SPINOZA AS LINGUIST[1]

By

ALAN S. KAYE

California State University, Fullerton

WELL KNOWN AS A PHILOSOPHER, Baruch Spinoza[2] is virtually unknown as a scholar of language. Yet his fragmentary *Compendium* reveals insights into the nature, substance and structure of language that are still useful as modern linguists struggle with problems such as universality of grammar and the

1. A version of this paper (with the title "Spinoza the Linguist") was presented to a general linguistic audience at the 77th annual meeting of the Philological Association of the Pacific Coast, Linguistics section, UCLA, November 10, 1979. My thanks to those in attendance for much fruitful discussion. I wish also to record my gratitude to Donald A. Sears, the presiding officer of the section, Seija Tafoya, Robert Hetzron, Wolf Leslau, Seymour Menton, Alain Renoir, and Saul Levin for reading a preliminary version of the paper and for making useful suggestions, not all of which I have been able to follow. It must be noted, however, that none of these scholars can be blamed for any errors or infelicities, factual or otherwise. All those are my own.

2. Baruch Spinoza (1632–1677), or, as he later referred to himself, Benedictus (the Latin translation of Hebrew *bārûk* ('blessed [m. sg.]') de Spinoza was born in Amsterdam, the Netherlands (see the excellent biography in Powell 1906, pp. 1–44). His parents had fled from Catholic persecution in the Iberian peninsula to Holland, known during this period for its liberal attitudes towards Jews. The family name, written as Espinoza, De Spinoza, D'Espinoza and Despinoza, probably indicates that Leon was the family's former homeland. Baruch's grandfather was head of the Amsterdam Jewish community in 1628, and his father, Michael Espinoza, served as sexton of the synagogue at various times until Baruch's eighteenth birthday.

Spinoza received his early academic training under Saul Levi Monteira and Manasseh ben Israel (see Feuer, 1958, p. 6). Under these teachers he became familiar with the Bible and Talmud and their Hebrew and Aramaic commentaries, but more important for his own later career, with the philosophical and linguistic writings of Ibn Ezra and Maimonides. Although this educational experience was in Hebrew, Dutch, Spanish, and Portuguese (and perhaps also in Talmudic Aramaic), Spinoza turned his attention, through his polyglottic abilities, to the study of Latin, the universal language of European scholarship during the 17th century.

"nounness" of a noun.[3] There can be no doubt that he is unknown as a linguist primarily because he is overshadowed by his very achievements in philosophy (for his place in European thought, see Roth, 1929, pp. 199–217). Indeed no one in the field of philosophy today can be considered thoroughly trained without having carefully studied his *Tractatus Theologico-Politicus*, the *Treatise on the Rainbow*, the *Ethics*, and *De Intellectus Emendatione*. But very

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Although Dutch by birth, according to Dunner (1955, p. 5), he spoke and wrote Dutch with difficulty. Also, Kayser (1968, p. 199) reports that "Dutch was not his favorite language." Wienpahl (1979) has studied Spinoza's polyglottic background and abilities and concludes (1979, p. 37) that he spoke natively either Ladino or Portuguese, and as was then customary, Sephardic Jews who spoke Ladino or Portuguese wrote in Spanish. Spinoza's *Apology*, written at the time of his excommunication (1656), was in Spanish. Wienpahl (1979, p. 38) also makes a good case that "Spinoza possibly often thought in Hebrew." Wolfson (1934, 1, p. 9) reports that Spinoza also knew French, Flemish, German, and possibly Italian. Cf. the literature adduced therein (1934, 1, p. 54, fn. 1). The reference to Porges (1924–1926, p. 146) has been unavailable.

The journal *Chronicon Spinozanum* (1921–1927, The Hague) has proved difficult to obtain. Porges (1924–1926) is also cited by Parkinson (1969, p. 39) who also mentions Hillesum (1921), which I have not yet seen either.

Spinoza mastered Latin quickly as he sought out a physician named Franz van den Ende, a scholar well versed in Copernicus, Galileo, Kepler, and Harvey, who supplemented his income, as was the fashion then, by tutoring Latin (he also taught Spinoza German and Greek). To a certain extent, Van den Ende exerted some atheistic leanings on Spinoza, which probably had an effect on Spinoza's later views. Spinoza was, as a result of these views, excommunicated from the Jewish community, but was readmitted to it three hundred years after his birth at a ceremony in Jerusalem.

Spinoza, as a result of his study of Latin (later he also taught at Van den Ende's "school"), became enthralled with traditional classical grammar *à la* Varro, and the mastery of Latin acquired from Van den Ende allowed Spinoza the opportunity to read, for the first time, the entire realm of modern thinking on scientific subjects, including linguistics and philosophy, both represented then by the writings of Descartes.

Chomsky (1966) reawakened the modern linguistic world to the general observations implicit in the writings of Descartes. Chomsky's position in the introduction (1966, p. 1) may also be applied to the writings of Spinoza:

> The contributions to linguistic theory of an earlier European tradition have in general been of little interest to professional linguists, who have occupied themselves with quite different topics within an intellectual framework that is not receptive to the problems that gave rise to earlier linguistic study or the insights that it achieved; and these contributions are by now largely unknown or regarded with unconcealed contempt.

As Chomsky proved for Cartesian linguistics (1966, pp. 33f) that deep structures and surface structures need not be identical, so too Spinoza worked with the same implicit doctrine. For the details, see note 16.

