

THE CABBALA AND THE HISTORY OF LINGUISTICS

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I have recently become interested in the way different national grammatical traditions meet and influence one another. We are perhaps still too accustomed to visualize the history of the study of language as a single linear development beginning with the ancient Greeks and ending with ourselves in the twentieth century. As flattering as this picture may be to our amour propre, it is erroneous for at least two reasons. First of all, the study of language got several independent starts. Quite apart from the well-known Indian tradition, which began roughly in the middle of the first millennium B.C. and has never been shown to be connected with any of the western grammatical traditions, linguistic spadework was done in the ancient Near East many centuries before anything comparable elsewhere, and also, but very much later, in ancient China.¹ We have then a number of completely independent initial linguistic traditions.

Secondly, we must resist the temptation to regard what is loosely termed the 'western' grammatical tradition as a monolithic unit. Thus, although the Romans were initially impelled to study their language by the example of the Greeks, the Latin grammatical tradition as a whole cannot be considered a more later stage and slavish copy of the Greek tradition. Moreover, recent research has shown that Roman and Greek scholars began to compose full-scale grammatical manuals at about the same time, namely in the first century B.C.² The two traditions subsequently ran in parallel for a few centuries, influencing each other, then went their separate ways after the fall of the western half of the Roman Empire, existing in almost complete isolation from each other during the Middle Ages, to resume contact again with the Italian Renaissance (on which see Pertusi 1962). The story of the relations between the two traditions is, therefore, long and complex and, I may add, remains to be studied in appropriate detail by scholars.

In the present paper I discuss another national grammatical tradition, namely the Hebrew tradition,³ and raise the question as

to how that tradition encountered and influenced the Latin grammatical tradition in sixteenth-century western Europe. I have called this exploration 'The cabbala and the history of linguistics', and perhaps I should apologize for the racy title, but as we shall see, the Jewish mystical tradition played a role, although perhaps not a crucial role, in this confluence of the two grammatical traditions.⁴

First, a few words about the history of the study of Hebrew. As with some other traditions, the Hebrew linguistic tradition began with textual exegesis, the text in this instance being the Old Testament. Long before anything we could call technical grammar arose, the problem of establishing the correct Hebrew text of the Old Testament was tackled. This traditional body of textual exegesis is known as the *Masorah*,⁵ and the development was complete by the end of the first millennium A.D. The initial stage consisted in fixing the bare consonantal text. During the same period, various systems for punctuating the text and representing the vowels were introduced. But an interesting fact, which as far as I am aware has never been mentioned by historians of general linguistics, is that a rudimentary articulatory analysis of the sounds of Hebrew was undertaken.

There are two pieces of evidence. First, phonetic analysis is implicit in the vocalization systems themselves. For instance, in the familiar Tiberian system of vowel points, the symbols for the front vowels, i.e., Seghol, Şere, and Ĥireq, resemble one another; as do the symbols for the two low vowels, viz. Pathah and Qameş; and likewise again the symbols for the two high back vowels, viz. Ĥolem maleh and Şureq have graphic affinities. Moreover, some of the traditional names for the Tiberian vowel points have phonetic overtones. For instance, *ħireq*, the name for the high front vowel, originally meant 'squeak', and *şere*, the name of one of the mid front vowels, was an Aramaic word meaning 'splitting', i.e. 'splitting of the lips' (see Haupt 1901, Dotan 1971:1449).

Second, as regards the consonants of Hebrew, articulatory analysis shows up in an unexpected place, namely in the so-called *Book of creation* (in Hebrew *Sepher yeşirah*), one of the earliest surviving cabbalistic texts, dating from some point between the third and the sixth centuries A.D.⁶ However, I should hasten to add a word of caution here. Since it is not known for sure whether the passage in question was actually part of the original version of the work, one cannot simply take for granted that the dating of the work as a whole necessarily applies to the phonetic classification.⁷ But with that reservation, let me cite the passage in question:

