

שמות הטעמים וסימניהן

קְרָמָא מְנַח זְרָקָא מְנַח סְגוּל מְנַח | מְנַח רְבִיעִי
 מְהַפֵּךְ פִּשְׁטָא זְקָף קָטָן זְקָף-גָּדוֹל מְרָכָא
 טַפְחָא מְנַח אֲתַנְחָתָא פֶּזֶר תְּלִישָׁא-קְטָנָה
 תְּלִישָׁא-גְדוּלָה קְרָמָא וְאִזְלָא אִזְלָא-גְרֵשׁ
 גְּרֵשִׁים דְרָגָא תְבִיר יְתִיב פְּסִיק | מְרָכָא
 טַפְחָא מְרָכָא סוּף-פְּסוּק:
 שְׁלֵשֶׁת מְרָכָא-כְּפוּלָה יְרַחֲצוּךָ יוֹמוֹ
 קְרָגִי-פְרָה:

I. Levels of *mafsiqim*:

A. GOLD LEVEL

1. *esnachta*
2. *sof pasuq (alklal silluq)*

B. SILVER LEVEL

1. *segol*
2. *zaqaif (gadol or katan or in combination with qadma on the same word)*
3. *tipcha*
4. *shalsheles*

C. BRONZE LEVEL

1. *zarqa*
2. *r'vi'i*
3. *pashta* (NB: always printed on top of the last letter to distinguish from a *qadma*, which is NOT a *mafsiq* and is printed on top before the last letter)

4. *t'vir*

5. *y'siv* (NB: always printed ahead of the first letter to distinguish from a *mahpach*, which is NOT a *mafsiq* and is printed subsequent to the first letter's vowelization)

D. COPPER LEVEL

1. *munach l'garmai* (looks like a *munach*, which is NOT a *mafsiq*, followed by a *p'siq*)

2. *pozair*

3. *t'lisha g'dola*

4. *azla, gairash*

5. *gairshayim*

6. *p'siq* (perhaps not technically a *mafsiq*, but does indicate a pause; almost never occurs after a *munach* [when it actually is a *siman* that said *ta'am* is a *munach l'garmai*])

7. *qarnai farah*

II. Mafsiq axioms

A. Continuous Dichotomy

1. A *posuq* is divided by its level A *mafsiqim* into no more than two major units, then each unit is subdivided into subunits, and so on until there are only three word-units left in the subunit (words connected by a *maqgef* are one "word-unit").

B. Global Relativity

1. Each phrase ending in a *mafsiq* of a given level can only be divided by a *mafsiq* from the next level in the hierarchy. For example, a phrase ending in an *esnachta* (from level A) can only be divided by one or more *mafsiqim* from level B.

C. Local Relativity

1. When more than one *mafsiq* of the same level is in a given unit or subunit, the first such *mafsiq* signifies a much

stronger intra-unit division than the other *mafsiq(im)*.

last updated 18 Jun 2010

Sh'mos haT'amim v'Simaneihem Copyright © 2000 World
ORT

Notice: This computer program is protected by copyright law and international treaties. Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under the law.

[Axioms codified and explained by Seth Mandel](#) in November 2002 for members of the AishDas Mesorah list (NB: R'Seth's Mesorah post is not currently online, so I list it below).

[Axiom II.C. clarified in January 2009 dialogue with Ari Kinsberg.](#)

November 2002 Mesorah-list post by R'Seth Mandel (subject "Rules of trop"):

Since I have gotten a couple of questions about my post, and since I had been meaning to introduce the topic anyway, I decided to write up a short introduction to "tropology."

The trop are divided up into hierarchical classes. Although it is clear from some of their comments that they knew the rules of trop syntax, the rishonim do not discuss these classes, probably because the rules were taught to them with the "tune" of each trop. However, nowadays many ba'alei q'riah know the tune, but, from my experience, very few indeed know the syntax: how the trop connect or divide the words. Thus you get situations, all too common, where the balqoyre used the right tune, but paused in place where the trop is meant to connect the words.

The trop serve as a hierarchy. We do not have the Jewish names of these hierarchies, if indeed there were any, whereas we do have the ancient names of the individual trop (although in some cases different communities used slightly different names). Rather, we have just the general division into sarim or m'lakhim (disjunctive trop) versus m'shar'tim or m'habb'rim (conjunctive). The hierarchical categorization of the disjunctive trop in detail was done originally by Christian scholars. Caspar Ledebuhr in his *Catena Scriptorae* (1647) divided them into 5 classes: Rex, Dux, Comites, Dynastae, and Toparchae. Matthis Wasmuth in his *Institutio methodica accentuationis Hebraeae* (1664) used the names Imperatores, Reges, Duces, Comites, and Barones. R. Zalman Hanau in his *Sha'arei Zimra* (1718) followed these scholars, giving the

classes the Hebrew names M'lakhim, Sarim, P'qidim, and M'shor'rim. Following him, R. Y'hudah Leib Ben-Ze'ev in his Talmud Lashon 'Ivri (1796) used the names Qeisarim, M'lakhim, Mishnim, and Shalishim (reducing the classes to 4). His book was the most widely used in Eastern Europe, and his terms stuck. (All these categories are for the trop which are mafsiqim; the m'shar'tim, whose purpose is to combine words together without any pause, have no levels, but just rules which m'shar'tim precede which mafsiqim in which situations; some of these rules are spoken about by the Rishonim, from Ben Asher himself in Sefer Diqduqei haT'amim, to Rabbeinu Tam [in a poem he wrote giving the rules in rhyme], to mention just the most famous.)