3. Returning to previous workers in any field can be exciting since it is important, as a stategic task within linguistics, to see the historical evolution of ideas. Concerning this (seemingly unending) struggle, Roy Harvey Pearce said it well in his Presidential address to the Philological Association of the Pacific Coast, Seattle, 11 November 1978 (Pearce 1979, p. 65): "Ours remains at the very least the tremendous task of exegesis and analysis—scholarship and explication. And yet we must all strive to be interpreters too . . . ."

few scholars in modern linguistics, be it theoretical, philological or applied, have studied, in any detail, his *Compendium Grammatices Linguae Hebraeae*, only part of which has come down to us.[4] It is my intention here to resurrect his name as a linguist, who combined polyglottism, philology, Biblical exegesis, and literary criticism with philosophy, much as Chomsky (1966) has created a rebirth of interest in the writings of a linguistic contemporary, René Descartes (1596–1650), for today's generation.

Our discussion conveniently begins with the "Admonition to the Reader" of the Van Vloten and Land 1883 edition in the *Opera Posthuma*:

> The *Compendium Grammatices Linguae Hebraeae* which is here offered to you, kind reader, the author undertook to write at the request of certain of his friends who were diligently studying the Sacred Tongue, inasmuch as they recognized him rightly as one who had been steeped in it from his earliest youth, was diligently devoted to it for many years afterwards, and has achieved a complete understanding of the innermost essence of the language.
> All who are acquainted with this great man will cherish and revere this book, although like many of his other works, it is unfinished[5] because of the untimely death of the author. We present it to you in its incomplete state, kind reader, because we do not doubt that the author's and our effort will be of great benefit to you and quite worthy of study by you.

The following points examine some of Spinoza's general linguistic insights and assumptions about language interpreted from his Grammar.[6] It is not feasible, due to the nature of this paper's focus, to comment on the *Compendium*'s position within the evolution of Hebrew grammatical tradition (i.e., Ibn

4. This work came to prominence two hundred and six years after his death in 1677, published in Van Vloten and Land (1883), originally published in 1677 (*Nagelate Schriften*). This work comprised the *Ethica, Tractatus Politicus*, and *Tractatus de Intellectus Emendatione*, his *Letters*, and finally the *Hebrew Grammar* under scrutiny here. The printing of the *Opera Posthuma* was one of the largest in the 17th century, according to Wienpahl (1979, p. 48).

Spinoza's *Stelkonstige reeckening van den regenboorg* and his *Reeckening van kanssen* appeared together ten years after his death, and the *Korte verhandeling* was lost until it was published in 1852.

One must keep in mind that it was not until approximately 1795 that grammars were no longer being described in terms of all the grammatical categories of Latin (e.g., Murray, 1795). So Spinoza was "advanced" by more than a century in this regard.

5. It appears that many parts of the manuscript were lost since Spinoza refers in many places, for example, to the section(s) on syntax. However, it is conceivable that the syntax portions were only partially completed. It is also possible that he burnt portions of the manuscript himself, since we know he did, in fact, burn (in 1677) his translation of the Pentateuch (see Dunner 1955, p. 34).

6. I have used the translation and edition of Maurice J. Bloom (1962), and specific page citations of the Grammar refer to this volume.

Janāh, Radaq, etc.), of which Spinoza was well aware, as were most other
Sephardic Jewish scholars in Holland during this period.

I. Phonology. A. *General*. All languages have a phonological opposition
between consonant (called "letter") and vowel (p. 7).[7]

The glottal stop, or Hebrew *'aleph*, is called "the opening of the throat,"
which, technically speaking, refers to the glottis (i.e., the space between the
vocal folds), and Spinoza states that "no other [*sic*] European language can
explain (p. 8)." It seems more than likely that he was aware of the fact that most
European languages do not have a separate grapheme for ['], as does Hebrew
'aleph or Arabic *hamzah*, although, of course, the glottal stop does occur in
many European languages as a consonantal segment. Cf. North German *Verein*
[fɛʁ'ain] ('organization, association').

Stop-spirant allophonics, so well known from classical Tiberian Hebrew, is
correctly described since Spinoza calls, e.g., *b*, *g*, *d*, *k*, *p*, *t* (he uses the
traditional grammarians' ordering of these consonants) without a *dageš* (i.e.,
the name of the grapheme which marks the stop variants), "weak," meaning
v, *γ*, *ð*, *x*, *f*, *θ*, respectively (pp. 8–9).

Hebrew consonants are divided into gutturals, labials, dentals, linguals,
and palatals — as classification schema little changed down through the ages
(p. 10). Although the term guttural has been abandoned in modern phonetics
and phonology, there is still good cause to retain the concept in the sense, ar-
guing on (morpho-)phonological grounds, that ', ', *h*, *ḥ*, and *r* do not geminate,
but all the other consonants may. Most interesting to note here is that Jakobson,
(1957 p. 105) marks for the Arabic dialect of the North Palestinian Druzes,
', ', *h*, *ḥ* as [-consonantal] along with *y* and *w*.

Vowel classification is handled in a modern framework because the *sere*,
i.e., [e], is defined as "a sound composed of [a] and [i]," meaning it is a vowel
equidistant between [a], a low front vowel, and [i], a high front vowel, viz., it is
a mid front vowel (p. 12). Further, a *qames*, the vowel usually transliterated as
[ɔ] or /å/ or /ā/, is called (p. 14) "a long and short vowel," which proves
Spinoza's awareness of morphophonemic alternations. Thus Hebrew *kɔl*
('each, every') < **kull* = ‖kull‖, but *q ɔm* ('adversary') < **qām* = ‖qām‖.[8] Al-
though we might be attributing too much linguistic sophistication to him, no
competent Hebrew grammarian would fail to see the rather numerous instances
of what we call morphophonemic alternations no matter what his theoretical
inclinations or background in linguistic analysis.

