INNOVATION AND NEOLOGISM IN MODERN HEBREW

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1.    HISTORICAL INTRODUCTION

    A hundred years have passed since the arrival of Eliezer Ben-Yehuda
to the Holy Land, promulgating the notion that the Holy Tongue should be
the everyday language of the Jews in the Land of Israel.
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Hebrew has gained broad acceptance during this century as the national language of Israel's polyglot immigrant population. Millions speak this language in Israel, among them myriads of non-Jews, and thousands outside Israel speak it in everyday usage.

This phenomenon is unparalleled in human history, considering the fact that Hebrew was dormant for seventeen hundred years. For almost two thousand years no one used it except for sacred purposes, i.e., for prayers, religious services and literature, and ecclesiastical studies. One may compare the previous state of Hebrew's existence to that of Latin: outside the realm of religion only scholars could use it and in rather limited areas. Speaking the language was very rare, quite artificial, extremely slow, with constant searching for words and terms. No one could order a railway ticket in that ancient tongue, a plumber would not be able to fix a faucet asking in Hebrew for its proper location, let alone naming its components, not would a schoolboy be permitted to sharpen a pencil in the language of the Bible: words for these items were non-existent.

Modern Israel enters today's Space Age with Hebrew as its vehicle for everyday life as well as for all sciences, correspondence and technology. This unique development, a source of pride for the Israelis, has attracted the attention of many linguists, and the achievement has fascinated visionaries and nationalists from many parts of the world, all wondering how this happened. What made the Hebrew language revival so successful? Delegations from Ethiopia and the Basque Provinces came to investigate the ways and means of language revival and standardisation, as do people from Cornwall and Ireland, who try to revive and spread the use of their ancient languages, and recently also French speaking Canadians from Quebec made some inquiries.

The answer to these questions is multifaceted:

There is a national aspect to the process, the Zionist movement being *a* major factor; the sociological aspect joins in the attempt to unite the Jewish community in the country; the religious aspect played a role as well, and one must not ignore the aspect of timing in history, in addition to the linguistic aspect.

This paper deals with the latter aspect of the answer, surveying ways of enriching the inherited Hebrew vocabulary, procedures of innovating Hebrew words and the means at the disposal of the innovators and neologists in our language.

At the time of its renaissance Hebrew lacked hundreds of thousands of words for everyday use, words which other living tongues had developed slowly and naturally, with the introduction of every new object or concept. Modern Hebrew did not develop naturally, as mentioned, and the time necessary for natural vocabulary growth was not available, since the needs were pressing and immediate: there was no word for "towel", a "brush" had no Hebrew name, an elevator was nicknamed "ascending and descending" or "may it rise and come", and a library carried the sign "the house where books are deposited."

For specialised purposes Hebrew was lacking thousands of technical and scientific terms. Every new wave of immigrants brought a new vocabulary from its country of origin, and so Turkish and Yiddish, Russian and Polish, English, German, French, Spanish and Arabic terms were used together, sometimes simultaneously and for the very same object, activity or concept. The re-enactment of the Tower of Babylon - a terrifying and inefficient way of communication.

A definite need was felt, to codify a uniform terminology, one which would receive general acceptance. There was a concern over the inroads of foreign locutions in Hebrew, and a fight was waged against non-native words. A famous battle in that war was the one over the Language of instruction in the recently founded (1913) Technion, Israel Institute of Technology, Haifa. The German Jewish founders of the Institute concluded, that because of lack of Hebrew technical and scientific terminology, instruction would be offered in German. However, both teachers and students decided to strike against this resolution, and the studies stopped for several weeks. The war spread all over the country (Palestine at that time), resulting in instituting Hebrew as the only language of instruction in most Jewish schools. This, in turn, made the language the vernacular of the Land, used in all realms of life, theoretical and practical.

FACTORS IN MODERN HEBREW REVIVAL

This brief introduction suffices to indicate the difficulties confronted by the band of enthusiasts intent on converting Hebrew into a truly modern vernacular.

A. The task required an authoritative body, accepted by speakers. It was to this end that Va'ad Ha-Lashon Ha-'Ivrit ("The Hebrew Language Committee") was set up in Jerusalem in 1890. It consisted of E. Ben-Yehuda, the lexicographer, and with him noted scholars in the fields of Hebrew grammar, Medieval Hebrew literature, Jewish history, Bible and Talmud. They were all volunteers who met once or twice a week at the private home of one of them, and answered questions concerning proper Hebrew usage. Their rulings and resolutions were received by the Jewish settlers of the country at the turn of the century. In the course of time other scholars, authors and educators joined the Committee.