The hierarchy of trop is not a matter of dispute, nor did Jews need Christian scholars to explain it to them. But once the Bohur (Eliyahu Levitas) explained to the Christians the significance of trop, Christian scholars got interested in it and started writing books about it, just as they started writing books about Hebrew grammar.

The basic rule of trop is "continuous dichotomy," as William Wickes terms it: a posuq is divided into two major units, then each unit subdivided into subunits, and so on until there are only 3 word-units left in the subunit (words connected by a maqqef are one word-unit). The hierarchical rules determine that when a division governed by a qeisar is divided, it is divided by a melekh; when one governed by a melekh is divided, it is divided by a mishneh, and so on.

I summarize the resulting system of trop syntax by two broad rules: the Global Theory of Relativity, namely that the strength of division signified by a trop is relative to what other trop are present; and when you have a series of trop which belong to the same hierarchical level, the first signifies a much stronger division than the following ones. Thus: a posuq is divided by an etnahta/atn'ha into two halves. Both the first and second half of the posuq will be divided by m'lakhim. The last melekh before both the etnahta and the sof pasuq is always a tip'ha. A previous melekh is a zaqef (zaqef qatan or zaqef gadol or subtypes of zaqef). The very first zaqef in a pasuq may be replaced by a segol (which turns into a shalsholet if there are not enough words for a zarqa). The division governed by the melekh is divided by a mishneh. If the melekh is a tip'ha, it is divided by a t'vir; if the melekh is a zaqef qatan, it is divided by a pashta; if the melekh is a segol, it is divided by a zarqa. If there are two or more mishneh trop, the first may be a r'via'. A similar system applies to the shalishim. (The problem with the names is my rule 1: Melekh implies that this is a major mafsiq, whereas in fact the trop belonging to this group are just more major than the next lower level, and if no lower level is present, may be a minor break.) This is a summary of all the rules which are mostly needed, other than recognizing which trop are

m'shar'tim, so that one does not break or take a breath after a m'sharet.

A couple of examples:

B'reshit 1:13. There is only one division, a melekh, which must be a tip'ha. That divides the pasuq into two sections: one, vayhi 'erev vayhi voqer, the second, yom sh'lishi.

B'reshit 1:18. The first half of the pasuq is divided by three m'lakhim: a zaqef qatan, a zaqef gadol, and a tip'ha. According to my second rule above, the first is the major division, the second is subordinate, and the tip'ha is a very minor division indeed.

Bamidbar 28:14 (read every rosh hodesh, and usually misread): the first half of the pasuq has only one melekh, a tip'ha. Therefore, that is the major division. The first subunit in the pasuq has three mishnehs, two r'via's and a t'vir. By rule 2, the first r'via' signifies the major subdivision. Thus the major division is on the word keves, since yayin refers to ALL the 3 kinds of n'sakhim, and the trop signifies that the meaning is: "and their n'sakhim are: $\frac{1}{2}$ hin for each par, $\frac{1}{3}$ hin for the ayil, and $\frac{1}{4}$ hin for each keves, all of wine." It should not be read with a breath after "ur'vi'it hahin" before "lakeves yayin"; the word lakeves goes with what comes before, and not with yayin.

In regard to B'reshit 25:3, which we were discussing: if the trop over D'dan is a zaqef, then there are two m'lakhim in the second half of the pasuq, a zaqef and a tip'ha. The zaqef is the major division, and so it reads: "uvnei D'dan: hayu" etc. If, however, the trop of D'dan is a r'via', then there is only one melekh to form the major subdivision of the second half of the pasuq, namely the tip'ha. So it would read "uvnei D'dan hayu Asshurim uLtushim; and also L'ummim." That would mean L'ummim is not part of the same list as Asshurim and L'tushim.

The drawback of the system of continuous dichotomy is that if you have a long list of lots of items, the trop have no way of signifying that all elements are equal. For instance, in Sh'mot 25:4 and 25:5. There cannot be a etnahta, or it would signify that there is a major division between the first and second parts. But the division has to be a tip'ha, but not because it signifies a bigger division than the t'vir that comes before. However, in 25:6, there is a major division in the pasuq, and that is designated by the etnahta.

So with a r'via' the posuq about D'dan has the trop that would qualify it to be a list. The word "hayu" precludes it from being that, but were that word to be absent and a r'via' over D'dan, the posuq would mean "and the sons of D'dan, and the Asshurim and the L'tushim, and the L'ummim." With the zaqef, the meaning would be the same as it is with the word "hayu."

Seth Mandel