7. Of course in distinctive feature theory, all consonants are [+consonantal] and all vowels
are [−consonantal]. All known languages have contoids and vocoids, but some vocoids may
function consonantally and *vice versa*. See Greenberg (1962) for details.

8. This is a simplified statement as there is no need to enter into details for purposes of the
presentation here.

B. *Phonotactics*. The principles of phonotactics and syllabication are well described as the intricacies of the *shwa* are discussed (pp. 15–17). For instance, no word in Hebrew can begin with a vowel or with two *shwa'im* as the vocalisms for the first two consonants or semi-consonants.[9] Certain phonological rules operate when two *shwa'im* theoretically come together in initial position, and when the *shwa* co-occurs with a "guttural" (p.17): "For their [i.e., *shwa quiescens* and *mobile*] usage is remarkable."

C. *Intonation*. The importance of intonation in language is described accurately,[10] and the failure of written languages (Spinoza actually says "all languages"[p. 18]) to indicate the full range of intonation contrasts is iterated. He was also, as will soon become obvious, well aware of the significance of paralanguage and kinesics in human communication (a recently reborn topic within modern linguistics; cf. Kaye [1977]), as he discusses the interrelationships of intonations and movements of the body, hands, eyelids, etc. It is fitting and proper to consider his exact words (p. 18):

> At first I was strongly of the opinion that their inventor [Hebrew accentuation graphemes] introduced them not only for the raising and lowering of the voice and to adorn speech but also to indicate animated expression which is usually produced by a change of voice, by the expression of the face, the movement of the body, the spreading of the hands, the winking of the eyes, the stamping of the feet, a curve of the mouth, a motion of the eyelids, spreading of the lips, and the various other gestures which aid a speaker to make clear his thoughts to his hearers. One tone of the voice expresses irony while another tone indicates simplicity. There is a tone in which we praise someone, still another for vituperation, and yet another for mockery. Thus we change our voice and expression for every emotion.

D. *Ablaut*. Semitic *apophony* or *ablaut* is clearly defined as one considers examples such as *dābār* ('thing'), (pl.) *dəbārîm*, *zikkārôn* ('memory'), (pl.) *zikrônôt*, *melek* ('king'), (pl.) *məlākîm* (p. 31). Spinoza states: "Thus the penultimate kametz . . . is changed into a sheva . . . But if the ultimate should be a kametz or a monosyllabic noun, then the kametz generally remains unchanged or sometimes changes into a patach." And (p. 32):

> The penultimate tsere also changes into a sheva, but before a cholem and a shurek it is retained . . . Further, a noun whose last vowel is a tsere . . . changes it into a sheva if the vowel antecedent to it is one of those which are always

9. The only exception is the conjunction 'and,' which is *û-* before labials; elsewhere it is usually *wə-*, but there are other morphophonemic intricacies which need not concern us here.

10. Dwight Bolinger still is *not* 100 percent sure whether all languages have intonation. His conclusion is that *probably* all languages have intonation. See Bolinger (1978) for details.

retained in the plural or which are not changed into a sheva . . .,
but after a sheva or a syllable which is changed into a sheva, the tsere is
retained . . .

E. *Diachronics*. Turning to diachronic matters, Spinoza is aware of the fact
that historical reconstruction, both comparative and internal (remember Sir
William Jones in 1787, 110 years after Spinoza's death!), must be of a
phonemic rather than a phonetic nature, as he states (p. 13): ''Whether in
addition, they [the Hebrews] had others [phonemes and/or allophones] I am not
able to say for certain, because for the most part we are ignorant of the manner
of pronunciation of the ancients.'' On this Wolf (1927, p. 159) comments: ''It
was always his [i.e., Spinoza's] intention to publish a Hebrew Grammar
demonstrated in the geometrical method, in the preface to which he would have
shown that the correct pronunciation of this language had long ceased to be
known. . . .''

The Massoretic intervention in the regularization process of archaic forms is
noted as he (p. 85) compares the perfect, 2nd feminine singular ending *-tî*
(Arabic *-ti*) with the statistically more favored form in *-t*: ''[They] . . . have
been corrected by the Massorites doubtless because they were obsolete.'' A
properly archaic bound morpheme, on the other hand, such as *-un* in *yādə'ûn*
('they knew') is explained without reference to comparative-historical matters.
It is handled strictly in synchronic (descriptive) terms. The *-n* is described as an
aspect of *paragogue*, however, one may note the Arabic cognate *-ūn(a)*, the *-n*
of which is not *paragogic*.[11] Similarly, the treatment of *-īn*, imperfect, 2nd
feminine singular, is handled in terms of *paragogue* (p. 87), whereas it is an
archaic Semitic feature; cf. Arabic *-īn(a)*.[12] From a synchronic and internal
point of view, though, the *-n* may be called *paragogic*.

Scribal error is recognized as one notes (p. 148) that a particular form in
Jeremiah ''seems to be a [*sic*] fault of a hasty pen.'' (The [*sic*] concerns the
translation, as the problem would not appear in the Latin original. The trans-
lator had to make the choice of the definite or indefinite article in English, and in
my view, made the wrong one.) Also (p. 87): ''Finally in the case of Leviticus
21:5 I believe it to be a mistake of the copyist who wrote <qrhh> twice
hastily.''

F. *Morphophonemics*. The automatic morphophonemic rule of vowel
shortening as in *dābār* ('thing'), construct state *dəbar*, (pl.) *dəbārîm* is ex-
plained well (p. 68):

11. In modern Arabic dialects, the reflex of classical Arabic *-ūn(a)* is either *-u*, *-o*, *-ūn* or *-ôn*.
The *-n* is not *paragogic*, and its presence or absence, along with other morphological (and
phonological) features, has been utilized to divide the modern sedentary dialects into Eastern vs.
Western.

