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The Names, the Heights and the Number 26 The Significance of Gematria Method Further Findings on Gematria 26 Structures within the Torah

For David Garegin Tsaturov - with gratitude

Introduction

The purpose of this paper is to present some insights on the significance of Gematria method as applied to deepen the understanding of the Torah. Additionally, it is to show that beyond the commonly known method of finding similar numerical values and revealing the messages hidden in the Torah, Gematria has influenced the world of Halacha in several areas. Furthermore, the aim is to demonstrate that the key numerical values apparent in the Torah are of pivotal significance, being not only part of a numerical method of interpretation but also – or even primarily – the fundamental elements (or building blocks) of the broader structure of the Torah's inner pattern woven underneath its text. This key numerical figure is 26, being the Gematria of *HaShem* – as it will be shown, permeating on the hidden level of the Torah.

The paper is divided to three parts:

- The first, the introduction, is to show the importance of Gematria in the framework of Halacha, based on the elaboration by **R. Eli J. Mansour**.
- The second is dedicated to the exegetical work of **Oskar Goldberg** (1885–1953) on a specific fragment of the Torah.
- Finally, the third (inspired by Goldberg's research) focuses on the statistical analysis of multiplications of the number 26 and the semiotic fields' sets that can be found around this value in the Torah.

Significance of Gematria method - exposition of R. Eli J. Mansour

The following paragraphs are taken almost *verbatim* from "The Rabbi Jacob S. Kassin Memorial Halacha Series" authored by R. Eli J. Mansour (delivered on 19 VII 2020).¹ It is both concise and detailed, thus I have found it worthy to quote extensively instead of re-writing its content. Wherever it was possible, I have added subheadings and direct references to the sources brought by the author.

Legitimization of Gematria

Unfortunately, there are those who question the legitimacy of Gematria – the numerical values ascribed to the letters of the alphabet, such that words are associated with certain numbers which have profound significance. Some people do not take this system seriously, viewing it as a device used creatively by *darshanim* (lecturers) to emphasize their point, but which does not have real, authentic meaning. But the truth is that the concept of Gematria is well grounded in our earlier sources, and is mentioned by the famous Mishna, which states: *gematriot parperaot lechochma*² – the calculations of Gematria are like the "dessert" of wisdom. They are not "the main course", the core essence of Torah teaching, but they are valuable as enhancements added to the primary substance of Torah.

Halachic rulings inspired and related to Gematria

In several places, the Gemara reaches halachic rulings on the basis of Gematria. For example, the Torah says about a *nazir*: *kadosh yihyeh* ("he shall be sacred"),³ and it is inferred⁴ from the Gematria of the word *Yihyeh* (30) that unless the *nazir* stipulates otherwise, his vow is binding for a period of 30 days. Commentary of the *Tosafot* in the beginning of the discussion regarding the laws of divorce,⁵ establish that a *Get* must be written in 12 lines, corresponding to the Gematria of the word *Get*. Furthermore,⁵ it is taught that the anointing oil (*shemen hamishecha*) consists of 12 *lugim* of oil – the Gematria of the word *zeh* which appears in the verses⁵ that speak about this special oil.

Elsewhere,* the Gemara notes that the word *herayon* ("pregnancy") in Gematria equals 271 – the number of days that comprise a standard pregnancy.

Yet another example is found the verse³: *al tashken beohalecha avla*, which forbids having a text or document with misleading information in one's home. One

Available also under: http://www.dailyhalacha.com/m/halacha.aspx?id=3837 [accessed on 30 XII 2020].

² TB Pirke Avot 3:23.

³ Bamidbar 6:5.

⁴ TB Nazir 6b.

⁵ TB Gittin 2a.

⁶ TB Horayot 11b.

⁷ Shemot 30:31.

⁸ TB Nida 38b.

⁹ *Iyov* 11:14.

who has such a text is required to bring it out of his house by the end of 30 days – as alluded to by the word al, which in Gematria equals 31^{10} .

The grounds of the im ha-kolel subsidiary method of Gematria

Some authorities accept the basic principle of Gematria, but question the validity of calculations that are seemingly imprecise – that is, their criticism touches the concept of adjusting a sum of numerical value by one (even though it is commonly used by *Baal ha-Turim*¹¹ himself). But this concept, too, is well-grounded in our sources. For example, the *Chida*¹² brings those who noted in reference to Yaakov's proclamation: "Ephraim and Menashe shall be for me like Reuben and Shimon" that the phrase *Efraim u-Menashe* has the same Gematria as *Reuven ve-Shimeon*. In truth, the Gematria of *Efraim u-Menashe* exceeds that of *Reuven ve-Shimeon* by one. Nevertheless, this is a legitimate equation.

R. Shimshon Pinkus (1944–2001) explained that the concept of adjusting a Gematria by one (known as the rule of *im ha-kolel*) is that the word formed by the combination of letters is something fundamentally greater than, and distinct from, the sum of the letters. A word is something more than the mere joining of letters; it is an entirely new entity, and this final entity can be added onto the sum of the values of the letters.

The structure of 26 within the Torah – the legacy of Oskar Goldberg

As mentioned above, the purpose of the second part of this article is to introduce the early output of Oskar Goldberg¹⁴ (1885–1952) that was dedicated to arithmetical analysis of numerical structures found in several passages in the Torah that revolved around the number 26, being the Gematria of the name YKVK. In the third part, I would like to present some further findings inspired by Goldberg's research related to analogical structures of numbers/words and their sets within the Torah. All in all, it is important to propose possible ways and methods in order to check, prove or falsify Goldberg's primary assumption that "Torah is structured in its numerical layer of meaning according to the principal value of 26"¹⁵ – this statement concisely summarizes the concepts and the hermeneutical discoveries delineated by Goldberg in his Die Fünf Bücher Moses: Ein Zahlengebäude – "The Five Books"

¹⁰ One needs to stress that there are far more examples of similar gematrical equations quoted in Gemara. See for example: http://daf-yomi.com/forums/Message.aspx?id=13534. (access 7 II 2021).

