

# TEACHING HEBREW NOUN PATTERNS THROUGH GENERAL THEORETICAL PRINCIPLES

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## 1. INTRODUCTION

### 1.1 Noun Versus Verb

During the teaching Semitic languages like Hebrew and Arabic, the verb system outranks that of the noun.<sup>1</sup> Nonetheless one should not disparage the role of the noun system, even though this notion is a bit vaguer than that of the verb, morphologically and functionally. The aim of this paper is to show that teaching the noun system is a viable undertaking which can and should complement teaching the verb, and be subsumed under it. The reason for this is the fact that many of the common noun patterns are verb derived, as detailed below. I will first present a theoretical discussion of the noun system, and will then discuss its didactic implications.

### 1.2 The Theoretical Aspect

My perception of the noun pattern system is based on several principles, some structural and others cognitive. By the latter I mean principles that underlie the question of how speakers perceive their language in their minds. However, the structural principles that describe internal relations in the system may also reflect what happens in the speaker's mind. In fact, differences in terminology stem from traditional nomenclature or from the conventional dichotomy between structural linguistics on one hand and cognitive linguistics on the other. To sum up, the differences stem from different underlying perceptions (underlying structuralism versus underlying cognitivism) and from linguistic tradition, and not from the essence of things, since the fundamental question of every linguist, whatever his theoretical orientation, concerns how language is organized in the speaker's brain.

## 2. STRUCTURAL PRINCIPLES

The two linguistic schools of structuralism and generative grammar distinguish between surface structure (*parole* in De Saussure's terminology), i.e., what is possible to perceive acoustically (and visually

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<sup>1</sup> A colleague teaching a course in Arabic morphology informed me that the subjects of her course are all of the verbal system.

through written signs), and inner structure, i.e., that which exists in the speaker's brain, whose form is more ideal, and hence abstract. The inner structure is termed *langue* in De Saussure's terminology and *deep structure* in Chomsky's. Such theories hold that there are different performances realized as surface allophones of one ideal phone in the deep structure (called a phoneme) and in parallel, different performances of one inner morphological form (called a morpheme).

## 2.1 Hebrew Morphemes

In Hebrew there are successive morphemes like *ben* 'son', *yad* 'hand', *télefon* 'telephone', and discontinuous morphemes that interdigitate with one another. The root consists of a series of consonants, and the vowel pattern of a series of vowels, where a series of vowels and consonants is designated as a pattern (*mishkal* or *binyan*). Patterns comprising vowels only are called nude patterns (*formae nudaе*), e.g., the noun patterns *kótel*, *katól* in the words *'óxel*, 'food', *bakar* 'cattle', and the verbal patterns *pa'ál*, *pi'él* in the verbs *'axal* 'eat' and *biker* 'visit'. Those which include consonants (the phonemes *h'mnty*) are called afformated patterns (*formae auctae*), as in the noun pattern *miktal* (e.g., *miš'ál* 'poll'); and in the verbal patterns *nif'ál* (e.g., *nizkar* 'remember' and *hitpa'él*, e.g., *hitmale'* 'become full').

## 2.2 Allomorphs – Different Performances of One Morpheme

Series of consonants like *psk* or *kdm* interdigit into patterns like *hi-* - *i-* (conventionally known as *hif'il*) and are realized as continuous forms such as *hifsik* 'cease' and *hikdim* 'precede'. When the root is not the ideal "full root", i.e., it is a deficient root (usually having two consonants and one semi-vowel in one of the root's positions, or a guttural or *n* in the first position, or the same consonant in 2<sup>nd</sup> and 3<sup>rd</sup> position), the surface structure is realized with other vowels, which in this case occur mainly in the first syllable. The external form therefore depends on the root structure, and although the surface forms are quite different from the base forms, we still attribute them to the same pattern. We do so because the semantic value of the pattern remains the same. An example is the causative function of *hif'il* versus the basic function of *pa'ál*: *pasak-hifsik* ('stop': 'make sb. stop'), *yašav - hošiv* ('sit': 'seat'), *'axal-he'xil* ('eat': 'let eat, 'feed'), *kam- hekim* ('stand': 'make sb./sth. stand', 'erect') etc. A fuller picture is presented in table 1.