12. The *-n* is not present in all modern Arabic dialects.

The reason that vowels of the construct are not retained but are changed in various ways is that nouns contain at least one syllable and it is lengthened when it requires an accent. This is the special reason why vowels change to shorter ones when they add, in the plural, another long syllable with an accent . . ."

The principle of compensatory lengthening is recognized (Spinoza calls it "change") as the definite article is either *hā-* or *he-* in non-geminatable environments (p. 14). As with all grammars, there are naïve statements too; in this case ones concerning the definite article and the behavior of *min* ('from') before suffixes (p. 14): "If the antecedent vowel of the guttural letter to be doubled is a patach — then the dagesh point which should be inserted into a guttural letter is placed under the patach — and it becomes a kametz . . . If it is a chirek, then the dot is added to it and it becomes a tsere like *mēhem* in place of *mihhem.*" But later (p. 15): " . . . the first thing that comes to mind is that a letter which is usually supplied by a dagesh may also be compensated by changing the preceding syllable from a short into a long one . . ."

II. General Principles of Language Design. A. *Speech is primary.*

The primacy of speech over writing, or the fact that writing is a symbolization of a symbolization, clearly demonstrates the descriptive approach to language study (p. 18): "Nevertheless the originators of the letters in all languages failed to indicate these expressions in the written forms of speech. This is due to the fact that we can express our meaning much better orally than in writing."

B. *Language is rule-governed, but there exist exceptions to rules.* That language is describable as rule-governed behavior is a basic premise for Spinoza, and he reacted strongly to the prescriptive linguistics of the times, as can be seen from the following (p. 18):

The rules which are usually transmitted concerning the accents are more of a hindrance than an aid to students of the Hebrew language. They should be tolerated only if they facilitate a proper understanding of the pronunciation of the language. But if you should consult the experts they would all be forced to admit that they do not know the reason for so great a number of accents.

These Massoretic rules for the accents began as descriptive ones, however, they are so complex that all students can readily sympathize with Spinoza's remarks (we can assume, therefore, that by Spinoza's time the rules for the accents were prescriptive and the system underlying them not understood by most scholars).

As a further reaction against prescriptive linguistics, consider the following (p. 28): "Among the Latins speech is divided into eight parts, but it is doubtful if among the Hebrews it is divided into so many parts."

It must be borne in mind that the (sometimes very forced) molding of various languages into the Latin grammatical model continued (perhaps one should say continues) through to the present, although it was the structural linguists, particularly in America, with their heavy anthropological background, who tried most vehemently (and succeeded in part) to end this common linguistic philosophy (the idea of eight parts of speech goes back to Dionysius Thrax). Like all grammars, however, Spinoza admits that language has exceptions to rules and *hapax legomena*. (Or, to paraphrase the Sapirian *dictum*, all grammars leak because languages are untidy systems.) In this connection, let us consider the following example from English. He would have probably designated English *houses* a *hapax legomenon* since it is the only word in the language which voices final -*s*, underlying ‖-z‖, before the plural suffix [-əz]. (I use this term, for lack of a better one, in a slightly different context from its normal philological sense.) Consider (p. 84): "Finally, the example in Ezra chapter 10:17 [*sic*] [10:16], where *lədaryôš* occurs instead of *lidrôš* ('to inquire'), which the grammarians note as an exception, to me seems as something strange and I do not venture to explain it."

C. *Deep Structure*. One of Spinoza's most intriguing devices is his concept of deep or conceptual structure, which usually is associated with the linguistics of a much later period. It is proper to consider the exact wording (p. 28):

> For all Hebrew words, except for a few interjections and conjunctions and one or two particles, have the force and properties of nouns. Because the grammarians did not understand this they considered many words to be irregular which according to the usage of the language are most regular, and they were ignorant of many things which are necessary to know for a proper understanding of the language.

A noun is defined (p. 28) by Spinoza as "things and attributes of things, modes and relationships, or actions, and modes and relationships of actions." Examples, which are most interesting, include:

	ḥāḵām ('learned')
	gādōl ('big'),
being attributes:	*hōlēḵ* ('going')
	yōdēǎ' ('knowing'),
being modes:	*bên* ('between')
	taḥaṭ ('under')
	'al ('above')

The evidence from Hebrew alone indicates that *taḥaṭ* was originally a noun.

This is the view, e.g., of Koehler and Baumgartner (1958, p. 1026), who report the meaning 'the part underneath,' 'what is underneath,' '[at] the foot.'[13]

The Hebrew evidence also suggests that *bên* was originally a noun meaning 'interval' or 'distance' as in Neh 5:18, which developed into a preposition, and is still used as such in modern Hebrew.[14]

The suggestion has also been made that *'al* ('above, on, upon') is derived from a non-attested noun **'āle*, (pl.) *'alîm* ('height') (cf. Koehler and Baumgartner 1958, p. 703 and p. 706).[15]

13. Modern Standard Arabic has both, as doublet cognates: *taḥta* ('under') as preposition and *taḥtu* as adverb, the latter being indeclinable. The frozen form with *-u*, also seen in Arabic *munδu* ('since'), *ba'du* ('after'), *qablu* ('before'), etc., points to the fact that most prepositions in Arabic were originally nouns in the *status constructus*.

Hebrew and Aramaic *kə-* = Arabic *ka-* ('as, like'), is usually seen as a functioning preposition as well, but has also been regarded as a noun. Cf. Wright (1859, p. 280, REM. C): "It is a formally undeveloped noun, which occurs only as the governing word in the genitive construction, but runs in this position through all the relations of case (*similitudo, instar*)."