¹¹ R. Yaakov ben Ascher (1269-1343).

¹² R. Chaim Yosef David Azulai (1724–1806).

¹³ Bereshit 48:4-5.

¹⁴ One can find a biography and overview of Goldberg's thought in: Manfred Voigts, Oskar Goldberg: Der mythische Experimentalwissenschaftler. Ein verdrängtes Kapitel jüdischer Geschichte, Berlin 1992; Bruce Rosenstock, Transfinite Life – Oskar Goldberg and the Vitalist Imagination, Indiana University Press, Bloomington 2017.

¹⁵ Oskar Goldberg, *Die Fünf Bücher Moses: Ein Zahlengebäude* – "The Five Books of Moshe: The Numerical System" (Berlin 1908, Warsaw 2018), p. 1.

of Moshe: The numerical system" (Berlin 1908). Presumably, he wrote this short (only 44 pages in A5 format), but extremely dense book when he was 17 years old, as intended to be presented before the rabbinical faculty of Goldberg's yeshiva. He published it later at the age of 23 – and truly, its content quite seemingly reveals itself as the creation of a prodigy.

Even though it is an important part of the output of one of the key figures of 20th century Jewish thought, it was never translated from German neither to Hebrew nor English¹⁷ (the first translation being to Polish, published only in 2018). Due to the fact that – after completing the Polish translation together with K. Hussar-Mizierska – the English one is soon to follow,¹⁸ I believe the best way to show its key themes is to present the translation of the first chapter of the book.

Oskar Goldberg's discovery - recapitulation

As mentioned above, the best way to introduce one to Goldberg's findings is to provide a lengthy quote from the source. However, before presenting it, one needs to attempt to answer the very simple question that might have occupied the mind of young Goldberg, namely: What is the significance of finding the patterns of the number 26 within Torah?

From the philosophical or pure intellectual point of view, the answer is simple – any findings bringing us closer to fundamental truths regarding *HaShem* are worthy to be pursued: and in the case discussed it is a pursuit for mathematical and aesthetical forms hidden within the Torah.

From the fundamental religious point of view, the query is addressed in the aforesaid, famous chapter *Pirke Avot* and the answer goes as follows: **one cannot build Jewish identity via even the most lofty findings regarding Gematria; one must rather study the complexities of halachot and pass this knowledge on through the generations**. Thus, *Pirke Avot* claims that numerical findings – important as they are in their intellectual and aesthetical aspect – are not the core of Jewish thought.

- 16 Goldberg attended the orthodox Veitel-Heine-Ephraimische Yeshiva in Berlin till 1908.
- 17 Fragments of the ideas presented in this book are quoted, directly or indirectly in several papers of Casper Labuschagne (e.g. "Significant Compositional Techniques in the Psalms: Evidence for the Use of Number as an Organizing Principle", *Vetus Testamentum* 59/2009, pp. 583–605) and Israel Knohl, (e.g. "Sacred Architecture: The Numerical Dimensions of Biblical Poems", *Vetus Testamentum* 62/2012, pp. 189–197), albeit they are applied for different hermeneutical purposes and sets of data. The aforementioned recent monography of Goldberg's thought by B. Rosenstock dedicates a whole chapter to "The Five Books of Moses", however without delving into the details on the analysis of the numerical structure.
- 18 Forthcoming 2022.
- 19 As mentioned earlier in the exposition by R. Eli J. Mansour. Here it is worthy to quote it at length. Mishna 3:23: "Rabbi Eleazar Chisma said: the laws of mixed bird offerings and the key to the calculations of menstruation days these, these are the body of the halachah. The calculation of the equinoxes and gematriot are the condiments [i.e. 'desserts'] of wisdom."

On the other hand, in every generation there have been authors who seemed to build their Jewish identity both on halachic studies and Gematria research, the latter also presented to the public – vide the legacy of the aforementioned *Baal ha-Turim*, known also as *Tur*, ²⁰ the author of both gematrical Torah commentary and *Arba Turim*, the classical halachic code; R. Yosef Caro, the author of *Beit Yosef*, *Shulchan Aruch* and mystical treatise *Magid Mesharim*, ²¹ or R. Natan Neta Spira, the author of both sets of *Megale Amukot*. ²² Thus, we see that even though one could not ever place gematrical studies within the curriculum for the *cheder*, it would not mean that it was not considered for educated minds to strive to add to their analytical halachic knowledge and logic a tint of synthetic, aesthetic insight of harmonious mathematics, originating from sophisticated lore of Jewish hermeneutics.

Having said that, there is something more than gematrical hermeneutics in Goldberg's book. I believe that young Oskar Goldberg – in his search for mathematical patterns in Torah – was driven by the addition urge: to refute the claim that Torah is a combination of different traditions edited only on a textual layer and to show that one should treat it as a mathematically perfectly shaped gem, too. The proof for Torah's uniqueness was to be found within the objectivity of the numbers building the refined *Zahlengebäude* – literally, "the construction made of numbers." He just revealed the nature of the numerical structure and implied the following: here we need to contemplate the result in amazement, as surely Torah could not be edited in a plain literal or adjusted arithmetical manner by any man. When speaking at the end of his book about peculiar findings around the number 26, he stated:

"Pondering upon the genesis of composition of the analyzed text of the Torah leads us then to the quite singular, however from the mathematical point of view, firmly grounded conclusion that one cannot obtain such numerical structure through calculation."²³

Let us however go back to the beginning and quote at length the first chapter to follow the discourse in orderly fashion.²⁴

The Five Books of Moshe: The numerical system - first chapter

"The Five Books of Torah, from the beginning to the end is a numerical system,25whose fundamental numbers are directly connected to the name YKVK.

