulation of noun-collocations according to average transition-probability.

(1)	1	44:03	יִוְחַרְתָּ עַל־כְּבוֹד עַל־כְּלוֹת	1.000
	2	46:40	מִכְּפָרְגֶל וְעַד־קִדְקִד	1.000
(2)	3	55:06	מִכְּתָב וּמִלִּשׁוֹן	0.733
(3)	4	40:19	יִסִּין וּשְׂמֹאֵל	0.667
	5	55:17	מִלִּשׁוֹן־עַם וְעַם	0.550
	6	46:31	מִפְּוֹת וּמִנְקִיּוֹת	0.519
	7	25:05	רֹאשׁ וְזִקֵן	0.504
(4)	8	26:09	זָרוּעַ וְשׂוֹיָה	0.364
(5)	9	40:16	שׁוּק־יִסִּין	0.350
	10	44:01	בְּרוּחַ־כְּלוֹת	0.325
	11	55:05	מִכְּדִלִּשׁוֹן	0.315
(6)	12	40:07	חֶמֶשׁ מִיִּסִּין	0.294
	13	46:04	חֶמֶשׁ מִכְּפִיּוֹם	0.283
(7)	14	09:02	חֲדָרִי־בֶשֶׁן	0.244
(8)	15	44:04	שְׁתֵּי־כְלוֹת	0.200
(9)	16	09:08	מִבֶּשֶׁן־אֵם	0.191
(10)	17	10:03	מִלִּבְרַד	0.182
	18	41:02	יּוֹצֵא־יִרְד	0.181
(11)	19	46:05	יְגִיעַ־כְּפִיּוֹם	0.159
(12)	20	49:13	מִחַרְף־יִסְגִּיָּת	0.154
(13)	21	49:12	מִחַרְף־בֵּית	0.143
(14)	22	09:06	פְּרִי־בֶשֶׁן	0.130
(15)	23	46:37	מִכְּפָרְסֶלֶךְ	0.121
(16)	24	41:10	יִרְד־מִשְׁכָּן	0.110
(17)	25	49:14	מִחַרְף־שַׁעַר	0.105

	26	26:05	יפין וזרוע	0.104
(18)	27	46:39	כפרגל	0.103
(19)	28	46:25	סכפאריב	0.091
	29	44:05	כליות ולב	0.081
	30	41:08	ירדדיעקוב	0.070
	31	55:07	כללשון	0.058
(20)	32	55:19	לשון שקר	0.051
(21)	33	40:08	ידדיפין	0.050
	34	26:10	זרועעוז	0.049
	35	40:14	עין דיפין	0.030
	36	46:33	כפות ידיים	0.029
(22)	37	55:13	תחת לשון	0.026
(23)	38	40:20	יפין ייהוה	0.021
	39	55:16	לשון יים	0.021

Again, overall, the tabulation for bracketted items appears similar to that obtained by redundancy-analysis. However, there are some noticeable divergences which tend to confirm our view, from comparison of the tabulations in respect of verbs, that probability is a less trustworthy witness to idiomatic value than redundancy. Most striking is the low position and score of Item (18) ((6) in redundancy ranking). Note also the relatively low score of the indexical collocation, Item (14) ((7) in redundancy ranking). The pattern of divergence from the redundancy-tabulation is, in fact, rather similar to that evidenced in the comparison of tabulations for verbs. Because this form of tabulation does not appear to group together the 'most idiomatic' collocations, there is no clear point of demarcation between 'idiomatic' and 'non-idiomatic' scores comparable to the 50% redundancy score.

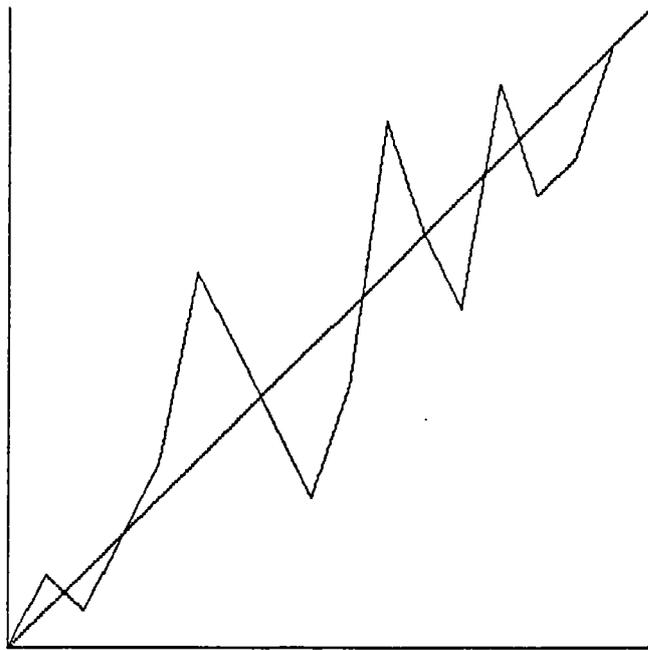
No additional points of significance are raised when the lower-frequency collocations are included.