14. The comparative evidence suggests that *bayn* was a noun. Cf. classical Arabic *baynun* ('interval, separation'), a regular (triptote) noun. The cognate is used as the preposition for 'between, among' in Ugaritic (as well as *bnt*), Ethiopic, Aramaic, Epigraphic South Arabian, and Soqotri, and there are details in those languages which point to its nominal origin, such as the verbal extension of this root meaning 'understand' < 'bridge the gap *between*,' which are omitted here.

15. Unfortunately, although the cognate root occurs with the same meaning in Ugaritic, Phoenician, Aramaic, and Arabic, there is no concrete evidence in any of these languages to support the contention under discussion.

It is tempting to connect the Hebrew doublet *'ālê* ('on') with the root *'ly* ('go up') with nominal force. On the problem see Haupt (1906). The opposite hypothesis, viz., particles derived from verbs, could also be entertained. There is also, though, in classical Arabic, an unattested **'alun* ('height') in *min 'alu* ('above'). Cf. Wright (1859, p. 288, §363).

An interesting proof for the hypothesis that prepositions "are nouns which indicate the relationship of one individual to another" is seen in the fact that certain prepositions take plural nominal suffixes (p. 58). To quote from Spinoza (p. 58): "The first statement, namely that I believe that prepositions are nouns, is based on the two previous chapters. But that prepositions should occur in the plural also might perhaps appear absurd to many; but why should they not, since they are also nouns?"

His reasoning is explicated as he continues:

Although prepositions cannot indicate many relationships simultaneously, nevertheless they are inflected from singular to plural in the absolute state as well as the construct state; but prepositions in the absolute state are only relationships of themselves, abstractly conceived and not expressed; but then they express not so much the relationship as the place or time with relation to something.

Examples cited to prove the hypothesis include: *bên* ('between'), (pl.) *bênôt* (cf. the parallel development in Nigerian Arabic *(am)bênāt* ['between'], the *-āt* of which is the f. pl. ending, a morphological doublet to *bên*), *'āḥōr* ('posterior, backwards'), (pl.) *'āḥōrîm*, *'aḥar* ('after'), *'aḥărê* ('much after'), *'el ~ 'ĕlê* ('to'), *'al ~ 'ālê* ('above'), *'ad ~ 'ăḏê* ('until'), and *lipnê* ('before') < *pānîm* ('face') (a plural noun), from **pānê*, perhaps relatable to *pe* ('mouth').

Later, one is reminded of the primacy of the noun as the heart (i.e., central ingredient) of linguistic structure (p. 50): "For nobody will be able to cultivate this language profitably, unless he rightly learns . . . that the verbs, the participles, the prepositions and the adverbs among the Hebrews are all pure unmixed Nouns."

A modern-day linguist writing along similar lines is Wallace L. Chafe (in many publications but particularly in his influential book, 1970). He explains (1970, pp. 96–97) that the entirety of the human conceptual universe is divided initially into the *verb* (states, conditions, qualities, events) and the *noun* (objects and abstractions). The fact that he gets away from defining a noun in terms of a "thing" is quite significant. Indeed almost all grammarians for many a century define a noun in terms of the concept of "thing." For instance, Nesfield (1898) states a noun to be "a word used for naming anything" and notes that "thing" used in the definition is person, place, quality, action, feeling, etc.

Rather than assuming the noun to be central, Chafe picks the verb (of course he has evidence for so doing, viz., the semantic interpretation of sentences such as "The chair laughed."), although, he does admit (1970, p. 96) that utterances which semantically and syntactically have no verb, like *Oh*! or *Ouch*! are to be regarded as vestiges of prehuman communication (this is a very important and neglected area in studies concerning linguistic evolution).

Chafe's semantic model for language structure is the direct opposite of Chomsky (1965) and Fillmore (1968), i.e., Chafe takes the position that the verb dictates or "pre-determines" the noun whereas Chomsky argues, e.g., for the reverse, as Spinoza hypothesized centuries earlier.[16]

The idea that prepositions derive from nouns is known from other languages too, e.g., Ateso (spoken in Uganda), where one can freely do so by dropping the noun prefix. See Hilders and Lawrence (1957, p. 66).

Finnish is also another example of a language in which (some) post-positions (prepositions) derive ultimately from nouns. Thus from the noun *pää* ('head'), the following are derivatives thereof: *päälle* ('to [the top of], on'), *päältä* ('from [the top of]'), *päästä* ('after'), *päin* ('toward, against'), and *päitse* ('through, by'). See Itkonen and Joki (1962, pp. 688f). Native speakers do not associate these postpositions with the root 'head.' Thanks to Seija Tafoya for supplying this information and for the Finnish data in note 25.

16. It is not within the scope of this paper to decide if Chafe is right and Chomsky wrong. I merely want to show Spinoza as a generative-transformationalist in a restricted sense, although some of his statements make him lean more towards a generative semantics than a generative (interpretive) syntax.

For his general theory of language, particularly as it concerns rationalistic philosophy, Savan (1972, p. 236) related the importance of language in Spinoza's writings:

In his recent and lucid exposition of Spinoza, Mr. Stuart Hampshire [*Spinoza*, London, 1951] points out that Spinoza hoped to emulate the example of the geometers in freeing language of its

D. *Analogy*. Linguistic analogy is discussed (p. 124) in terms of verbal morphology. For instance, *lāqah* ('he took') in the imperfect works like *nātan* ('he gave') in the assimilation of a liquid, viz., *yitten* and *yiqqah*, respectively: "Since verbs whose primary root letter is <n>, are generally defective verbs (as I shall show below) it seems that these verbs *imitate* [emphasis mine] other defective verbs."

