Defending History:
Temporal Reasoning in Genesis 2:7–3:8

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Abstract

The two groups assaulting the historicity of Genesis 2–3, whose attacks against the reality of the creation and fall of Adam and Eve have chiefly come in two guises, 1) that the text is poetry, not meant to be read historically; and 2) that it is prose meant to be read as an accurate historical record, but that it is contradictory and incoherent, are repelled by statistical, literary, and linguistic arguments. The *first* assault is addressed by a logistic regression model based upon relative frequency of *wayyiqtols* among finite verbs. Application of which shows it is statistically indefensible to argue that Genesis 2–3 is not prose; therefore, it is a factual record. The *second* attack, that the text is contradictory, is repulsed, because the theory upon which it is exclusively based, the iconic *wayyiqtol* sequence theory (deriving from the perspectival aspect theory of the biblical Hebrew verbal system), is exploded by multiple counterexamples taken from a much larger population. An alternative model of three semantic levels (within verbs, between verbs, and within a discourse as a whole) is overviewed, then applied to Genesis 2–3 to empirically demonstrate that the text is coherent; thereby throwing back the *third* attack. Thus neither is this text poetry (though there is poetry in it), contradictory, nor incoherent; but rather Genesis 2–3 is a coherent, non-contradictory historical account.

Keywords: eventuality, state, event, temporal, time, sequence, order, Genesis, the Fall, Creation of Man, Creation of Woman, coherence relation, verb, serialation, elaboration, cause, result, connectedness, compatability, incompatability, iconic, *wayyiqtol*, biblical Hebrew, scientific method, statistics, narrative, S.R. Driver, aspect, tense

1. Introduction

Creationist studies are replete with discussions of Genesis 1:1–2:3 and 5:28–9:29 from almost every conceivable angle. But, what might be viewed as a minefield, Genesis 2:4–3:24, has remained, by comparison, largely untouched. This dearth of scholarly treatments of the Garden pericopes has left these Scriptures open to repeated waves of the same insidious and pernicious attacks—which on examination, prove to be merely unfounded and tiresome canards. But at first glance these slanders and libels against Scripture (whether deliberate or not is immaterial) do not seem so feckless, and therefore, have needlessly alarmed good people. It is my purpose, therefore, to disabuse these good people of the seeming strength of the enemies' forces. To this end, this study proposes to begin to fill this evident lacuna of studies treating Genesis 2:4–3:24, so as to begin to confound our enemies' hopes to overthrow the historicity of these texts (whether arising from good intentions or evil).[1]

Now let us speak plainly of the nature of these assaults. Upon inspection, we perceive that this concerted attack is launched by two very different groups, and consists of three principal charges. That

of the first group is almost of the nature of friendly fire. Well-meaning old-earth evangelicals, seeing mares' nests where there are none, believing that a literal understanding of these passages is an obstacle to the gospel, insist that this text is poetry,[2] not meant to be read historically. Their charge is readily run off by way of statistical arguments.

The second group is not nearly so friendly, despite their mellifluous tones and punctilious protestations of objectivity. Their purpose is to discredit the authority of the text. They attack: celebrating a victory they have *not* won, maintaining that they have proved the Scripture to be bereft of historicity due to what they are pleased to call contradiction and incoherence. These are the religious liberals of every stripe, who claim that the passage is prose *meant* to be read as an accurate historical record, but boast that they have shown it cannot be.

We need only commit a fraction of our forces to repulse the attack of the first group—admittedly a rather feeble attack, more in the nature of a peripheral annoyance than a credible threat, as will be seen. We reserve the bulk of our armament to repel the abhorrent and calumnious charges of the second group. To the small engagement we now turn.

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[1] By 'historical' and related terms I am referring to the common sense meaning, an account accurately reporting real happenings. This does not in any way foreclose literary and theological elements in the telling.

[2] Either mythopoeic or poetic allegory.

2. Turning Aside the Poetic Myth Assault

Old-earth evangelicals contend that Genesis 2:4–3:24 is not meant to be read historically; but rather, that it is myth which communicates timeless truths. To support this notion, they argue perforce that these passages are not prose, but rather, poetry. But, the voice of statistics loudly cries out against their suggestion, not only forbidding it, but protesting it cannot be so. In 2005, I published the findings of my study for *quantitatively* discerning the genre of a biblical Hebrew (BH) text. Therein, I developed a model and statistical tests which I employed at that time to statistically prove that Genesis 1:1–2:3 is prose/narrative. I used a logistic regression model based upon the distribution of the main narratival verb form, the *wayyiqtol* (called the preterite in that study).[3] I determined the relative frequency of *wayyiqtols* to all finite verbs for each passage within a stratified joint random sample of 48 prose/narrative texts and 49 poetic texts to ascertain the probability that a BH text is prose/narrative. This methodology is readily applied to the passage at hand.[4] Genesis 2:4–3:24 has 55 *wayyiqtols* out of 124 finite verbs, resulting in a 0.443548 relative frequency of *wayyiqtols*. This yields the following: the probability that the Creation and Fall of man text is a narrative is

$$> 0.98 \tag{i}$$

at a 99.5% confidence level.[5] In other words, it is *statistically indefensible* to argue that this text is poetry and not prose/narrative. Furthermore, I argued extensively in my RATE study that if a BH text is prose/narrative, it is *necessarily* history. I adduced the following fifteen categories of evidence that biblical authors of narratives meant their material to look historical, and in addition believed that they were recounting real events:

1. God's people are defined in terms of their past
2. God's people are commanded to keep the memory of their past alive
3. God's people engage in retrospection on their past
4. The remembrance of the past devolves on the present and determines the future
5. Customs are elucidated
6. Ancient names and current sayings are traced back to their origins
7. Monuments and pronouncements are assigned a concrete reason as well as a slot in history
8. Historical footnotes are sprinkled throughout the text
9. Written records used as sources are cited
10. Precise chronological reference points are supplied
11. Genealogies are given
12. Observations of cultic days and seasons are called acts of commemoration
13. Prophetic utterances are recalled and related to events in the narrative
14. 'Time' words challenge ancient readers to validate historical claims made in the text
15. Historical 'trajectories' link different portions of the text and widely separate historical periods.[6]

There are numerous examples of each of these categories. An expansion on two of these will suffice. Historical reviews in Psalms 78; 105; 106; Ezekiel 20; Nehemiah 9; numerous times in Christ's teachings and discourses; Acts 7; Acts 13, and many other places, mention specific people and events, which are treated as real events and real people. And even more striking are the many times when biblical authors break frame (i.e. depart from relating their account to speak directly to the reader) in order to challenge readers to prove the truthfulness of what they have just said. This is commonly done by the phrase "[it is there] until this day." The report in Joshua 7:26: that Achan and his family are buried under a pile of stones; and the footnote in 2 Samuel 18:18 concerning the monument Absalom set up for himself, are prime examples of this. Thus, although this approach lacks the mathematical rigor of my statistical study, the weight of evidence is so overwhelming that we must acknowledge that biblical authors believed that they were recounting real events. We must therefore call their work history, knowing that they believed the truth. We would be deniers of the essence of inspiration if we did not. We cannot assert that the text is other than factually true. As Meir Sternberg forcefully argues:

[3] *Wayyiqtol* (also called 'preterite', *waw*-conversive *yiqtol*, and *waw*-consecutive imperfect) is a circumfix finite verb conjugation (p[erson], g[ender], and n[umber] marked by prefixes and suffixes) with a *waw* prefix followed by an a-class vowel followed by the doubling of the inflectional prefix (where possible). It is a clause initial verb form used to indicate simple past.

[4] For the full explanation of the model and its application to texts, see my study on the genre of Genesis 1:1–2:3, in Vardiman, Snelling, Chaffin (2005, especially pp. 655–676) and accessible online at www.icr.org/rate2.

[5] Although this seems to be a very high probability, in reality it is even closer to 1, because 3:10–19 is definitely *not* prose. 3:10–13 is dialogue; 3:14–3:19 (the curse pronounced upon the serpent, and the judgments pronounced upon the woman and the man) *is* obviously poetry, even evident by merely *qualitative* means. However, this qualitative and intuitive conclusion can be bolstered quantitatively, because there are over 30 finite verbs in 3:10–19, of which less than ten are *wayyiqtols*. (The model requires at least 25 finite verbs, better, over 30 finite verbs, to predict genre, so as to validly employ this statistical model.) Indeed 15–19 have no *wayyiqtols*. Genesis 3:10–19 has 8 *wayyiqtols* out of 38 finite verbs, resulting in an 0.210526 relative frequency of *wayyiqtols*. Applying the model, the probability that the dialogue and the curses and judgments pronounced is prose/narrative is

$$0.35 \leq \underline{P} \leq 0.45 \tag{ii}$$

at a 99.5% confidence level. In other words, no one should argue that 3:10–19 is prose/narrative (and none do). Hence, the probability that the rest of the text is prose is even higher than equation (i) would suggest.

[6] This list taken from Vardiman, Snelling, Chaffin (2005, p. 677; for discussion see pp. 676–692).

Were the narrative written or read as fiction, then God would turn from the lord of history into a creature of the imagination, with the most disastrous results…. Hence, the Bible's determination to sanctify and compel literal belief in the past. It claims not just the status of history but…of *the* [author's italics] history, the one and only truth that, like God himself, brooks no rival.…***if as seekers for the truth, professional or amateur, we can take or leave the truth claim of inspiration, then as readers we must simply take it***—just like any other biblical premise or convention, from the existence of God to the sense borne by specific words—***or else invent our own text***. (Sternberg 1985, p. 34; last emphasis mine)

Thus, to conclude discussing the first assault, no one can successfully argue that this text is poetic myth and not a narrative. It is a narrative, and if a narrative, then historical. We find upon examination that rather than being an *obstacle* to belief, this text when treated as history is a *stepping stone* to belief and furthermore, explains much of what would be otherwise inexplicable about our need for, and the nature of, the Atonement. We now take our stand to meet the attacks of the second group.

3. Throwing Back the Charges against Non-contradiction and Coherency
3.1 *Introduction*

The second assault has two prongs. The first is that there is a glaring contradiction between the order of Creation in Genesis 2 and Genesis 1, as the greatly influential British Hebraist S. R. Driver (1846–1914) remarks:[7]

In ch. i. animals are all created before man: so that it is again apparent that the writer of ch. ii. 4 ff. follows a different conception of the order of creation. (Driver 1926, p. 42; cf. 1893, p. 7 [slightly different wording])

The second prong is that Genesis 2 and 3 are largely incoherent. These are abhorrent hypotheses, for they impugn the integrity of Scripture and inveigh against the doctrine of inspiration. They are very serious and dangerous charges, therefore, which we cannot ignore and which we must not fail to repel. To this end, we shall hold our ground against these attacks on non-contradiction and coherence, and

launch a counter-offensive by means of linguistic and literary arguments.

We turn to meet the first prong of the enemy forces, the charge of contradiction. To do so requires a brief excursus on the history of the study of the Hebrew verb. After which I shall demonstrate where and why Georg Heinrich August Ewald (1803–1875) and Samuel Rolles Driver, two of the greatest Hebraists of the past, erred greatly.

3.2 *The flawed foundations of the contradiction charge*

Why does Driver assert that Genesis 2 contradicts Genesis 1? His understanding of how the Hebrew verb functions herds him into this false conclusion. Driver, and many others since, following Ewald's lead, posit that Hebrew verbs are tenseless (i.e. they do not distinguish between past, present, and future)[8] and are aspectual (i.e. they indicate the author's perspective of the action: whether it is viewed as a whole or in process).[9] But the concept of perspectival aspect, as their theory is named,[10] is brought to a halt by the nature of the verb most commonly used to trace the backbone of a BH narrative, the verb form *wayyiqtol*. Because historical narrative recounts the past, and *wayyiqtol* dominates these narratives, it certainly *appears* to be a past tense.[11] But the adherents of perspectival aspect refuse to admit *tense* into the discussion of possible explanations for *wayyiqtol*'s function. Instead, against the plain understanding of the form, it is forcibly fitted into the Procrustean bed of their theory,[12] a skill which Driver adroitly exhibits in the following remarks:

The imperfect represents action as *nascent*: accordingly, when combined with a conjunction connecting the event introduced by it with a point already reached by the narrative, it represents it as the *continuation* or *development* of the past which came before it. וַיֹּאמֶר is thus properly not *and he said*, but *and he proceeded to say*. (Driver [1874] 1998, pp. 71–72)

That is to say, according to perspectival aspect, with two *wayyiqtols*, the eventuality[13] represented by the second verb had to occur after the eventuality represented by the first verb.[14] And, by extension, where *wayyiqtols* are chained together (no other

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[7] This is the Driver of the *Brown, Driver, and Briggs* (BDB) BH and Aramaic lexicon, the definitive lexicon of the early twentieth century; of *Notes on the Hebrew Text of Samuel*, arguably the most exacting commentary on these books; and of perhaps what is his *magnum opus*, *A Treatise on the Use of the Tenses in Hebrew and Some Other Syntactical Questions* ([1874] 1998).

[8] See Driver ([1874] 1998, pp. 1–4, 71–72) for his argument against the BH verbal system being tense-based.

[9] Perfective and imperfective aspect, respectively.

[10] The perspectival aspect theory is taught in most introductory BH grammars and is prevalent in reference grammars.

[11] See Stroup 2014a, pp. 299–363) for an extensive discussion of *wayyiqtol* within the context of the BH verbal system.

[12] Even referring to the *waw*+a-class vowel+doubling part of *wayyiqtol* as the *waw*-consecutive, and the form as a whole as the *waw*-consecutive-imperfect. Driver ([1874] 1998, p. 72) expressly repudiates the old name *waw*-conversive; contra Joshua Blau: "we reject the pretentious name 'consecutive *waw*'" (Blau 2010, pp. 189–190).

[13] Hereafter 'eventuality' will be used to refer to either a *state* or an *event*. A state is a non-dynamic eventuality, such as *The water is cold*, whereas an event is a dynamic eventuality, an action, such as *John ran*. For clarification between the differences between states and events see Akagi, 2014, pp. 365–443), who uses 'situation' to refer to both state and dynamic event. In Boyd (2014, pp. 446–607), I use 'eventuality' instead.