Thus, on the basis of the limited data examined, it does indeed appear that (average) redundancy is a marginally better measure of 'idiomaticity' than (average) transition-probability (but see the last part of Sect. D, 2).

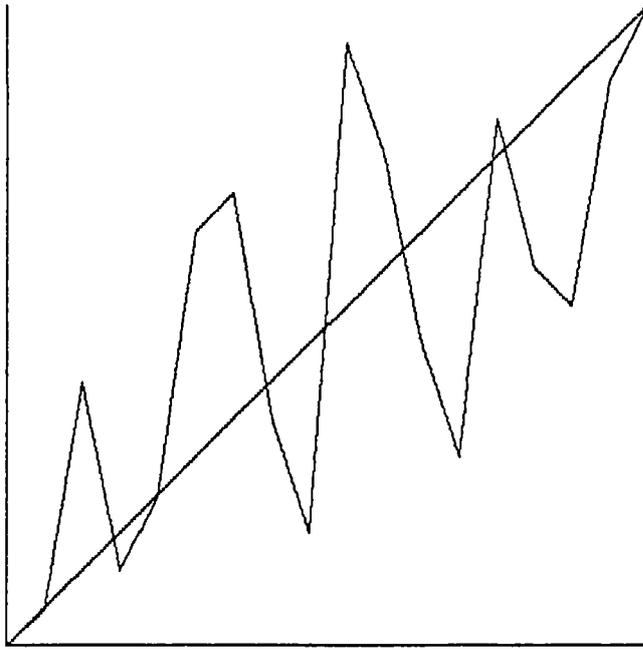
At the end of this section are five computer-generated graphs, which illustrate, in a fairly crude way, the degree of deviation of tabulations by criteria other than redundancy from tabulation by redundancy, of the seventeen verbal collocations occurring four or more times. The first graph illustrates this deviation in respect of average transition-probability, which we have already discussed. The four other graphs indicate the deviations of tabulation by, respectively, transition-probability of stable collocate, redundancy of stable collocate, transition-probability of unstable collocate, and redundancy of unstable collocate.

In these graphs, the bisecting line $x=y$ represents the ranking of items by average redundancy. The jagged line criss-crossing it represents the ranking of items according to a non-redundancy criterion relative to the ranking by redundancy. Where the ranking of items coincides exactly, the two lines meet. Thus, for example, as can be seen from inspection of the the first table of this section and the list of results in Sect. B, 1, the sixteenth- and seventeenth-placed items according to redundancy tabulation are placed in the same position by transition-probability tabulation, and this is reflected in the merging of the two lines at the top right-hand corner of the first graph. The first two items by redundancy-ranking are exchanged in the ranking by transition-probability (2, 1), and this difference is indicated on the same graph by a slight 'peaking' and 'troughing' of the transition-probability line around the redundancy line. The sharp deviation of the item placed fifth by redundancy and tenth by transition-probability is indicated by the low trough in the middle of the graph. Etcetera.

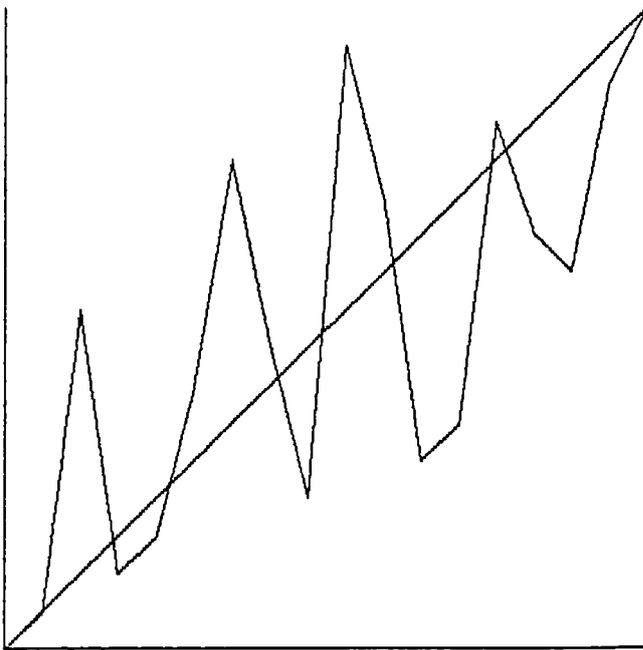
The other graphs can be read in similar fashion. It is clear, from superimposition of the graphs, and observing the average depths of troughs and heights of peaks, that of the five non-redundancy types of tabulation, the one by average transition-probability most closely approximates that by redundancy. And, in general, that the use of transition-probability yields results similar to that of redundancy is illustrated by the similarity of the graph of stable collocate transition-probability to the graph of stable collocate redundancy and of the graph of unstable collocate transition-probability to the graph of unstable collocate redundancy.