'The letters are created in the air, formed in the voice, and have their fixed positions in the mouth at

four places: the organ for 'Aleph, He, Heth, and 'Ayin is the lower end of the tongue and the throat; Beth, Waw, Mem, and Pe are pronounced between the lips and with the tip of the tongue; Gimel, Yodh, Kaph, and Qoph are formed on the rear third of the tongue; Daleth, Teth, Lamedh, Nun, and Taw are formed on the upper edge of the tongue with the help of the voice; Zayin, Samekh, Sadhe, Reš, and Šin are formed between the teeth and with the tongue at rest. '•

Clearly, what we have here is an articulatory classification of consonants into the following sets: gutturals, labials, velars, dentals, and sibilants. Later grammarians, who adopted the consonantal classification of the Book of creation, actually refer explicitly to the five points of articulation as the throat, the lips, the palate, the tongue, and the teeth respectively. As regards the connection between this passage and the Jewish esoteric tradition, it is sufficient to say that the cabbalists believed in the magical power of the Hebrew letters, and that one of the major ideas expressed in the Sepher yesirah is that everything in creation resulted from combinations of the twenty-two letters of the Hebrew alphabet.

Most of the grammarians, who, of course, came after the Masorah chronologically, adopted this system, i.e. the phonetic classification of the consonants and the Tiberian vowel points, but elaborated a system of morphological analysis quite independently of the Masorah, the stimulus being the contemporary Arabic grammatical tradition. This took place from the tenth century A.D. on and culminated in the Sepher mikhlol by David Qimhi (ca. 1200). The main features of the traditional Hebrew system of grammatical analysis, as exemplified in that work, were (1) the analysis of verbal forms into a consonantal framework and sets of alternating vowels plus a battery of affixes, and (2) the compilation of lists of roots (not lists of words as in the West). The third-person singular masculine of the past tense was taken to be the base form of the verb. Nominal derivatives were not listed separately in dictionaries, but under the appropriate verbal root.

To take an example, in Qimhi's Sepher ha-šorašim 'Book of roots', which forms part of his Sepher mikhlol, the verb šamar 'watch, guard' appears under a heading consisting of its three radical consonants (Šin, Mem, Reš), and that entry also includes such derivatives as the noun somer 'watchman' (see Qimhi 1546:519). Thus, fundamental to the way Hebrew came to be handled was the distinction between the radical portion of a word and the remainder. In the early terminology the root was called yesodh 'base', later the term šoreš 'root' came into use, and the affix was called tosephet 'addition' (see Bacher 1975:48).

Contrast this with the Latin grammatical tradition in western Europe, where words were not divided into roots and affixes. On the other hand, however, analysis of word compounds was undertaken, each compound being regarded as a combination of words, either intact or deformed in some way. For instance, in Donatus's catechetically arranged manual, dating from the fourth century A.D., probably the most widely used elementary grammar textbook of all time, noun compounds are classified according to which of the two members is intact or deformed, suburbanus 'suburban' having both members intact, insulsus 'unsalted' having an intact member (in 'un-') followed by a deformed member (sulsus from salsus 'salted'), and so forth (see Keil 1864:355, lines 21-25; Schwenke 1903:57. 1.33-39). However, no systematic treatment of derivational processes was ever attempted in the West. Base forms were used only for presenting inflectional paradigms, the nominative singular for the noun and the first-person singular present indicative for the verb (the Greeks called these forms thēmata), and as for the other members of paradigms some of them were derived directly from the base forms and others from each other by process rules.⁹

This is not to say that derivation was completely ignored. On the contrary, the phenomenon was explicitly mentioned, but the prevailing theory was that derivatives had arisen through fusion of original compounds. If the constituents were still identifiable, this was pointed out. Otherwise a statement was simply made that the word in question came from such and such a source. In Latin dictionaries, derivatives were sometimes listed under their sources, sometimes separately with a statement as to what they were derived from. There was, in other words, no consistent practice.