**Table 1: Realizations of the Verbal Pattern הַפְעִיל *hif'il* with Defective Roots**

Root type	פִּי"י לִי"י 1 <sup>st</sup> r 3 <sup>rd</sup> y	לֵה"י 3 <sup>rd</sup> y	עִיעַ Identical 2 <sup>nd</sup> & 3 <sup>rd</sup>	עִי"י 2 <sup>nd</sup> w-y	פִּי"ג 2 1 <sup>st</sup> ḥ	פִּי"ג 1 1 <sup>st</sup> ʿ	פִּי"נ/פִּי"צ 1 <sup>st</sup> n	פִּי"ו 1 <sup>st</sup> w
<b>Phonetic scheme</b>	הַרְאָה <i>her'á</i> <sup>2</sup>	הִגְלָה <i>higla</i>	הִסַּב <i>hesev</i>	הִבִּין <i>hevin</i>	הִחְמִיר <i>hexmir</i>	הִאָּכִיל <i>he'exil</i>	הִצִּיב <i>hiciv</i>	הוֹשִׁיב <i>hošiv</i>
<b>Abstract scheme</b>	heCCa <sup>3</sup>	hiCCa	heCeC	heCiC	heCCiC	heCeCiC	hiCiC	hoCiC
<b>Gloss</b>	'show'	'exile'	'turn'	'understand'	'worsen'	'feed'	'pose'	'seat someone'

A parallel process also occurs in the noun patterns. The series *mi-* - *a-* (= *miktal*, מִקְטָל) results in products close to the ideal form in full roots like *mifrac* 'bay', *migzar* 'section', but in quite different products in deficient roots. The distribution of these forms is presented in table 2.

**Table 2: Realizations of the Nominal Pattern מִקְטָל *Miktal* with Defective Roots**

Root type	פִּי"ג-לִי"י	לֵה"י	עִיעַ	עִי"י	פִּי"ג 2	פִּי"ג 1	פִּי"נ/פִּי"צ	פִּי"ו
	1 <sup>st</sup> guttural 3 <sup>rd</sup> y	3 <sup>rd</sup> y	Identical 2 <sup>nd</sup> & 3 <sup>rd</sup>	2 <sup>nd</sup> w-y	1 <sup>st</sup> ḥ	1 <sup>st</sup> ʿ	1 <sup>st</sup> n (or 1 <sup>st</sup> y)	1 <sup>st</sup> w
<b>Phonetic scheme</b>	מַעֲלָה <i>ma'ale</i>	מִרְעָה <i>mir'e</i>	מִצַּר <i>mecar</i>	מְקוֹם <i>makom</i>	מְחַקֵּר <i>mexkar</i> <sup>4</sup>	מַאֲכָל <i>ma'axal</i>	מַפָּל <i>mapal</i>	מוֹרָד <i>morad</i>
<b>Abstract scheme</b>	ma(C)aCe	miCCe	meCaC	maCoC	meCCaC	ma(C)aCaC	maCaC	moCaC
<b>Gloss</b>	rise	pasture	gulf, strait	place	study	food	waterfall	slope

We would expect our advanced Hebrew students to know that *morad* 'slope', *makom* 'place' and *mir'e* 'pasture' are locatives or noun actions (like *mexkar* 'study'). It would be fruitful if we could explain this in terms of forms that had branched out historically from the base form but still maintained semantic relations with it, through using the term **root**, a term that the students already have some insights into. It should be noted that this approach does not presuppose that the contemporary native speaker is aware of the common pattern of forms that have drastically changed throughout history. This is only a didactic tool that may be efficient and its efficacy may be empirically measured at any time.

It is noteworthy that in some root types like עִי"י (2<sup>nd</sup> w-y) roots, there is a neutralization of opposition between different patterns. For example, the pattern *miktal*, usually denoting locations (or noun actions), is realized

<sup>2</sup> The transcription of the Hebrew forms is roughly based on the pronunciation of the so called General Israeli Hebrew, a term coined by Haim Blank, "Hebrew in Israel: Trends and problems", *The Middle East Journal* 11 (1957) 397–409.

<sup>3</sup> The letter C represents a consonantal root element.

<sup>4</sup> The transcription in this article is meant to represent the standard pronunciation of contemporary Hebrew and not the classical one, so the laryngeals ʔ and ʕ are represented by x and ʿ.

in this type of root as *makol* (e.g., *maxon* 'institute', locative, or *mašov* 'feedback', action). On the other hand, the *maktel* pattern, denoting instruments (*maklet* 'receiver', *ma'ader* 'hoe'), is also realized in this type of root as *makol*, e.g., *mašot* 'oar', *matos* 'aircraft', and *manof* 'lever'.