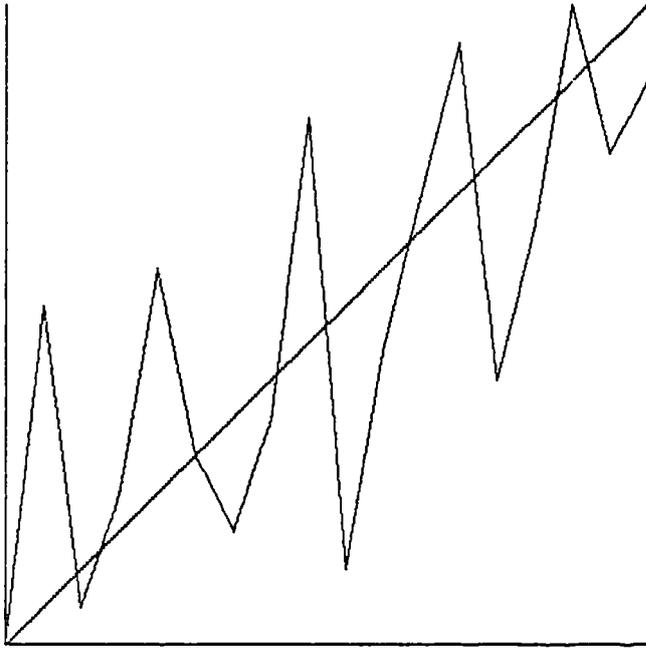
Deviation of Average transition-probability



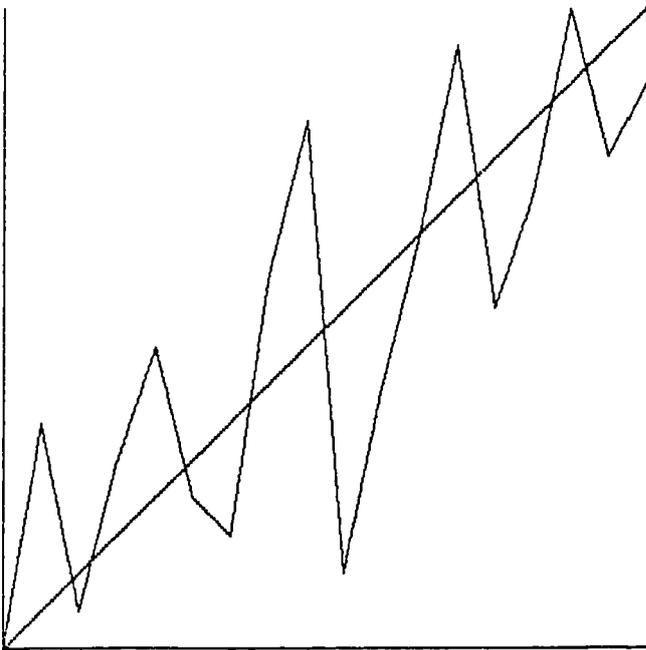
Deviation of Trans.-prob. of stable collocate



Deviation of Redundancy of stable collocate



Deviation of Trans.-prob. of unstable collocate



Deviation of Redundancy of unstable collocate

D. ANALYSIS OF ITEMS OCCURRING ONLY TWICE

Below are two tables (each followed by brief comments) of verb- and noun-collocations (with the exception of 'restricted data') occurring only twice in the corpus. The tables are arranged according to decreasing average redundancy, but ranking by, and score of, average transition-probability is also noted.

1. VERB-COLLOCATIONS

NO.	ITEM	PROB. RANK	PROB. SCORE	REDUND. SCORE
1	53:02 נתן חחים בלחיים	1	1.000	100.000%
2	10:01 הלכו פים כל-ברכיים	2	0.833	81.546%
3	41:06 שם יד תחת ירך	3	0.833	81.546%
4	29:01 שנם חד	4	0.750	75.000%
5	25:02 גרע כל-זקן	5	0.571	63.132%
6	46:19 רחץ בנקיון בפיים	6	0.515	58.302%
7	55:08 לא-חרץ לבני-ישראל לשון	7	0.511	57.721%
8	49:06 נתן בתף סוררת	8	0.501	54.584%
9	41:05 ספק על-ירד	9	0.393	42.810%
10	10:04 ברעה כל-ברד	11	0.327	38.512%
11	49:09 שם על-כתפיים	10	0.335	36.992%
12	46:09 סחא כף	12	0.288	35.637%
13	41:01 חגר חרב על-ירד	14	0.244	32.855%
14	28:04 לקח סחיק	13	0.251	30.063%