- 20 R. Yaakov ben Asher (1270-1370).
- 21 Of which he himself thought as of his most important text.
- 22 R. Natan Neta Spira (1585–1633). Though he has not passed any halachic treatises, he was known as the rabbinical authority of his time, respected by his contemporary colleagues, such as renown halachic leader, R. Yoel Sirkes, known as *Bach* (1561–1640).
- 23 Die Fünf Bücher Moses, op.cit., p. 44.
- 24 *Ibidem*, pp. 1–4. The form of the text has been kept according to the original, except of the addition of source material from Torah. Digitalized book available here: http://sammlungen.ub.uni-frankfurt.de/freimann/content/pageview/1017878 [access: 29 XII 2019].
- 25 The text follows the highlights according to the original script.

This system manifests itself primarily in the very content, but also penetrates the textual style, to the most subtle details. It also determines the structure of the paragraphs, verses and wording. It defines the number of letters and is even apparent in the natural numerical value of each letter. The combination of all these elements enables to reveal the unchanging principle of one number hidden behind its entire content. The Five Books of Torah should be therefore understood as a development of one fundamental number and as the expanded into numerical notation name YKVK.²⁶

The importance of the above mentioned statement directly stems from the examples that will be presented. These examples themselves pose a proof for the occurrence of the described singularity and suffice to document it.

Let us first analyze the genealogy of Shem, *Bereshit* 10:21–32.

The fragment presenting the Table of Nations consists of three paragraphs: two closed²⁷ and one open. Within the closed paragraphs one finds the genealogy of Yaphet and Cham. However, within the open paragraph, consisting of 12 verses, one finds the enumeration of Shem's descendants.

Shem	has	5 sons:	Elam, Ashur, Arpachshad, Lud, Aram
Aram	has	4 sons:	Uz, Chul, Geter, Mash
Arpachshad	has	1 son:	Shelach
Shelach	has	1 son:	Ever
Ever	has	2 sons:	Peleg, Yoktan
Yoktan	has	13 sons:	Almodad, Shalef, Chatzarmavet, Yerach,
			Hadoram, Uzal, Dikla, Avimael, Sava,
			Ofir, Chavila, Yovav
_			

Sum 26 sons

Total number of Shem's descendants is:

in the Torah scroll that falls at the end of given paragraph is open or closed. Verses that contain the sequence of words [note by O. Goldberg]. This traditionally accepted division stems from the Author of the Torah, however the chapters, as commonly known, were introduced only in the Middle Ages. In all the numerical analyses I consulted the book *Tikun hasofer* (Rödelheim 1886). It was published by S. Baer, based on the most precise masoretic research [note by O. Goldberg].

²⁶ Obviously, the author hints here already at the gematrical value of the Name YKVK.

²⁷ Let us recall that the Torah is traditionally divided in the following manner: Five main parts, i.e. books, Paragraphs, which are distinguished by its content. These are further divided into open and closed ones – which depends on whether the particular verse