I base these remarks on the Catholicon of Giovanni Balbi of Genoa, composed in the second half of the thirteenth century, of which we are fortunate in having an incunabular edition in the rare-book library at the University of Kansas (Balbi 1483). In this work, the noun scriba 'scribe' is listed under the verb scribo 'write', verbal derivatives such as afficio, conficio, efficio, benefacio, and malefacio are listed under the base verb facio 'do'. On the other hand, there are separate entries for vetus 'aged' and vetustas 'old age', likewise for lego 'read' and lector 'reader'. However, the fact that a derivative is listed separately from its source does not necessarily indicate that the author was unaware of the connection between them. Thus, toga is listed separately from tego 'cover', but in the entry for toga we read: 'toga a tego tegis' (Balbi 1483:R7rb).¹⁰

As regards the pronunciation of the letters of the alphabet in the West, the Greek grammarians of antiquity classified consonants into mutes (i.e. stops) and semivowels (the remainder), and they also classified mutes impressionistically into voiceless,

voiced, and aspirated--the Greek terms were psila 'smooth, bare', mesa 'intermediate', and dasea 'rough, shaggy', and the corresponding Latin terms leves, mediae, and asperae. Needless to say, nobody in antiquity had any understanding of the physiology of voicing. Nor was any attempt made to classify consonants by point of articulation (see Steinthal 1891:198). As for the vowels, they were likewise not articulatorily classified by the ancient grammarians, but some time during the High Middle Ages it became customary to attribute the formation of each vowel to a different region of the mouth, and this theory seems to have been widely accepted until the Renaissance and beyond (see Percival 1982).

Apart from some notable exceptions,¹¹ the first Westerners to study Hebrew seriously were the Italian humanists--one thinks in particular of Pico della Mirandola (1463-1494). While an important motivation impelling Christian scholars to the study of Hebrew was the cabbala, they had a number of other interests, such as the desire to confront the original text of the Old Testament with the Vulgate and to aid in the conversion of the Jews and the refutation of Judaism. The Christians who studied it apparently imagined that the cabbala could be used to corroborate philosophy and even Christian theology.

Two early witnesses to the impact of Hebrew studies in the West are first of all one of the earliest attempts at a comprehensive Hebrew grammar undertaken by a Christian, namely the De rudimentis Hebraicis by Johannes Reuchlin (1455-1522), which appeared in his native Pforzheim in 1506, and secondly a treatise on the correct pronunciation of Latin, Greek, and Hebrew by the Spanish humanist Antonio de Nebrija (1441-1522), entitled De vi ac potestate litterarum ('On the pronunciation of letters'), which was printed in Salamanca in 1503.

Let us examine Reuchlin's grammar first. Reuchlin, it should be noted at the outset, was an enthusiastic student of the cabbala and wrote two books on the subject, De verbo mirifico (1494) and De arte cabalistica (1517).¹² As regards his Hebrew grammar of 1503, three features are of special interest to us. First, he describes and classifies the Hebrew letters phonetically; second, he expounds the analysis of words into root and affix, and in such a way as to underline the fact that it was a novel procedure at that time; and finally, his grammar includes a lexicon, alphabetically arranged by roots.

With regard to Reuchlin's phonetic description of the sounds of Hebrew, there are two interesting features. First, some sounds are singled out for special attention. What Reuchlin tries to do in these cases is to describe the auditory properties of the sound in question and its articulatory mechanisms. Thus, Šin is compared to the sound of a waterfall, and the fricative

pronunciation of Taw, i.e. the voiceless interdental fricative, is described as a lisp. Reuchlin describes the articulation of Šin as follows: '... we shall imitate the Šin when we bring together the upper and lower teeth drawing back the tongue from the teeth'.¹³ As regards the fricative pronunciation of Taw, 'you will need', he says, 'to put your tongue between the upper and lower teeth and make the sound which geese customarily make when they are moved by anger to defend themselves'.¹⁴

Secondly, at the very beginning of his grammar Reuchlin gives the Hebrew classification system for all the consonants by point of articulation: 'Beth, Waw, Mem, and Pe merely indicate the action of the lips, just as Daleth, Ṭeth, Lamedh, Nun, and Taw the impulse of the tongue, and Zayin, Samekh, Šin, Reš, Šadhe, a hissing noise of the teeth, similarly Gimel, Kaph, Qoph, and Yodh a palatal consonant and a movement of the uvula'.¹⁵