15	25:01	גילח זקן	19	0.139	25.938%
16	28:02	השיב אל-חיק	15	0.169	25.239%
17	55:04	החליק לשון	17	0.152	25.155%
18	46:28	פרש כפיוס אל-יהוה	18	0.150	24.774%
19	40:11	ישב ליסין	16	0.168	24.561%
20	55:11	רננה לשון	20	0.136	24.388%
21	26:01	גאל בזרוע	21	0.111	23.268%
22	40:06	חיבקה יסין	22	0.110	22.627%
23	10:02	ילד על-ברכיים	23	0.104	21.370%
24	26:04	חיזק זרועות	25	0.063	19.717%
25	28:06	שכב בחיק	24	0.072	19.352%
26	46:15	נחן בכף	26	0.059	16.816%
27	46:10	פילא כף	27	0.022	15.338%
28	40:04	השיב יסין	28	0.013	13.472%
29	46:20	שם כף	29	0.012	12.939%
30	46:17	עשה כף	30	0.007	11.427%

Of the eight collocations having over 50% redundancy (and over .5 transition-probability), all but two, Items 1 and 4, consistently (twice!) represent idiomatic values. However, this result is not as impressive as it at first seems seeing that most of the items are more than three lexemes long and all of them contain a 'cranberry' collocate (ensuring that they obtain the redundancy/probability figure. stated).

The inadequacy of our measure in respect of data occurring just twice is indicated by the number of collocations scoring below 50% even though we found them to be 'idiomatic' in the same way both times - into this category come Items 9, 10, 12, 25, and 27 (Items 18 and 19 both 'contain' idiomatic expressions, פֶּרַשׁ כַּפִּיִּים and לִיטִין).

Item 10, however, should probably be excluded from our list of collocations as it occurs in two substantially different surface forms.

Item 25, when conflated with its hiphil variant (a 'data-restricted' item), still scores well under 50% (39%), even when the 'point of transition' is taken to be between נִהַלְשֵׁנִי בָּ and חִיקֵר (41%). The only way of obtaining a score of over 50% is by utilizing this point of transition in conjunction with feminine and gender-neutral forms of the verb (thus, נִהַלְשֵׁנִי בְּ). This might be considered a rather artificial procedure, but it does respect the biblical evidence for the use of the collocation (always with female subject - this is true as well of the variant without בְּ). It yields the following statistics:

4 34 6 0.118 3.087 39.312 0.667 0.585 77.371 0.392 58.341%.

When Item 25, כִּף סִילָא, is conflated with סִלְוָא-כִּף (see below, Item 19), a redundancy value of only 29% is obtained. Thus, assuming that it is indeed 'idiomatic', this colligational unit is an exception to the rule that idiomatic items of frequency greater than two have a redundancy value of over 50%.

2. NOUN-COLLOCATIONS

	NO.	ITEM		PROB. RANK	PROB. SCORE	REDUND. SCORE
1	46:12	סנוח לכפר-רגל	1	0.700	71.534%	
2	09:07	תאוסים בבשן	2	0.643	67.810%	
3	40:02	איטר יד-יטין	3	0.611	65.773%	
4	46:07	כל-סקום אשר דרכה בו כפר-רגל	4	0.611	65.773%	
5	49:02	גיא-בו-הגום אל-כתף-היבוס	6	0.577	63.512%	
6	40:17	יטין או שטאול	7	0.507	57.055%	
7	46:08	פזטרות וכפות	5	0.583	56.546%	
8	29:02	פתוק לחד	8	0.291	35.987%	
9	55:10	פילה בלשון	9	0.268	34.477%	
10	55:12	שנו לשון	11	0.154	25.532%	
11	46:23	תחת כפות-רגליים	10	0.169	24.909%	
12	44:02	חלב-כליוית	12	0.119	24.201%	
13	25:03	פאת-זקן	13	0.104	22.385%	
14	46:30	כפות וכלים	15	0.085	21.185%	
15	26:02	גדול-זרוע	16	0.078	21.095%	
16	49:01	בין כתפיים	14	0.102	20.829%	
17	41:09	ירד-סזבח	19	0.047	17.308%	
18	55:15	לשון-חכמים	20	0.036	17.116%	
19	46:11	פלוא-כף	21	0.036	17.021%	
20	40:01	אחד טיטין	18	0.052	16.907%	
21	49:04	כל-כתף	17	0.059	16.275%	
22	28:01	אשת-חיק	22	0.034	16.232%	
23	26:12	זרוע-קודש	23	0.030	16.149%	

24	26:13	זרוע-רשטע	26	0.019	14.509%
25	09:01	בו-בטן	24	0.022	13.161%
26	26:07	זרוע-יזהוה	25	0.022	13.042%
27	46:27	כף-איט	27	0.014	12.819%

Of the over-50% group, only Items 1, 3, and 4, that is, under half the items, might be regarded as idioms. All but Item 7 contains a 'cranberry' collocate (a 'language-genuine' one in the case of Item 3). More positively, there are only two expressions which we believe to have consistent idiomatic value in the sub-50% group, Items 10 and 19 (which forms part of an idiomatic colligation; see above); Item 11 is less definitely idiomatic.