[14] Most recently and forcefully reaffirmed by Goldenberg (2013, pp. 203–204); also by Binnick (1991, pp. 434–444), a linguist.

verb forms intervening), the temporal (chronological) order of the eventualities they represent must match the verb order. Conversely this theory mandates that the order of the *wayyiqtols* is *always* the temporal order of the eventualities they represent. Such a *wayyiqtol* sequence is labeled 'iconic', in that the two orders (textual and temporal) are identical.[15] I call this implication of perspectival aspect the **iconic *wayyiqtol* sequence theory** (IWS).

Genesis 1 reports the order of Creation to be animals before man. But IWS would have the order of Creation reported in Genesis 2 to be man before animals—the reverse—because the *wayyiqtol* referring to the forming of the animals is later in the chapter (2:19) than the one referring to the forming of the man (2:7). Thus IWS has fashioned a contradiction between the two accounts, a contrivance which Driver and his constituents deem to be real. And, commentators, taking note of Driver's stature, have frantically submitted ingenious but unrealistic explanations to seek to reconcile the accounts.[16] But there neither is, nor can be, any contradiction. Rather, the alleged contradiction arises *exclusively* from IWS. The flaw, then, is not to be found in the Lord's infallible and inerrant text, but rather in an erroneous and facile grammatical theory of men. I shall prove that the order of the eventualities is **not** *always* that of the verbs representing them. Since the sole prop of the boasted conflict in creational order is IWS, once IWS is knocked out of its place, this putative contradiction falls, and crumbles into rubble.

In the remainder of this article, first, I expose the glaring faults of this old theory and contend that therefore it should be rejected. If IWS is invalid, then the temporal order of the eventualities is not necessarily the same as that of the *wayyiqtols*—thereby answering this specific charge of *contradiction* in biblical texts. Second, I précis a new approach to elucidate the interrelations of time, text, and eventualities. This will provide a methodology to answer the broader charge of *incoherence* in scriptural passages.[17] Third, I apply this methodology in Genesis 2:7–3:8 verb by verb, thereby empirically proving that the Garden pericopes are coherent.

4. Prominent Faults of an Old Theory
4.1 *Introduction*

Below are eight biblical texts, which, according to IWS, must report the eventualities in the order

they occurred. Conversely, according to this theory, the eventualities occurred in the order they are reported. But, as I demonstrate, read *that* way, these texts become non-sequiturs. It creates farcical and irrational scenarios inside the narratives. But if we do not assume that the order of eventualities and verbs are *always* the same, the texts make perfect sense.

4.2 *Biblical examples of exceptions to IWS*

[Please note: I have translated all the verses I discuss in this article. Also, the *wayiqtols* are boldface in the Hebrew text and translation, and are marked with superscripted boldface letters. Where I refer to these letters in my analysis, it is usually to the whole verb phrase, not just its verb. For example, in *Mike* ˣ*ran through the park*, **(x)** often refers to "ran through the park," not just "ran." In addition, if *qatals*[18] are pertinent to the analysis, they are underlined. The layout of the examples is text, followed by translation, then analysis.]

4.2.1 *The crossing of the Jordan (Joshua 3:14–17; 4:10–12, 18)*

(In the following I have only provided the portions of text necessary to discern the order of the eventualities portrayed.)

וַ**יְהִי** בִּנְסֹעַ הָעָם מֵאָהֳלֵיהֶם לַעֲבֹר אֶת־הַיַּרְדֵּן וְהַכֹּהֲנִים נֹשְׂאֵי הָאָרוֹן הַבְּרִית לִפְנֵי הָעָם: ¹⁵וּכְבוֹא נֹשְׂאֵי הָאָרוֹן עַד־הַיַּרְדֵּן וְרַגְלֵי הַכֹּהֲנִים נֹשְׂאֵי הָאָרוֹן נִטְבְּלוּ בִּקְצֵה הַמָּיִם וְהַיַּרְדֵּן מָלֵא עַל־כָּל־גְּדוֹתָיו כֹּל יְמֵי קָצִיר: ¹⁶**וַיַּעַמְדוּ** הַמַּיִם הַיֹּרְדִים מִלְמַעְלָה קָמוּ נֵד־אֶחָד הַרְחֵק מְאֹד...

¹⁷**וַיַּעַמְדוּ** הַכֹּהֲנִים נֹשְׂאֵי הָאָרוֹן בְּרִית־יְהֹוָה בֶּחָרָבָה בְּתוֹךְ הַיַּרְדֵּן הָכֵן וְכָל־יִשְׂרָאֵל עֹבְרִים בֶּחָרָבָה עַד אֲשֶׁר־תַּמּוּ כָּל־הַגּוֹי לַעֲבֹר אֶת־הַיַּרְדֵּן: ....

4:10–12, 18

¹⁰וְהַכֹּהֲנִים נֹשְׂאֵי הָאָרוֹן עֹמְדִים בְּתוֹךְ הַיַּרְדֵּן עַד תֹּם כָּל־הַדָּבָר אֲשֶׁר־צִוָּה יְהוָה אֶת־יְהוֹשֻׁעַ לְדַבֵּר אֶל־הָעָם כְּכֹל אֲשֶׁר־צִוָּה מֹשֶׁה אֶת־יְהוֹשֻׁעַ **וַיְמַהֲרוּ** הָעָם **וַיַּעֲבֹרוּ**: ¹¹**וַיְהִי** כַּאֲשֶׁר־תַּם כָּל־הָעָם לַעֲבוֹר **וַיַּעֲבֹר** אֲרוֹן־יְהוָה וְהַכֹּהֲנִים לִפְנֵי הָעָם: ¹²**וַיַּעַבְרוּ** בְּנֵי־רְאוּבֵן וּבְנֵי־גָד וַחֲצִי שֵׁבֶט הַמְנַשֶּׁה חֲמֻשִׁים לִפְנֵי בְּנֵי יִשְׂרָאֵל כַּאֲשֶׁר דִּבֶּר אֲלֵיהֶם מֹשֶׁה: ....

¹⁸**וַיְהִי** בַּעֲלוֹת (כַּעֲלוֹת) הַכֹּהֲנִים נֹשְׂאֵי אֲרוֹן בְּרִית־יְהֹוָה מִתּוֹךְ הַיַּרְדֵּן נִתְּקוּ כַּפּוֹת רַגְלֵי הַכֹּהֲנִים אֶל הֶחָרָבָה **וַיָּשֻׁבוּ** מֵי־הַיַּרְדֵּן לִמְקוֹמָם **וַיֵּלְכוּ** כִתְמוֹל־שִׁלְשׁוֹם עַל־כָּל־גְּדוֹתָיו:

And it ª**was** when the people pulled up [i.e. pulled up stakes] from their tents to cross the Jordan, and the

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priests carrying the ark of the covenant being in front of/in the presence of/before the people, |15| when those carrying the ark came as far as the Jordan, the feet of the priests carrying the ark <u>dipped</u> into the edge of the water. (Now the Jordan was full—over all its banks—all the days of harvest.) |16| The water which came down from upstream ^b**stopped**: it <u>rose up</u> in a heap a great distance away [[cities named, specifying how far]] (The people <u>crossed</u> opposite Jericho.) |17| The priests carrying the ark of the covenant of Yhwh ^c**stood** on dry ground in the middle of the Jordan while all Israel were crossing on dry ground, until all the nation had finished crossing the Jordan.

|4:10| The priests carrying the ark were standing in the middle of the Jordan until every word which Yhwh had commanded Joshua to speak to the people according to what Moses commanded Joshua was complete. The people ^d**hurriedly** ^e**crossed**. |11| And it ^f**was**, as soon as all the people had finished crossing, the ark of Yhwh and the priests ^g**crossed** in front of/in the presence of the people. |12| And the sons of Reuben, and the sons of Gad, and half of the tribe of Manasseh ^h**crossed** over armed in front of/in the presence of the Sons of Israel, just as Moses had spoken to them. About forty thousand military units <u>crossed</u> in the presence of Yhwh for [i.e. ready for] battle, to the Aravah of Jericho. . . . .

|18| And it ⁱ**was**, when the priests carrying the covenant of Yhwh came up from the middle of the Jordan, the soles of the feet of the priests <u>withdrew</u> onto the dry ground, the water of the Jordan ^j**returned** to its place, and it ^k**went** [i.e. flowed] as formerly [lit. 'yesterday and three days before']—over all its banks. [[date stamp]].

The passage above is in many ways a hinge text.[19] Our concern, however, is with the order of the crossings of the Jordan reported here. According to IWS, the military vanguard of Reuben, Gad, and the half tribe of Manasseh crossed **(h)** *after* the priests carrying the Ark crossed **(g)**, because the crossing of the three tribes is reported after the crossing of the priests. The order of eventualities would then be as follows. While the priests were standing in the middle of the dry riverbed, all the people crossed **(e)**. Then the priests carrying the ark crossed **(g)**, and finally the three tribes crossed **(h)**. But do the details of the text (and world knowledge) allow for this order? First of all, what does the text mean by crossing the river? The text reports that at flood stage, the river is wider than its banks, so "crossing" cannot mean to go from bank to bank. It must mean going from

dry ground on one side to dry ground on the other side (and here, miraculously, dry ground in between). Thus, when the text reports that the priests crossed the river, it *entails* that they came up from where the river would normally be at flood stage. Second, the text reports that as soon as the priests came up from the river, the river returned to flood stage (4:18). Consequently, anyone who crossed after the priests would have to *swim* across the swollen torrent. According to IWS, then, the three tribes would have been swimming—in full military gear—since it makes them cross *after* the priests! Hence, IWS has reduced the text to absurdity. Moreover, it has caused it to contradict itself, because "all" (mentioned twice in 3:17 and again in 4:11) would include the vanguard in question, and *all* were supposed to have crossed on dry ground! So, clearly, the armed men of Reuben, Gad, and half of the tribe of Manasseh did not cross *after* the priests carrying the Ark. Hence, in this text the order of the eventualities cannot be that of the *wayyiqtols* representing them. Since the text must make sense, IWS is obviously invalid here. Thus, plainly this text is non-iconic.

4.2.2 *Jezebel writes letters (1 Kings 21:8–9)*

וַתִּכְתֹּב סְפָרִים בְּשֵׁם אַחְאָב וַתַּחְתֹּם בְּחֹתָמוֹ וַתִּשְׁלַח (הַסְּפָרִים) [סְפָרִים] אֶל־הַזְּקֵנִים וְאֶל־הַחֹרִים אֲשֶׁר בְּעִירוֹ הַיֹּשְׁבִים אֶת־נָבוֹת:

9 וַתִּכְתֹּב בַּסְּפָרִים לֵאמֹר קִרְאוּ־צוֹם וְהוֹשִׁיבוּ אֶת־נָבוֹת בְּרֹאשׁ הָעָם:

She [Jezebel] ^a**wrote** letters in the name of Ahab, ^b**sealed** them with his seal, and ^c**sent** the letters to the elders and to the nobles who were in his [Naboth's] city, who lived with Naboth. |9| She ^d**wrote** in the letters, "call for a fast and seat Naboth at the head of the people."

The chronological order of the eventualities represented in this brief, chilling text is easily seen. With the first three *wayyiqtols*, "wrote" **(a)**, "sealed" **(b)**, and "sent" **(c)**, the order of the eventualities and the verbs which recount them are identical. Jezebel would not have sent unsealed scrolls; without the king's seal her nefarious scheme would not have worked. Nor would she have sealed blank scrolls. But—consider closely the fourth *wayyiqtol*. If IWS *were* applied, verb **(d)**, "wrote," would refer to a subsequent writing of the letters after they were sealed **(b)** and sent **(c)**—as if Jezebel had run after the messengers, retrieved the letters she had written and sealed, broken open the seals, and hastily scribbled in them again—preposterous! But, if we understand

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[19] It reprises the crossing of the Red Sea, ends the years of wilderness wanderings, begins the years of living in the Land, alludes to the Creation account and therefore to the creation of the nation, introduces four closures (of the Abrahamic covenant [circumcision of the warriors], of the Mosaic covenant [celebrating Passover], the cessation of the manna, the burial of Joseph's bones [at the end of the book]), etc.

that this is a clear example of flashback, then the text may be read as common sense dictates: that "wrote" **(d)** refers to the one-and-only writing of the letters, which chronologically preceded their sealing **(b)** and sending **(c)**. Thus, the first mention of her writing is repeated in the second mention, after which we are told the content of the letters—a coherent reading. Such a reading makes perfect sense of this solemn record of one of Jezebel's crimes. Thus, the order of the eventualities represented by the verbs is **a/d b c**. Hence IWS cannot be applied to this text either. It is non-iconic.

4.2.3 *Abraham journeys to the land of Canaan with his household (Genesis 12:4–5)*

וַיֵּ֣לֶךְ אַבְרָ֗ם כַּאֲשֶׁ֨ר דִּבֶּ֤ר אֵלָיו֙ יְהוָ֔ה וַיֵּ֥לֶךְ אִתּ֖וֹ ל֑וֹט וְאַבְרָ֗ם בֶּן־חָמֵ֤שׁ שָׁנִים֙ וְשִׁבְעִ֣ים שָׁנָ֔ה בְּצֵאת֖וֹ מֵחָרָֽן׃ וַיִּקַּ֣ח אַבְרָ֣ם אֶת־שָׂרַ֣י אִשְׁתּ֡וֹ וְאֶת־ל֣וֹט בֶּן־אָחִיו֩ וְאֶת־כָּל־רְכוּשָׁם֙ אֲשֶׁ֣ר רָכָ֔שׁוּ וְאֶת־הַנֶּ֖פֶשׁ אֲשֶׁר־עָשׂ֣וּ בְחָרָ֑ן וַיֵּצְא֗וּ לָלֶ֙כֶת֙ אַ֣רְצָה כְּנַ֔עַן וַיָּבֹ֖אוּ אַ֥רְצָה כְּנָֽעַן׃

Abram ᵃ**went** just as YHWH had spoken to him. And Lot ᵇ**went** with him. (Now Abram was seventy-five years old when he went out of Haran.) Abram ᶜ**took** Sarai, his wife, Lot, the son of his brother, and all their possessions, which they had acquired, and every person, whom they had acquired in Haran. And they ᵈ**went out** to go to the land of Canaan. And they ᵉ**entered** the land of Canaan.