Reuchlin introduces his readers to the traditional Hebrew method of morphological analysis by first coining a lengthy Latin derivative (hae inhonorificabilitudines) and progressively divesting it of all its affixes until only the bare root (honor) is left, concluding with the words 'and now we apply the same procedure to Hebrew'.¹⁶ He then goes on to point out that the typical root in Hebrew has three letters, which (he says) constitutes its body (corpus).¹⁷ However, he does not use the term radix 'root', but the traditional Latin primitivum. To my knowledge, this is the first instance in the West of step-by-step lexical decomposition. It is also significant that he coins the term 'affix' to refer to the nonradical portions of inflected Hebrew words.¹⁸ Again, I am not aware that this term or the associated concept had ever been used before by any Western grammarian.

Let us now examine Nebrija's treatise on pronunciation, which first appeared in Salamanca in 1503, i.e. three years before Reuchlin's grammar in Germany. The novelty of Nebrija's treatise lies in the fact that he describes the consonants articulatorily and treats the stops in groups by point of articulation: velars in one chapter, labials in another, dentals in a third. The group c/g/ch is described as being pronounced 'in the same region of the mouth, namely with the throat compressed',¹⁹ the set p/b/ph as formed between the more or less compressed lips',²⁰ and the set t/d/th as formed by the front part of the tongue striking the upper teeth.²¹ In discussing f and v, he specifies that they are both made with the lower lip and the upper teeth.²² It appears likely, therefore, that what Nebrija did was to combine the Western classification of consonants in terms of laxness (exilitas) and aspiration (aspiratio) with the Hebrew classification in terms of point of articulation.²³

As regards the impact of Hebrew studies on the overall course of language study, at least two reactions may be distinguished. On the one hand, a scholar such as the French Arabist and Hebraist Guillaume Postel (1510-1581) pointed out the morphological difference between the Semitic languages and the two western classical languages Latin and Greek, regarding this difference as an indication that the two groups of languages were radically different in type.²⁴ Postel came to the curious conclusion that compared with Latin and Greek, which he calls 'grammatical' languages, the Semitic languages were 'natural'. Specifically, in Hebrew and Arabic accessory notions are indicated by means of unvarying particles and affixes, not by inflectional changes affecting words.²⁵ Clearly, Postel had the germ of the notion that languages can be classified typologically.

But another attitude made itself felt. After Christian scholars in western Europe started to study Hebrew seriously it was not long before we begin to hear grammatical theorists and methodologists in the West recommending that the analysis of words into roots and affixes should be applied to the study of all languages. The most explicit suggestion on these lines that I have seen occurs in a book entitled De ratione communi omnium linguarum et literarum, written by a sixteenth-century Swiss Hebraist Theodor Bibliander (died 1564), who was professor of Old Testament in Zürich for many years.

Bibliander's aim in writing his book was to demonstrate that all languages, both civilized and uncivilized, can be described grammatically, and that this can and should be done in a uniform manner. He observes that both Jewish and Christian scholars had reduced Hebrew grammar to a system, and recommends that the same system should be used to describe Greek, Latin, German, or any other language. On that basis, he claims, all languages could then be compared with one another either totally or partially (Bibliander 1548:1). With this end in mind, he attempts to show that the Hebrew system of listing roots rather than words in dictionaries should be used in displaying the origins of words in all languages: 'In my opinion,' he says, 'the arrangement observed hitherto in describing the Hebrew language, which involves listing the roots in alphabetical order and subsuming derivatives and compounds under the appropriate root like offspring belonging to the same lineage (ceu propagines stirpi suae), is suitable for investigating all languages' (Bibliander 1548:169). In fact, he goes a step further than his Hebrew models and recommends listing all roots beginning with vowels and diphthongs first, then all roots beginning with semivowels (i.e., l, m, n, r, s), then all roots beginning with the letters b, f, p, ph, and ps, then roots beginning with velars, and finally roots beginning with the dentals d, t, and z (Bibliander 1548:171).²⁶