Comparison of the relationship of ranking by average redundancy to that by average transition-probability for the twice-occurring items of data with the relationships seen in respect of data of frequency three and data of frequency greater than three, helps us to refine our conclusion, stated at the end of the previous section, that redundancy provides a better measure than transition-probability of idiomaticity. Examining the verb-collocations only, we see that this statement becomes less true with decrease in data. For data of frequency four or greater, just under 24% (4/17) of items have the same position on both rankings (see the first of the graphs preceding this section for a diagrammatic representation of this); for data of frequency three this rises to 60% (6/10), though on the basis of a very small total of items; for data of frequency two, where the total number of items is significantly increased, the proportion rises to 70% (21/30).

Thus, we find not only that average redundancy reduces in value as a measure of idiomaticity as data decrease, but also that its superiority over average transition-probability diminishes likewise.

E. FINAL CONCLUSIONS

The amount of usable data from analysis of which our results derive is too low for any conclusion we draw to have any more than provisional validity pending analysis of more, and better, data. Moreover, the adequacy of our conclusions depends on our interpretation of the idiomatic/non-idiomatic value of various expressions, which, because of the nature of the corpus and the small amounts of data is always open to question.

Nonetheless, it seems to us that the results provide grounds for cautious optimism about the fundamental validity of the hypothesis that redundancy and idiomaticity are correlated in a useful way. In particular, they suggest that redundancy can be used to isolate idioms. Let us first clarify how we distinguish 'non-idioms' from 'idioms'.

'Non-idioms' fall into four categories of which only the last significantly contrasts with 'idioms'.

The first category of 'non-idioms' comprises collocations which have a fully literal and compositional value, and which contain no components that are used 'figuratively' within the collocation (e.g., 40:20, יָסִין יִהְיֶה; 46:33, בְּפִוּחַ יִדְיִים).

The second category is that of collocations which contain one or more words that realize figurative processes (metonymy, synecdoche, metaphor, etc.), even though the meaning of the collocation as a whole is, intuitively, compositionally distributable over specific components. Sometimes a semantic process is 'institutionalized' or 'lexicalized' in a particular word, so that the word becomes, in effect, polysemous. This phenomenon is a reflection at the level of the individual lexical item of the 'lexicalization' or 'idiomatization' of sequences of words at the collocational level. But it must be emphasized that the two processes are distinct. In respect of an idiomatic collocation the idiomaticity concerned is not essentially a matter of words taking on irregular meanings, but of the regular, predictable, semantic relations amongst words being distorted and this distortion becoming less and less perceptible to the native-speaker. A collocation can, thus, consist entirely of 'idiomatic' words, yet not of itself be idiomatic (e.g., 09:05, פילא בנבד"ל; 55:05, בנבד"ל).

The third category is of 'live metaphors', collocations that express in vivid fashion non-lexicalized/-demythologized metaphors (e.g., 09:03, יצא מבטן; 26:06, שבר זרוע).

The final category of 'non-idioms' is constituted by those collocations that represent, as collocations, more than one idiomatic value; they could be called 'multiple-idioms' (e.g., 28:05, נא; 41:02, בחוק; 53:01, חבה לחי).

What we have called 'idioms' differ from items in the final category of 'non-idioms' in that they ('idioms') express a unique idiomatic value. That is to say, any expression that we have called an 'idiom' is associated with just one idiomatic meaning. The expression does not have to be always employed as an idiom, but when it is, it must bear the same idiomatic value (cf. 10:05, על־בְּרִיּוֹם כָּרַע). 'Idioms', as we have used the term, then, might be more accurately described as 'most idiomatic, because uniquely idiomatic, collocations'. They are 'most idiomatic' because, according to the thoughts we outlined in Ch. 6, the more 'demythologized' a collocation, the less likely it is to represent more than one meaning. Ability to yield more than one idiomatic meaning implies that a collocation is actively 'interpretable', and, thus, less idiomatic.

The major claim, that redundancy functions as an 'idiom-isolating' mechanism, is borne out by the following tables which show the proportion of noun-, verb-, and combined noun- and verb-collocations of various frequencies which constitute idioms in the over-50% redundancy range and the under-50% redundancy range. The data provided assumes acceptance of any modifications recommended in Sects. B and D, including creation of colligations. All collocations claimed as idioms and/or having a redundancy of over 50% are shown. Where an item has been modified, its original value, or the original value of its highest-scoring collocation in the case of a colligation, is shown in brackets. Preceding each item of over-50% data are up to four alphabetic symbols - N: Non-idiomatic; C: Contains cranberry collocate; D: Distribution restricted in terms of range of text or area of reference; S: Surface-structure inconsistent. Of these, we regard the most significant to be 'C', which is also the most frequent, as any collocation containing a cranberry collocate must score over 50%. Hence, figures for over-50% items are split into 'Non-C' and 'All' (including non-C).