Spinoza even uses the term (p. 124): ". . . at one time follow this mode and at other times follow the sixth conjugation in accordance with linguistic analogy . . ."

III. Grammar. A. *Free Variation*. Morphemic free variation is recognized in Spinoza's discussion of number, e.g., *hēkālôt ~hêkālîm* ('temples') (p. 30).

B. *Dual*. Language change is described as an occurring reality in the discussion of the dual. Consider (p. 35): ". . . it is not now permissable to use this ending [-ayim] to indicate the dual number . . ."

In modern (Israeli) Hebrew, the dual form still survives although it is quite unproductive (whereas in modern Arabic dialects it is very productive for nouns but no longer survives in the pronoun, verb, and adjective). Basically, in modern Hebrew it survives in body parts occurring in natural pairs and other Biblical-type morphemes such as *mōzənayim* ('scales').[17] Cf. the descriptive adequacy of Spinoza's (p. 35): ". . . things which are naturally dual or which consist of two parts . . ."

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intimate connection with the imagination so that it might be employed to express clearly and distinctly the idea of a true philosophy. Spinoza's interest in language and in the bearing of language upon philosophy is, however, considerably more important in the shaping of his thought and writings than Hampshire indicates. It is not just that Spinoza wrote a treatise on a natural language, or that nearly every one of his writings attempts some analysis of language and mathematics. Nor is it just that he experimented with a variety of literary forms in the exposition of his thought, using dialogue, autobiography, aphorism, historical and Biblical criticism, as well as the method of geometrical demonstration. Nor again is it just that he occasionally formulates philosophical theses in syntactical terms. It is also that Spinoza holds that both language and mathematics are fundamentally inadequate to the formulation or direct expression of philosophical truths.

Other linguists have, in a different framework, argued for noun centrality as well. Greenberg (1978b, p. 78), e.g., states: ". . . we see from this why it is the noun par excellence which gives rise to classificational systems of syntactic relevance."

I interpret Spinoza's remarks, throughout the work, as arguments in favor of noun centrality (e.g., the remark from p. 50, or the following [p. 52]: ". . . prepositions, as we have already said indeed they are nouns . . . ").

17. The form *mitpərayim* ('shears'), cited by Spinoza, is not Biblical. The Editor's note "Thus in the Holy Scriptures, but it should be *mitpərayim* " is inexplicable.

On duality and especially for the term pseudo-dual, see Blanc (1970), and on Hebrew particularly, see p. 54 and the references in note 38.

C. *Common Gender*. The idea of a common gender is proposed for nouns which are both masculine and feminine, e.g., *kānāp* ('wing'), and for pronouns (p. 61), i.e., *'ănî~'ānōkî* ('I'), *'ănaḥnû~'ănû~naḥnû* ('we'), although the reasoning behind the idea is basic (" . . . because speech itself indicates sufficiently whether it is masculine or feminine").

D. *Adverb as Noun*. A major proof for the adverb's being, in essence, *also* a noun is not adduced in the *Grammar*. In the classical Semitic languages, generally, it is the noun in the accusative case (of which there are only remnants in Hebrew) which is adverbial. For instance, *hinnām* ('gratuitously')<*hēn* ('charm, grace')<**hinn*, or *'omnām* ('really') <*'omen* ('faithfulness, truth') (=['faith']). It can probably be safely assumed that the above data were known to Spinoza. Concerning adverbs, though, he does note (p. 60) that many involve reduplication, e.g., *mə'aṭ* ('fewness, [the] few') but *mə'aṭ mə'aṭ* ('gradually, little by little'). (On reduplication in terms of morphology in general, cf. Key, 1965 and Winter, 1970.)

Although we might possibly be attributing knowledge to Spinoza which he did not possess, there is a good parallel in the many non-Semitic languages which have borrowed a substantial number of nouns in the accusative singular from classical Arabic, which native speakers perceive by the ending *-án*, as underlying adverbs (or adverbials) (cf. Hebrew *-ām*), e.g., Persian *musallamán* or *hatmán* ('certainly'), *haqīqatán* ('really'), etc. In fact, native speakers of Fārsī who are well educated associate this adverbial ending with the morphographeme <'>, even in the last example cited above, i.e., حـتـمـاً and therefore حـقـيـقـتـاً , although from the classical Arabic point of view, this orthography is erroneous (it is حـقـيـقـة , with *tā' marbūtah*!).

E. *pqd and Root Structure*. Verbal morphology is described in terms of seven infinitives with the root *pqd* ('to take care of') (traditional Hebrew grammar uses the root *p'l* ['to do, make'], borrowed from Arabic grammatical thought). The reason for a new paradigm root is, in our view, due to the fact that the root *pqd* is actually attested in the Bible in all seven basic conjugations or themes (Hebrew *binyānîm*), whereas *p'l* is not. This translates into the fact that Spinoza was a descriptivist and a realist not in favor of abstracts and could not bring himself to cite verbal categories from an existent root not occurring in most of the *binyānîm*. In fact, *p'l* occurs in only one of the seven![18]

Spinoza (pp. 146–147) emphatically rejected anything but a triconsonantal root for Hebrew stating that quadriconsonantal roots were offshoots from them

18. The meanings of *pqd* in the various themes are not in accordance with classical Hebrew (pp. 75–76), however, the morphology is correct. Also, the familiarity with other Hebrew grammars probably influenced Spinoza's decision to abandon the root *p'l*.

via reduplication and other morphological processes. For instance, *šršr* ('chain') can be derived from *šrš* ('root').