Clearly **(b)** "And Lot went with him," is reprised in **(c)** "And Abram took Sarai, his wife, and *Lot*, the son of his brother" [emphasis mine]. We cannot explore the reason for this repetition here, but the eventuality of Lot having been taken by Abram is plainly the *very same eventuality* as Lot having gone with him. There is no temporal progression here. Moreover, the eventuality is further examined in the text in the fourth main clause: **(d)** is plural, because Abram did not go out of his country by himself; he took his whole household (including Lot). But it is still looking at the same eventuality. Again, therefore, time does not advance. *Wayyiqtols* **(b)**, **(c)**, and **(d)** all refer to the *same* eventuality; IWS would erroneously have these three verbs refer to three sequential eventualities. Hence, this text cannot be iconic, either.

4.2.4 *Assessment of Esau's actions (Genesis 25:34)*[20]

וְיַעֲקֹ֞ב נָתַ֣ן לְעֵשָׂ֗ו לֶ֚חֶם וּנְזִ֣יד עֲדָשִׁ֔ים וַיֹּ֣אכַל וַיֵּ֔שְׁתְּ וַיָּ֖קָם וַיֵּלַ֑ךְ וַיִּ֥בֶז עֵשָׂ֖ו אֶת־הַבְּכֹרָֽה׃

As for Jacob, he gave Esau bread and lentil stew. And he [Esau] ᵃ**ate** and ᵇ**drank**, ᶜ**arose** and ᵈ**went**. So, Esau ᵉ**despised** his birthright.

Esau probably did not wait until he had eaten all the stew before he had anything to drink. Yet IWS would have it so. Indeed, rather, most likely he alternated between eating and drinking as we do, given that the two actions represented by **(a)** and **(b)** are compatible. On the other hand, **(c)** and **(d)** are most likely not compatible with the first two, and thus must occur after them in time. **(e)** is altogether different from the rest. It is a summary assessment of what Esau has done. Thus, time does not advance. IWS wrongly insists that it does. Again, the text is non-iconic.[21]

4.2.5 *Moses' instructions to the spies (Numbers 13:17ff)*

וַיִּשְׁלַ֤ח אֹתָם֙ מֹשֶׁ֔ה לָת֖וּר אֶת־אֶ֣רֶץ כְּנָ֑עַן וַיֹּ֣אמֶר אֲלֵהֶ֗ם עֲל֥וּ זֶה֙ בַּנֶּ֔גֶב וַעֲלִיתֶ֖ם אֶת־הָהָֽר׃ וּרְאִיתֶ֥ם אֶת־הָאָ֖רֶץ מַה־הִ֑וא וְאֶת־הָעָם֙ הַיֹּשֵׁ֣ב עָלֶ֔יהָ הֶחָזָ֥ק הוּא֙ הֲרָפֶ֔ה הַמְעַ֥ט ה֖וּא אִם־רָֽב׃ וּמָ֣ה הָאָ֗רֶץ אֲשֶׁר־הוּא֙ יֹשֵׁ֣ב בָּ֔הּ הֲטוֹבָ֥ה הִ֖וא אִם־רָעָ֑ה וּמָ֣ה הֶעָרִ֗ים אֲשֶׁר־הוּא֙ יוֹשֵׁ֣ב בָּהֵ֔נָּה הַבְּמַֽחֲנִ֖ים אִ֥ם בְּמִבְצָרִֽים׃ וּמָ֣ה הָ֠אָרֶץ הַשְּׁמֵנָ֨ה הִ֜וא אִם־רָזָ֗ה הֲיֵֽשׁ־בָּ֥הּ עֵץ֙ אִם־אַ֔יִן וְהִ֨תְחַזַּקְתֶּ֔ם וּלְקַחְתֶּ֖ם מִפְּרִ֣י הָאָ֑רֶץ וְהַ֨יָּמִ֔ים יְמֵ֖י בִּכּוּרֵ֥י עֲנָבִֽים׃

Moses **sent** them to spy out the land of Canaan. And he **said** to them, "Go up here into the Negev, then go up into the hill country. See the land, what it is, and what the people who dwell in it are like. Are they strong or are they weak? Whether they are few or many. And what is the land in which they dwell: is it good or bad? And what are the cities like in which they dwell? Are they in camps or in fortifications? And what of the soil: is it rich or poor? Are there any trees in it or not? Strengthen yourselves and take some of the fruit of the land." (Now the days were the days of the first fruits of the grapes).

Clearly, Moses gave the spies this long charge concerning their mission as he sent them out, or before he sent them out, not afterwards. They would not have been there after he sent them. If sending is a process, the text elaborates on this process. Part of the process is the charge. However, if it is an instantaneous event, it must follow the charge. In addition, for the former way of understanding, although **sent** and **said** are compatible, and thus, not constrained to happen at different times, the linearity of texts requires this verbal sequence; for the latter way, the verbs are in reverse temporal order. Either understanding yields non-iconicity, and therefore, IWS is yet again found to be in error.

4.2.6 *Joshua orders an ambush to be set against Ai (Joshua 8:3–4)*

וַיָּ֧קָם יְהוֹשֻׁ֛עַ וְכָל־עַ֥ם הַמִּלְחָמָ֖ה לַעֲל֣וֹת הָעָ֑י וַיִּבְחַ֣ר יְהוֹשֻׁ֡עַ שְׁלֹשִׁים֩ אֶ֨לֶף אִ֜ישׁ גִּבּוֹרֵ֤י הַחַ֙יִל֙ וַיִּשְׁלָחֵ֣ם לָ֔יְלָה׃ וַיְצַ֤ו אֹתָם֙

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[20] 1 Kings 19:6 can be analyzed similarly.
[21] See Boyd (2014, pp. 527–529) for further details. Stroup (2014a, pp. 299–363) 10 has a slightly different analysis.

לֵאמֹר רְאוּ אַתֶּם אֹרְבִים לָעִיר מֵאַחֲרֵי הָעִיר אַל־תַּרְחִיקוּ
מִן־הָעִיר מְאֹד וִהְיִיתֶם כֻּלְּכֶם נְכֹנִים:

Joshua and all the men of war [a]**arose** to go up to Ai. Joshua [b]**chose** thirty thousand men, the best warriors, and [c]**sent** them at night. |4| He [d]**commanded** them, "Look, you are going to set an ambush for the city. Do not be very far from the city. And all of you be ready."

The pertinent issue for us in these verses is the temporal sequence—or lack thereof—between **(c)** and **(d)**. Here Joshua is deploying men for an ambush, which, as world knowledge instructs us, requires utmost secrecy for it to succeed. The idea that Joshua shouted the orders to the ambushers after they left to position themselves—which would have been the case if IWS were true—and thus compromise the mission, is ludicrous. Thus, this is another obvious exception to IWS. Clearly this text cannot be iconic.

4.2.7 *The Philistines gather for battle (1 Samuel 17:1)*

וַיַּאַסְפוּ פְלִשְׁתִּים אֶת־מַחֲנֵיהֶם לַמִּלְחָמָה **וַיֵּאָסְפוּ** שֹׂכֹה
אֲשֶׁר לִיהוּדָה **וַיַּחֲנוּ** בֵּין־שׂוֹכֹה וּבֵין־עֲזֵקָה בְּאֶפֶס דַּמִּים:

The Philistines [a]**gathered** their camp for battle. They [b]**amassed** at Sokoh, which belongs to Judah, and [c]**camped** between Sokoh and 'Azekah in Ephes Dammim.

It is clear from both the immediate and extended context what this text describes: the staging of the Philistines in the Valley of Elah to fight against the forces of Saul. **(a)** gives us a general *Introductory Encapsulation*: the Philistines gathered together their forces to engage in battle. **(b)** and **(c)** give us the particulars of the location of their camp, with **(c)** further specifying the place beyond what **(b)** does. The result is general, followed by specific, followed by even more specific. The elaboration is spatial: it concerns the circumstances of the event; it does not break down the eventuality into sub-events. In this case **(b)** obviously occurred within the same time interval in which **(a)** happened. And, **(c)** happened within this interval as well. Consequently, there is no temporal progression represented by the textual sequence—yet another example of a non-iconic text. Again IWS does not apply.

4.2.8 *The account of Uriah's death (2 Samuel 11:17)*

וַיֵּצְאוּ אַנְשֵׁי הָעִיר **וַיִּלָּחֲמוּ** אֶת־יוֹאָב **וַיִּפֹּל** מִן־הָעָם מֵעַבְדֵי
דָוִד גַּם **וַיָּמָת** אוּרִיָּה הַחִתִּי:

The men of the city [a]**came out** and [b]**fought** with Joab. Some of the people from the servants of David [c]**fell**. Also, Uriah the Hittite [d]**died**.

The text above, although short, is extremely poignant and deserves more than the brief attention I can give it here.[22] But to the matter at hand. **(a)** and **(b)** give us the circumstances that resulted in the army of Israel suffering casualties. This brings us to **(c)** and **(d)**. **(c)** recounts the casualties sustained in the battle: "some of the servants of David." **(d)** zooms in on one of the loyal servants who gave their lives fighting for their king, namely, Uriah, in a classic movement from general to specific, with the curt (only four Hebrew words) grim report: "Also, Uriah the Hittite died." As to the temporal profile of this text, Uriah's death is part of the death of the rest, and occurred therefore within the same time span as theirs. Hence, there is no temporal progression between **(c)** and **(d)**—a final parade example of an exception to IWS. It too is non-iconic.

4.3 *Discussion*

In the foregoing examples, I engaged in 'temporal reasoning',[23] a methodology for carefully analyzing the temporal relationships between the eventualities represented by the verbs in any discourse (written or spoken). Applying this technique to Scripture *invariably* leads to a coherent reading. And may I be so bold to say, it yields a *better* reading of the text than mindlessly assuming IWS, which in the eight examples above resulted in nonsensical readings. And these eight are merely a small subset of a great many more.[24]

What means these clear-cut exceptions to IWS, then? Is it not the same as the significance of obvious exceptions to any other theory?

According to the scientific method, for a hypothesis to reach the status of a theory, it should be repeatedly tested. And according to Karl Popper's refinement of the scientific method, "Every genuine *test* of a theory is an attempt to falsify it, or to refute it"(Popper 1963, pp. 33–39).[25] If a theory fails such tests, it should be rejected. Considering the multitude of exceptions to IWS, a strict adherence to the scientific method dictates that it should never have attained the status of a theory.

Notwithstanding, what *should* never be not infrequently obtains regardless. It is possible, and not uncommon, for a hypothesis to reach the status of a theory solely because of the fame of those who

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[22] See Boyd (2014, pp. 445–607) for full discussion.
[23] A term employed by Alice ter Meulen (pers. com.)
[24] Stroup (2014a, pp. 299–353) has adduced and analyzed many more. He also collects all the alleged dischronologizations (non-iconic text) in an appendix and ranks them all in terms of their likelihood. I examine additional examples in Boyd (2014, pp. 445–607).
[25] Popper first presented his recasting of the scientific method as a procedure for falsification rather than verification in *Logik der Forschung: zur Erkenntnistheorie der modernen Naturwissenschaft* in 1934.

first proposed it, without it being properly tested. One of the most famous examples is the geocentric model, which stood almost unchallenged 1500 years, because Aristotle and Ptolemy had proposed it.

I believe that this is what happened with IWS. This understanding of how the *wayyiqtol* functions—as a verb which *always* indicates a sequence—was adopted because of the stature of and respect for Ewald and Driver. Also, because of their towering reputation, very few have challenged their ideas.[26]

In addition, although even one exception *should* topple a theory,[27] theories tend to become entrenched. But whenever the exceptions begin to multiply and explanations for them become increasingly wild and unlikely, such theories are eventually—even if reluctantly—rejected.[28] Famously, the Aristotle-Ptolemy model was unable to fully explain the motions of some of the planets (particularly Mars). Yet it persisted. But, as observational astronomy refined its art, the deficiencies of the epicycles' model became more and more apparent and impossible to ignore. And eventually, Copernicus, then Galileo, then Kepler and Newton, were able to overthrow it and replace it with a new science.

And so should it be in this case: the many exceptions to IWS must cause us to conclude that this particular implication of perspectival aspect is wholly invalid, and perhaps calls into question the wisdom of applying perspectival aspect to the BH verbal system altogether. To recapitulate: the eventuality sequence does **not** *always* match the *wayyiqtol* sequence which represents it. This requires that how the temporal sequence is discerned be rethought. To that end, I propose a new model.

Because Driver's claim that the order of Creation contradicts the order in Genesis 1 is solely based on his false understanding of the *wayyiqtol*, there exists no contradiction—which obviates resorting to allegory or some halting explanation "against idiom,"[29] in order to face the charge of contradiction.[30] Thus, this branch of the two-pronged attack has been successfully repulsed.

Now to face the second prong of the assault by the enemy forces: that the text is incoherent. To do so, I apply temporal reasoning to Genesis 2–3. To understand the contours of the technique requires a rudimentary grasp of how texts, eventualities, and time interrelate. A comprehensive model of how they interact (fully developed in *Grappling with the Chronology of the Genesis Flood* (2014)) is outlined here to demonstrate how to "navigate the flow of time in biblical narrative."[31]

5. Prospectus of a New Approach: How Verbs, Eventualities, and Time Interact
5.1 *Introduction*

I present the model here in two ways. First, in Subsection 5.2 the six elements of the model are succinctly summarized—but sufficient that the temporal reasoning of my analysis of Genesis 2:7–3:8 in Section 6 can be followed. Second, in Subsection 5.3 I overview these elements in detail to provide a resource to refer to during the analysis.