VERB-COLLOCATIONS

FREQUENCY > 3

Above 50%

H.	1	46:03	הציל סבף, etc.	81.070% (53.701%)
	2	40:13	נטה/סר יסין וטסאול	70.662% (64.452%)
	3	46:21	טם נפש סבף	63.150%
C.	4	49:05	נשא על־בחה	60.764% (41.410%)
	5	10:05	כרעה על־ברכיים	58.608%
	6	28:06	שכב/השכיב בחיק	58.341% (19.352%)
	7	09:04	יצר סבטן	52.085% (45.461%)
	8	46:18	פרש בפיים	50.513% (52.734%)

Non-C: 6/7 (86%) idioms

All: 7/8 (88%) idioms

Below 50%

All: 1/10 (9%) idioms (46:10, סילא/סלוא סף)

FREQUENCY = 3

No idioms above or below 50%

FREQUENCY = 2

Above 50%

N.C.	1	53:02	נתן חחים בלחיים	100.000%
C.	2	10:01	הלכו פים בל-ברכיים	81.546%
C.	3	41:06	שם יד תחת ירך	81.546%
N.C.	4	29:01	טעם חד	75.000%
C.	5	25:02	גרע כל-זקן	63.132%
C.	6	46:19	רחץ בנקיון כפיים	58.302%
C.	7	55:08	לא-חרץ לבני-ישראל לשון	57.721%
C.	8	29:03	דבקה לחד לשון	57.721% (62.238%)
C.	9	49:06	נתן בחף סוררת	54.584%

No non-C data

All: 7/9 (78%) idioms

Below 50%

All: 2/19 (11%) idioms (41:05, ספק על-ירך; 46:09, כף פחא כף)

ALL FREQUENCIES

Above 50% Non-C: 6/7 (86%) idioms

All: 14/17 (83%)

Below 50% All: 3/29 (10%)

NOUN-COLLOCATIONS

FREQUENCY > 3

Above 50%

N.C.D.	1	44:03	יִזְחַרְחַת עַל-כִּבְד עַל-כְּלִיּוֹת	100.000%
C.	2	40:19	יִסִּין וְשִׁמְאוֹל	85.006%
?. D.	3	55:06	בִּכְתָב וּבְלִשׁוֹן	81.753%
	4	26:09	זָרוּעַ נְטוּיָה	71.419%
C. S.	5	25:05	רֹאשׁ אֶו/וּזְקָן	63.177% (59.377%)
N. D.	6	40:16	שׁוֹקֵי-יִסִּין	61.815%
	7	46:39	בְּפִרְגָּל	55.757%
	8	09:06	פְּרִי-בֶשֶׁן	53.903%
N. D.	9	44:04	שְׁתֵּי-כְלִיּוֹת	52.167%
	10	09:08	סִבְשֵׁן-אֵם	50.122% (48.513%)

Non-C: 4/7 (57%) idioms

All: 6/10 (60%) idioms

No idioms below 50%

FREQUENCY = 3

Above 50%

C.	1	46:40	טכניררל ונדדקקד	100.000%
H.C.D.	2	46:31	כפות וסנקיות	62.572%

No non-C data

All: 1/2 (50%) idioms

No idioms below 50%

FREQUENCY = 2

Above 50%

C.	1	46:12	סנוח לכפרגל	71.534%
H.C.D.	2	09:07	תאוסים בבטן	67.810%
C.	3	40:02	איטר ידריסין	65.773%
C.D.	4	46:07	כלסקום אשר דרכה בו כפרגל	65.773%
H.C.D.	5	49:02	גיא-בן-הגום אליכתף-היבוס	63.512%
H.C.	6	40:17	יסין או טטאול	57.055%
H. D.	7	46:08	סזטרות וכפות	56.546%

Non-C: 0/1 (0%) idioms

All: 3/7 (43%) idioms.

Below 50%

1/20 (5%) idioms (46:23, תחת כפות-רגליים)

ALL FREQUENCIES

Above 50% Non-C: 4/8 (50%) idioms
 All: 10/19 (53%) idioms

Below 50% All: 1/44 (2%) idioms

VERB- AND NOUN-COLLOCATIONS COMBINED

Over 50%

FREQUENCY > 3 Non-C: 10/14 (71%)
 All: 13/18 (72%)

FREQUENCY = 3 All: 1/2 (50%)

FREQUENCY = 2 Non-C: 0/1 (0%)
 All: 10/16 (63%)

ALL FREQUENCIES Non-C: 10/15 (67%)
 All: 24/36 (67%)

Below 50%

ALL FREQUENCIES All: 4/73 (6%)

These results indicate, then, the 'watershed' nature of the 50% redundancy value, with 'idioms' being restricted largely to the over-50% range and 'non-idioms' to the below-50% range.

Several other conclusions about the data selected and the resulting statistics are suggested by the tables, and our analysis in the preceding sections.