Spinoza actually uses *šereš* ('eradicate') and *qrqr* ('demolish a wall')<*qîr* ('wall'). The Spinoza text states (p. 146): "But, without conjecturing about this, let us state this in general that there has been no verb observed which, because of the characterisitics of the verb form, the tense, or the person, consists of more than three root letters . . ."

The conjugational terms *qal, nip'al,* and *pi'el* do not occur in the work, but *hop'al, hitpa'el,* and *hotpa'al* do, according to remarks made by the Editor. The status of *hip'il* (p. 97), according to the editorial notation, is rather unclear. No reasons are adduced regarding the apparent inconsistencies in the choice of terminology.

F. *Tense vs. Aspect.* The (seemingly) never-ending problem in Hebrew (and in Semitic, for that matter) of tense vs. aspect is handled by postulating a past and a non-past (called "present/future") category. Modern treatises are still divided on the question, yet Hetzron (in preparation)[19] opts also for a

19. Hetzron (in preparation) argues that the aspectual terminology is based on different interpretations and assumptions and further, the idea of tense does not have to correspond with prevailing notions of time. Most relevant to note is that B. Whorf, who wrote extensively about the linguistic expression of *TIME* and its reality in language, turned his attention to the study of Hebrew in 1924, and was greatly influenced by Fabre d'Olivet (1815–16), an encyclopaedic *magnum opus* of this giant French philologist (1768–1825). For details concerning Whorf's study of Fabre d'Olivet's Hebrew Grammar, see Carroll (1956, pp. 7–9). Incidentally, Fabre d'Olivet (1815–16, I, p. 97) maintained that the noun is the basis of language and the verb is formed from the noun.

Looking for a glimpse into Spinoza's philosophical foundations of *tense* and *time*, I could find no linguistic relevance in Hardin (1978), who does discuss the Wolfsonian dichotomy of the Platonic and Aristotelian senses of "eternity" (the first excluding time). Cf. Wolfson (1934) and Hallett (1957). On the differences between Spinoza and Descartes on *time*, cf. Alexander (1972).

There is a hint that Spinoza conceived of linguistic relativity = determinism = the Sapir-Whorf hypothesis. According to Wienpahl (1979, p. 38): "Spinoza himself tells a correspondent that the latter has misunderstood a passage in John 'because you measure the phrases of oriental languages by European modes of speaking'." We also learn from Wienpahl (1979, p. 48):

Spinoza's interest in the [Hebrew] language was both deep and general. It was not an interest only in a bridge to the Old Testament. He was concerned, as comes out in the *Tractatus Theologico-Politicus,* with things that the language had done to the thinking of the ancient Hebrews as they formed their ideas.

And (1979, p. 106): " . . . his thinking [viz., Spinoza's] requires basic changes in the grammar we inherited from Aristotle . . . which makes it apparent that *Spinoza's thinking not only required a different grammar, but that it was based on a different one* " [emphasis mine; cf. the parallel to Whorf's SAE = Standard Average European].

For discussion of Spinoza's use of the terms "substance" and "attribute" as "linguistic devices partly as a result of his philological and philosophical study of the Hebrew language," cf. Wienpahl (1979, p. 75).

past/non-past rather than a perfect(ive)/imperfect(ive). Spinoza's text is quite intriguing in this regard (p. 77):

> . . because I write largely for those who are versed in other languages, I refrain from explaining what tense is and what mode is, but I will show only that which among the Hebrews is unusual in this respect.
>   The Hebrews usually refer actions to no other time than to past and the future. The reason for this seems to be that they acknowledge only these two divisions of time, and that they consider the present tense only as a point, that is as the end of the past and beginning of the future. I say they viewed time to be like a line consisting of many points each of which they considered the end of one part and the beginning of another.

G. *Markedness*. The third masculine singular of the perfect (past) is rightly seen as the unmarked stem (p. 77): " . . . it never has the sign of person."

IV. Influence on Spinoza. There is some indication that Spinoza was influenced, to a certain extent, by the Cartesian view that the grammar of a language is a theory of that language, the purpose for which is to account for an infinite number of possible grammatical sentences not being confined only to those sentences as actually found in a fixed corpus, such as the Hebrew Bible (p. 96): "To be sure, as we have said, they [i.e., the Classical grammarians] wrote a grammar of the Scriptures, not of the language."[20]

V. Conclusion. I have endeavored to glean some of the general linguistic methodology and theory implicit in Spinoza's Hebrew Grammar, and since I cannot assume that most linguists have a good command of Hebrew, I must reiterate Spinoza's words (p. 148): "I do not wish to weary the students [with details] . . ." It should be clear at this stage that this work consists of much more than language-specifics and has wider applications than straight linguistic philology. It is best viewed as the product of a 17th-century mind which had talent for grammar, i.e., universal grammar.

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20. This is discussed in Wienpahl (1979, pp. 48–49). It is incomprehensible why the author states: " . . . all the words in the [Hebrew] language (with a few exceptions made by later grammarians) were originally verbs [*sic*]."

There can be no doubt that Spinoza read Cartesianism (in Latin and/or Dutch) as is illustrated by careful scrutiny of *Discourse on Method*, the *Meditations* with the *Objections* and *Replies*, the *Principles of Philosophy*, the *Passions of the Soul*, and the *Letters*. Leon Roth concludes (1924, pp. 9–11) that Spinoza was not a Cartesian, and calls into question the Leibniz doctrine that "Spinoza only cultivated certain seeds of Descartes' philosophy." Kayser (1968) is particularly good concerning the relationship between Spinoza and Leibniz. Very valuable for the scientific method of explaining Spinoza's philosophy is Bidney (1940, pp. 1–19).