ולשם יכד גם הוא אבי

כל בני עבר איזי יפת הגדול בני שם עילם ואשור

וארפכשד ולוד וארם ובני ארם עוץ וזזול וגתר

ומש וארפכשד ילד את שלוז ושלוז ילד את עבר

ולעבר ילד שני בנים שם האיזד פלג כי בימיו

נפלגה הארץ ושם איזיו יקטן ויקטן ילד את אלמודד

ואת שלף ואת יזצרמות ואת ירוז ואת הדורם ואת

אוזל ואת דקלה ואת עובל ואת אבימאל ואת שבא

ואת אופר ואת יזוילה ואת יובב כל אלה בני יקטן

ויהי מושבם ממשא באכה ספרה הר הקדם אלה

בני שם למשפוזתם כלשנתם בארצתם לגייהם

אלה משפוזת בני נוז לתולדתם בגויהם ומאלה

מפרדו הגוים בארץ אוזר המבול

1. Presented fragment of *Bereshit* 10:21–32 in *αshuri* writ as it appears in the Torah scroll.

22 פַּל־בְּנִי־עַבֶּר אֲזִי, יֶפֶּת הַגְּּדְוֹל: בְּנִי שֵׁם עִילָם וּמַאֵּנֶר 23 וְאַרְפַּרְשַׁר וְלָּוּר וַאֲרָם: וּבְנֵי אֲרָם עִיץ וְזִיּל וּגָּגָר וּלִּי בְּנִי שֵׁם הַבְּנִי אֲרָם עִילָם וְאַאִּיר וּבְנֵי אֲרָפּרְשִׁר וְלָּוּר וַאֲרָם: וּבְנֵי אֲרָם עָוּץ וְזִיּל וּגָּגָר יִבְּר אָזִי יָכֶּר אֶת־שְׁלָח וְשֶׁלֵח וְשֶׁלֵח וְיָלֵר אֶת־שְׁבָּר: אָת־שְׁבָּר: וְאָת־תִּבְּר וְאֶת־הַבְּרִנִּי אֶת־שְׁבָּר וּאָת־יִנְיִם וְאָת־יִנְים וְאָת־יִנְים וְאָת־יִנְים וְאָת־שְׁבָּר וְאָת־שְׁבָּל וְאֶת־שְׁבָּל וְאֶת־שְּׁבָּא: וְאָת־תִּבְּלְנִין וְאֶת־בְּבְּנִי אֶתְר שִׁבְּלְיוֹי וְאֶת־שְׁבָּא: וְאָת־שְׁבָּא: וְאֶת־שְׁבָּא: וְאֶת־שְׁבָּא: וְאֶת־שְׁבָּא: וְאֶת־שְׁבָּא: וְאָת־שִׁבְּל וְאֶת־הַבְּלְנִין וְאֶת־הַבְּלְנִין וְאֶת־שְׁבָּא: בְּנִייִּל וְאֶת־הַבְּלְנִין וְאֶת־בְּבָּלוּ וְאֶת־שְׁבָּא: וְאָת־שְׁבָּא: וְאֶת־שְׁבָּא: בְּנִיי וְאֶת־שְׁבָּא: בְּנִיי וְאֶת־שְׁבָּא: וְאֶת־שְׁבָּא: בְּנִי בְּנִיי וְאֶת־שְׁבָּא: וְאֶת־הְבָּבְּילְאָתְיִי וְקְּעְוּוֹיִלְה וְאֶת־יִנְיִלְם וְאֶת־בְּבִּילִם בְּאָרִי וְאָת־בְּבִּילִם וְאָתְּבִּי וְאֶת־שְׁבָּיל וְאֶת־בְּבִילִם וְאָתְּר בְּבִּילְיִבְּיוֹת בְּנִייְבְּנִי וְאָת־בְּבְּנִי וְלְּעוֹי וְבְּבִּילְ אָתְר בְּבִּילְיוֹי וְבְּבִילְ וְאָתְר בְּבִּילְם וְאָבִיי וְבָּבְי בְּבִּילְיוּ וְבְּבִילְים וְבִּבְייִי בְּנִישְׁפְּחִוֹת בְּנִי־נְיִם לְּעְבְּיוֹת בְּבִיינְים בְּאָלָין אַנִוֹר הַבּּנִילְם וְעִבּיי בְּבִּיל בְּיִי בְּבִיי בְּיִים בְּבִּילְיוֹי בְּבִּילְים בְּבִּילְיוֹי בְּבִּיִים בְּאָבְיים בְּבִּילְיוֹי בְּבִּילְיוֹי בְּבִּילְיוֹי בְּבּילְיוֹי בְּבִּילְיוֹי בְּבּילְים בְּעִים בְּבִּילְיוֹי בְבִּילְים בְּבִּילְיוֹי בְּבִּילְים בְּבִּילְיוֹי בְּבִילְים בְּבִילְים בְּבִילְים בְּבִילְים בְּבִילְים בְּבִּילוֹי בְּבְּיבְיבּילִים וְּבִּילְים בְּבִילְים בְּבִּילְים בְּבִילוֹי וְבְבּרְבּיוּ בְּבּילְים בְּבְּבִילְים בְּבּבּילְים בְּבְּבְיוּבְיוֹי בְּבְיוֹים בְּבּבְּיוֹבְים בְּבְּבִּיתְים בְּבְּבִיים בְּבְּבִילְים וְבְּבְיוֹבְיוֹי בְּבְיבִיים בְּבְּבְּבְיוֹי בְּבְיבִיים בְּבְּבִיבְיוֹים בְּבְּבְיבִּים בְּבְּבְּבְיוֹים בְּבְּבְּבְים בְּבְּבְיבְּבְּבְיוֹים בְּיִבְּבְים בְּבְּבְּבְּבְיוֹים בְּבְּבְּבְּיבְּבְי

2. Presented fragment of *Bereshit* 10:21-32 as it appears in print.

Let us now check the number of the words in this paragraph.

The number of words in the consecutive verses is as follows:

Verse	Number of words
1	11
2	7
3	6
4	8
5	14
6	10
7	6
8	6
9	10
10	7
11	7
12	12
Sum	104

The total number of words in this paragraph is 104 =

4 x **26**

Let us now establish the number of letters in this paragraph.

The number of letters in the consecutive verses is as follows:

Verse	Number of letters
1	34
2	29
3	21
4	27
5	51
6	37
7	22
8	22
9	34
10	27
11	33
12	53
Sum	390

The total number of letters in this paragraph is $390 = 15 \times 26$

Now, let us analyze the enumeration of Shem's descendants. These are presented in the following order:

Shem	has	5 sons		
Aram	has	4 sons		
Arpachshad	has	1 son		
Shelach	has	1 son		
Ever	has	2 sons	Yoktan	has 13 sons
Shem, Aram, Arpachshad, Shelach, Ever	have to	gether 13 son		lone has 13 sons

One can notice, that the fundamental number 26 is divided into two equal parts. According to this division, Shem, Aram, Arpachshad, Shelach and Ever have in total 13 sons, whereas Yoktan alone also has 13 sons.

Apparently intentional, this division of fundamental number to two parts must definitely have some substantial grounds. One should assume that again it has something to do with numerical premises.

So far the analysis of the letters has been related to their corresponding summary numerical value. However, both ancient Hebrews and other people of the East followed the understanding that letters have numerical value. As the relationship between the textual and numerical notation was in particular strong, therefore it is highly probable, that in our case we are dealing with fusion of textual and numerical meaning of the letters. One can assume – and that would be extremely particular and surprising – that the sum of numerical values of each specific letter also comes down to the primary number.

26 descendants of Shem are divided into two groups of 13 sons each. The reason for such division is most likely the fact that it is exactly the number 26 that is the base pattern number for the sum of all 13 of Shem's descendants' numerical value.

Therefore, let us write down below the names of the 13 sons of Shem, Aram, Arpachshad, Shelach and Ever. Afterwards, let us translate these names to the numerical notation according to the set of order. Finally, let us sum up these values:

	Sum	= 3 588
13	Yoktan	= 169
12	Peleg	= 113
11	Ever	= 272
10	Shelach	= 338
9	Mash	= 340
8	Geter	= 603
7	Chul	= 44
6	Uz	= 166
5	Aram	= 241
4	Lud	= 40
3	Arpachshad	= 605
2	Ashur	= 507
1	Elam	= 150

The sum of numerical values for the names of the 13 sons of Shem, Aram, Arpachshad, Shelach and Ever equals 3588 =

138 x **26**

Let us follow the same scenario regarding the names of 13 sons of Yoktan:

Almodad	= 85
Shalef	= 410
Chatzarmavet	= 744
Yerach	= 218
Hadoram	= 255
Uzal	= 44
Dikla	= 139
Oval	= 108
Avimael	= 84
Sheva	= 303
Ophir	= 287
Chavila	= 59
Jovav	= 20
Sum	= 2 756
	Shalef Chatzarmavet Yerach Hadoram Uzal Dikla Oval Avimael Sheva Ophir Chavila Jovav

The sum of numerical values of the names of the 13 sons of Yoktan equals 2756 =

106 x **26**

Summary:	Descendants of Shem	=	26
	Amount of words	=	4 x 26
	Amount of letters	=	15 x 26
	Numerical value of the first 13 names	=	138 x 26
	Numerical value of the following 13 names	=	106 x 26

The number 26 was already used as a numeral unit five times in this paragraph. In our culture, the meter was established as a pattern for the measure of length in space. Similarly, here the number 26 was established as a numeral unit, in order to set the relations of each fragments of the text regarding the fundamental number.