The study of Hebrew had another effect on general linguistics in the sixteenth century, which was to encourage grammarians to compare languages with a view to discovering their genetic affiliations. This happened because the close relationship between Hebrew, Arabic, and Aramaic made a strong impression on Christian scholars as they studied these languages. In any case, the fact of relationship had already been pointed out by Jewish grammarians of Hebrew, whose work was well known to the early Christian students of Hebrew. Moreover, by the sixteenth century it had become customary for grammarians in the West to maintain that all present-day languages were derived from a single ancient language, usually Hebrew, sometimes Aramaic. Bibliander, for instance, says straightforwardly that Hebrew is the language all scholars agree is the parent language.

Finally, I should like to suggest another area, still largely unexplored, in which the study of Hebrew may have affected western linguistic ideas, namely the philosophy of language. The chief figure here, as I see it, was the Florentine Neo-Platonist Marsilio Ficino (1433-1499), who undertook the first Latin translation of the entire Platonic corpus, including Plato's problematological Cratylus dialogue. Each dialogue is provided with an introductory summary and commentary. It is interesting to examine Ficino's extensive epitome of the Cratylus (see Sancipriano 1959:305-310), firstly because of the way Ficino interprets the dialogue, and secondly because he expatiates on the mystical attributes of the name of the godhead in a manner which may perhaps indicate cabbalistic inspiration. As regards the first point, Ficino assumed that the character Cratylus in the dialogue of that name is there to voice Plato's own philosophy of language, an idea which present-day Plato scholars at least question if not unreservedly reject. As regards the second, the bulk of Ficino's epitome is devoted not so much to a summary of the argument of the dialogue as to an at times rhapsodic exposition of the mystique exerted by names. The historical importance of Ficino's reading of Plato's Cratylus lies in the fact that it remained the authoritative exposition of that dialogue until the nineteenth century.

In a nutshell, I should like to suggest that a kind of general linguistics arose in western Europe under the stimulus of Semitic studies, or in other words that general linguistics resulted in the sixteenth century from the encounter of the Latin and Hebrew grammatical traditions. However, once we grant this fact we must not simply conclude that from then on the two traditions merged and proceeded in concert. On the contrary, grammarians of Hebrew and the western classical languages continued to conduct their business largely independently of each other. What changed was merely that points of contact had been established between the two traditions. But the influence, it should be emphasized, was mutual, and of the influence of the

Latin grammatical model on the Hebrew tradition, about which I have said nothing in this paper, there is abundant evidence,²⁷ but that topic is perhaps best reserved for another paper.

NOTES

¹On the linguistic literature of the ancient Far East, see Miller 1975; on that of the ancient Near East, see Jacobsen 1974, Matthiae 1980:221.

²I am thinking here in particular of Di Benedetto's seminal study done in the late fifties on the authenticity of the grammar traditionally attributed to Dionysius Thrax; see Di Benedetto 1958-59 and, for a more recent review of the question, Pinborg 1975.

³On the Hebrew linguistic tradition, see Bacher 1904 and 1975, Hirschfeld 1926, Chomsky 1957:117-138, Tanne & Barr 1971, and Robins 1979:96-97, 99, 147, 166-167.

⁴The secondary literature on the cabbala is vast. For two classic treatments of the Jewish mystical tradition, see Scholem 1941 and Vajda 1947. Among more recent publications see Bokser 1981. On the impact of the cabbala on western European scholars during the Renaissance, see Secret 1964.

⁵On the Masorah, see Dotan 1971 and the bibliography at the end of that article.

⁶A great deal has been written about the Sepher yeširah. See, in particular, Vajda 1947:9-17, 215-216; and Scholem 1971, perhaps the best general survey. I regret that I have not had access to Mordell 1914, which is specifically concerned with the phonetic theory expounded in the Sepher yeširah.