Many aspects of rationalism may have been discussed in detail in the syntax portion(s) of the Grammar which, as has already been mentioned, has (have) not survived. See further note 5.

On Spinoza as a linguistic theoretician, see Fløistad (1969, p. 50).

The idea of noun centrality or verb centrality, discussed earlier, is an important topic within linguistics and deserves closer examination (very little previous work has been accomplished here). Some languages like Tagalog and Nootka apparently have no nouns, but all languages have the category Noun Phrase (see Bach, 1974, p. 286).[21] The idea of tense is usually restricted to a discussion of the verb; yet why not talk about tense in the noun too? By this we are saying that there exists evidence for the view that the noun/verb dichotomy is, on a deep level, artificial and perhaps should be abandoned. Consider that *fiancée* is future tense, *ex-* marks the past as *ex-con*, *ex-wife*, etc., and *grand-father* is pluperfect.[22]

Gardiner (1951, pp. 9–10) chastises Antoine Meillet for his definition of a noun with reference to things (in the latter's *Linguistique historique et linguistique générale*). He states (1951, p. 9): "All words whatsoever will be seen to be the names of 'things,' that term being understood in the very widest sense as covering material objects, persons, actions, relations, concepts, and figments of the imagination." Later (1951, p. 10) Gardiner tells us that "the terms 'verb' and 'noun' are not really incompatible." Perhaps words such as 'round'[23] functioning as noun (Give me another round!), adjective (a round ball), verb (to round the Horn), preposition (round the mulberry bush), and adverb (Make it go round!) will shed new light on the problem of the parts of speech, universal grammar, and their validity as grammatical categories for future theories of grammar. It may also help us to understand the development of pre-language as a closed-call system of communication to an open-call system of true language with productivity and duality of patterning since primate closed-call communication involves sememes of the noun-inherent type, i.e., calls for danger, hunger, mother-child contact, territorial integrity, etc. Moreover, the fact that children first learn nouns rather than verbs is more interesting evidence in favor of the centrality of the noun ("mama," "dada," "kitty," etc.).[24] Further, is

21. Stockwell says (1977, p. 52): "The two basic building blocks of all sentences in all languages are verbs and nouns." Further (1977, p. 55): "All languages are therefore very rich in devices to stipulate the reference of nouns . . ." Quite interesting to note here also is Cowper and Kimura (1979).

22. Mentioned, but without any references, in Palmer (1971, p. 39). Cf. *would-be . . . , -to-be* and . . . *-elect*, and one can even elicit NP's in English such as *ex-wife-to-be*.

23. Palmer (1971, p. 69).

24. This has been the case with our two children. Others, however, who have studied the language acquisition process, have reported that so-called adjectives such as 'hot' were the first words actually produced (and not passively understood). Although 'hot' is, technically speaking, an adjective, in child language it is better regarded as a noun, i.e., *hot thing* or *thing which is hot* (viz., as a substantive).

There remain some thorny problems of interpretation. For instance, when our son uttered [bwa bwa], roughly translatable as "I want it now!'", it was impossible to figure out whether the utterance was a noun, i.e., food, cheese, orange-juice bar, etc., or whether it was more verb-like, i.e., I *want*,

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the crucial fact that when English speakers are confronted with the horrible reality of a fire (i.e., the call for "danger" in primate systems which are closed-call), "Fire!" (a noun) is the signal rather than anything resembling a verb.[25] But as Spinoza states many times in his *Compendium* (p. 7, p. 94, and *passim*): "But of this enough!" The purpose of this paper has been to show the relevance of our predecessors to current problems — to resurrect the best-known and least-read grammarian/philologist and now linguist of the 17th century.

Give me!, I *need*, or something of the sort. Detailed investigation is necessary. ". . . More abstract words such as adjectives are acquired later," says Moskowitz (1978, p. 6). Research cited therein reports further that a newly acquired word at the one-word stage of development is first used for *naming* something, i.e., the interpretation is that it is a noun.

25. A cross-cultural study would be useful. I know of none. But I can report the results of a preliminary study of how various languages express the horrible danger of a (spreading) fire. Only three languages (Mandarin, Amoy Chinese, and Navajo) were found which use a device other than the pure noun 'fire', although Finnish uses a noun + adverb (note no verb) construction: [tuli:rti] < *tuli* ('fire') + *irti* ('loose'). In Saudi-Arabian Arabic 'fire', [ḥarīga] is utilized but with a very long [ī]. In Persian 'fire' [ātéš] > [ătíš] with elongated [ī], however, in Spanish the reverse phenomenon of vowel shortening takes place, viz., [fwéγò] ('fire'); the ultrashort vowels, with high pitch on the first and low pitch on the second, help to indicate the very dangerous situation of a spreading (emergency, i.e., immediate danger) fire. Modern Israeli Hebrew is an example of a language in which both options of extra-vowel lengthening or ultra-vowel shortening take place, viz., [srefá] or [srefá]. Many native speakers consulted rejected one of them in favor of the other, however. In Mandarin Chinese, a verb is utilized, viz., [< sɨ hwɔ la], lit., 'is out of control' — 'fire' — 'exclamatory particle', whereas in Amoy Chinese the following occurs, also with a verb: [he šjɯ tsu lo], lit., 'fire' — 'burn' — 'house' — 'exclamatory particle'. Very similar is Navajo in which one says [howán tiła], lit., 'house is burning.' One cannot help notice the paralinguistic changes for the word 'fire' in this context in languages, which probably have their roots in prehuman speech.

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