### 2.3 Suppletive Relations between Patterns

In addition to the allomorphic relations, i.e., relations resulting from different phonetic realizations of the root, there is another kind of relation between nominal patterns which exhibits a parallel phenomenon. Several patterns constitute a unit in which patterns do not oppose each other but complement each other. For instance, patterns that resemble each other in their vocalic scheme and differ only in their initial consonant, unite to form a suppletive group: *maktul* (*man ul* 'lock'), *taktul* (*ta nug* 'pleasure'), *naktul* (*naftul-im* 'hesitation'); so do those with final vowel *o*: *miktol* (*mizmor* 'hymn'), *'ektol* (*'efro<sup>a</sup>x* 'chick'). Both groups constitute one unit, since each root selects one of these patterns and does not interdigitate with another member of the group. Thus, if there is *man ul* ('lock'), there is no *\*tan ul*, *\*nan ul*, *\*min ol*, *\*'en ol*. The reason for this phenomenon is probably the fact that there is an excess of patterns relative to the needs of the language.

### 2.4 Cognitive Principles

We should distinguish between a productive pattern that generates new derivations (new items in the lexicon), e.g., the *mi- - a -* pattern (=miktal, מִקְטָל), as discussed above, that has generated items like *migzar* 'section', *ma'anak* 'grant', *masof* 'terminal', and an unproductive pattern like *taktel* which has generated only one item, *tacref* 'puzzle' or the pattern *'ektol*. A pattern which is not alive in the speaker's mind is non-productive and is perceived as a frozen element. On the other hand, a pattern which is alive generally has a determined function, which is to create items in various fields. An example is the agent function of the pattern *kat(t)al* (*katav* 'correspondent'), or *katlan* (*katvan* 'person obsessed with writing'), where the former mainly denotes professions, and the latter, mainly character. Other common functions are seen in the “perfective” adjectives like *šavur* 'broken'; “potential” adjectives like *šavir* 'fragile', *'axil* 'edible'; abstract nouns like *migdar* 'gender' or *kéšel* 'failure'; instruments like *maxšev* 'computer', *miklédet* 'keyboard', and collective nouns like *kvuda* 'luggage'. All the living patterns may participate in these functions. As I have already mentioned, there is a correlation between the production principle and the function principle: a pattern lacking a determined function is unproductive, and vice versa.

## 2.5 The Quantitative Principle

The description of this system is economical, because it fixes the number of the living noun patterns at around 30, unlike other views which hold that the number is in the three-digit range (variously estimated at 100 or 200-300). In addition, out of the 32 patterns, 13 stem from the regular verb system: the active participle (that is, the agentive verbal noun), the passive participle and the noun action; 9 patterns that vary from the regular forms and 9 patterns that do not stem from the verbal system. These numbers fit a presumed cognitive capacity that is needed for language creativity. This description yields an optimal number of patterns that is not overly high, and at the same time it provides the interdigital system with its vitality and its rationale in the face of strong competition from other derivation proposals such as the linear method.<sup>5</sup>

## 3. THE PEDAGOGICAL IMPLICATIONS

The final point of the theoretical description is the starting point of the didactic principles that follow from it.

- a. One should teach only the patterns of the productive stock and not the whole stock of nominal patterns (unless a question about a certain pattern arises during the lesson).
- b. The starting point should be the exposition of the living, productive system.
- c. One should teach the non-verbal patterns (9 patterns) according to need.
- d. The pattern has to be learned with its function (A pattern has function and not meaning). One has to answer the question "What does the pattern serve as?"
- e. One should teach that many of the nouns related to the verb patterns have a double function: a) an inflective function which is automatic, and b) a derivative function, by which I mean that it may be derived from a root that has no corresponding verb. The striking example is the pattern *mekutal* (מְקוּטָל), in which many nouns and adjectives are derived, first and foremost being the geometric nouns: *mešulaš* 'triangle', *meruba* 'quadrangular' etc. Secondly, adjectives (mainly depicting the body) can also be derived from nouns: *metutal* 'curled hair' from *talal* 'curl' (hair), *mecumat* 'wrinkled' from *cimuk* 'raisin' etc.

It is possible to use the structural method in order to differentiate between a derived noun, which has fewer ties, and an inflected form that has more ties; compare, for example, the adjective *me'urgan*: *ha-ma'amar*

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<sup>5</sup> See S. Bolozky, 1999.

*me'urgan lefi kama nos'im*: המאמר מאורגן לפי כמה נושאים ('the article is organized according to several themes') with *ma'amar me'urgan #* (organized article #). This differentiation matches the double function inflection-derivation of the English morpheme *-ed*, for instance, "The article is edit-ed by Mr. Mor" compared to "edit-ed article #".