5.2. *Synopsis of the six elements*
5.2.1 *Temporal order and textual order*

There is only one arrangement of eventualities and the verbs that represent them, where they are in the same order. There is a purpose for each of the other possible orders (outlined under the third element). Example: for the eventualities Max yelling "pull!"; followed by his shooting; followed by the clay pigeon shattering, there are six possible orders for the verbs representing these events. One of them would be *Max shot the gun. He yelled "Pull!" The clay pigeon shattered.*, which is obviously not in the order of the events.

5.2.2 *Time within verbs*

Verbs are classified into states (non-dynamic) and events (dynamic). The former fall into three classes, the latter into four.

States fall into three classes:
indefinitely long *The painting hung on the wall.*
transitory (temporary) *Ralph was happy.*
point (a point of time) *It was 7:40 p.m.*

Events are subdivided into four classes:
activities (duration with no obvious endpoint) *Pete skied.*
achievements (instantaneous change of state) *Charles arrived in Paris.*
accomplishments (a process with a goal) *James built a ship in a bottle.*
semelfactives (repeating action) *Horace coughed.*

[26] The notable exceptions being Joshua Blau (see fn. 14), Tal Goldfajn (1998), and Jan Joosten (pers. com.).

[27] Albert Einstein is reputed to have said, "No amount of experimentation can ever prove me right; a single experiment can prove me wrong."

[28] This reflects Thomas Kuhn's great insight concerning paradigm shifts.

[29] The quoted expression is Driver's. Understanding some *wayyiqtols* as pluperfects is a false position. The relationship between *wayyiqtols* is not temporal but semantic—which is often theological.

[30] The argument for the temporal sequence of 2:7 and 2:19 is a logical syllogism. Its major premise is IWS. Its minor premise is the *wayyiqtols* in 2:7 and 2:19 are sequential. The logically *valid* conclusion drawn is that these *wayyiqtols* represent sequential events. But is this deduction *sound*? It would be, if both premises were *true*, but the major premise is *not*: IWS is an exploded notion. Therefore, the deduction is unsound.

[31] This is the substance of Boyd (2014, pp. 445–607) specifically, and a theme of Akagi (2014, pp. 365–443); Anderson (2014, pp. 639–704); Boyd (2014, pp. 445–607); Stroup (2014b, pp. 609–635) overall.

5.2.3 *Time between verbs*

This concerns the semantic (that which involves meaning) relationships between verbs, known as **coherence relations**. I briefly define and illustrate the most important for two verbs in a row representing two events. I also indicate whether time advances between the eventualities represented by the verbs.

Serialation is a coherence relation in which the eventuality represented by the first verb provides the circumstances for the eventuality represented by the second verb to occur, without forcing it to occur, as in *Chet hit the ball. Sam caught it*. Time advances.

Result is a coherence relation in which the eventuality represented by the first verb *causes* (is a necessary and sufficient condition for) the eventuality represented by the second verb to occur, as in *Gil (an archer) aimed at the target. His arrow pierced the bull's eye*. Time advances.

Cause is a coherence relation in which the eventuality represented by the second verb *causes* the eventuality represented by the first verb to occur, as in, *Gil's arrow pierced the bull's eye. He aimed at the target*. Time does not advance.

Elaboration is a coherence relation in which the second (and third, fourth, etc.) verb gives the details of the eventuality introduced by the first verb. This introduction is called *Introductory Encapsulation*. Example: *Gary pitched a three-hitter. He struck out ten, and walked only one*. Time does not advance.

Summary is a coherence relation in which the last verb is a summary of what has been already described in detail in the text. Example: *Zach walked the first two batters. The next batter flied out, allowing the runners to advance. Then Zach struck out the next two batters. Zach had a tough inning, but no runs scored*. Time does not advance.

Contrast is a coherence relation in which the second verb represents an unexpected turn of events. Either the reader/actor-participant (person involved in the account) assumes the story/events *will go* a certain direction, but it/they *does not/do not* (called, violation of expectation). Example: *The Senate majority leader wanted to send the bill to the House. He thought he had the votes to pass it, but the bill was soundly defeated by a bipartisan vote on the Senate floor*. Time does not advance.

Or the story/events *goes/go* a direction the reader/actor assumes it/they *cannot* (called, denial of preventer). Example: *The Senate majority leader did not want a filibuster on the vote. But his own party started one!* Time does not advance.

5.2.4 *Time displacement*

This concerns compatibility and the related issue of simultaneity. Compatible eventualities can occur at the same time, but do not have to, as in *Jake walked five miles and looked at the beautiful countryside*. But the nature of text—word following word—requires that even compatible eventualities must be reported consecutively—one at a time. In contrast, incompatible eventualities cannot occur simultaneously, as in *Jake ran home and took a nap*. Only common sense knowledge of what usually is so (world knowledge), which is part of temporal reasoning, can tell us whether eventualities happened together or not.

5.2.5 *Time connections*

Verbs next to one another do not *necessarily* follow one another in time. The second verb might be related to a verb considerably earlier in the text being studied, as in the account of Jezebel's letter above. The second "wrote" there does not temporally follow "sent" but repeats the first "wrote." (We shall find that this happens in places in the Garden narratives.) Conversely, the eventuality represented by the first verb may be dependent on a verb considerably later in the text, as in Genesis 3 with Satan arranging his strategy so as to achieve his desired goal, the Fall of man, which is recorded later in the text. (This occurs elsewhere in Genesis 2 and 3 as well.) See Subsection 5.3, example 12 for an illustration of time connections.

5.2.6 *Time jumps*

Some texts have large temporal gaps in them. An extreme example is 2 Samuel 23–24, which moves from David's last words to David's numbering of Israel's armies years earlier. These can be discerned by careful linguistic analysis (specifically, information flow theory) which is discussed elsewhere. There are no such gaps in the Garden texts, but we mention this element for sake of completeness. See Subsection 5.3, example 13 for an illustration of time jumps.

We now turn to fully overview this model just presented in brief. The reader is encouraged to peruse Subsection 5.3, because it includes diagrams, further examples, figures, more expansive definitions, contrived texts involving three schoolboys, analysis of biblical passages for each element, and references to the exhaustive discussions in *Grappling with the Chronology of the Genesis Flood* (2014), where the citations to the literature of the field can be found. But if he chooses not to, the reader should proceed to Subsection 5.4, before continuing to the analysis of Genesis 2–3 in Section 6.

5.3 *The six elements which Inform temporal reasoning*

What follows is a fairly complete overview of the comprehensive model I present in *Grappling with the Chronology of the Genesis Flood* (2014, pp. 445–607).

The temporal dimension of text, as has been seen in the synopsis, comprises six elements,[32] which I cover in turn.

5.3.1 *The arrangement of the eventualities: The temporal order of the eventualities represented by the verbs*

Regarding this first element we ask whether the temporal order of the eventualities is *necessarily* the same as that of the verbs. Clearly, the answer is no. Of the diverse ways of expressing a sequence of events, only one is iconic.

For example, (1) illustrates the six possible distinguishable chains of three verbs[33] that represent the eventuality sequence A (Al pushed Bob), which caused B (Bob fell down), and subsequently in response caused C (Carl ran off to tell the teacher):[34]

1. a. Al pushed Bob. He fell down. Carl told the teacher.
   b. Bob fell down. Al pushed him. Carl told the teacher.
   c. Al pushed Bob. Carl told the teacher. When he got to his feet, Bob punched Al.
   d. Bob fell down. Carl told the teacher. Al pushed Bob.
   e. Carl told the teacher. Al pushed Bob. He fell down.
   f. Carl told the teacher. Bob fell down. Al pushed him.

Only (1a) matches the sequence of the eventualities ABC: it alone is iconic.[35]

Although already defined, it might be helpful to *depict* what is meant by an iconic text, as in Figure 1. Notice that the sequence of three verbs is in line with the sequence of the three eventualities in I, but not in II.

Having shown that the textual order of the verbs is not *necessarily* the chronological order of the events,
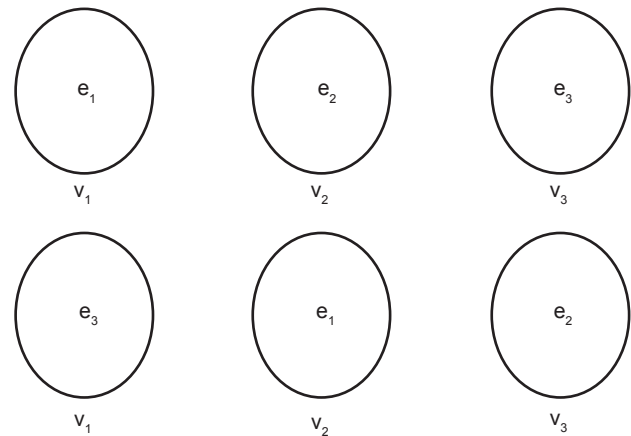

Fig. 1. I. Iconic text. II Non-iconic text.

how then is the eventuality sequence discerned given a particular order of verb phrases (VPs)? The answer is verbal semantics. Our next step then is to survey the second element, the lexical semantics of individual verbs,[36] because we cannot discern the temporal profile of text without understanding the types of verbs that compose it.

5.3.2 *Temporal advancement within events: The temporal profile within a verb phrase*[37]

Focusing on the internal temporal profiles of verbs, the second element concerns whether the VP is dynamic (active) or not, whether it is durative (has duration) or not, and whether it is telic (has an end point) or not. These three parameters yield seven classes, subdivided into states and dynamic events.[38] There are three classes of states, as illustrated in 2:

2. a. It was cold and windy on the playground.
   b. Bob's beef stew was piping hot.
   c. It was 10:18; recess was nearly over.

The verb in (2a) is an *atelic state* (an indefinitely long state), because it is not said when this blustery weather will stop affecting the playground. (2b) is a

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[32] To overview these elements, I have contrived texts involving the shenanigans of three fictional schoolboys. A, B, and C refer to both these shenanigans and the verbs representing them. Also, biblical examples are analyzed here.

[33] The morphology (i.e. the verb form determining tense and aspect) of the verbs must be the same for these analogies to work. If it were *Al pushed Bob*; *Bob had fallen down*, B is clearly anterior action with respect to A.

[34] The number of distinguishable sequences of *n* objects taking m at a time is the permutations of *n* objects taking *m* of them at a time, which is $n!/(n\text{-}m)!$. Here, it is the permutations of three verbs taking three at a time, which is 3!/0!, that is 3×2×1=6.

[35] Iconic texts satisfy the following:

$$p(B) - p(A) > 0 \qquad\qquad\qquad\qquad (iii)$$
$$t(B) - t(A) > 0 \qquad\qquad\qquad\qquad (iv)$$

where p is the linear position in the text and t is the time of the eventuality portrayed by the verb.

[36] The semantic micro-level in *Grappling with the Chronology of the Genesis Flood* (2014).

[37] Known variously as 'semantic aspect', 'situation aspect', 'lexical aspect', 'lexical semantics', and *Aktionsart*.

[38] The compositional analysis of the Aristotelian-Vendlerian aspectual classes with respect to these parameters is as follows:

STATES
[– dynamic][– telic][– durative]   Ø

[– dynamic][– telic][+ durative] atelic state
[– dynamic][+ telic][+ durative] transitory state
[– dynamic][+ telic][– durative] point state
DYNAMIC EVENTS
[+ dynamic][– telic][+ durative] activity
[+ dynamic][+ telic][– durative] achievement
[+ dynamic][+ telic][+ durative] accomplishment
[+ dynamic][– telic][– durative] semelfactive

transitory state (a temporary state). Unless Bob eats it first, the stew will soon cool off. (2c) exemplifies a *point state* (a state which exists for only an instant of time), because there is nothing more "pointed" than the particular time shown by the hands of a clock.

Whereas states are subdivided into three, events fall into four classes, shown in (3):

3. a. Carl walked briskly.
   b. Bob arrived at the playground first.
   c. The boys built a fort from wind-blown boxes.
   d. Al coughed violently, because of the dust.

The verb in (3a) is an *activity*, defined as a continuous action without an obvious endpoint. Carl is walking briskly an indefinitely long time, because nothing has been said about when he will stop or where he is going. The second class, *achievement*, is illustrated in (3b). It is an instantaneous change in state. "Arriving" is an instantaneous action. Bob is not at the playground before he arrives, and he is at the playground after he arrives. Therefore his arrival is the instant between these two states. (3c) illustrates *accomplishment* (a temporary action which produces a result through a process). The fort was not built instantly, no matter how diligently the boys worked, and it cannot be said to be "built" until it is finished. (3d) exemplifies the last class of dynamic events, sharply confined to repeated instantaneous actions such as coughing, knocking, tapping, and their like, which do *not* cause a change in state. This class is called *semelfactive*.

Having briefly introduced this element,[39] we move on to study the semantic relationships *between* verbs.

5.3.3 *The advancement of time between events: The temporal profile of verb sequences*

The third element to be considered is time advance between the eventualities represented by consecutive VPs,[40] which necessitates introducing the interrelated concepts of *cohesion* and *coherence*. Both are important properties of discourse.[41]

Cohesion concerns surface connections between words, as in *John tried to open the door. It was locked* (*it* refers to *door*). *Coherence* consists of the set of connections which allows a minimal discourse (that is, at least two VPs) to make sense, as in *Henrietta turned on the lamp. She had a hole in her sock.*[42] And although they are usually interrelated and interdependent, either can exist apart from the other. Although incoherent discourses can be devised, as in *The doorbell rang. Andrew Johnson was impeached*, it is difficult *not* to establish coherence.[43]

In coherent and cohesive texts, the semantic relationships between adjacent portions of text are explainable by *coherence relations*. If *coherence relations* and other elements of the temporal dimension can be applied to a text, it is *necessarily* coherent.

The study of **coherence relations** is variegated and the discipline lacks consensus.[44] Yet they remain a central factor in any analysis of the temporal dimension of texts.[45] The set we use, briefly define, and illustrate is *Serialation*, *Result / Cause*, *Elaboration / Restatement / Summary*, and *Contrast*.