Thus, it is clear that the number 26, upon which particular parts and components of this fragment are patterned, must have some singular meaning.

Let us establish the numerical value of the Name YKVK:

VKVK	= 26
K	= 5
V	= 6
K	= 5
Y	= 10

The numerical value of YKVK is: 26

All this text, whose components come down to the Name²⁸ YKVK as its fundamental numerical unit are therefore to be understood as the Name YKVK, noted and developed within the numerical system".

To sum up Goldberg's finding presented in the quoted chapter – the whole paragraph of *Bereshit* 10:21–32 is shaped in an astonishing manner according to the fundamental value of 26, being Gematria of the Name 26. Let us proceed to part III of this paper to present further singularities related to this pattern.

The Names and the Heights

The Names of the Patriarchs and the Tribes

Goldberg's key example focuses on the Torah's fragment filled with names. Unsurprisingly, this whole fragment speaks about the descendants of Shem, whose name means literally "the Name". Goldberg does not write about it explicitly, but apparent allusions to "the Name" and the "counting process" seem to be a hidden invitation to find 26 as the Gematria for YKVK within this very passage. The "counting process" is hinted at the verse *Bereshit* 10:30: "And their dwelling was from *Mesha*, as you go towards Sefar, to the mountain in the east." Literally, the word *sfara* means "toward *Sefar*", indicating the name of the place. However, one could translate it as the number. Thus, the discussed fragment *Bereshit* 10:21–32 seemingly provide us with a hint, as if to say: "do not read me literally, but count me in depth."

Where else do we find significant allusions to the presence of YKVK within the story of development of the generations – the generations that ultimately are meaningful to the historical process of obtaining the Torah? We do find it in the names of the patriarchs and the names of the Twelve Tribes.

Let's start from the beginning – in case of Avraham, Gematria 248 does not have 26 as multiplier. Interestingly, when combined with Sarah, Gematria 505, we do obtain 753. However only when applying the rule of $im\ ha$ -kollel for the pair treated as one, can we find here that $753(+1) = 26 \times 29$. As such operation is not straightforward (even though rule $im\ ha$ -kollel would apply) we cannot accept it as a significant result.

Nevertheless, the names of consecutive patriarchs present indeed this remarkable chain structure²⁹:

Itzchak = 208 = 8 x 26 Yaakov = 182 = 7 x 26 Yosef = 156 = 6 x 26

- What is worth noting, the peculiar expression "Shem", which should be rendered as "the Name", is supposed only to indicate the Name YKVK. It is so, because Shem himself, as a forefather of the tribe of Shemites, at the same time is the prophet of YKVK [note by O. Goldberg].
- 29 This specific singularity related to the three patriarchs is commonly known in Jewish midrash literature. E.g. see commentaries of Ben Ish Chai (1832–1909) to Torah (any edition) or recently: Reuven Wolfeld, *Truth in Numbers: Insights Into the Book of Bereshis, ch. VI, Parshas Toldos*, Trafford Publishing 2005.

Such result is logical in several dimensions:

- 1) gematrical,
- 2) numerical chain of descent,
- **3) literal** (chain "father to son to grandson")

It does reveal significant resemblance to Goldberg's findings. However, admittedly, the scale of this structure is seemingly incomparable in terms of complexity to the analytical material based on *Bereshit* 10:21–32.

But what comes next seems to be indeed like the deep numerical structure of Shem's descendants passage³⁰. Whereas the singular relationship of Itzchak, Yaakov and Yosef to the value of 26 is in itself singular enough,³¹ it still follows the itemized Gematria analysis – we see neither the greater structure, nor the more complex set.

This requirement is however provided in the following example that – presumably – parallels quite well with Shem and his descendants pattern:

```
יעקוב Yaakov = 188<sup>32</sup>
יעקוב Shimeon = 466
יארי Shimeon = 466
יארי Yehudah = 30
יארי Yosef = 156
יארי Yosef = 156
בנימן Binyamin = 152
בנימן Reuven = 259
דו Dan = 54
דו Zevulun = 95
בילן Cad = 7
יעקוב Shipamin = 150
ברילן אשר Sher = 501
ברילן אשר Sher = 501
ברילן אשר Sher = 501
```

 $Total = 3354 = 129 \times 26$

Furthermore, adding to this sum 26 for YKVK Himself, we receive $130 \times 26 = 3380$, which on the textual dimension would corroborate the sense of the verse:

³⁰ This part of the paper discusses the findings that to the best of my knowledge have not been previously presented elsewhere. Obviously, the idea to search for the "26 multiplicator" was inspired by Goldberg's work. In order to achieve the results shown below, it was required to develop the statistical calculator covering the whole Torah text as a source data. The outcomes were double-checked through the https://www.torahcalc.com/gematria/data repository.

³² Conspicuously, here the spelling that goes with vav (literally: "with", "and") builds the precise structure of Gematria. Seemingly, it is to hint that Yaakov "with" his sons continues the legacy of 26.

"Cause the portion of YKVK is His people, Yaakov the lot of his inheritance." And as we will see below, 130 (being itself 26* multiplied by 5) also refers to an important figure from the Torah, being the name of Sinai – the mountain were connection between Yaakov's heirs and YKVK was established via act of giving the Torah. And that naturally brings us to the next set of words with the same Gematria 26, revolving around the semantic field of "the Heights."

2. The Heights

The above findings (names of the patriarchs, the Twelve Tribes and the names of the mountains) were discovered via the manual method – i.e. though checking if there might be any significant correlations within these semantically coherent sets. However, the manual method does not bring any exhaustive results.