f. One should teach that besides the regularity in the nominal system resulting from the verb pattern, there is also non regularity that characterizes derivation. For instance, the noun action of the verb *rakad* 'dance' is not formed in the expected regular pattern *ktila* (there is no *\*rkida*) but in the pattern *kitul*, *rikud*, the noun action expected for *pi'el* verbs. The noun action of the verb *saval* 'suffer' is *sével* and not *svila* as expected. In other cases there co-exists beside the regular noun action another one which aims to vary the regular one or has another semantic function. In this matter we can note the well-known pattern *hektel*, which exists in parallel to the regular (gerundive) noun action *haktala* for example, *hevdel* 'difference' beside *havdala* 'distinguishing', *hesber* 'explanation' beside *hasbara* 'propaganda', *hekef* 'contour, perimeter' beside *hakafa* 'encirclement' etc.<sup>6</sup> This ratio is fairly productive. In the next table I present the productive patterns that should be learned according to their dominant function. The table is based on Schwarzwald and Cohen-Gross' list.<sup>7</sup>

**Table 3: Distribution of the Living Patterns According to Their Dominant Functions**

General function	Sub-division	The patterns	Number Of patterns
Agent nouns: human and instrumental	Participle-like	<b>kotel</b> ( <i>šoter</i> 'policeman'), <b>niktal</b> ( <i>nirxav</i> 'large-scale' or widespread), <b>mkatel</b> ( <i>mefaked</i> 'commander') <b>maktil</b> ( <i>maskil</i> 'educated'), <b>mitkatel</b> ( <i>mitkadem</i> 'progressive')	5
	Non-regular	<b>kat(t)al</b> ( <i>sapak</i> 'supplier'), <b>katlan</b> ( <i>šamran</i> 'conservative')	2
Adjectives	Perfectives	<b>katul</b> ( <i>ʾagum</i> 'sad'), <b>mekutal</b> ( <i>mesuyam</i> 'certain'), <b>muktal</b> ( <i>mušlam</i> 'perfect')	3
	Potentials	<b>katil</b> ( <i>zamin</i> 'accessible')	1
Noun actions	Regular	<b>ktila</b> ( <i>bniya</i> 'construction'), <b>hik(k)atlut</b> ( <i>heʾadrut</i> 'absence'), <b>kit(t)ul</b> ( <i>nicul</i> 'exploitation'), <b>haktala</b> ( <i>haslama</i> 'escalation'), <b>hitkatlut</b> ( <i>hityaʾacut</i> 'consultation')	5
	Non-regular	<b>hektel</b> ( <i>hefreš</i> 'difference'), <b>taktil</b> ( <i>taciv</i> 'budget'), <b>kitla</b> ( <i>sinʾa</i> 'hatred'), <b>kétel</b> ( <i>méser</i> 'message'), <b>tiktólet</b> ( <i>tixtóvet</i> 'correspondence'), <b>miktal</b> ( <i>mišʾal</i> 'poll')	6
Abstract notions : character and state		<b>kótel</b> ( <i>kóved</i> 'heaviness'), <b>katélet</b> ( <i>nazélet</i> 'runny nose'), <b>kit(t)alon</b> ( <i>dikaʾon</i> 'depression')	3
Concrete concepts: instruments and place		<b>maktel</b> ( <i>maxšev</i> 'computer'), <b>maktela</b> ( <i>maclema</i> 'camera'), <b>miktélet</b> ( <i>miklédet</i> 'keyboard'), <b>maktélet</b>	

<sup>6</sup> See Chomsky N. 1970.

<sup>7</sup> Schwarzwald and Cohen-Gross 2000.

	( <i>madpéset</i> 'printer'), <b>miktala</b> ( <i>midraxa</i> 'sidewalk')	
<b>Collectives</b>	<b>ktula</b> ( <i>kcuna</i> 'military officers')	1
<b>Total</b>		31

#### 4. POLYSEMY IN THE PATTERN SYSTEM

Table 3 presents each pattern in its typical place, that is to say, it presents each pattern in its dominant semantic function (according to my perception and my findings), but it does not support an argument that every pattern has only one function, since this is untrue. The method of exposition adopted here is aimed at achieving clarity. As we are discussing derivation and not inflection, one could expect exceptions. I will now present some examples of such polysemy.

a. The agent nouns can denote human function, i.e., professions, and they mostly do so, but there is also an agency of instrument, as also happens in other languages. For example, the English ending (common to other Germanic languages) *-er* forms human agent nouns such as *teacher* but also instruments like *server*. So a student that knows the phenomenon from his own language might easily identify the phenomenon in the target language.