SERIALATION, RESULT/CAUSE. *Serialation* is the most common **coherence relation** in narrative.[46] It occurs where the state that exists after the first verbal action provides the circumstances for the second verbal action but does not compel it. It is helpful to look at *Serialation* in terms of *necessary* and *sufficient* conditions.

Suppose that *c(ause)* causes *e(ffect)*. *Necessary cause* may be understood thus: an effect cannot occur unless a particular cause is present, but the presence of that cause does not guarantee that effect,[47] as in *John turned off the lamp. The room became dark.*

Sufficient cause occurs when the presence of a particular cause guarantees an effect, but other causes could produce that effect.[48] This may be illustrated, *A dog bumped the table. The coffee spilled from the cup.*

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[39] Akagi (2014, pp. 365–443) extensively discusses situation aspect.

[40] Elements 3, 4, and 5 constitute the semantic macro-level in my treatment in Boyd (2014, pp. 445–607).

[41] Both are widely discussed in the literature; and from disparate disciplines: linguistics, artificial intelligence, mathematic logic, language acquisition, etc. See Boyd (2014, pp. 459–462 and p. 459, fn. 13) for examples and references.

[42] The term cohesion applies "to the **surface structure** of the text"; coherence "to the **concepts** and relations underlying its meaning" (Louwerse and Graesser 2005, pp. 216–18). They also refer to cohesion as "continuity in **word and sentence** structure"; but, coherence as "continuity in **meaning** and context" (ibid.;emphasis mine).

[43] See Boyd (2014, p. 461, fn 16), for discussion and references.

[44] The three major theories are ***Rhetorical Structure Theory*** (Mann and Thompson 1988, pp. 243–281); ***Discourse Representation Theory*** (Kamp and Reyle 1993); and ***Segmented Discourse Representation Theory*** (Lascarides and Asher 1993, pp. 437–493). Moreover, the number proposed to explain all texts varies widely (0-30+). Also, which **coherence relations** are required for coherence and their definitions is debated. Even labeling has not standardized (Others refer to **coherence relations** as 'rhetorical relations', 'discourse relations', or 'conjunctive relations'). See Hovy and Maier, *Parsimonious or Profligate*, 4; and Boyd (2014 p. 463, fn. 19), for discussion and references.

[45] The set of **coherence relations** we proffer here is neither minimalist nor maximalist. Nor do we claim that it can explain all possible interactions between verbs; however, it is equivalent to other published sets and will be more than adequate for our purposes.

[46] I have coined this term for this ***coherence relation***, which is elsewhere called 'occasion', 'continuation', 'contiguity', 'consequential', and even 'narrative'.

[47] More formally, *e* implies *c*, but *c* does not imply *e*.

[48] More formally, *c* implies *e*, but *e* does not imply *c*.

A *necessary and sufficient* cause is one in which the presence of a particular cause guarantees an effect, and only that cause can do so,[49] as illustrated by *The temperature dropped precipitously far below zero. The surface of the pond quickly froze.*

Serialation is a **necessary only** relation; *cause-and-effect*—what is called *Result*—is a **necessary and sufficient** relation.

With *Serialation* the eventualities represented by the verbs are in the same order as the verbs. With respect to time, the start of the second eventuality follows the start of the first eventuality. We must couch temporal sequence in these terms (of *starting*), because the first verb could initiate a state which continues past the second event, as in *Ned fell asleep. Kara tiptoed across the floor so as not to wake him.*

Recall (1a): *Al pushed Bob. He fell down. Carl told the teacher.* Because the "pushing" caused the "falling," and the verb representing the former precedes the verb representing the latter, this text exemplifies the **coherence relation** *Result*.[50] Furthermore, we can easily prove that if a text exhibits *Result*, it will be *necessarily* iconic.[51] By definition *Result* is A caused B, with A coming first in the textual sequence. Because of the nature of physical processes and the fact that *Result* requires the time of the cause to precede the time of the caused, the text is iconic.

Moreover, in (1a), presumably the "pushing" and "falling" provided the circumstances for the "telling." Clearly Carl was provoked to action by Al's deed. Nevertheless, his reporting was not unavoidable. Provocation was a necessary but *not* sufficient condition for him to "tell."[52] So this exemplifies the **coherence relation** *Serialation*.

In (1b), *Bob fell down. Al pushed him. Carl told the teacher*, the order is BAC. A still caused B, but in the text the result is placed before the cause,[53] delaying the information required to answer the question *why did Bob fall?*, but then the text tells us. The **coherence relation** in view here is variously termed *Cause* or *Explanation*. But had we not known the true order of the events, we could have understood (1b) to be iconic, with the possible but improbable scenario that after Bob fell (for some unknown reason—perhaps he tripped over his shoelaces), Al pushed him out of the way of a careening bicycle, and Carl reported Al's heroics.

In (1c), *Al pushed Bob. Carl told the teacher. When he got to his feet, Bob punched Al*, the order is ACB. The reader's first impression is that the "pushing" elicited Carl's response. But "when he got to his feet" implies that Bob had been on the ground, and Bob's action against Al further implies that the latter was responsible for his being there. By this the reader knows that the "pushing" caused the "falling," and that Carl could have been responding to both.

Nevertheless, narratives are usually iconic, because they tend to be temporally linear.[54]

Now we must consider how time and eventualities interrelate. Eventualities can occur at an instant of time, as in *It was 10:30*; over an interval, as in *John ran a 10 K*; or throughout an indefinitely long time, as in *Fred is tall*.

In (1a) "pushing" and "falling" each take place during an interval of time, with one preceding, overlapping, or abutting the other.[55] Fig. 2 depicts the nine possible ways that two intervals can interact.
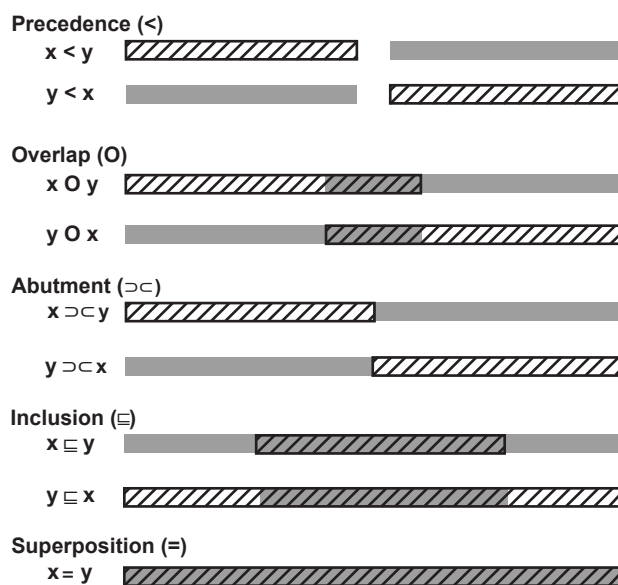
Precedence (<)

$x < y$

$y < x$

Overlap (O)

$x \, O \, y$

$y \, O \, x$

Abutment (⊃⊂)

$x \supset\subset y$

$y \supset\subset x$

Inclusion (⊑)

$x \sqsubseteq y$

$y \sqsubseteq x$

Superposition (=)

$x = y$

Fig. 2. Possible relationships of temporal elements, where x and y are intervals over which events, such as "pushing" and "falling," take place.

Consequently, the elapsed time from the beginning of the *push* until the end of the *fall* is an arithmetic difference: the time of the end of the "falling" minus the time of the beginning of the "pushing." If these time intervals abut, this

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[49] More formally, *c* and *e* imply each other.

[50] *Result* obtains where the cause precedes the effect in a text.

[51] Formally, $p(A) < p(B)$, or $p(B)-p(A) > 0$ and $t(B)-t(A) > 0$, which satisfies the equation in the footnote above.

[52] For a more complete discussion of the important distinction between a *necessary* condition and a *sufficient* condition, see Boyd (2014, p. 462).

[53] Formally, $p(B)-p(A) < 0$, which does not satisfy (iii) in fn. 38.

[54] See fn. 81.

[55] This example introduces three of the binary relations that occur between intervals: precedence, overlap, and abutment. Fig. 2 depicts all possible binary relations. For a discussion of their properties see van Benthem (1984, pp. 1–16); Dünges (1998) and Boyd (2014, pp. 573, 579).

difference is the sum of the two intervals. Also, for at least part of the time the "pushing" and "falling" were likely simultaneous. And finally—although probably not here—the intervals might be separated from one another, as in *After sizing up his thirty foot putt, the golfer smartly* **stroked** *the ball and it* **fell** *into the cup for a birdie.*

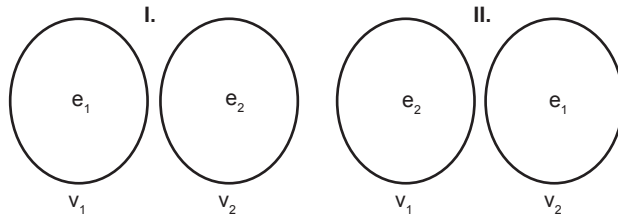A visualization, which contrasts both *Result* and *Serialation* with *Cause* is in Fig. 3.

Fig. 3. Contrast between I. *Result* or *Serialation* and II. *Cause.*

For further clarification of *Serialation* and *Result* we shall look at how they work in *wayyiqtol* chains in Genesis 12:7–9.

וַיֵּרָא יְהוָה אֶל־אַבְרָם וַיֹּאמֶר לְזַרְעֲךָ אֶתֵּן אֶת־הָאָרֶץ הַזֹּאת וַיִּבֶן שָׁם מִזְבֵּחַ לַיהוָה הַנִּרְאֶה אֵלָיו: ⁸וַיַּעְתֵּק מִשָּׁם הָהָרָה מִקֶּדֶם לְבֵית־אֵל וַיֵּט אָהֳלֹה בֵּית־אֵל מִיָּם וְהָעַי מִקֶּדֶם וַיִּבֶן שָׁם מִזְבֵּחַ לַיהוָה וַיִּקְרָא בְּשֵׁם יְהוָה: ⁹וַיִּסַּע אַבְרָם הָלוֹךְ וְנָסוֹעַ הַנֶּגְבָּה:

YHWH ᵃ**appeared** to Abram and ᵇ**said** to him, "To your seed I will give this land." He ᶜ**built** there an altar to YHWH, who had appeared to him. He ᵈ**moved** from there to the mountains east of Bethel. He ᵉ**pitched** his tent with Bethel on the west and Ai on the east. He ᶠ**built** there an altar to YHWH. He ᵍ**called** on the Name of YHWH. Abram ʰ**journeyed** continually toward the Negev.

To establish *Serialation* we must establish that the first verb provides the occasion for the second, that is, its *necessary* cause, without being its *sufficient* cause. Verb **(a)** and **(b)** are evidently related this way: YHWH's appearing certainly provides the occasion for Him to speak but does not constrain Him to do so. The relation between **(b)** and **(c)**, however, is not so clear cut: it could be *Serialation,* but perhaps *Result* would be a better analysis, because YHWH's speech to Abram likely motivated him to build an altar and offer a sacrifice of thanksgiving and devotion. **(c)** and **(d)** exhibit *Serialation.* "From there" makes that plain. **(d)** and **(e)** exhibit the same **coherence relation**.

Abram cannot pitch his tent in another place until he moves there. Moving to that place however does not *cause* him to *pitch his tent* there (although in a sense it does cause him to pitch his tent *there*). With **(e)** and **(f)** the case is the same only more so: why would pitching his tent cause him to build an altar, except indirectly—it was his custom to build an altar after he established his presence at a place. The same applies for **(f)** and **(g)**. The altar that resulted from his building of it allowed him to offer sacrifices of devotion on it, which in turn permitted him to call upon the Name of YHWH, but did not *cause* him to do so. And finally let us consider the **coherence relation** evinced between **(g)** and **(h)**. It is not immediately obvious in what way Abram's calling upon the Name of YHWH occasioned, let alone, caused, his further journeying. We could speculate, but a better tactic is to abandon trying to link **(h)** with **(g)** and instead link it to the complex of eventualities that occurred after Abram's move to the location between Bethel and Ai: tent pitching, altar building and calling upon YHWH. Once he had accomplished what he wanted to do at this location, it was time for him to journey on. Understood this way **(h)**'s relationship is with the state effected by **(e)**. Thus, *Serialation* is in view here.

Turning away from **coherence relations** in which time either advances or retreats, non-iconic texts, in which time stands still, as in (4), need to be examined:

4. a. Al climbed to the top of the monkey bars.

   b. Bob and Carl helped him.

Here Bob and Carl's actions neither preceded nor followed Al's, but rather overlapped his.[56] Time does not advance in (4b); instead, (4b) elaborates on (4a). Thus the **coherence relation Elaboration** and its like require consideration.

ELABORATION exists where the second of two (or more) text segments expands on the first (which is called the *Introductory Encapsulation*) by specifying it in greater detail.[57] Furthermore, the subsequent eventualities occur during the time interval the first occurs. As illustrated in (5):

5. a. The boys played hard at recess.

   b. Al climbed the monkey bars.

   c. Bob swung on the swings.

   d. Carl balanced himself on the see-saw.

(5a) is an *Introductory Encapsulation* of the eventualities specified in (5b), (5c), and (5d).[58] Here the

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[56] This also applies to atelic and transitory states followed by an activity. *Al sat daydreaming* represents a transitory state. The activity, *Carl waved his hand in front of his face*, could occur at the beginning, middle, or end of the time interval Al was staring vacuously into space.

[57] For example, set to member; process to step; whole to part; object to attribute; abstract to instance; and general to specific (Hovy and Maier 1992, p. 9). *Elaboration* is also called 'additive', 'expansion', and 'resemblance'. The **coherence relation** *Elaboration* and its congeners, *Restatement* and *Summary*, are discussed in Boyd (2014, p. 464).

[58] For the examples other linguists have used (and concomitant references) to illustrate this coherence relation, see Boyd (2014, p. 454, fn. 8). For a number of examples in biblical texts see Boyd (2014, p. 465).

text goes from general to specific. The eventualities of (5a) happened during the time interval, "recess." The rest of the eventualities in (5) occurred during this interval.