⁷As Scholem puts it, 'this is the first instance in which this division appears in the history of Hebrew linguistics and it may not have been included in the first version of the book' (1971:784). On the phonetic classification, see also Vajda 1947:11.

⁸I am making use here of Bacher's German translation (1975:20-21). Compare Chomsky 1952:30.

⁹I emphasize this fact because it is not usually mentioned in contemporary discussions of the word-and-paradigm model (see Matthews 1974:153 for a bibliography of the recent literature). For an example of this curious procedure consider the paradigm of Greek Áias 'Ajax' in the Eisagōgikoi kanones peri kliseōs onomatōn of Theodosius of Alexandria (Bekker 1821:975), in which the dative

singular Aianti is derived from the genitive singular Aiantos by substituting -i for -os, the vocative singular Aian from Aiantos by truncation, and so forth.

¹⁰The relationship of toga and tego 'cover' was by this time a commonplace, see Priscian 1.32 (Keil 1855:25), and Martianus Capella 3.233 (Dick 1969:87), where tigurium 'hut' is also related to tego. Compare Varro, De lingua Latina 5.144.

¹¹Perhaps the best-known example is the English Franciscan Roger Bacon (ca. 1220-1292), see Nolan & Hirsch 1902:199-208. However, as Walde points out, 'knowledge of Hebrew never completely disappeared during the Middle Ages in western Christendom' (1916:1).

¹²See Zika 1976 for a discussion of Reuchlin's motivation in composing the De verbo mirifico, the intellectual background of his interest in the occult, and the links between Reuchlin and Pico della Mirandola.

¹³The original reads as follows: 'Paenultima [littera] autem Sin dupliciter quoque enuntiatur. Si enim in sinistro latere supraponitur ei punctus, exprimet vocem sigma vel s acuto sibilo. Quod si idem punctus in latere dextro supraponitur, tunc emittet sonitum aquae vehementis ex altis rupibus impetu labentis et spumantis. Unde illud posthac brevitatis causa Sin dexterum vel s spumosum sive spumans appellabo, quem et imitabimur cum superiores et inferiores dentes directe connectimus, linguam a dentibus retrahendo. Eum sonum Germani per sch, Itali per sci, Galli per x vel ch significare conantur. Unde litteram sin Italia scribit scin, Galli etiam Celtica xin vel chin, et Suevia schin. Quoquomodo scripseris, intelligito pinguem spumosum et latilinguem sibilum, sicut et quibusdam gentibus consuetudo est litteram s ore rustico et spumante proferre' (1506:8-9). Reuchlin repeats his description of the articulation of Sin in a later passage: 'Sibilus sin dextri fit dentibus directe coniunctis, et ab eis lingua retracta instar sonitus impetuosarum aquarum' (11).

¹⁴'Similiter Thau loco thita, quae Latinis valet th efficitque in pronuntiando Hebraice linguam blaesam. Si enim supra thau lineam raphe iacentem conspexeris, oportebit te in sibilando linguam inter superiores et inferiores dentes collocare et sonitum efficere qualem anseres solent cum iracundia moventur ad vindictam' (Reuchlin 1506:8).

¹⁵'Nam aliud nihil Beth, Vau, Mem, et Pe exprimunt nisi labiorum gesticulationem, sicut Daleth, Teth, Lamed, Nun, Thau linguae impulsus, et Zain, Samekh, Sin, Res, Zade dentium exsibilantem crepitum, similiter Gimel, Caph, Quf, et lod consonans palati uvulaeque commotionem' (Reuchlin 1506:5). Later, Reuchlin asserts that consonants, unlike vowels, are produced with

the help of what he calls instrumenta, which he enumerates as the lips, tongue, teeth, and palate: 'Consonantes sunt litterae quae vocibus adiunctae instrumentorum adminicula in pronuntiando requirunt. Instrumenta sunt labia, lingua, dentes, et palatum' (7). He also asserts that each of the vowel letters (i.e., the so-called matres lectionis) also has what he terms an 'abode', He and Heth in the midriff, 'Ayin in the throat, 'Aleph in the vault of the mouth, and Waw in the aperture of the mouth: 'Domicilium tamen possident He et Heth in praecordiis, Ain in gutture, Aleph et Iod in oris concavo, Vau in rictu. . . Consonantes sunt cum palato et labiorum ministerio utuntur. Vocales sunt cum solo exprimuntur oris hiatu' (7). For the treatment of the consonantal points of articulation in Reuchlin's model, namely David Qimhi's Sepher mikhlol, see Chomsky 1952:11.