**Table 4: The Agent Patterns: Professions and Instruments**

Pattern	Profession	Instrument	Pattern	Profession	Instrument
<i>kotél</i>	<i>šomer</i> 'guard'	<i>šomer masax</i> 'screen saver'	<i>kat(t)al</i>	<i>nagan</i> 'human music player'	<i>nagan taklitorim</i> 'disc player'
	<i>ʔofe</i> 'baker'	<i>ʔofe léxem</i> 'bread machine'		<i>sapak</i> 'supplier'	<i>sapak ko<sup>a</sup>x</i> 'powersupply'
	<i>kore</i> ' 'reader'	<i>kore ʔpi-di-ef</i> 'PDF reader'		<i>šarat</i> 'janitor'	<i>šarat</i> 'server'
<i>mkatel</i>	<i>mexanex</i> 'educator'	<i>mekarer</i> 'cooler', <i>me ʔavrer</i> 'fan'	<i>maktíl</i>	<i>mazkira</i> 'secretary'	<i>mazkira</i> <i>elektronit</i> 'answering machine'
	<i>metargem</i> 'translator'	<i>metargem atarim</i> 'translation software'		<i>memir</i> <i>ksafim</i> 'money changer'	<i>memir ʔarucim</i> 'channel selector'

The pattern *mitkatel* has a more direct relation between the verb and the noun, but even in this form there is no automatic relation, for example in phrases like *ʔadam mitkadem* 'enlightened man', and *medinot mitpatxot* 'developing countries'. The term *mitnagdim* 'Mithnagdim, anti-Hasidim' is a term of its own with no direct relation to the verb *hitnaged* 'oppose'. Attention must be paid to the syntactic principle distinguishing more

bound verbal forms like *mitkadem le-* 'go forward to', *mitpteax le-* 'develop to', *mitnaged le-* 'oppose to', *mitnakeš be-* 'assassinate sb.' from their less bound corresponding nominal forms *mitkadem#* 'progressive', *mitpteax#* 'developing', *mitnaged#* 'objector' *mitnakeš#* 'assassin'.

**b.** The pattern *kat(t)elet* sometimes denotes diseases like *ʾademet* 'rubella', *šapáʾat* 'influenza', but sometimes it denotes collectives: *tayéset* 'squadron', *rakévet* 'group of wagons', 'train', *šayézet* 'flotilla'. The noun *tayélet* may be interpreted as "a group of hiking paths". A word like *dabéšet* 'hump of a camel' is a legacy of the history of the language and not a product of contemporary Hebrew; therefore, it is not included in this discussion.

**c.** The pattern *miktal/maktal/mektal* (all allomorphs of one pattern) is also polysemic. On one hand, its derivations denote locatives: *misgad* 'a place of worshipping (גדס) god', 'mosque', *mifʾal* 'factory', *micpe* 'lookout', *maʾavar* 'passage'. On the other, its derivations denote actions: *mišʾal* 'poll', *mahalax* 'move, process', and *mište* 'feast'.

Polysemy does not mean that a pattern has no function at all. It means that its function is somewhat vague. One of the main characteristics of human language is the ongoing change of meanings and functions of which the most important is metonymy, which is the transfer of a meaning from one word to another with which it has contact, and metaphor (in Greek meaning "moving" till this very day), which is the transfer of a notion from field to field. An example of metonymy is the noun *ciyur* 'a painting', whose original function is the action of painting. But when one says *kaniti ciyur* he means "I bought a painting", that is to say, the result of the action. An example of metaphor is the phrase *ha-šaʾon ʾamar* (Alterman), "the clock said". This is the transfer of a certain quality from a human being to an object, a process known as personification.

Let us consider what happens in this case. When I asked someone if the word *mifrac* 'bay' denotes location or action, he argued that the word denoted action (of penetration of the water into the land). In this way we can explain that the noun *mavoʾ*, which is formed in the pattern under discussion, denotes both the 'entrance of a building' (location) and the 'introduction (action) of a book or an article'.

In my theory, the functions of a pattern are not only the functions that it possesses, but also inversely, the functions that it lacks. So a pattern *miktal* does not denote humans, (it is not agentive), but there is an exception, *ha-mišne la-nagid* 'the vice president (of the Bank of Israel)' derived from the word *šnáyim* 'two', in the sense of being second in the hierarchy. On the other hand this noun also denotes abstract notions like *tafkid mišne* 'second position' or *ʾaluf mišne* lit. 'sub-general', that is,

'colonel', hence, its human feature is a result of metonymy and not an inherent feature of the pattern.

d. The pattern *kétel* with its various realizations (*sévev* 'rotation', *péca* 'wound', *pá'ar* 'gap', *táyis* 'flying' is included in table 3 above in patterns denoting noun action in contemporary Hebrew. This inclusion has been criticized by those who think that this pattern has no function at all, so this inclusion needs an explanation. In Biblical Hebrew, this pattern was not limited in function, so that it could denote anything in every field of meaning; for example, a) natural substances: *'éven* 'stone', *géfen* 'grapevine', *séla*<sup>8</sup> 'rock'; b) natural phenomena: *sá'ar* 'storm', *géšem* 'rain', *'érev* 'evening', *rá'aš* 'noise'; c) body organs: *béten* 'belly', *régel* 'leg', *réxem* 'uterus'; d) kinds of human beings: *géver* 'man', *yéled* 'child', *ná'ar* 'boy'; e) abstract notions: *péga'* 'misfortune', *máxac* 'crush'.