Summary occurs where the text segments go from the specific to the general, as in (6).

6. a. Al climbed the monkey bars.

   b. Bob swung on the swings.

   c. Carl balanced himself on the see-saw.

   d. The boys played hard at recess.

(6d) is a *Summary* of (6a), (6b), and (6c). Here the text goes from the specific to the general. Moreover, the first three eventualities of (6) occurred during the time interval "recess."

Fig. 4 depicts *Introductory Encapsulation* and *Summary*.

A biblical text exhibiting *Elaboration* is Genesis 37:5–8.

וַיַּחֲלֹם יוֹסֵף חֲלוֹם וַיַּגֵּד לְאֶחָיו וַיּוֹסִפוּ עוֹד שְׂנֹא אֹתוֹ׃
⁶וַיֹּאמֶר אֲלֵיהֶם שִׁמְעוּ־נָא הַחֲלוֹם הַזֶּה אֲשֶׁר חָלָמְתִּי׃
⁷וְהִנֵּה אֲנַחְנוּ מְאַלְּמִים אֲלֻמִּים בְּתוֹךְ הַשָּׂדֶה וְהִנֵּה קָמָה אֲלֻמָּתִי וְגַם־נִצָּבָה וְהִנֵּה תְסֻבֶּינָה אֲלֻמֹּתֵיכֶם וַתִּשְׁתַּחֲוֶיןָ לַאֲלֻמָּתִי׃ ⁸וַיֹּאמְרוּ לוֹ אֶחָיו הֲמָלֹךְ תִּמְלֹךְ עָלֵינוּ אִם־מָשׁוֹל תִּמְשֹׁל בָּנוּ וַיּוֹסִפוּ עוֹד שְׂנֹא אֹתוֹ עַל־חֲלֹמֹתָיו וְעַל־דְּבָרָיו׃

Joseph ᵃ**dreamed** a dream. He ᵇ**told** [it] to his brothers. They ᶜ**hated** him even more. He ᵈ**said** to them, "Please listen to this dream, which I have dreamed. [[Joseph describes his dream; their reaction]]; They ᵉ**hated** him even more because of his dreams and because of his words.

Verse five describes the entire interaction between Joseph and his brothers regarding this dream: **(a)** he dreamt, **(b)** he told them his dream, **(c)** they reacted. This verse then is an *Introductory Encapsulation.* Then verses six and seven retrace **(b)** and **(c)**, furnishing particulars: Joseph describing the contents of his dream, which evoked his brothers' furious reaction: "Shall you indeed reign over us?; you shall NEVER even RULE over us!"⁵⁹ **(e)**, a repetition (*Restatement*) of **(c)** follows, with additional explanatory words, making it a summary statement of the whole.

The last **coherence relation** to be overviewed here is *Contrast.*⁶⁰

Contrast combines *Serialation* or *Result* with *violation of expectation* or *denial of preventer.*⁶¹ Time again does not advance, as illustrated in (7):

7. a. Bob and Carl went to recess as usual.

   b. Al wanted to go with them, but had to stay in the classroom for misbehavior.

with Bob and Carl at recess *while* Al was not.

The book of Esther furnishes salient examples of both *violation of expectation* and *denial of preventer*: Haman expected to impale Mordecai, but did not;
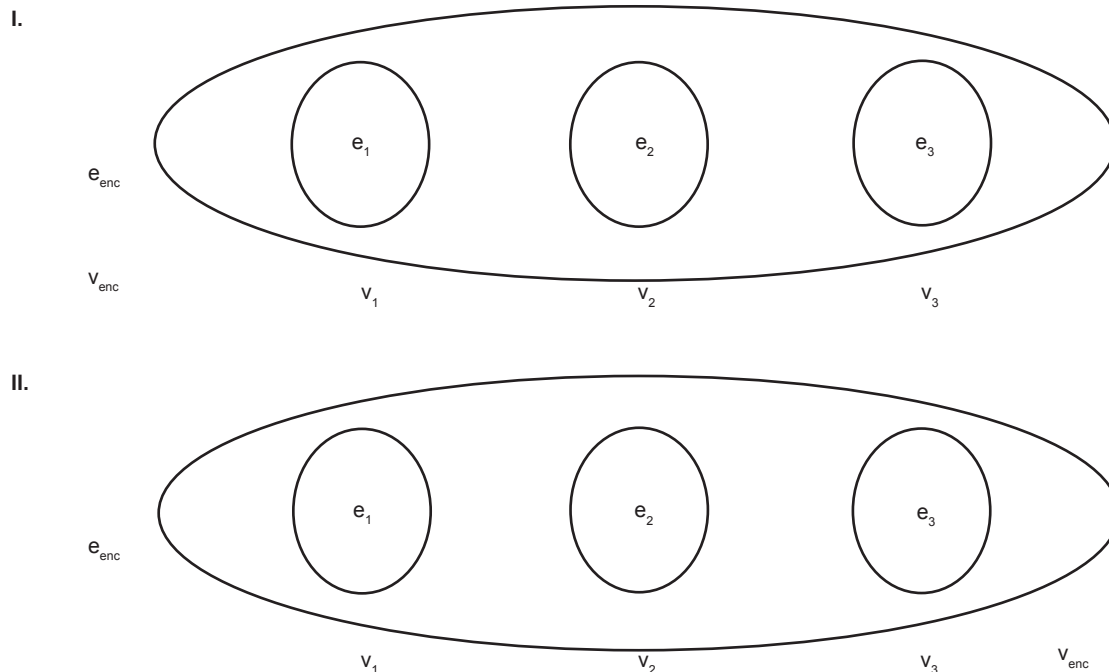
I.

II.

Fig. 4. *Elaboration* types contrasted. e_{enc} is the encapsulating event. I. *Introductory Encapsulation.* The encapsulating verb precedes the encapsulated verbs, as in (5) above, with 1, 2, and 3 as (5b), (5c), and (5d), respectively. II. *Summary.* The encapsulating verb, v_{enc}, follows the encapsulated verbs, as in (6) above, with 1, 2, and 3 as (6a), (6b), and (6c), respectively.

⁵⁹ Usually translated "Shall you indeed reign over us or rule over us?" But understanding the BH construction as an incredulous question followed by an emphatic negative oath better represents the narrator's tenor of the brothers' fury at Joseph's insolence.
⁶⁰ Discussed in Boyd (2014, p. 464).
⁶¹ Defined above in section 4 of the chapter body.

whereas, Haman *certainly* did *not* want to honor Mordecai, but was forced to.[62]

In summary, because the nature of narrative is to trace the main story line through time, and because *wayyiqtols* do this in BH, *wayyiqtol* sequences are frequently iconic. Furthermore, since *Serialation* and *Result* are iconic **coherence relations**, they dominate BH narrative—but not to the exclusion of the non-iconic **coherence relations**, *Elaboration* and *Contrast*.[63]

In our analysis above of Esau's actions we appealed to the concept of compatibility. Curiously the study of **coherence relations** has not been overly concerned—if at all—with it. This is probably because its importance in discerning the temporal profile of texts is obvious. Hence, we must now cursorily explore this concept. It will prove to be a most decisive factor in determining the temporal profile of a text.

5.3.4 *The temporal displacement of events: Incompatibility, the preventer of simultaneity of events*

Compatibility and *incompatibility* and the related ideas of simultaneity and non-simultaneity, our fourth element, although informally understood by most, need to be formally defined in terms of one another. **Compatibility** is associated with simultaneity, which is overlap—however small—of the time intervals over which eventualities occur. With **incompatibility** (associated with the non-simultaneity of dynamic events) there cannot be any such overlap (that is, they cannot be simultaneous).[64]

If eventualities are indeed incompatible, as in (8):
8. a. Al climbed the monkey bars.
   b. Al swung on the swings.
   c. Al balanced himself on the see-saw.

then the text could be iconic; but not necessarily so. Thus, Al did not *necessarily* go from climbing, to swinging, to teeter-tottering (the way it is reported); he could have engaged in these noble feats in any of six orders.

Though *compatible* eventualities *can* occur simultaneously, they are not *necessarily* simultaneous. As in (5), repeated as (9) for convenience,
9. a. Al climbed the monkey bars.
   b. Bob rode on the swings.
   c. Carl balanced himself on the see-saw.

This text could be iconic: Al's climbing, followed by Bob's swinging, and finished up by Carl's teeter-tottering. Or not: Bob could ride on the swings after or while Carl balanced; after or while Al climbed. Similarly with Carl's activity. Different possibilities exist because the three actions performed by three individuals are not mutually exclusive. They can occur either simultaneously or sequentially.

Even with *one* boy performing three actions, as in (10), ambiguity might remain.
10. a. Al ran.
    b. Al pumped his arms.
    c. Al whistled.

These three might represent simultaneous running and pumping and whistling (probably), or sequential running and pumping and whistling (in any order). The decisive factor is the **compatibility** of verbal actions (as here), which permits simultaneity.

But even so, **the linear character of text (word follows word) requires that even simultaneous eventualities be reported *sequentially*.**[65] As in (11), involving two boys riding a see-saw,
11. a. Bob went slowly down.
    b. Carl went slowly up

In such circumstances, textual sequentiality *does not match reality*: in those scenarios, a text *cannot be iconic*.

An unmistakable biblical example of this is Numbers 22:25.[66]

וַתֵּ֣רֶא הָאָת֡וֹן אֶת־מַלְאַ֨ךְ יְהוָ֜ה **וַתִּלָּחֵץ֙** אֶל־הַקִּ֔יר **וַתִּלְחַ֛ץ** אֶת־רֶ֥גֶל בִּלְעָ֖ם אֶל־הַקִּ֑יר **וַיֹּ֖סֶף** לְהַכֹּתָֽהּ׃

The she-ass [a]**saw** the Angel of Yhwh. She [b]**pressed** against the wall and [c]**pressed** Balaam's foot against the wall. Consequently, he [d]**struck** her again.

This verse furnishes a parade illustration of simultaneous actions constrained to be reported sequentially due to the linear character of text. **(b)** and **(c)** clearly refer to the same event. Simultaneity might be debatable elsewhere—not here. Even the roots for **(b)** and **(c)** are the same; although their stems differ: **(b)** is a *Niphal*; **(c)** is a *Qal*.[67] **(b)** denotes physical motion: to move next to something or squeeze against something—here, the wall.[68] The text looks at the same eventuality from different perspectives: hers and his. From hers, she moved as close as she possibly could to the wall to avoid the menacing Angel of Yhwh. From his, one of his

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[62] The discussions and references in Boyd (2014, p. 464; p. 490 fn. 34; p. 491, fn. 35) elucidate these concepts.

[63] In BH usually the latter is effected by fronting the referent to be emphasized and necessarily changing the verb form to a *qatal*. Notwithstanding, *wayyiqtol* can express a turn in the story as well.

[64] Discussed in Boyd (2014, pp. 526–529).

[65] Contrast the media of the visual arts (film, stone, paint, etc.), and also music, in which simultaneous eventualities can be portrayed simultaneously.

[66] Genesis 7:23 has a similar coherence relations structure.

[67] These are verbal stems, which transform the basic meaning of a Hebrew verb.

[68] The *Niphal* is a verb of motion, but not usually physical motion. Usually the subject-experiencer-referent moves from one state to another, but occasionally—as here—it can refer to physical motion. I have argued elsewhere that the *Niphal*'s attested diatheses indicates that it has medio-passive voice.

dangling feet—because he was straddling her—was between her side and the wall. And so it was crushed, pressed, pinched, scraped, etc. against the wall.

In summary, incompatibility is not a necessary and sufficient condition so as to conclude a text is iconic; nor is compatibility a necessary and sufficient condition so as to indicate that a text is non-iconic. It is up to the reader to use temporal reasoning to deduce whether or not the eventualities did indeed happen simultaneously.

So far, in all our playground trio examples, adjacent verbs are related to one another. But such is not always the case in real texts: temporal connection cannot be assumed. It must be proven by temporal reasoning. So, we add it as the fifth element of our model.

5.3.5 *The temporal connection of eventualities represented by the verbs[69]*

The temporal connection of a given verb in a chain to others, our fifth element, may be seen in (12):

12. a. The boys played hard during recess.
    b. They climbed the monkey bars.
    c. They swung on the swing set.
    d. They rode the see-saw.
    e. They trudged back to their classroom.
    f. They ran home eagerly.

Applying temporal reasoning to (12), we first note that (12b), (12c), and (12d) [indented under (12a)] elaborate on (12a), as in (5) above, and therefore, that the eventualities took place "during recess." Thus because they are associated by a non-iconic **coherence relation** we cannot simply read off the temporal profile of these eventualities from the arrangement of the VPs. Second, "they" could refer to a collective idea: a group of boys moving from one playground apparatus to another. But it could just as easily refer to a scenario such as in (5) or (6): the boys taking turns on the equipment. Third, the sentences temporally connect with one another at different levels. (12e) is not part of the elaboration of (12a). And so instead of time not moving past the end of recess, it resumes its advance at this point. So (12e) is connected to (12a) temporally, even though (12b)–(12d) come between. And by the same reasoning, we can see, fourth, that (12f) temporally and textually follows (12e). Finally, neither (12b), (12c), nor (12d) could follow (12e) and produce a coherent text—monkey bars, swings, and see-saws are not in the classroom!

An extraordinary biblical example of this is the murder of Ish-boshet (2 Samuel 4:5–7), too lengthy to be discussed here.[70]

Most often texts are temporally continuous, that is without time-gaps between events. But occasionally, gaps do occur. Thus we turn to discuss this last element of our model.

5.3.6 *The possibility of temporal discontinuities in text*

Because Genesis 2:4–3:8 does not exhibit any temporal discontinuities, this sixth element will receive only the briefest of treatments.[71] Consider the large time-swings in the following imaginary scenario, in which our three friends, as a team of successful lawyers, Alwyn, Robert and Carlton, reminisce about their boyhood days (13):

13. "'Al pushed Bob and he fell' were the exact words Carl told the teacher," Alwyn chuckled. "I can still remember how much trouble I got into because Carl tattled to the teacher." Carlton pretended to look insulted. "But Carl didn't see me slug you when I got up," Robert laughed. Carlton feigned shock, "I can't imagine you doing such a thing."