(1) The inclusion of data based on 'cranberry-collocates' does not affect the overall proportion (two-thirds) of idioms in the over-50% range, seeing that two-thirds (14/21) of C-marked items are themselves idioms. Because of this it would be foolish to eliminate cranberry-based collocations at the data-selection stage, as we should thereby lose many significant idioms, although in terms of comparing them with non-C-marked items it would be desirable to develop means of assessing the most relevant point(s) of transition within 'long' collocations - these expand in such a way that whenever an item is added to a collocation of n items in length, the number of possible points of (one-way) transition within the new collocation rises by the sum of n plus all lesser value positive integers; e.g., a five-item-collocation has $4+3+2+1=10$ more points of transition than a four-item-collocation.

(2) According to our data, only 1/9 'D-marked' items was an idiom. Thus, use of data from a very restricted area of reference and/or a very small portion of text is to be avoided. Formal methods, for example, to test for identity of lexical fields, could be developed to facilitate this.

(3) Different surface-structure forms of the same lexeme-sequence (or 'deep-structure collocation') should not be conflated. Although we isolated only one 'S-marked' item in the over-50% range, which also happened to be an idiom, incorrect conflation of (a) lexemic forms (e.g., prepositions) and (b) morphological forms (e.g., absolute and construct) had the (major) effect of demoting some idioms (in particular, 09:04 and 49:05) to below 50%. Moreover, use of only surface-identical forms simplifies a purely formal (including computer-implementable) data-selection procedure.

(4) More generally, elimination of all 'insecure data' of the 'C', 'D', and 'S'-marked type, seems to produce (we may state it no more strongly in view of the very few data) even better results in terms of proportion of idioms in the over-50% range, namely 10/11 (91%); elimination of just 'D' and 'S'-marked data would allow us to retain most of the insecure-but-idiomatic, data, which is usually 'C-marked'.

(5) Purely formal selection of data is probably not adequate. Here we have in mind that certain collocations have to be treated as parts of colligations, if their idiomatic value is to be recognized (by achieving an over-50% redundancy value). Apart from appearing to run contrary to the non-conflation principle outlined in (3), this feature is problematic to our 'theory of idioms' (and to that of others as well), inasmuch as we have based our, formal, theory on a generally recognized feature of idioms, namely that they do not normally tolerate synonym-substitution of components; thus, non-formal means would seem to be required to distinguish between an idiomatic colligation like *וְשָׂאָה לְיָסוּן וְשָׂאָה לְיָסוּן* (40:12,13) and a non-idiomatic one like *וְשָׂאָה לְיָסוּן וְשָׂאָה לְיָסוּן* (49:05,07). This is not certain, however, and further analysis should be conducted to ascertain whether there are any formal and statistical properties which identify idiomatic colligations.

(6) The validity of redundancy as a measure of idiomaticity varies with changes in frequency of data. The first, and in terms of the Bible as a corpus (see below) probably the less significant, aspect of this is that very high values are assigned to high-frequency data, regardless of idiomaticity; this was illustrated at Sect. B, 1 by our analysis of the colligation based on 46:01, *הוֹשִׁיעַ נַכְפָּה*. This fault relates to a feature of redundancy already mentioned in Ch. 7, Sect. B. The second, complementary, aspect concerns the fact that it is apparently very difficult for low-frequency data to achieve high (i.e., over 50%) redundancy values.

Below is a simple tabulation of frequencies and redundancy values. The statistics upon which it is based are those of unmodified data; percentages are approximate.

Over 50%-redundancy

Under 50%-redundancy

VERB-COLLOCATIONS

Fr. > 5	3/6 (50%)	2/21 (10%)
Fr. = 5	1/6 (17%)	3/21 (14%)
Fr. = 4	1/6 (17%)	7/21 (33%)
Fr. = 3	1/6 (17%)	9/21 (43%)

NOUN-COLLOCATIONS

Fr. > 5	6/12 (50%)	4/27 (15%)
Fr. = 5	1/12 (8%)	4/27 (15%)
Fr. = 4	1/12 (8%)	7/27 (26%)
Fr. = 3	4/12 (33%)	12/27 (44%)

COMBINED RESULTS

Fr. > 5	9/18 (50%)	6/48 (13%)
Fr. = 5	2/18 (11%)	7/48 (15%)
Fr. = 4	2/18 (11%)	14/48 (29%)
Fr. = 3	5/18 (28%)	21/48 (44%)

Although these figures show a marked correlation between (relatively) very high frequencies and redundancy of greater than 50%, the situation is not so clear in respect of middle- and low-frequency items. However, of the five items of frequency three scoring over 50%, all but one contain a 'cranberry' collocate, and, thus, attain a 50% redundancy value automatically. It seems then that if a collocation can score lower than 50% and has a frequency of three, it will almost certainly attain only this value, indicating a greater correlation than the table shows of high or low frequency with high or low redundancy.

This fact has to be noted as a possible vice of redundancy, as a measure of idiomaticity, in general.