According to my findings,<sup>9</sup> there has been no new derivation in this pattern denoting a kind of human being, or animal etc., so we may presume that if a word like *'éved* 'slave' had been derived in modern times, its form might have been *'avdan* (in pattern *katlan*), meaning that it would have been derived using one of the common patterns for deriving nominal agentives. According to my study, most of the innovations in this pattern denote actions, for example, *sévev šel minuyim* 'rotation', *rav-méxer* 'best seller', *'arox-négen* 'long player', with a smaller number of derivations denoting concrete notions like *ná'ac* 'nail'. Others, like *séfax* 'attachment', 'addendum', may denote both abstract and concrete notions. The whole matter of attributing functions to patterns is problematic because of the constant changes of meaning, a typical feature of human language.

The distinction between functions arising from contemporary derivation and functions arising from the heritage is vital. A striking example is the pattern *taktil*, today denoting actions: *tasbix* 'complex', a kind of *sibux* 'complication', *tahalix* 'process', a kind of *halixa* 'going', 'transit', *tašlim* 'suppletion', a kind of *hašlama* 'completing'. The late Biblical noun *talmid* 'pupil' in this pattern denotes "a learning person". If we carefully distinguish between the products of the heritage and those of our time, we will be able to explain this "exception" easily, saying that in biblical times this pattern had functions (if it had any at all) different from its contemporary functions.

## 5. FROM THEORY TO DIDACTICS

The question arises of how we should teach this subject to students of

<sup>8</sup> The transcription of Biblical forms here represents the pronunciation of Contemporary Hebrew.

<sup>9</sup> My findings concerning this pattern were presented at the annual conference of NAPH 2013 in NY.

Hebrew as a foreign or second language. Any didactic subject raises the question of whether the method should be synthetic, i.e. learning in context only, or whether there would be room for analytic teaching (forms detached from context, inflective tables etc.). Based on my experience, the best way is to integrate the two methods, since it is not possible to learn a language without theoretical explanations, tables etc. On the other hand, teaching the theory should be accompanied by reviewing examples and embedding the forms discussed in the context of a sentence or a minimal phrase. In the next section I will outline a possible way of presenting the subject in a theoretical way while at the same time analyzing the forms in their contexts.

### 5.1 Teaching Forms Related to the Verb System

As I mentioned above, noun patterns are verb-dependent to a great degree, and we can relate part of this to the teaching of the verb patterns (binyanim). For instance, every active verb in any language (in Hebrew verbs in patterns *qal*, *pi'el*, *hif'il*) generates three kinds of nouns: the agent, i.e., the performer of the action (a profession or instrument related to the verb), a perfective adjective (perfect participle) and the action noun, which is a nominalization of the verb. For example, in English the verb **speak** generates the agent noun **speaker**, the perfective adjective **spoken** and the action noun **speaking**. We can analogize this to Hebrew: the verb *likro* 'read' automatically generates the agent noun *kore* 'reader', the adjectives *karu* 'invited' and *karuy* 'named' and the noun action *kri'a* 'reading'. Table 5 presents the regular derivation of the active verb.

**Table 5: Regular Nouns Derived from the Active Verb**

infinitive	pattern	The agent noun	Perfective adjective	The action noun
<i>li-kro</i> 'call', 'read'	<i>qal</i>	<i>kore</i> - human: <i>ha-kor'im</i> 'readers' and instrumental: <i>kore kartisim</i> 'ticket reader'	<i>karu</i> 'invited' <i>karuy</i> 'named'	<i>kri'a</i> 'call', 'reading'
<i>le-xanex</i> 'educate'	<i>pi'el</i>	<i>mexanex</i> 'educator'	<i>mexunax</i> 'educated'	<i>xinux</i> 'education'
<i>le-targem</i> 'translate'		<i>metargem</i> 'translator'	<i>meturgam</i> 'translated'	<i>tagum</i> 'translation'
<i>le-hazmin</i> 'invite', 'order'	<i>hif'il</i>	<i>mazmin</i> 'inviter', 'orderer'	<i>muzman</i> 'invited', 'ordered'	<i>hazmana</i> 'invitation', 'order'

When some acquaintance with the automatic side of the language that is called inflection has been achieved, the derivational side of the language has to be grasped, with its opposite character of non-regularity, lacunae,

non-automatism, variance, and exceptions to the fixed schemes. We can now compare the regular table with the real creative table that characterizes Hebrew or any other language. For instance, in English too there is a regular action noun beside the non-regular variant that exists in order to facilitate differentiations. An example would be the automatic action noun **defining** beside the non-automatic noun **definition**. Table 6 presents the non-regular derivation of the verbal nouns.

**Table 6: The Non-Regular Nouns Derived from the Active Verb**

Infinitive	Pattern	The agent noun	Perfective adjective	The action noun
<i>li-rcoax</i> 'murder'	<i>qal</i>	<i>roce<sup>a</sup>x</i> 'murderer'	— <sup>10</sup>	<i>recax</i> 'murder'
<i>li-rkod</i> 'dance'		<i>roked / rakdan</i> 'dancer'	—	<i>rikud</i> 'dance'
<i>li-šbot</i> 'capture'		<i>šove</i> 'capturer', <i>šove lev</i> 'attractive'	<i>šavuy</i> 'captured'	<i>šévi</i> 'captivity'
<i>le-vaker</i> 'visit', 'control'	<i>pi'el</i>	<i>mevaker</i> 'visitor / state comptroller'	<i>mevukar</i> 'controlled'	<i>bikur</i> 'visit' vs. <i>bikóret</i> 'control' <sup>11</sup>
<i>le-varex</i> 'bless'		<i>mevarex</i> 'blesser'	<i>mevorax</i> 'blessed'	<i>braxa</i> 'blessing'
<i>le-havdil</i> 'discern'	<i>hif'il</i>	<i>mavdil</i> 'one who makes a differentiation'	<i>muvdal</i> 'separated'	<i>havdala</i> 'differentiation' vs. <i>hevdel</i> 'difference'
<i>le-hakif</i> 'comprehend', 'surround'		<i>mekif</i> 'comprehensive, surrounding'	<i>mukaf</i> 'surrounded'	<i>hakafa</i> 'encirclement' vs. <i>hekef</i> 'perimeter'

One can show derivation in the verbal adjective patterns when the verb system does not exist, or when there is no direct relation between the verb and the derived adjective, for example, for adjectives in the pattern *katul*, *pašut* 'simple' is not directly related to *lifšot* 'to raid' 'to extend'; *aluv* 'pitiabile' is not directly related to *la'alov* 'to insult'; and *rakuv* 'rotten' has no extant matched verb *\*li-rkov* 'to rot' in the common language. The pattern *mkut(t)al* has derivations in the geometrical field which are not related to verbs but to nouns: *mexumaš* 'pentagon'; *metuman* 'octagon'. Other derivations are in the field of human physiognomy: *metultal* 'curly-haired person'; *mesufam* 'mustached man'; *mecumak* 'wrinkled'; *memuškař* 'eye glassed person'. The pattern *muktal* supplies a number of examples: *muvxar* 'selected, excellent', has no related verb *\*le-havxir*; *muskal* (מושכל) 'rational' (adj.) or 'concept' (n.) (in philosophy), is not related to *le-haskil*; *mušba* 'in the phrase *xovev sifrut mušba*', 'dedicated literature

<sup>10</sup> It is worth mentioning that the expected action noun *recixa* exists in Yiddish as a loan word from Hebrew in the sense of 'great anger, aggression'.

<sup>11</sup> The variance enables us to discern between two notions that are not close semantically.

admirer', is not derived from *le-hašbia'*, 'to administer an oath'; *mufra'* 'abnormal person', is not directly related to *le-hafria'* 'to disturb'.

## 5.2 Instruction of Non-Verbal Patterns

Having taught the verb derived patterns, a minimal amount remains to be taught. One has to teach the patterns denoting concrete notions like instruments (the patterns *maktel*, *maktela*, *miktélet*) and location (the patterns *miktal*, *miktala*), non-verbal abstract notions, part of them denoting phenomena such as physical and mental diseases (the patterns *kit(t)alon* and *kat(t)élet*) and finally patterns denoting collectives (pattern *ktula*).

I think that in this field there should be great freedom of choice of subjects. It seems to me that it is necessary at a certain phase to teach the typical instrument patterns *maktel* and *maktela* and the state patterns *kit(t)alon* and *kat(t)élet*. For *kit(t)alon*, one should first teach the inflective side of the pattern, i.e. the morpho-phonological modifications that occur through inflection (*zikaron#*, *zixron-ot*, *zixron-i*). One should further teach the realization of *e* under the expected *i* first syllable in nouns like *herayon* 'pregnancy', *gera'on* 'deficit', *te'avon* 'desire', *re'avon* 'interview' known in classical grammar as "*tashlum* (compensatory) *dagesh*". On the other hand, it seems pointless to teach the difference between *kitlon* (*pitron* 'solution', *rišyon* 'license' and *kit(t)alon*, in which most of the pattern products are formed, since historically and in practice they are essentially the same. Concerning the content side of the pattern, we can mention that this pattern often denotes abstract notions that I have termed states: *šiga'on* 'madness', *te'avon* 'desire', *nikayon* 'cleaning, property', *gera'on* 'deficit', *ilafon* 'fainting' etc., or a kind of action: *pitron* 'solution' is kind of *ptira* 'solving', *zikayon* 'concession' is a kind of *zixya* 'achievement', *nixyon šekim*<sup>12</sup> 'discount of bills' is a kind of *nikuy* 'deduction' (of payment), *bizayon* 'shame' is a kind of *bizuy* 'humiliation'. As mentioned above there is no perfect generalization. For example, *rišyon* 'license' denotes neither a state nor an action, but its meaning may have become fixed through a metonymy between the action *rišuy* 'licensing' and its result, the license itself.

## 5.3 Teaching the Noun Patterns through Context

Another didactic idea is to concentrate a number of patterns in one sentence in order to present the morphological relation between the root and its different nominal derivations and the relation between a form and its function. The next sentence may serve as an example for this method:

<sup>12</sup> Actually it is pronounced *nikyon tšekim* in colloquial language.

*ha-veterinar ha-mazrik hizrik la-kélev zrikat xisun be-mazrek leyad ha-mizraka* "The **injecting** veterinarian **injected** a **vaccination** into the dog with a **syringe** near the **water jet** (fountain)". The bolded words are products of the same root (*zrk-* "throw, inject"), and they are formed in typical representative patterns: *mazrik* 'injecting person' (agent noun), *zrika* 'injection' (noun action> result), *mazrek* 'syringe' (instrument), *mizraka* 'fountain' (locative). The sentence is clearly tautological and artificial, but it is grammatical and its aim is didactic. Another example of the same kind: *kol-o šel ha-šadar / šadran ha-nifla šel rašut ha-šidur nikta' bi-zman ha-mišdar biglal takala ba-mašder ve-ha-šéder lo higia' le-’oznay*, "The voice of the great **broadcaster** of the **broadcasting** service was cut off during the **transmission** because of a fault in the **transmitter**, and the **transmitted message** did not reach my ears". The nouns derived from the root *šdr* 'transmit' in this sentence are: *šadar / šadran* 'announcer' - two agent nouns from two different patterns, *šidur* 'broadcasting' - a regular action noun, *mišdar* 'transmission' - a non-regular action noun, *mašder* 'transmitter' - an instrument pattern, *šéder* 'transmitted message' - another non regular action noun.

## 6. CONCLUSION

I have tried to demonstrate that the mishkalim (noun patterns) system is complicated, but for didactic purposes we can highlight the main principles and show that the system is quite compact and well-organized. Its instruction should not entail inflectional tables on the formal side and another list of patterns denoting certain functions (e.g. agentive patterns, called frequently "professions") on the content side. The instruction of this subject can be based on general linguistic principles that are common to both language of origin and target language and so ease the perception of the latter.

### 6.1 The Teaching of the Possessive Pronominal Suffix

My last remark concerns the teaching of the enclitic possessive pronoun which is part of the noun inflection. I will illustrate my point through an anecdote. I used to work as a bookkeeper in a kibbutz. One day one of the members of the community, an aficionado of Hebrew who was aware of my linguistic knowledge, came to me with a riddle: "how do you say **my ink** (*ha-dyo šeli*) in one word?" The point is that words terminating with vowels like *dyo* pose a special difficulty for this kind of inflection. The man had found in one of the prescriptive guides that the inflection was *dyo-ni* (intrusion of *n* as a liaison phone). What is the point of the story?

It is to show that it is pointless to teach the inflection of every noun (or the inflection of every noun may reach absurdity (reductio ad absurdum)).

According to the study of Yishai Neuman (NAPH conference 2013 in NY), the possessive pronominal suffix exists in spoken Hebrew mainly when the semantic character of the noun is inalienable (cannot be transferred to other person) and when its inflection needs no change in the base form. So it is advisable to restrict this subject to the few cases of this kind and to integrate them into real discourse. Such cases are: *tor-xa* 'It's your (m.sing.) turn', *tor-ex* 'It's your (f.sing.) turn' in a situation of a line in post offices, clinics, games etc., *zcut-i* 'It's my right' in a situation of arguing, *ze lo inyan-xa* 'It's not your (m. sing.) business'. If we wish to prepare our students for integration into the Hebrew-speaking society of Israel, we would be well advised to pay attention to the language as it is spoken.

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