Therefore, there was a necessity to apply thorough research on Torah's occurrences for the 26^* multiplier to find key words according to respective *gematriot*. This would of course not falsify or verify the existence of further sets based on common semantical similarity or coherence, however it seem to be an important step to provide complete statistical data. Following Goldberg's guidelines, the simple word value method (*mispar gadol = mispar hechrachi*) and search for single key words³⁴ is to be applied. The values multiplier is limited to $43 \times 26 = 1118$, as this is the highest value that matches the single word from the Torah.

Following this operation, one must check if there is a common set within which there would be a common factor according to the textual meaning, building up (if any) comprehensive correlation. Naturally, all words that have numerical value based on 26 multiplication, but at the same time appear with connectors (like vav or bet) or contain suffixes (like -cha, -i, etc.) should not be taken into consideration as perfect examples. However, the -he prefix does constitute the very essence of this particular word.

Let us now enumerate all sets and subsets related to the common denominator of the value 26. A complete set of multiplications and the list of the Hebrew words results:

1	26	15	390	29	754
2	52	16	416	30	780
3	78	17	442	31	806
4	104	18	468	32	832
5	130	19	494	33	858
6	156	20	520	34	884
7	182	21	546	35	910

³³ Dvarim 32:9.

³⁴ This is to exclude the expressions combined of several words, which would unnecessarily entangle the analysis with probability theory and eventually reduce the output to a mere set of indefinite values. Values according to the 26 multiplier must be explicit; otherwise the meaning found within the set would be quite dubious. The only exception is given for the values of the whole Torah verses, as presented above.

8	208	22	572	36	936
9	234	23	598	37	962
10	260	24	624	38	988
11	286	25	650	39	1014
12	312	26	676	40	1040
13	338	27	702	41	1066
14	364	28	728	42	1092
				43	1118 etc.

Torah derived single word values for multiplication of 26

Values for 26:

varaes 101	20.			
ידוד	וידו	הויה	ויגז	בחטאו
והיה	היטב	וחזה	הביט	
כבד	בידי	והדוה	החגי	
Values for	52:			
ויבדל	יחידך	ЖЕЖ	במי	והאם
בהמה	ואלהי	לבך	וחגלה	בטמא
בן	ואמה	כלב	מבטא	לטובה
בכל	וטלוא	בים	הואיל	וגזול
ויאהל	להגיד	אלהיו	באדמה	להאביד
וגוזל	ולוי	זמה	יחדל	והיטבך
מזה	ובדם	ומאה	וגלחה	
1				
Values for	78:			
לחם	יאהבני	ובנך	יחלל	הביאני
מבול	חמיך	נכח	הביאכם	לחיל
מלח	חלם	חכמי	והטבנו	וביין
הגמל	ויסב	ואמלא	כלחך	אזנך
ככוכבי	ונזבחה	הניחה	האזינה	יבינו
חסדו	יניח	יביאנה	ונאחזו	
4				
Values for	104:			
ויפח	סדם	כחלמו	ולבניו	ינחלו
מנוח	חניכיו	דק	עדיך	והמאבים
דמכם	מדין	ויכבסו	חוץ	בבעל
ציד	לעד	צדי	ולחלל	ללמד

Values for	130:			
פֿן	עמך	מעודי	עמודי	סמל
, ויקחו	יעך	ימינך	מסל	באזניכם
לימים	לצוד	למס	עמדיו	וחקיו
לכף	סלם	עני	מועדי	ידעום
עין	הענה	צלי	יעמדו	מפי
ולפיד	נסך	ויעמד	ועמדי	
עליך	נודע	סיני	והעמדה	
המכסה	הכהנים	יפיל	במגפה	
Values for	156:			
עוף	יוסף	בעדף	יספו	נעלו
ויקם	מעליו	ומעיל	ופסי	ויכננך
ויסף	עלון	מצוך	לעון	קנו
היצאים	פעו	האסיף	יקמו	עלימו
מעמו	צללו	ימקו	ונעל	מימינו
קומי	ונמס	הקהילו	צוני	קמיו
ולניני	יקום	קנאה	חצובים	
לעבדים	ינצו	מבלעדי	ויענך	
Values for	182:			
בענני	במקלי	והינקהו	במעלם	בפנים
יעקב	בעינים	להוציאם	לבנימן	
ובהעטיף	עקבי	במקם	בנסע	
Values for	208:			
ארבה	הבאר	וארא	פינחס	ארז
הרג	ורב	פענח	חפניכם	קדקד
הגר	רבו	ויקבץ	בור	
יצחק	בדבר	בארה	גרה	
Values for	234:			
ואברכה	ויריבו	ויחרדו	ורכבו	
וברוך	בכורו	לדר	וכרוב	
דרכי	פקדים	ואזכר	נפקד	

Values for	260:			
הנהר	לדרכו	צעק	מכר	מעצין
הגברים	וחמור	הקיצנה	מרך	גרזים
ההרים	ירים	בריחם	ימיר	מעננים
כרם	מקניכם	מצפים	נדרו	גרזן
בחרן	סר	מזרחה	ברחים	ורגמהו
המריה	וחמרו	רכיל	ונדר	מרחיב
Values for	286:			
פרו	כדברכם	ופר	וערי	ינכרו
וירע	ממדבר	ירעו	ועיר	
עירו	ובעבור	וקצץ	עריו	
ויקצף	באגרף	וכירים	והסירה	
לאהרן	יעור	וכרמך	ממראה	
T. 1 C	242			
Values for				
ישב	יקרב 	ואשה	בערכך	שאהו
ויערכו	שבי	בעמר	והאש	שחד
ההשב	ומראיהן	מערב	הזרק	הקרבה
חדש	החרטמים	בחשב	יבקר 	
מעבר	ודבש	וכרעיו	בקרי	
Values for	t 338:			
		Ն		
שלח	וישכב	ובשל	לקרח	במצור
הפגרים	שובל	בשלו	לאלעזר	
ישכבו	לבשו	ולבש	מחצר	
ואשאל	לשוב	ונזרעה	ישכח	
Values for	364:			
ולחשך	כשלחו	בקרבכם	ונגשה	
שטנה	וימשח	מנדריכם	ישמיד	
דישן	וקרבנו	השטים	, . <u></u>	
•	1			
Values for 390:				
שמים	יעיש	מפריס	שפי	
בי. ב לשני	לדשנו לדשנו	מכשל	בע העשיה	
שמן	מספרי	מעפר	עשך	
,	11-		1	