Alternatively, we could say merely that the measure is invalid for data of frequency lower than four. This would have significant, negative, practical consequences for the analysis of Biblical Hebrew. Because of the small size of the corpus, many collocations which were doubtless felt as 'idiomatic' by speakers of the language and have been indicated as such by scholars, perhaps on the basis of comparative Semitic, or later Hebrew, material, would have to be omitted as potential data. This is a reflection of the more general inadequacy of the Bible as a corpus for testing distributional hypotheses (cf. Sawyer 1972:78).

A third, more positive, resolution of the problem is to treat the idiom-isolating/measuring value of redundancy probabilistically rather than absolutely; thus, it would be argued that the probability of a correct association of high/low redundancy and high/low idiomaticity increases with a rise in the frequency of the data analyzed. This approach is consistent with the general statistical principle that security of inference increases with expansion of data, but it implies that in any given analysis redundancy may only be used to classify idioms/non-idioms within a specific frequency-range.

(7) Redundancy appears to be a 'better' measure of idiomaticity than simple transition-probability, but this superiority diminishes with a reduction in frequency of data (see Sect. D).

Rising out of these conclusions are some suggestions for better-'controlled' procedures to ascertain more fully the value of redundancy in isolating idioms. Within any given redundancy-based analysis, it would be desirable to use only data corresponding to (at least) the following specifications. Selected items should (1) be within a certain frequency-range; (2) have their tokens distributed widely throughout the corpus; (3) consist of a specific number of lexemes (to reduce and assess the effect of 'cranberry collocates'); (4) be structurally very similar - two nouns in construct relationship, Verb + Noun (Object), or Verb + Noun (Subject), for example (this would better facilitate, especially for a corpus of low-frequency data, 'intuitive' agreement with or disagreement from the ranking of data provided by redundancy).

It is also to be stressed that redundancy is concerned with only one aspect of the distributional structure of lexical data and for its value to be more definitively assessed additional significant factors need to be evaluated; these include the mathematical (im)probability of association of a collocation's components (see Ch. 7, Sect. A, 2), and the 'combinability' (see Ch. 5, Sect. D) of each component.

That redundancy is useful for isolating the most idiomatic collocations, more useful, we believe, than any of the metrics considered in Ch. 7, Sect. A, only goes a little way in validating the hypothesis pursued from Ch. 4 onwards, that "the level of idiomat~~icity~~... of a collocation is reflected by the degree to which that collocation is 'stable' or 'restricted'" (Ch. 4, Sect. D) - that is to say, that stability/restriction as measured by redundancy actually provides a scale of idiomat~~icity~~.

Logically, this is quite possible. We have claimed that the 'most idiomatic' item is a collocation which represents just one idiomatic value, and it is clear, on the basis of the evidence outlined, that this type of collocation tends to have a higher redundancy than a collocation which expresses more than one idiomatic value. Thus, a further refinement suggests that a collocation which expresses two idiomatic meanings is more idiomatic, and has a higher redundancy, than a collocation which has three idiomatic meanings, etc. But the data of the present work are too few and 'uncontrolled' (see above) to pursue the status in reality of this claim, and further tests are required to provide more definite proof about the correspondence of redundancy with number of idiomatic values. (Such tests presume some unobjectionable way of 'counting meanings' - cf. Ch. 4, Sect. B.) In extremely tentative support of the 'scale of idiomaticity' claim, note, for example, the rankings of verb-collocations 46:18, פָּרַט כִּפְיִים (one idiomatic value for qal form) and 46:14, וַיִּשָּׂא כִּפְיִים (at least three idiomatic values); also 46:16, סָפַק כִּפְיִים (two idiomatic values, rejecting emendation), 46:24, חָקַע כִּף (three idiomatic values), and 46:02, כִּף חִבְהָ (four idiomatic values, if variant with intervening ׀ included).

Even if the more important 'scale of idiomaticity' claim is not upheld, the 'idiom-isolating' function of redundancy, assuming it is validated in future tests, should be of substantial usefulness in the study of ancient languages, for which, because of the paucity of our 'intuitions', we require as many guides as possible to the semantic behaviour of expressions.

Looked at from a broader perspective, our analysis has developed the possibility of a significant connection between the information theory measure, redundancy, and the linguistic phenomenon, idiomaticity. Inasmuch as it is deemed 'successful', the analysis serves to show, we believe, that semantics can be conducted without having to rely on 'intuitions' of an analyst or native-informants - this could have very positive implications for the rigorous semantic analysis of ancient languages in particular. Specifically, our study demonstrates that collocational/distributional analysis can be 'formalized' in connection with 'idioms' to yield measurable results of a practical semantic significance. In our study, we have taken the notion of 'stability' to the extreme, by using it in connection with 'raw' data and frequencies, but in future practice we should expect that analysts utilizing our measure (assuming its validity is upheld) or a variation of it would want to mix formal and semantic criteria, so that, for example, the different semantic statuses of the tokens collocating with an item, as synonyms, antonyms, etc., of one another, would be taken into account.

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1. AV: *Authorised King James version*
2. JB: *The Jerusalem Bible*
3. NEB *The new English Bible*

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