A prominent biblical example of this concerns Elijah, Obadiah, Ahab, and Jezebel (1 Kings 18:1–7).[72]

5.4 *Summary/Transition*

I have sketched the six elements which influence the flow of time in narrative. As for the first of these elements, the order of the verbs is what it is (a given); similarly the eventualities occurred in some particular order, knowable only through close analysis of the text. I consider the second element in mind at every step of my analysis, because it is not possible to understand how two verbs interact with each other unless we know the properties of the individual verbs—just as with chemicals, which we do not know how they will react with each other unless we know the properties of the chemicals. The third element is extremely important, because now we are moving through the text, stepping from verb to verb. The fourth, likewise, will continually illuminate our analysis, because incompatible eventualities cannot occur at the same time. The fifth also will be an important factor, and make our analysis unique at places. The sixth element, as stated above, does not apply to this text.

Now, at last, I shall apply the model outlined above to Genesis 2:7–3:8. By going from verb to verb, explaining all the connections between verbs, and tracing the temporal flow of the narrative in a

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[69] See Boyd (2014, pp. 529–545 for an extensive discussion.
[70] See Boyd (2014, pp. 445–607) for this and a thorough analysis of Joshua 2:1–22; Genesis 28:1–10.
[71] For a brief discussion and biblical examples of this the semantic mega-level, see Boyd (2014, pp. 545–551). Anderson (2014, pp. 639–704) extensively discusses this. Also see Stroup, (2014b, pp. 609–635) for possible reasons for dischronologizations.
[72] See Boyd (2014, pp. 445–607) for analyses of this, Hadad (1 Kings 11:14–22), and Elisha and Jehoash (2 Kings 13:13–20).

common sense way, I shall have performed a close coherent reading of the text and thereby proven that the text is coherent.[73]

6. Proving Coherency: Applying the New Approach to the Garden Narratives

I shall now apply temporal reasoning to Genesis 2:7–3:8.

6.1 The creation of the man; The planting of the Garden; The placement of man in the Garden (Genesis 2:7–15)[74]

וַיִּיצֶר֩ יְהוָ֨ה אֱלֹהִ֜ים אֶת־הָֽאָדָ֗ם עָפָר֙ מִן־הָ֣אֲדָמָ֔ה וַיִּפַּ֥ח בְּאַפָּ֖יו נִשְׁמַ֣ת חַיִּ֑ים וַֽיְהִ֥י הָֽאָדָ֖ם לְנֶ֥פֶשׁ חַיָּֽה:8 וַיִּטַּ֞ע יְהוָ֧ה אֱלֹהִ֛ים גַּן־בְעֵ֖דֶן מִקֶּ֑דֶם וַיָּ֣שֶׂם שָׁ֔ם אֶת־הָֽאָדָ֖ם אֲשֶׁ֥ר יָצָֽר: 9 וַיַּצְמַ֞ח יְהוָ֤ה אֱלֹהִים֙ מִן־הָ֣אֲדָמָ֔ה כָּל־עֵ֛ץ נֶחְמָ֥ד לְמַרְאֶ֖ה וְט֣וֹב לְמַאֲכָ֑ל וְעֵ֤ץ הַֽחַיִּים֙ בְּת֣וֹךְ הַגָּ֔ן וְעֵ֕ץ הַדַּ֖עַת ט֥וֹב וָרָֽע: 10 וְנָהָר֙ יֹצֵ֣א מֵעֵ֔דֶן לְהַשְׁק֖וֹת אֶת־הַגָּ֑ן וּמִשָּׁם֙ יִפָּרֵ֔ד וְהָיָ֖ה לְאַרְבָּעָ֥ה רָאשִֽׁים: 11 שֵׁ֥ם הָֽאֶחָ֖ד פִּישׁ֑וֹן ה֣וּא הַסֹּבֵ֗ב אֵ֚ת כָּל־אֶ֣רֶץ הַֽחֲוִילָ֔ה אֲשֶׁר־שָׁ֖ם הַזָּהָֽב: 12 וּֽזֲהַ֛ב הָאָ֥רֶץ הַהִ֖וא ט֑וֹב שָׁ֥ם הַבְּדֹ֖לַח וְאֶ֥בֶן הַשֹּֽׁהַם: 13 וְשֵֽׁם־הַנָּהָ֥ר הַשֵּׁנִ֖י גִּיח֑וֹן ה֣וּא הַסּוֹבֵ֔ב אֵ֖ת כָּל־אֶ֥רֶץ כּֽוּשׁ: 14 וְשֵֽׁם הַנָּהָ֤ר הַשְּׁלִישִׁי֙ חִדֶּ֔קֶל ה֥וּא הַֽהֹלֵ֖ךְ קִדְמַ֣ת אַשּׁ֑וּר וְהַנָּהָ֥ר הָֽרְבִיעִ֖י ה֥וּא פְרָֽת: 15 וַיִּקַּ֛ח יְהוָ֥ה אֱלֹהִ֖ים אֶת־הָֽאָדָ֑ם וַיַּנִּחֵ֣הוּ בְגַן־עֵ֔דֶן לְעָבְדָ֖הּ וּלְשָׁמְרָֽהּ:

YHWH God [i]**formed** the man out of dust from the ground. He [j]**blew** into his nostrils living breath. He [k]**became** a living being. YHWH God [l]**planted** a garden in Eden in the east. He [m]**placed** there the man that He had formed. YHWH God [n]**caused to sprout** from the ground every tree praiseworthy in appearance and good for food [[about the tree of life and the knowledge of good and evil and the rivers of Eden]]. [2:15] YHWH God [o]**took** the man and [p]**caused him to rest** in the Garden of Eden to work it and keep it.

The relation between "formed" **(i)** and "blew" **(j)** is clearly *Serialation*. YHWH's action in **(i)** did not cause Him to do **(j)**, but provided the occasion for it. On the other hand YHWH's action in **(j)** *caused* "became" **(k)**.

The relationship of "planted" **(l)** to "formed" **(i)** through "became" **(k)** is not immediately obvious. But after we consider the garden's role in the larger narrative, we recognize the garden has no purpose or reason for existence apart from YHWH's purposes for man. YHWH made the trees praiseworthy for *man's* appreciation. He made them edible to provide *his* food.[75] Moreover, both of these will be crucial to his temptation and Fall. Thus, the **coherence relation** in question is *Serialation*. Why this and not *Result*? Clearly, making man live did not *cause* YHWH to plant the garden. He could have done otherwise. But

planting the garden did furnish the circumstances for YHWH to carry out His plan and purposes.

Now let us consider "planted" **(l)** and "placed" **(m)**. Certainly, YHWH's planting of the garden did not *cause* Him to place man there. But it is equally certain that YHWH could not place man in a garden that did not exist. The planting of the garden brought it into a state of existence (an *achievement*), which allowed Him to place man there. Hence, **(l)** and **(m)** are related by *Serialation*. But, which came first: the garden or the man? If we assume that the *wayyiqtol* sequence matches the eventuality sequence, we will say that man was created first. But if so, where did YHWH place man when He created him? To be sure there could have been an intermediate place, but it is more reasonable that YHWH created the garden first. Why then is the creation of man reported first? It was to show his *preeminence* in the created order. He was first over all created things.

With "caused to sprout" **(n)** we encounter two issues: *where* it is connected besides the usual *how*. At first glance it appears not connected to "placed" **(m)** but rather to "planted" **(l)**. The report of man's placement seems to interrupt the logical flow from the planting of the garden to causing trees to grow. But the larger narrative will prove that this conclusion is too hastily drawn. What matter the trees, their appearance, their consumability, and the identification of the two special trees if man were not there? Furthermore, the literary device of interchange (man|garden|man|garden|man) invites us to compare or contrast the two. Looked at from these perspectives "caused to sprout" **(n)** is connected to "placed" **(m),** but this does not negate that, as observed, it is also connected to "planted" **(l)**. How is it connected? According to the argument above the **coherence relation** between **(m)** and **(n)** is more than just *Serialation*. YHWH's placing man in the garden is the *reason* He caused the trees to grow, and so forth. And what **coherence relation** links **(l)** and **(n)**? (Delayed) *Elaboration*.

Narrative verb forms (*wayyiqtols*) "took" **(o)** and "caused him to rest" **(p)** come after five verses in which there are no *wayyiqtols*. In those verses, the clauses do not begin with verbs (disjunctive construction), and thus give us background or parenthetic information— in this case, describing the rivers of the garden. **(o)** and **(p)** together essentially repeat "placed" **(m)**. But not quite, because **(o)** plus **(p)** has three significant changes.[76]

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[73] We founded our analysis of these elements upon a number of assumptions regarding time. Boyd (2014, pp. 445–607) continues from this point to examine concepts of time, and develop a mathematical model of it.

[74] See Boyd (2014, pp. 464) for a slightly fuller treatment.

[75] Incidentally, this is opposite the A(ncient) N(ear) E(astern) mythological concept that man was created to feed and care for the gods, or do the gods' work for them.

[76] See Boyd (2014, pp. 445–607) for a fuller treatment of their theological significances.

The first change is an addition. It draws our attention because לקח (*lqḥ*) "take" or "receive" **(o)** is not needed for the restatement of "placed" **(m)**. "Caused to rest" **(p)** would have been sufficient. Then why is **(o)** here? It introduces the theme of YHWH's intimate relationship with His creature who is to reflect Him.[77]

The second is also intriguing. שׂים (*śîm*) "give" or "place" **(m)** is changed to the *Hiphil* (causative) of נוח (*nûḥ*) "rest" **(p)**. Why the change? Why is there restatement at all? *Rest* is a powerful theme in Scripture as a whole, with its most famous usages being in Christ's powerful invitation (Matthew 11:28–29) and the ten passages in Hebrews 34.

And finally, the third change establishes man's purposeful existence. The text states that man has a dual purpose for being in the garden.

Equipped with this understanding of "took" **(o)** and "caused him to rest" **(p)**, we are now positioned to discuss their **coherence relations**. As a verb freighted with the concepts of marriage and intimacy, **(o)** is connected to the manner of the Creation of man, the planting of the garden, the placing of man there, and the purposeful fructification of the garden. These are all artful, personal, intimate, and purposeful acts of the Creator toward man. At the same time the description of the garden is replete with superlatives, showing the beauty, splendor, and wonder of the place where YHWH placed man. What a gift for the one He would take. Using this insight, we realize that YHWH's planned "taking" is the *reason* for what comes before. Here the second verb is the *cause*, not the *result* of the first verb. This is the inverse of *Result*: *Cause*.

In these cases we establish the **coherence relation** by discerning the *intention* of one of the actor-participants *to achieve a certain result*. The actor-participant does what he does in *anticipation* of the particular eventuality occurring, as in *John and Jane **purchased** a crib, baby clothes, and a stroller. A month later, after Peter was born, they **brought** him home.* I call the coherence relation analogous to this domestic scenario 'anticipated result'. With *Anticipated Result*, the verb representing the eventuality anticipated *follows* the verb(s) representing the preparation for that event. Thus, "brought" follows "purchased." Also, the anticipation of the eventuality (not the eventuality itself) represented by the *second* verb is the *cause* for the eventuality represented by the first verb. The earlier "purchase" was caused by the anticipation of the later "bringing."

Returning to the biblical text, the anticipation of the "taking" caused the planting of the garden, which

in turn prepared for the "taking." The keyword here is *prepared*. So, in this sense "took" **(o)** relates to the previous as *Serialation*. The analysis of "caused him to rest" **(p)** follows naturally. Because YHWH took in the sense we have outlined above, of course He wanted to give man a place of rest. Thus this is *Result*; but since **(p)** is a restatement of "placed" **(m)**, it is also *Elaboration*.

6.2 The creation of the woman (Genesis 2:18–23)

וַיֹּאמֶר֙ יְהוָ֣ה אֱלֹהִ֔ים לֹא־ט֛וֹב הֱי֥וֹת הָֽאָדָ֖ם לְבַדּ֑וֹ אֶֽעֱשֶׂה־לּ֥וֹ עֵ֖זֶר כְּנֶגְדּֽוֹ: [19]וַיִּצֶר֩ יְהוָ֨ה אֱלֹהִ֜ים מִן־הָֽאֲדָמָ֗ה כָּל־חַיַּ֤ת הַשָּׂדֶה֙ וְאֵת֙ כָּל־ע֣וֹף הַשָּׁמַ֔יִם וַיָּבֵא֙ אֶל־הָ֣אָדָ֔ם לִרְא֖וֹת מַה־יִּקְרָא־ל֑וֹ וְכֹל֩ אֲשֶׁ֨ר יִקְרָא־ל֧וֹ הָֽאָדָ֛ם נֶ֥פֶשׁ חַיָּ֖ה ה֥וּא שְׁמֽוֹ: [20]וַיִּקְרָ֨א הָֽאָדָ֜ם שֵׁמ֗וֹת לְכָל־הַבְּהֵמָה֙ וּלְע֣וֹף הַשָּׁמַ֔יִם וּלְכֹ֖ל חַיַּ֣ת הַשָּׂדֶ֑ה וּלְאָדָ֕ם לֹֽא־מָצָ֥א עֵ֖זֶר כְּנֶגְדּֽוֹ: [21]וַיַּפֵּל֩ יְהוָ֨ה אֱלֹהִ֧ים| תַּרְדֵּמָ֛ה עַל־הָאָדָ֖ם וַיִּישָׁ֑ן וַיִּקַּ֗ח אַחַת֙ מִצַּלְעֹתָ֔יו וַיִּסְגֹּ֥ר בָּשָׂ֖ר תַּחְתֶּֽנָּה: [22]וַיִּ֩בֶן֩ יְהוָ֨ה אֱלֹהִ֧ים| אֶֽת־הַצֵּלָ֛ע אֲשֶׁר־לָקַ֥ח מִן־הָֽאָדָ֖ם לְאִשָּׁ֑ה וַיְבִאֶ֖הָ אֶל־הָֽאָדָֽם: [23]וַיֹּאמֶר֘ הָֽאָדָם֒ זֹ֣את הַפַּ֗עַם עֶ֚צֶם מֵֽעֲצָמַ֔י וּבָשָׂ֖ר מִבְּשָׂרִ֑י לְזֹאת֙ יִקָּרֵ֣א אִשָּׁ֔ה כִּ֥י מֵאִ֖ישׁ לֻֽקֳחָה־זֹּֽאת:

YHWH God ^q**said**, "The man being alone is not good. I will make for him a helper corresponding to him." YHWH God ^r**formed** from the ground all the animals of the field and all the flying creatures of the sky. He ^s**brought** [each] to the man to see what he would name it [[These would be their names]]. The man ^t**called out** names [[for all the animals and birds]]. But as for Adam, he did not ^u**find** a helper corresponding to himself. YHWH God **caused to** ^v**fall** on the man a deep slumber. He ^w**slept.** He ^x**took** one of his ribs. He ^y**closed up** the flesh in its place. YHWH God ^z**built** the rib that He had taken into a woman. He ^aa**brought** her to the man. The man ^ab**said** "[[his poetic rejoicing over her and naming of her]]."