Values for	416:			
והשקה	ישקו	שמעו	ורקיק	וישמידום
ישופך	באהבתו	הטבת	וקדשו	ומשלם
ללשנו	באחתה	ולמצרים	הנשיאים	וערפכם
אחזת	נחשבנו	שמוע	נשינו	
וישק	שנינו	ושמע	נשיאיהם	
Values for	442:			
לבית	וכשמעו	ויושען	במת	ובדלת
בלתי	מבקש	ועשינו	ויכתו	תחדל
בתם	ונפשו	יבלת	הגדלת	האלות
Values for	· 168•			
values for	400.			
בנתיו	תחס	בתוכם	תחלל	ולביתך
ואמהתיו	חללת	בלולת	והמזבחת	
נביות	בתינו	חכמת	ונדחת	
חתמך	נחית	תביאנה	ובנית	
Values for	· 494·			
varues for	. 4)4.			
ידעתי	צפרדעים	משקדים	פתוח	פדית
ופתח	לחתנו	מקדשים	ומבמות	והנגלת
חלמתיו	ונחלת	עדתך	נחלתו	
Values for	: 520:			
ליפת	שפיפן	פתיל	ילפת	ולמדתם
רכש	פתם	בחריש	בחקתי	ובקדחת
יירש	מסכת	המגבעת	לכלתם	ותיקד
ותעמד	ישיר	עלתך	מכסת	
שכר	השירה	לצרר	הקהתי	
והצגתיו	צרריך	וגרושה	יישר	
Values for	: 546•			
ורמש	ופתילך	התנופה	ותמעל	וקמת
רומש	מצאתיה	צויתם	והקהלת	מארשה
ותסף	תספו	ונתץ	שמרו	ספות
וממולדתך	משור	ונתנם	תוסף	11120
וממוזיון	קמתו	תקום	ושמר	
וונקם מצותי	ונועדתי	וגקום תאפינה	י שמור שמור	
סתמום	ובועווג פנתיו	נעונם	שמו ופנית	
טו גבוו ב	רבו ג ו		וטבוג	

עשית

תפש

שפת

תעשי

שמתם

פתרנים

Values for 572:				
	ולמולדתנו ולמולדתנו	_,,,,,	4 4 + > > 4 = 4 = 4	21122
ברשע		בעשר	וירשנו	בקעת
בשער	מסבלתם	מצבתם	במסכנת	
Value for s	598:			
צחקת				
Values for	:624:			
והבריאת	הבריאות	והרגתי	תפקדם	תדרך
Values for	:650:			
שלישי	למקמתם	תרים	לדרתיו	לכרת
לחברתי	קרשים	לטהרתו	תמרדו	ימשש
ששים	נרת '	לשעירם	מיתר	
Values for 676:				
ערות	רעות	ושלשם	עורת	מדברתיך
ותירס	שלשום	וערת	רעתו	,
תרעו	ויסתר	ולירכתי	ולשמש	
ותער	וסתרי	ונכרת	אסתירה	
Values for	702:			
שבת	תשב	הארצות	קרבת	
ויתפרו	ותאמרנה	תקרב	וצרות	
תקבר	קברת	בקרת	111 121	
14/21	1112/2	11 1/2		
Values for 728:				
מרחפת	חשכת	כתושב	תשכח	שבותך
ותשכב	שכבתו	תעברנו	כשבתו	
Values for 754:				
ושלחתי	ומשחת	וחמשת	ושמחת	
והשגתם	חמשתו	ושחתם		
Values for 780:				

ובשבעת

עשתי מפרסת שלמית

תשלים

Values for 806:

לעשות	לעשתו	האתת	תתו
ותשק	קשות	תשימון	תוקש
ותקש	קשתו	תשלכון	תקשו
תשפכו	ושפכת	נושנת	לשמלתו

Values for 832:

נשבעתי	משבצת	בפשתים	ושמעתיו
כתבתי	בשפתים	וכתות	

Values for 858:

תחתים	תנתח	למשפחת
תבקשנו	ממושבתיכם	תנובת

Values for 884 are not found in the Torah Values for 910:

לתולדתם	מתכנת	תדרשו	כמתנת
שרית	ירשת	ודרשת	

Values for 936:

לשרתו ותירשך תנופת

Values for 962:

תשברני תורישמו הראשנות

Values for 988 are not found in the Torah Values for 1014 are not found in the Torah Values for 1040:

שלשית תרתם מששת

Values for 1066:

כתרומת

Values for 1092 are not found in the Torah Values for 1118:

תשביתו תשחית

Several of the outcomes mentioned above have been highlighted. Apparently, **three semantic groups of expressions** emerge from the raw data results. All of them have in common something related to **ascension**, **height**, **vertical movement and rituals to connect man and YKVK**.