B. It is my opinion, that the main catalyst in the process of Hebrew modernisation was the teachers, who started to organise in 1904, and decided to lend their support to the Language Committee. Their motives were very practical: teaching their pupils in Hebrew at that time proved how deficient was Hebrew terminology for the various subjects studied. And when each teacher made up his own terms, say for teaching Arithmetic or Geography or Biology, his students suffered when transferring from one school to another, from Judea to Galilee or from Jaffa to Jerusalem. Multiplication was named differently, the equation symbol carried another name, and the same plants had different nomenclature. The teaching community in the country therefore requested the Language Committee to codify terms for Mathematics, Home Economics, Building and Carpentry, Education, Music, Chemistry and many other fields.

The Committee maintained close contact with the growing host of Hebrew speakers throughout the land, and its resolutions were published in the newspapers and in journals and professional periodicals, foremost among them the Committee's Proceedings.

The Committee defined its functions in the following terms:

> (a) to render the Hebrew Language fit for use as a spoken vernacular in all spheres, in the home, at school, in public affairs, in trade and commerce, in industry, in art, in the sciences and the humanities;
> (b) to preserve the Oriental character of the language, its unique patterns in the formation of words and in literary style, to imbue it with the required degree of flexibility, and thereby to make it suitable to serve as a vehicle of contemporary thought.

C. In 1953, five years after the establishment of The State of Israel, the Language Committee was raised by the Israeli legislator to the status of a duly recognised national Academy. Now under State authority, the Academy was vested with the duty "to guide the development of the Hebrew language, on the basis of research into its different periods and branches".

D. Another facet of the Academy's work is the standardisation of our language, i.e., determining and fixing practical standards for today's Hebrew: uniform rules of script, spelling, grammar, transcription and transliteration (into Hebrew and from it).

E. Two complementary factors joined the expansion of the Modern Hebrew vocabulary; the deficiency and needs mentioned above were met by the vast literary sources written in Hebrew during the ages on the one hand, and on the other hand by Hebrew's built-in creativity. Hebrew has proved it possesses a very flexible structure which enables it to expand and enrich itself greatly.

The process of neologism and innovation in Modern Hebrew was, and still is being carried out therefore in two directions:

(i) On the one hand the word-coiners sedulously comb ancient Hebrew literature, starting from the Bible and going through the Mishna, the Midrash, Medieval Literature and the Halakhic-Rabbinic writings. Many of the terms found in these vast reservoirs are immediately usable; others can be readily employed by a slight adaption of meaning, since the object or activity they originally designated is not in use any more, and possession of two meanings, one archaic and one modern, does not provide problems any more than for instance the fact that "hose" denotes a different item in Shakespeare and nowadays.

(ii) A second literary source for enriching the Hebrew vocabulary is the Aramaic language, a sister-tongue of Hebrew. Aramaic words are easily adapted into Hebrew form, and many Aramaic words have been absorbed into Hebrew. The Arabic language did not prove to be a successful contributor to the Hebrew

vocabulary, although several dozen Arabic words have been taken over. The reason for this seems to be the absence of cultural contact between Arabic and Modern Hebrew.

(iii)   (a) The other way of expanding the Hebrew vocabulary is that of creating new words which are based on old roots. The idea is, that every word in Hebrew, verb or noun, has two structured parts: a root and a pattern. When a Hebrew root is fitted into a pattern it was not in before, a new word is created. (As in all languages, a new word is also created when an old word undergoes semantic changes, as mentioned above). This characteristic of Hebrew, whereby a root can potentially be fitted into a number of patterns and thus yield new words, helps to make Hebrew a relatively 'transparent' language, making it easier on both the language-learner and the word-coiner. Such new words are very often created in Hebrew speaking society, not only by language planning institutions, but also by the general public in supra-standard (poets, writers), standard (the press) and sub-standard levels (advertising slogans). Root augmentation is still another way Hebrew makes use of its own grammatical resources.

The TABLE below offers a schematic description of the built-in apparatus of Hebrew word formation. The words inside the squares are factual vocabulary items. The blank squares contain potential words, which might be innovated. Their meanings may be guessed from their places in the table.

Pattern & meaning / Root & meaning	"-a-a-" 3rd pers. sg. masc. past tense basic stem	"-i--e-" 3rd pers. sg.masc. past tense D-stem	"mi--a-" masc. sg. concrete noun	"ti--o-et" fem. sg. abstract noun	" -a--a-a " verbal noun D-stem
B-D-Q "checking"	BaDaQ	____	miBDaQ	____	____
S-P-R "telling"	SaPaR	SiPPeR	miSPaR	tiSPoRet	____
D-R-K "stepping"	DaRaK	____	miDRaK	____	____
Q-B-L "receiving"	QaBaL	QiBBeL	____	tiQBoLet	QaBBaLa
S-M-N "indicating"	____	SiMMeN	____	tiSMoNet	____

HEBREW 'PATTERN / ROOT' TABLE

In fact only a small part of the terms in the Academy's dictionaries are innovations in the sense described, namely newly coined words derived from Hebrew roots in various patterns, or from combined roots. Most of the terms codified by the Committees and the Plenary Session of the Academy are words which are already in use, or else they are found in the classical sources in the proper meaning.

Sometimes the meaning is somewhat stretched, and an existing word gets an additional, technical meaning, generally following a similar relation between the uses of the European equivalent word. On other occasions two Hebrew words are joined in a phrase-like contraction.

(b) Only if these methods fail does the Academy create a totally new word, yet still derived from an existing root, or even a new root is created as a denominative (e.g., tipqud 'functioning' from tapqid "function", which is itself derived from the root PQD).

(c) It was once the desire of the innovators in Hebrew to substitute a Hebrew word for every foreign word, but for many years now the Academy has tended to leave international scientific words in their international form, and not to Hebraize them.

3. REGULATIONS AND PROCEDURES OF THE ACADEMY'S TERMINOLOGICAL WORK

The initiative to start work on a specialised dictionary or list of terms in a certain area may come from an individual or from a group, in the Academy or outside, from institutions or private parties.

A. The presidency of the Academy considers the request, determining its viability, validity and priority. Once a positive decision is reached, the Scientific Secretariat initiates the setting up of a Professional Committee, the planning of the Committee's work, the call for material and suggestions from recognised authorities and respected professionals in the field under consideration and the appointment of a Chairperson for the Committee, usually the doyen among the professionals. A Committee consists of several renowned authorities in the field plus at least two members of the Academy. Additional experts may be appointed as 'corresponding members', who receive all the material discussed and accepted; they express their opinions in writing, and follow the committee's work closely.

A 'platform' of basic terms in the field is prepared by the initiators on that committee and it is distributed to the membership. The secretariat gathers reactions to this 'platform', checks the material collected for possible duplication in previously codified glossaries of other fields, parallel to, cognate with, or even altogether different from the field discussed (e.g., "fixation" is gibba'on in Psychopathology, following the pattern of zikkaron "memory" and shikkahon "obliviousness", while it is gevi'a[h] in Photography, on the pattern of beqi'a[h] "induction"), or else checking same for possible existing terms in professional Hebrew literature, thus avoiding needless innovations.

The sifted material is brought before the Professional Committee for a first round of discussions. The results of the First Call, its conclusions and suggestions, are set before the corresponding members and before all members of the Academy, soliciting their opinions about the suggested list of terms.

A Second Call of the Committee reviews the list in the light of the replies, the remarks and the reactions received, discussing possible omissions, duplications, doubtful terms and questionable items.

A 'Summation Notice' is prepared at this stage and submitted to all Academy members and correspondents.

B. The Academy's Terminology Committee, consisting of six Academy members, then convenes together with some of the foremost experts in the professional field concerned acting as consultants and advisors. Other Academy members may also attend.

The Terminology Committee concerns itself mainly with the precise and unequivocal meaning of the adapted terms, making it as consistant and uniform as possible, trying to avoid overlapping or contradictions.

The Committee examines the final list, trying to solve controversial issues, settle contradicting suggestions and offers any necessary changes. Eventually the Terminology Committee approves a final amended list.

A joint session, of the Terminology Committee and the Academy's Grammar Committee follows. At this stage the terms are further checked from a grammatical point of view: are the terms consistent in form with the spirit of our language? Do they fit Hebrew word patterns? Would any of them cause problems within the structure of the language? How would possible derivations behave in this regard? The joint session deals with such matters, approving clear-cut cases, debating others and sifting unclear cases, specifying issues which require an Academy's decision on its Plenum.

C. The Plenary Session is the supreme body of the Academy. It has the final word in all matters linguistic, terminological as well as grammatical. The Plenary Session debates the issues brought before it, approving or rejecting terms and rulings, deferring some decisions until more material is considered or returning suggestions to the committees for further deliberations. Sometimes this Plenum invites experts as consultants in the relevant field discusses.

Approved terms and rulings are published in the Official Gazette of the Israeli Government, Reshumot, either as a whole Professional Dictionary or as a "List of Terms" for a certain field, depending on the size of the vocabulary and its complexity. This publication makes the new terms official and legally binding. Government ministries, offices and departments as well as State Agencies must abide by it. By law, these include the State's educational system, the electronic media, the Armed Forces, the municipal authorities and other State supported institutions.

For the Press and the public at large the decisions of the Academy are only recommendations, and it is each term's individual fate whether it is neglected or accepted by the public. A neologism indeed.

4.   THE TERMINOLOGY PROJECT

A. The number of innovated and codified terms in Hebrew has reached
such a volume, that its accessibility for research and practical use is
not simple any more. Cataloguing, filing and cross referencing this
corpus of sixty thousand terms necessitated a system which allowed the
scientific secretariat to access its resources easily and efficiently.

     For instance, before deciding on a new term for a certain concept,
say in Acoustics (a recently approved professional dictionary, 1982),
such as "sound", for example, the secretariat must ascertain that such a
term is indeed lacking in Hebrew, namely, that there are no Hebrew words
indicating the notion under consideration. So far no all-encompassing
Hebrew dictionary exists, and the researcher must go through all
previous Hebrew sources, including specialised Academy dictionaries for
cognate or adjacent fields, such as Music or Physics. This is done in
order to avoid creation of needless synonyms or even contradicting
terms. And when a word is found in one of the sources, one must verify
that this word in one field, say <u>zelil</u> "sound" in Music, is good enough
for the concept of "sound" in Acoustics, because otherwise a new term is
needed, to denote the exact meaning.

     Admittedly, in order to perform a thorough search one would need an
all-encompassing multilingual-Hebrew dictionary. This instrument is not
available as yet for any language I know. Our Card Catalogue proved
incomplete and hard to use, and a new method had to be devised.

B. A step in this direction is the Academy's Terminology Project. It
is a computerised Index of Terms which includes the results of all the
decisions concerning Hebrew terminology made by The Academy of the
Hebrew Language and its predecessor, The Hebrew Language Council, in the
ninety years since 1890. The Index contains some 60,000 terms, their
English translations or equivalents, and bibliographic references for
their respective fields of usage.

C. A second stage may bring in the French and German equivalents. The
complete work may prove very useful for term banks and translators, not
so much because of the Hebrew but on account of the 60,000 English-
French-German equivalents as they are seen synoptically by a neutral
language of another family of languages. Also, since this is an
all-encompassing Index, editorial boards of multilingual dictionaries
will appreciate fully the making of such a tool and will definitely
welcome the completion of this project. The preparation of the Index
involves the use of a computer, and IBM (Israel) volunteers its services
in this project.

     The printed output of the Index takes the form of five large
volumes, only three copies of which exist so far, for our three offices,
in Jerusalem, Tel-Aviv and Haifa.

     A computer terminal with a screen will enhance the Index's
usability even more, thus serving the Academy in its normative capacity
in more ways than one.

5.   FUTURE PROSPECTS

A serious problem stands at the background of the terminological
and practical work of the Academy of the Hebrew Language: the innovated
material, vital for the language as it is, should it and can it
integrate into the inherited language, the traditional Hebrew, thus
becoming part of a historical succession, or will it stand alone (and,
as some might add, as a loosely connected limb)?

This question is of great concern because the adaptation of
Indo-European words to Modern Hebrew is one of the most outstanding
features (and, some might add, achievements) of Hebrew's renovation and
vitality.

The principle is that borrowed nouns and adjectives are adapted to
the borrowing language, Hebrew, with their original forms somewhat
modified, so that they look like other Hebrew nouns and adjectives, e.g.
pistur "pasteurisation", of fluoranut "fluorescence", or qiqlopi
"cyclopean", or silindri "cylindrical". This principal is strictly
adhered to in the case of verbs, since there are only seven traditional
verb patterns in Hebrew. Thus, for instance, "to pasteurise" sounds
le-faster, and "pasteurised" — mefustar (in Hebrew, (p) & (f) are
allophones of the phoneme /p/ in complementary distribution, the plosives
becoming fricatives postvocalically), and "(he) polymerised" — (hu)
pilmer, the consonants being the sole elements considered in Hebrew verb
inflection.

However, there is a growing number of borrowed nouns which to not
go under the principal mentioned. These nouns keep their original
foreign forms, to the extent that sometimes the particles and the verb
morphology are the only original Hebrew elements in a sentence:
ha-politiqai tilpen la-qoalizya ve-tirped 'et ha-opozizya is quite
understood by 'a European as "meaning" "the politician telephoned the
coalition and torpedoed the opposition." The question in such cases is
the fine delineation between a Hebrew sentence and a pidgin language.
How does one judge in cases such as this? Who is to decide about proper
Hebrew Sprachgefühl?

Many speakers of Hebrew are worried today over the widespread use
of foreign vocabulary in our language, just as they were eighty years
ago. Nowadays it is mainly English/American vocabulary which worries
the purists.

I believe that it is not vocabulary but grammar and phraseology
which determine the health of a language. Hebrew has adopted foreign
words in the past, ever since the Biblical period. As long as the daily
language is Hebrew in grammar and idiom, and as long as the balance
between loan and native vocables in everyday usage is in favour of the
Biblical tongue, as it is today in 70% to 80% of the words in a daily
Hebrew newspaper in Israel, I believe that the prospects of the Hebrew
Language are brighter than ever!