¹⁶'Exempli gratia, si hoc nomen pluralis numeri hae inhonorificabilitudines velis ad primitivum statum redigere, quid facies? Decortabis illud omnibus tunicis, quousque absolutum appendiciis appareat primitivum, sic: Reici primo articulum hae. Secundo, compositionem primam qua ligatur cum praepositione in. Tertio, compositionem qua ligatur cum ifica, a facio. Quarto, terminationem verbalem aptitudinis, quae est bilis. Quinto, terminationem abstractionis, quae est tudo. Sexto, casualem inflectionem genitivi, quae est din. Septimo, numeralem terminationem es. Separatis hae, in, ifica, bili, tudin, es, quid remanet? Certe nudum illud, quod nominamus honor. Ecce primitivum. Nunc pariter operare in Hebraicis . . .' (Reuchlin 1506:582-583).

¹⁷'Nunc pariter operare in Hebraicis, ad cuius faciliorem aditum scire te iubeo, quod apud Hebraeos secundum communem et vulgarium morem plerumque omnia primitiva tres habent litteras quibus suum cuique corpus constituitur' (Reuchlin 1506:583).

¹⁸Thus, he refers to the possessive affix suffixed to the noun as 'pronomen subiunctivum, quod dicimus affixum' (Reuchlin 1506:557), and thereafter the term occurs with some frequency.

¹⁹'Omnes qui de orthographia unquam Graece et Latine scripserunt dicunt tres consonantes mutas in eadem parte, hoc est faucibus compressis, formari c, g, ch, nullaque alia re inter se distare quam aspiratione et exilitate' (Nebrija 1503:chap. 9, sig. a8v).

²⁰'Quod de c, g, ch in capite superiori diximus idem nunc de p, b, ph dicendum est, quae cum inter labra magis minusve compressa formentur, nulla alia re distent quam exilitate et aspiratione' (Nebrija 1503:chap. 10, sig. b1r).

²¹'Cum praeterea sint apud Hebraeos et Graecos tres quoque litterae eiusdem prope genus quae in primori lingua superioribus

dentibus appulsa formentur, t, d, th, non alia ratione inter se distantes quam illa qua supra diximus c, g, ch atque iterum p, b, ph differre . . .' (Nebrija 1503:chap. 11, sig. b2r).

²²'V vero consonans in eadem oris parte formatur qua f littera, eundemque propemodum sonum habent. Nam cum utraque dentibus supernis inferiori labro impressis effingatur f, quemadmodum Quintilianus ait, inter discrimina dentium efflanda est u vero consonans intra oris inanitatem sonat' (Nebrija 1503:chap. 13, sig. b3v).

²³It is understandable that Nebrija nowhere expresses his indebtedness to the Jewish grammarians of Hebrew, given the anti-Semitism which prevailed in Spain after the recent expulsion of the Jews. In fact, where he does express indebtedness it is to the *De nuptiis Mercurii et Philologiae* by Martianus Capella (composed some time between A.D. 410 and 439). However, note that while Martianus Capella gives brief articulatory descriptions of all the letters of the Roman alphabet, he makes no attempt to classify the consonants in terms of their points of articulation. That is, each consonant is given an articulatory description unrelated to all others. Thus, b and p are differently described: 'B labris per spiritus impetum reclusis edicimus', he says, while p is described thus: 'P labris spiritus erumpit'. The same is also true of the pairs t and d, and c and g (see Dick 1969:95-96).

²⁴It is perhaps worth pointing out in passing that Postel, like Reuchlin, was powerfully attracted to the cabbala, see Secret 1964:173.