"Said" **(q)** introduces the internal speech of YHWH, His thoughts. We can tell that He is not talking to the man, because He is talking about the man. The subsequent speech in a sense continues a larger speech. It begins with YHWH's commands and prohibitions to the man whom He has taken and caused to rest in the garden to accomplish specific tasks. This is His first speech to man. By nature, the prohibition, "…but from the tree of the knowledge of good and evil, you must not eat from it…," contains a negative particle, as does the silent continuation of the speech: "… is not good." This quality of continuation unaffected by causation suggests that we are looking at *Serialation*. But is this all? And is this even right? Let us consider again the relationship of "said" **(q)** with the previous verses from the perspective of the content of the internal speech: the problem is that the man being alone is not good; the

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[77] Occurring 976 times in BH (BibleWorks 7.0), the root is usually considered rather ordinary. But not here (its first occurrence).

solution is the making of a helper corresponding to him. This prompts two related questions: why is man being alone not good? And how does the presence of a helper address this? The conventional approach to answering these questions is to see Yhwh's evaluation in Genesis 2:18 as the beginning of a new section on the inauguration of marriage. This analysis, although *possible*, breaks the semantic link to the pronouncement of the previous verse. Thereby, it potentially introduces incoherence. I am persuaded that a better approach—the key to answering these questions—is to connect Yhwh's evaluation of the man's circumstances with the man's responsibilities (2:15) and the dire consequences of violating the prohibitions (2:18). The helper then is not to be just a general helper for the man but more: a helper in *those specific areas the text indicates he will need help*. Viewed from this angle, it is clear we are looking at *Result* here.

At this point, we expect Yhwh to make the helper immediately, because of the urgency of the circumstances. But, literarily, He does not. And, historically, He did not. Why not? In **coherence relations** terms, we expect the relation between "said" **(q)** and "formed" **(r)** to be *Result*, but, it is not—a *violation of expectation*. Instead Yhwh tasks the man with naming the land animals and birds **(t)**. Why this? How is this connected with providing the man a helper for the purposes outlined above? More so than with straightforward *Result* and *Cause*, *violation of expectation* and *denial of preventer* stop us in our tracks. We cannot go on until the why-and-how questions are answered. (As we stop to answer these questions, we notice that the attack alleging that the order of Creation here contradicts that of Genesis 1 is due to misunderstanding this very *violation of expectation*.)

In 1:20–25 the creation of the animals is unconnected to the Creation of man, as if they were created for independent purposes. But not so here.[78] In this chapter, in which man is at the *center*—as opposed to chapter one, in which Creation of man, male and female, is the *climax* of Creation—the order makes it clear Yhwh created the animals for man to rule over and dominate. His naming of them **(t)** is his first act of asserting his authority over them as king of the earth.

Unfortunately, this new understanding—that the woman was created to help man not to violate the prohibition—does not help us answer the questions posed above. What *does* is to recognize that although from a linguistic perspective the creation **(r)** and subsequent naming of the animals **(t)** is a *violation of expectation*, from a theological perspective it is not.

Rather, it is an essential part of Yhwh preparing man to receive his helper. Why so? First, he needs to be confirmed as king of the earth, with the animals as his subjects, because his helper will rule with him as queen, yet be under his authority. Second, Yhwh created man to be an independent free agent. He wanted man to draw his own conclusions and make his own decisions. He did not want to make his decisions for him. So, rather than Yhwh telling man he needed a helper, He took him through a process **(r)**—**(t)**, to convince him he needed one. The narrator says, "But as for Adam, he did not find **(u)** [obviously, among the animals] a helper corresponding to himself." Moreover, Adam's reaction to seeing her, "This one, at last, bone from my bones and flesh from my flesh…," **(ab)** implies he was looking for one corresponding to himself.

The **coherence relations** for the next seven verbs are quite straightforward. Because Adam did not find a helper corresponding to himself **(u)**, Yhwh began the process of providing the helper. In the narrative, Yhwh actually provides the helper in **(aa)** "brought her." Verbs "caused to fall" **(v)** through "built" **(z)** prepare for this presentation. All along Yhwh's ultimate goal was to present the helper to the man. All of Yhwh's previous acts after His speech declaring that He was going to make a helper corresponding to him (2:18), therefore, were required to accomplish this goal. Thus, the **coherence relation** connecting "brought her **(aa)** to "caused to fall" **(v)** through "built" **(z)** is an *Anticipated Result*.

Putting the man into a deep sleep was the first step in this preparation, making the **coherence relation** between **(v)** and the previous verbs *Result*. The next relation is also obvious: **(w)** "slept" following **(v)** "Yhwh God caused a deep sleep to fall" is *Result*. Once Adam was asleep, Yhwh could operate. Thus, **(w)** provides the occasion, but not the cause, for "took" **(x)**. Clearly, this is *Serialation*. The next **coherence relation** is *Result*, because the surgery necessitated closing the flesh afterwards **(y)**. "Yhwh God built a woman"**(z)** is connected to taking the rib **(x)** (not to closing up the flesh **[y]**) by *Serialation*. "Took" **(x)** provides circumstances, not cause. The next to last (penultimate) **coherence relation** pertains to **(aa)** "brought her to the man", which was Yhwh's ultimate *purpose*, as if He were saying, "Adam, here is the helper you need. I made her for you." Finally, there is Adam's *reaction* in **(ab)** "said," a spontaneous eruption of joy, which is a striking example of *Result*.

6.3 The Fall and its aftermath (Genesis 3:1–8)

וְהַנָּחָשׁ הָיָה עָרוּם מִכֹּל חַיַּת הַשָּׂדֶה אֲשֶׁר עָשָׂה יְהוָה
אֱלֹהִים וַיֹּאמֶר אֶל־הָאִשָּׁה אַף כִּי־אָמַר אֱלֹהִים לֹא

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[78] The connections are lexical (the words for "form" are found in both 2:7 and 2:19; and the words for "man" and "ground" come from the same Hebrew root) and morphological (the *wayyiqtols* of the root for "form" are atypical in both cases).

תֹּאכְל֖וּ מִכֹּ֥ל עֵ֥ץ הַגָּֽן׃ [2]**וַתֹּ֥אמֶר** הָֽאִשָּׁ֖ה אֶל־הַנָּחָ֑שׁ מִפְּרִ֥י
עֵץ־הַגָּ֖ן נֹאכֵֽל׃ [3]וּמִפְּרִ֣י הָעֵץ֮ אֲשֶׁ֣ר בְּתוֹךְ־הַגָּן֒ אָמַ֣ר אֱלֹהִ֗ים
לֹ֤א תֹֽאכְלוּ֙ מִמֶּ֔נּוּ וְלֹ֥א תִגְּע֖וּ בּ֑וֹ פֶּן־תְּמֻתֽוּן׃ [4]**וַיֹּ֥אמֶר הַנָּחָ֖שׁ**
אֶל־הָֽאִשָּׁ֑ה לֹֽא־מ֖וֹת תְּמֻתֽוּן׃ [5]כִּ֚י יֹדֵ֣עַ אֱלֹהִ֔ים כִּ֗י בְּיוֹם֙
אֲכָלְכֶ֣ם מִמֶּ֔נּוּ וְנִפְקְח֖וּ עֵֽינֵיכֶ֑ם וִהְיִיתֶם֙ כֵּֽאלֹהִ֔ים יֹדְעֵ֖י ט֥וֹב
וָרָֽע׃ [6]**וַתֵּ֣רֶא** הָֽאִשָּׁ֡ה כִּ֣י טוֹב֩ הָעֵ֨ץ לְמַאֲכָ֜ל וְכִ֧י תַֽאֲוָה־ה֣וּא
לָעֵינַ֗יִם וְנֶחְמָ֤ד הָעֵץ֙ לְהַשְׂכִּ֔יל **וַתִּקַּ֥ח מִפִּרְי֖וֹ** וַתֹּאכַ֑ל וַתִּתֵּ֧ן
גַּם־לְאִישָׁ֛הּ עִמָּ֖הּ **וַיֹּאכַֽל׃** [7]**וַתִּפָּקַ֙חְנָה֙** עֵינֵ֣י שְׁנֵיהֶ֔ם **וַיֵּ֣דְע֔וּ**
כִּ֥י עֵֽירֻמִּ֖ם הֵ֑ם **וַֽיִּתְפְּרוּ֙** עֲלֵ֣ה תְאֵנָ֔ה **וַיַּעֲשׂ֥וּ** לָהֶ֖ם חֲגֹרֹֽת׃
[8]**וַֽיִּשְׁמְע֞וּ** אֶת־ק֨וֹל יְהוָ֧ה אֱלֹהִ֛ים מִתְהַלֵּ֥ךְ בַּגָּ֖ן לְר֣וּחַ הַיּ֑וֹם
וַיִּתְחַבֵּ֨א הָֽאָדָ֜ם וְאִשְׁתּ֗וֹ מִפְּנֵי֙ יְהוָ֣ה אֱלֹהִ֔ים בְּת֖וֹךְ עֵ֥ץ הַגָּֽן׃

Now the serpent was shrewder than any wild animal which Yhwh God had made. He [ac]**said** to the woman, "Did God really say, 'You shall not eat from any tree of the garden'?" The woman [ad]**said** to the serpent, "From the fruit of the trees of the garden we may eat. But from the fruit of the tree which is in the middle of the garden, God said, 'You shall not eat from it, nor touch it, lest you die'." The serpent [ae]**said** to the woman, "You will not certainly die, because God knows that when you eat from it, your eyes will open and you will be as God/gods, knowers of good and evil." The woman [af]**saw** that the tree was good for food, and that it was desirable to the eyes, and praiseworthy for prudence leading to success. She [ag]**took** from its fruit. She [ah]**ate**. She [ai]**gave** also to her husband with her. He [aj]**ate**. The eyes of the two of them [ak]**opened**. They [al]**knew** that they were naked. They [am]**sewed** fig leaves. They [an]**made** wraps for themselves. They [ao]**heard** the sound of Yhwh God walking in the garden in the wind of the storm.[79] The man and his wife [ap]**frantically hid** from Yhwh God amongst the trees of the garden.

This text comprises fourteen narrative verb forms (*wayyiqtols*), relating the tragic account of what Milton called *Paradise Lost*. The first three are from אמר (*'mr*), "say," introducing three speeches: the serpent's question to the woman **(ac)**; followed by her answer **(ad)**; and finally the serpent's response **(ae)**. The remaining eleven represent actions, culminating with the man's defiant act in eating from the forbidden tree "he ate" **(aj)** and its aftermath.

This text provokes many questions—only some of which admit answers. Why did the serpent address the woman rather than the man? Why did she offer the fruit to her husband after she had disobeyed? And, tragically, why did he eat? Why did the man

permit the interaction to continue, when he heard the woman give arguably erroneous answers? Why were her answers incorrect at all? Why did the man not stop her from taking and eating the fruit? *Et cetera.*

I employ the first three of these questions to study the flow of time in this text (and vice versa). By approaching the woman and manipulating her so that not only did she disobey Yhwh but also provided the opportunity for her husband to do so, the serpent had inverted the hierarchy Yhwh had designed. His created order was Himself–man–woman–animals. The serpent perverted this to animal–woman–man–God. And most diabolically, he turned the one whom Yhwh had created to help man *not* to sin into the one who helped him *to* sin—seemingly, a momentary, devilish victory.

Man's disobedience to Yhwh's prohibition is traced by a seven-verb chain, which begins with "(the woman) said" **(ad)** and terminates in "he ate" **(aj)**. The first six, taken as pairs ("she said" **[ad]** with "(the serpent) said" **[ae]**, **[ae]** with "she saw that" **[af]**, etc.), all seem to be related by either *Serialation* or *Result*. But **(aj)** is not related to the previous six by mere *Result*. In the largest sense the serpent's nefarious purpose to have the man disobey **(aj)** is an *Anticipated Result*, which *caused* him to approach the woman in the first place.

We begin with the three speeches. The nature of dialogue is that speakers (interlocutors) respond to each other in sequence; thereby, producing an interchange structure. But whether the speech-response is *Serialation* or *Result* depends upon the *content* of each speech. If the listener feels compelled to respond, its content is the *cause* of that response. This is *Result*. If, however, the listener does not feel compelled, but still chooses to answer (implying he could do otherwise), the speaker merely creates the circumstances to which the listener responds. This is *Serialation*.

The response is not always another speech. It could be unaccompanied silence, action (as in "she saw that" **[af]** through "she gave" **[ai]**), or something unrelated. Our concern here is the nature of the woman's responding actions **(af)**–**(ai)**. Were these caused or chosen? The answer to this question determines culpability. If caused/forced, then culpability is questionable. If chosen, guilt is established. Thus, here *Result* or *Serialation* is crucial!

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[79] Usually rendered as something like "cool of the day." רֽוּחַ הַיּוֹם only occurs in this text. M. