

Linguistic Connections among Torah Codes 29 November 2004

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Abstract

This work presents a simple and verifiable method of testing the Torah code hypothesis. The hypothesis states that the Torah (the first five books of the Hebrew Bible) contains within it letter sequences (codes) that were created intentionally, as a form of communication to human beings, the intended receivers. Building on mounting evidence of multiple encodings for single events or concepts [1], our testing method measures the strength of linguistic connections between previous exceptionally noteworthy results. We first propose the general method. We then apply this method to Torah codes related to bin Laden and the Twin Tower attacks. The many significant connections that we find have an estimated probability of 1:500,000 of having occurred simply by chance. This strongly reinforces previous conclusions supporting the Torah code hypothesis.

1. Introduction

Torah code research is concerned with a particular type of letter sequence, formed by extracting equally spaced letters from a text. This is called an ELS (equidistant letter sequence).

ELS letter extraction is done by ignoring all punctuation and inter-word spaces. For example, the sequence "tin tops" can be found starting with the first "t" in the word "punctuation" in the preceding sentence, and using a skip distance of +4 (that is, counting forward every 4 letters from the starting position).

According to the Torah code hypothesis, logically or historically related words can be found as ELS's in the Torah, associated with each other significantly more often and in a more compact area than expected by chance. Several previous Torah code studies, pro and con, examined clustering of ELS's for famous rabbis and their dates and cities of birth or death [1-6], and many other historical events. More recent studies [7-8] focused on current events such as the Twin Towers attack (see the tables in figures 1-5; as is customary, the underlying text is arranged in a table of constant width; all codes are in the original Hebrew, with English translations provided).

One of the main challenges in this kind of research is to design experiments which implicitly demonstrate to an outside observer that the number of tests performed was very limited. For this reason, the current work first presents criteria for designating previous Torah code tables as foundational. These tables themselves are then used both as the source for deciding what to search, and as the areas of the text that are re-searched. We look for connections, such as the same words repeating within or between foundation tables. Under the null hypothesis of no Torah codes, we would expect that the connections found among the foundation tables would be no stronger than those found among collections of tables created from other texts.

2. Description of the general method

2.1. Identifying Foundation Tables

Our first step is to collect previous foundation tables that all deal with a particular topic of interest. A code is accepted as foundational if it meets two criteria. First, its key elements must be in statistically close proximity. Second, it must be openly verifiable, as described below.

התאומים - כ"נ אלון

בראשית ברארלי מאת השם יסור אתה ארץ the twins תהו ובהו וחשך עלפני יהוה
האדם בארץ וכלי צר מחשבת לבו וקרע כלה יוסו ינחם ירורכי עשה אתה אדם בארץ
ירור אל אבד סלך למאד צל וממולדתו ומבי תאביך אלה ארץ אשר ארץ ואשך ואשך
עלפני יסדו אברהם הלך עמם שלחם ירור אמרה מכסה אני ימאברהם אשר אני עשה
פילגשו ושמרה אומה ואת הילד גר אאת טבר ואת חסו ואת חשו ואת מעכהו יהי וחי
ראלהן שמו the tower אלהן אבי massacre יצחק בנחלו ימצאו שמו בארם
יזכר אלרי סאתו חלו שמעאל יהאלרי יסו ופתחתו חמהו תהו ותלבדו ותאמרוס
יעקב Ishmael ידבר חמו (9/11) elul בנ יחשקה נפשו בבת כסתו ונא אתה
נו ותסד בגד אלמנו ותהמע היתכס בצעיף ותתעלף ותשבכתחני בני סאשר עלד
מאת מבזאת בתנו חני פרעה את צאנו התי אסכו אאחי כסהקטן הנהשלחו מכס
ובני שמעון ימואלו ימיו וואהדו יכין horror לבן הכנעני יתו בני לו גרש
ביו יחי יוסף מאהו עשר שני סו יראו סף לאפריס בני שלש מסבני מכירבן מ
לי עקב אלשדי ושמי ירוק לאנו דעתי להסו גסהקמתי אתבריית אתמלת להסאת
יצאמע ספרעהו יאמרו עבד פרעה אלקי העברכו ובפרשי ויסעמלאך האלרי חההלך
ומצריסבי אני who wailed הברכו ויסעמלאך האלרי חההלך
ישמעאל עמור גסבר אמי ונלסו יגד מההאדברי העמלאך ירווריא
About three thousand people fell מההאלהר אלרי סור אלהקני סאמרו
תקדשי סו הילעל מצחו תמיד לצרו לקסלפני ירור ושבצתהכתנת שנו עשי תמצ
רבו יעשו בני לו יכדבר מהו יפלמן הסמבי ומהו אכשל תלפאי שו יאמרם
די סמלקרשי צלעה משכחן השני יתו חמשי תברי חלקרשי המשבך לירכתיס מו יעש
from the nation that day

Figure 1: “9/11” is the axis. Found on 1 October 2001 (“horror” and “who wailed” added November, 2004)

| הריסות | 36 |
|---|---------|
| ישאשורי טמא ולא יתחטאו dead נפש ההוא מתוה | ד יט: ב |
| קהלכי את ruins ורטמאמי נדהלאזי קעלי וטמאה | ד יט: ב |
| ואוהי תהלהלחקתעו למזמיהי הנדהיבטבגדי | ד יט: ב |
| והנה עבמ הנדהי טמאעדעהיבוכלאשו געבוט | ד יט: ב |
| מאיטמאוהנפשהנגעתתטמאעדעהרבו יבאו בני יש | ד יט: ב |
| ראלכלעהמדברצן בחדשהראשו וי שבעעםבקדש | ד כ: א |
| ותמתשמר ימותקברש shock יהו יקהלו | ד כ: א |
| עלמשהו עלאהרן וירבעעעםמשהו אמרו לאמרול | ד כ: ב |
| וגוענו בגועאחי נולפני ירובלמכהבאתתאתק | ד כ: ג |
| לירוראל mourning תמדהלמותשמ וולמ | ד כ: ד |
| העליתנו ממצרים הב אתנואלהמקו שהרעהזה | ד כ: ה |
| לאמק Towers המפן ורמו Ishmael שתותו | ד כ: ה |
| יבאמשוואהו מן מפני הקהלאלפתחאהלמועדו יפלו | ד כ: ו |
| עלפני יהו יראכבו ירוראליהו דברי רוראלמ | ד כ: ו |
| שהלאמרקאתהמטהוהקהלאתהעד האתהואהר | ד כ: ז |
| ךודברתאלהסלע יעי ני יהו נתן מי ווהוצאתל | ד כ: ח |
| הממיסמן הסלעוהשקיתאתהעדו אתבעירסו יקחמ | ד כ: ח |
| שהאת horror ירורכאשרצוהו ויקהלו משהו | ד כ: ט |
| הרן אתהקהלאלפני הסלעו יאמרלהםשמעו נאהמרי | ד כ: ט |
| סמהן הסלעו הנוציאלכם the Twin דווי | ד כ: י |
| ךאתהסלעבמטהו פעמיסו יצאומי סרביסותשתהעד | ד כ: יא |
| הובעירסו יאמר ירוראלמשהוואלהרן יען לאהאמ | ד כ: יא |
| נתמבי להקדישני לעי בני ישראללכן לאתביאו | ד כ: יב |

Figure 2: Based on Maariv headlines; “Ishmael” is new, a connector to figure 1. “Airplane”, “attack” not shown.

| עון, פשע בן לאדן | 2168 |
|---|----------|
| תנחושלשחושו ירוי ואתחאלהחרהההורהל | א ז: יג |
| י קוהקמתי the city and the tower ורעודממ | א ט: י |
| הוהלראתאתהעיר ואתהמגדל אשרבנו בני האדם | א יא: ה |
| איכי אשתך ואלמהאמרתאתהיהוא ואתהתלילא | א יב: יח |
| לאשרלך לאתמראני העשרתי אתאברסבלעד ירק | א יד: כג |
| ולא Wailing ורעוד smoke rising from the | א יז: ז |
| מרשעאולי יש earth as from a kiln אףתספה | א יח: כג |
| א יט: כח ככרו יראו הנהעלהקי טרהארקקי טרהכבשו | א יט: כח |
| א כא: יג לגו יאשימונו כי זרעהו או ישכאברהסב בקרוי | א כא: יג |
| א כב: Shocked אלנעו | א כב: יג |
| א כד: silence ומאזבת | א כד: יג |
| א כז: נט חואתרבקאחת | א כז: יג |
| א כז: ג שרנשבעתילאם | א כז: ג |
| א כז: יא קאולי ישניא | א כז: יא |
| א כח: bin Laden בברם | א כח: יג |
| א כט: כז מדיעודשבועשנ | א כט: כז |
| א ל: לז ת Crime חשפה | א ל: לז |
| א לא: לה מצאאתהתרפים | א לא: לה |
| א לב: כ יעקבאחרינוכ | א לב: כ |
| א לד: יב לאשו Sin נובנ | א לד: יב |
| א לה: לא יעקבשניסעשר | א לה: לא |
| א לז: ב ותיעקבי וספק | א לז: ב |
| א לח: ז וירורו יאמרי הודהלאו נן באאלאשתאחי קויבם | א לח: ז |

בן לאדן [-2168] מנא האלם ויללה [-2168]
ממצא של בוע מצנר הי”ו

Figure 3: A phrase with bin Laden as anchor, found on 21 September 2001; original source for “wailing”, found in 3 other tables as “who wailed”, and “the tower” found in figure 1. “Sin” and “crime” are repeated in figure 5a. Inset: the “bin Laden-only”

portion of the table after expanding with half-width in November 2004, reveals “Ishmael” once again (see figures 1 and 2).

| מי יללה? - ארה"ב יללה | 36 |
|--|---------|
| מרולאמרולוגוענו בגועאחי נולפני ירורולמה | ד כ: ג |
| הבאתמאתקהל ירוראלהמדברהזהלמותשמאנחנו | ד כ: ד |
| בעירנו ולמה העליתנו ממצרים ולהביאתנו אלהמ | ד כ: ד |
| קו שהרעהזהלאמקום זרעותאנהו מן ורמו וומים | ד כ: ה |
| אין לשותותי באמשהואהרן מן יקהלאלפתחאהל | ד כ: ה |
| מועדו יפלו עלפני יהו יראכבו ירוראליהו יד | ד כ: ו |
| ברירוראל משהלאמר Who wailed והעדהאת | ד כ: ז |
| הואהרן אחיך ודברתסלע יעי ני יהו נתן מי | ד כ: ח |
| יו והוצאתלמסיסמן הסלעוהשקיתאתהעדו אתב | ד כ: ח |
| עירסו יקחמשהאמתמלפני ירורכאשרצוהו י | ד כ: ט |
| קהלו משהואהרן אתהק Towers יעי Twin מש | ד כ: ט |
| מעו נאהמרי סמהן הסלעוהנוציאלכם מיסו ירסמ | ד כ: י |
| שהאתי דו יך אתהסלעבמטהו פעמיסו יצאומי סר | ד כ: יא |
| יות wailed עירסו יאמר ירוראלמשהוואלהר | ד כ: יא |
| ן יען לאהאמנתם The U. S. עי בני ישראלמ | ד כ: יב |
| כן לאתביאו אתהקהל הזהאלהארק אשר נתתי להםמ | ד כ: יב |
| המי מרי בהארק רוב בני ישראלאת ירורו יקדשבסו | ד כ: יג |
| ישלחמשהמלכ ים מקדשאלמלך אדום כהאמראחיך | ד כ: יד |
| ירוראל אתה ידע אתאכלתהאלהארק מצאתנו וירדואב | ד כ: יד |

מי יללה [-2] מו ארה"ב יללה [-37] מו
מנדיל [71] מזד התאומים [36] מו

Figure 2a: The same area as figure 2

| בין לאדן רוצח אלפי איש | 3805 |
|--|----------|
| השבבאמתחתי נו בתחלהאנחנו ובאי מלהתגלעלעי | א מג: יח |
| תן להם יוסף תעלפי פן עהו יתן The Twin קל | א מה: כא |
| א נ: כח terror attack נהו יקרבו ימי ישראללמותו יקרא | א מז: כח |
| א נ: טו כפוזיחאשגלגלנו אתו ויצאוי Towers לאמראביך | א נ: טו |
| א ג: ג bin Laden אברהםאלי יצחקואלי יעקבשלחני אל | א ג: ג |
| א ו: ו סבזרוענטו יהובשפט סגדלים יעקבשלי לע | א ו: ו |
| א ח: ב לחאתעמי הנוני משליחך murders יעקב ויבתיך | א ח: ב |
| א י: ז עסוהעתי רוראל היכסו סרמעל רקאתהמותה | א י: ז |
| א יב: מד תכספו מלתהאיתו אזי אכלבו ותשובו שכירלאי אכלבו | א יב: מד |
| א טו: יא המי כמכה נאדרבקדשנו וראתהלח who wailed? | א טו: יא |
| א יח: א כהן מדין חתן משהאתכל אשרעשהאלהיחלמשהו לישר | א יח: א |
| א כ: כפט תעשו ואתיאלהיכספו thousands of people | א כ: כ |

פגוע [2] מו בין לאדן [3805] 4מ מי יללה [-6] 2מ

Figure 4: top-cited words from Haaretz; and connectors “who wailed”, “murders” and “thousands of people”

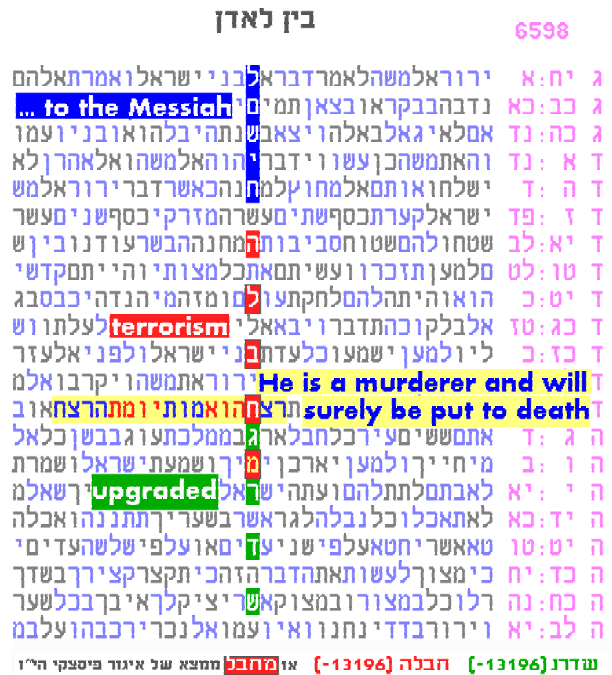


Figure 5: The end of another bin Laden phrase



Figure 5a: Continuation of figure 5 using half width

There are at least four alternative ways to create openly verifiable codes:

- The keywords to be searched as ELS's come from an independent, unambiguous and well-known source.
- A single ELS phrase string, starting with a well-known keyword as the "anchor" [8], is semantically and/or grammatically cohesive.
- A reinforcing news event occurs after a code is discovered.
- The code may contain a kind of self-imposed constraint that greatly limits the number of plausible, equally surprising adjoining ELS's.

Codes meeting both criteria (close proximity and openly verifiable) are by definition very rare. We thereby greatly limit the number of foundation codes

that can be studied, which avoids the possibility of under-reporting the number of failed attempts.

2.2. Finding simple linguistic connections

After identifying the foundation tables, we look for "connectors" between them. A connector is a word that occurs more than once in the collected tables (ELS and/or underlying text appearances), as indicated in many of the figures. For current measurement purposes, we analyze only a subset of all possible connectors; we use selection criteria which are both limiting and very basic. We start with a list of keywords gathered mechanically from the ELS's and verses previously highlighted in the foundation tables. We accept only the more difficult-to-find words – those which are at least 5 letters long (including any fully acceptable alternative spellings, of which there is only one, for "terror attack"). We search each foundation table for each keyword from our list, to determine if the keyword is near the main axis (vertical theme) of the table. We limit further by rejecting all diagonal ELS's, thus isolating for study the more striking parallel, collinear and perpendicular formations – found to be significant in their own right in previous studies [9]. We do not give credit for the original find of a word – only for subsequent (connecting) finds.

2.3. Estimating p-levels for each connection

For each connection, we are interested in the probability that the ELS found in the table - in its observed horizontal or vertical configuration – is in such a close proximity to the table's main axis word. This probability is obtained by comparing the actual table to many random tables created in a Monte Carlo run that extracts them from modern and ancient Hebrew texts, where we expect no codes (even the Torah itself can be used for comparison since we do not expect randomly chosen tables generated from the Torah to contain connectors to our topic). In each comparison table, this run assigns a random axis location, searches for ELS's for the keyword, and determines the proximity of the closest ELS (with appropriate configuration) to the axis. The probability sought is the fraction of comparison tables with closer proximity than the original table. To measure proximity, we use the WRR [2] mu value, for the better of two table sizes (original and half-width). The half-width table size results in the axis word appearing as a column that skips alternate rows. Therefore we limit all vertical ELS's to skips that are equal to or double the table width. This follows the precedent seen in figure 5a, which was the motivation for the current study.

2.4. Estimating an overall p-level

With a reasonably large data size, the binomial distribution gives us an order of magnitude estimate of the overall p-level. The number of attempts, and the number of connections verified to have a threshold p-level, are the parameters for this calculation. The number of attempts is the number of items in the keyword list times the number of collected tables, times the number of configurations attempted (for example, 2, if we separately analyze the simple vertical and horizontal configurations).

3. Case study

3.1. The foundation tables

We apply the method described above to a set of former Torah code findings related to bin Laden and the Twin Towers (figures 1-5) [7-8]. These findings conform to the criteria as stated in section 2.1 above. Each is openly verifiable in one of the 4 ways listed there: figure 2 follows method (a) by using the headline nouns from *Maariv from 12 September, 2001*, while figure 4 uses top-cited words from *Haaretz*; these are 2 of the top 3 Hebrew newspapers in Israel. Figure 3 follows method (b) by using bin Laden as the anchor keyword, finding a phrase surrounding it (noteworthy because of the extremely close semantic connection in the Bible itself between the words “sin” and “crime”); and figure 5 is a continuation of a second ELS phrase string surrounding another occurrence of this anchor [8]. Figure 1 follows method (c). It was found on 1 October 2001, just a few weeks after 9/11. Its highlighted verse was puzzling, because it implied 3000 casualties, and estimates in the news at that point were closer to 6000. Corroboration for the code’s figure came many weeks later. Figure 2a follows method (d) by using the dialog mode of code searching, originated several years prior to 9/11. The dialog mode has a built-in question and answer structure. We see highly appropriate words filling in this self-reinforcing structure (“who wailed” and “the U.S. wailed”).

3.2. The significant linguistic connections

There are many significant connections which meet our constraints; several are not even shown in the tables. Four connectors meet a .001 p-level threshold. One is for the ELS “who wailed”, in figure 1 (its original appearance is in figure 2a, and it appears again in figure 4). We also have “horror” in figures 1 and 2; and “Ishmael” in figures 1 and 2 (appearing yet again

in table 3); and “thousands of people” in figure 4 (matching the verse in figure 1 that is literally “three thousands of people” in Hebrew). Based on a variety of types of comparison texts (including random tables extracted from the Torah itself), the p-levels for the first two successes consistently fall between $p=e^{-3}$ and $p=e^{-4}$, and the final two are at least 1-2 orders of magnitude stronger.

3.3. The overall significance estimate

The keyword list built from and searched in the 5 unique foundation tables contains 13 entries. Per section 2.4, limiting the configurations sought to vertical and horizontal, the number of attempts is $13 * 5 * 2 = 130$. From these attempts, we have 4 successes at threshold level .001. Using the binomial distribution, this results in a p-level of $1.0e^{-5}$, or 1 in 100,000. If we extend our observations to include cases with a skip of 1 or -1, then “the tower” in figure 1 is a valid connector for its original appearance in figure 3 (and it meets the .001 threshold). This is a third configuration, beyond the simple vertical and horizontal, so the number of attempts increases to $13 * 5 * 3 = 195$. From these attempts, we have 5 successes at threshold level .001, yielding a p-level of $1.84e^{-6}$, approximately 1 in 500,000.

4. Discussion

It is often difficult to pin down a probability if strict constraints are not used. Figure 5a is such an example. It contains three potential connectors at the bottom. They meet the spatial constraints but not quite the linguistic constraints, since they use a verb form for “revenge” rather than the original noun form, and since there is a connecting “and” between “sin” and “crime”. These are rather severe constraints, but they avoid the introduction of elements that can not be properly enumerated in the probability calculations.

Another intriguing discovery that is excluded here is a cluster of words that could be added to figure 1: “wailing is heard”, and “in the U.S.”. It is excluded because it uses a diagonal ELS, and is not the precise wording that was previously found.

There is also an entire table which repeats the themes of airplane, attack, twice, and Twin Towers, using alternative spellings or synonyms [7]. Again it is excluded because it does not meet the strict criteria.

Even without any of these extra discoveries, the result is highly significant, over and above the significance of

the original tables (most estimated between $p=e^{-3}$ and $p=e^{-6}$).

5. Conclusion

Although we have not yet approached the point of understanding full meanings or interpretations, the current study strongly suggests that the Torah codes phenomenon is real.

We have reviewed a series of highly significant foundation codes, and we have observed reinforcing connections between them with probability 1:500,000 - revealing an even stronger structure than previously seen.

We see that the timing of these significant codes - their cross-validation or clarification over months or years – demonstrate a kind of “living” quality that reflects the paradox from ancient Torah commentaries that all is foreseen, and simultaneously we are granted free will.

6. Acknowledgements

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