²⁵'Latina et Graeca lingua, ut recentiores et maiori diligentia excultae, solae omnium linguarum declinationem nominis participiique mutata casuatim voce noverunt, dictionibusque significativas particulas quas Hebraei et ceteri litteris tantum efferunt, unde remotiores a naturalibus fiunt linguis. Naturales autem linguas voco quae sine fuco docent, quae paucis verbis . . . multa comprehendunt ac docent, cum brevissimis illis tamen claris dictionibus ac citius una syllaba quam duabus, vel littera una, sensum explicant, quales sunt omnes illae quae Hebraismo debent originem, ut est Chaldaica, Arabica, Indica, ut et hodie est vulgaris Turcica, Tartarica, Persica' (Postel 1538:D3v).

²⁶Bibliander imagines the lexical portion of his projected grammatical treatise divided into books with the first reserved for roots beginning with vowels and diphthongs: 'Origines autem verborum distribui placet non ordine alphabetario, sed ut uno in libro coniungantur quae primas litteras habent cognatas. Itaque uno in libro et quidem octavo iungentur origines quarum prima littera est vocalis, diphthongus aut aspiratio' (Bibliander 1548:170). The next book would contain roots beginning with

labial consonants ('origines quarum prima littera est b f p ph ps'), the next to roots beginning with velars ('origines quarum prima littera est g c ch k q x'), and so forth. The advantage of this non-alphabetical arrangement, he suggests, is that it would obviate the difficulty caused by the fact that different alphabets do not have the letters in the same order relative to each other: 'Mihi quidem hic ordo ad collationem linguarum commodior videtur, in quibus non est idem ordo litterarum, elementorum autem potestas eadem est ex naturae instituto' (171). In this connection, it is also interesting to note that in an earlier passage Bibliander presents a diagram of vowels and consonants arranged according to point of articulation, a classification which he says is to be found in the works of the Hebrew grammarians: 'Tantum proponam diagramma in quo litterae cognatae melius perspicui possunt quam ex divisione litterarum, qua per sua instrumenta distribuuntur, veluti in litteras linguae, dentium, palati, gutturis, labiorum, quomodo solent Ebraei grammatici distribuere' (1548:152-153).

²⁷An interesting case is discussed by Hirschfeld (1926:98), namely that of a Hebrew grammar written about 1500 by a certain Samuel ben Jacob, most likely from Italy, which, as Hirschfeld puts it, contains 'a terminology which recalls the Latin grammar-book'. Hirschfeld goes on as follows: 'The author begins with a list of the parts of speech, of which he counts eight, viz. noun, verb, participle, pronoun, preposition, particle, vocative, conjunction. Each of these classes is illustrated by an example. The author's definitions have a philosophical colouring. "The noun", he says, "is the part of speech which points to substance and attribute, either general or individual. Some nouns are either relating to substance or attribute. The former class indicates a substance without attribute, as Reuben, man, earth, while the latter class indicates a substance qualified by a general attribute, as wise, white, foolish, &c.'" The author's model here, I would suggest, was in part the Ars minor of Donatus and in part an elementary manual of Latin grammar especially popular in medieval and Renaissance Italy, composed some time in the Middle Ages and usually referred to by modern scholars as the Ianua from the first line of a poem which opens the work: 'Ianua sum rudibus primam cupientibus artem'. See Thurot 1869:47, Schmitt 1969. In that work, the noun is said to signify substance and quality, individual or general: 'Poeta quae pars est? Nomen est. Quare est nomen? Quia significat substantiam et qualitatem propriam vel communem cum casu' (Schmitt 1969:74). Another important fact to take into consideration is that Jewish grammarians of Hebrew also spoke languages other than Hebrew and were therefore prone to compare Hebrew with the languages with which they were familiar; see, for instance, Bacher 1889:217, and also to borrow grammatical concepts from non-Hebrew sources, on which see Chomsky 1952:74, fn. 82 and pp. 361-2, fn. 628.

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