A) Proper names of the mountains:

Heharim = $260 = 10 \times 26$ - "mountains" as such

Zion³⁵ = $156 = 6 \times 26$ Sinai = $130 = 5 \times 26$

גרזים Gerizim = 260 = 10 x 26

 π **Hamoriah = 260 = 10 x 26 -** (the *he* prefix is inherent part of this proper name)

כבד Kavod = 52 = 2 x 26 - "Glory (of YKVK)" - extremity of YKVK

YKVK = 26 - The Only True G-d

Ana = 52 = 2 x 26 - "Ana Prayer" - the ultimate prayer mentioned in the Torah

Arbe = 208 = 8 x 26 - "Locust" - 8th plague - ultimate sign of YKVK power

Cfardeim = 494 = 19 x 26 - "Frogs" - 2nd plague - ultimate sign of YKVK power

בהמה Behema = 52 = 2 x 26 – the offerings "animal" אלה Melach = 78 = 3 x 26 – "salt" – obligation to add salt to every offering בהמה Lechem = 78 = 3 x 26 – "bread" – one of the offerings (i.e. lechem panim) אובר ובה Nichoach = 78 = 3 x 26 – "pleasant" – expression related to scent of the offerings ובה Nesech = 104 = 4 x 26 – "pouring" – expression related to liquid offerings אכהנים Hakohanim = 130 = 5 x 26 – "the Priests" – persons performing the offerings אכהנים Of = 156 = 6 x 26 – "bird" – one of the offerings ברם Kerem = 260 = 10 x 26 – "vineyard" – source of key offering, i.e. wine אברים Yakriv = 312 = 12 x 26 – "to offer" – main verb describing the act of offering אמר Takriw = 702 = 27 x 26 – "to offer" – main verb describing the act of offering Ben = 52 = 2 x 26 – "son" – in relation to Akedat Icchak

The single word value ends with 1118. With this relatively high value the list of Torah's single word instances of the multiplication of 26 is concluded. However,

³⁵ However, this name does not appear in Torah. The first textual usage of the term appears in 2 Shmuel 5:7.

starting from the value 832 (= 26×32), there starts a series of whole verse instances that in total are multiplications of 26. Stunningly, immediately with the value 832 there are peculiar singularities here to notice:

1) Whole verse with value 832 (Shemot 15:3):

ידוד איש מלחמה ידוד שמו YKVK is The Man of War, YKVK is His Name

This fragment stems from an extraordinary part of Torah, called *Shirat ha-Yam*, "The Song of the Sea", which Moshe sung after passing through the *Yam Suf*, "Sea of Reeds". The value 832 equals 32 x 26. The number 32 is Gematria for *lev*, "heart". Significant is the double appearance of the name YKVK itself within this special verse – it acts somewhat as a distinct "seal" indicating unusual properties of this verse. Moreover, the verse speaks in self-referential manner about the Name itself (*HaShem Shmo*), adding yet another layer to the compound meanings revolving around the value 26.

And "last but not the least" – the middle word of this verse consisting of five words is *milchama*, "war" – and the middle 3 letters within this word creates the word *lechem*, "bread, sustenance", which in itself has Gematria of 78 = 3 x 26. *Lechem* itself also has its "heart" within, which is its middle letter (and the middle letter of the entire verse), namely *chet*. Finally, *chet* has the value of 8, which – as corroborated by Goldberg's exposition – is a shorter form for 26 (according to numerical reduction method). Thus, we see that this verse has the symmetrical structure, where its "heart" (32) is directly placed in the middle and serves as the mode of building the entire sophisticated diamond-like arrangement.

The number of letters in the verse equals 19 (18+1)

4 ידוד

איש3

5 אלחמה – with middle word 26 = 78 = לחם x 3. Middle letter 8 = π , reduction of 2 and 6

47177

שמו3

2) Whole verse with value 1118 (Devarim 6:4):

שמע ישראל ידוד אלהינו ידוד אחד Shma Israel YKVK is our Elokim, YKVK The One

The first verse of Shma, being one of the core elements of daily prayers, has an interesting feature of having two instances of the Name YKVK, whereas the rest of the verse has a numerical value of 41×26 (total of $1118 = 43 \times 26$). Given the significance of Shma within Jewish prayers, it is interesting to note that here Gematria pattern brings additional deepening to Shma's meaning, namely, 41 = 128, "if", and 43 = 128, "also, with". As commonly known, ritual recitation of the whole Shma, and especially this very verse, demands special intention from the person praying while saying it.

Additionally, key focus should be on the pronunciation of the Name YKVK twice within this verse. Thus, Gematria helps to explain the inherent halachic meaning here: "If (41) you utter the first verse of Shma with proper intention, you will

"also" be "with" (43) the significant connection with the Name YKVK (26)." What is also worth noting is that – similar to the verse with Gematria 832 from *Shirat ha-Yam*, there is the same double repetition of the name YKVK within it. Alike the previous verse, this alludes to be sort of a singular seal, indicating the significance on both the literal and gematrical level.

3) Whole verse with value 1326 (Bamidbar 6:26):

ישא יהוה פניו אליך וישם לך שלום YKVK will raise His Face to you and place peace upon you

This is the third and final sentence of *Birkat Kohanim*, "the priestly blessing", which is said in the climax moment of *Amida* prayer, during the public repetition. In the course of High Holidays, it is performed by *kohanim* in its full-fledged form.

The number of the rest of the verses with total Gematria matching the multiplication of 26 rises proportionally to the value of Gematria (which is logically understandable). However, these verses are not prominently exposed within the Jewish prayers nor are given exceptional meanings. Thus, it is even more significant to have the three above mentioned verses (playing key roles beyond the Torah's text) positioned within the lowest possible Gematria values. **Obviously, the appearance of** Shma **verse in this set is of utmost prominence, showing how the gematrical, ritual and halachic worlds are inseparably intertwined.**

Summary

Gematria is not solely a hermeneutical tool. As shown above, it has an impact on establishing the final halachic rulings. As presented in the exposition of Oskar Goldberg's work, the key Gematria value of 26 plays a crucial role in organizing the structure of the text of *Bereshit* 10:21–32. And finally, as shown in the third part of this paper, Gematria of 26 has significance in shaping the semantic fields throughout the whole Torah text.

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Arje Josef Krαwczyk – The Names, The Heights and The 26. Significance of Gematria Method. Further Findings on Gematria 26 Structures within the Torah

The aim of the paper is to stress the validity of gematria within the halachic world. Moreover, it is to present the output of Oskar Goldberg (1885–1952) related to gematrical analysis of Torah. Finally, it is aimed to show the latest research regarding the statistical and semiotic analysis of the numerical value 26 appearing in the Torah text.

Keywords: Gematria, Oskar Goldberg, 26, halacha, semiotics, statistics, Bible research.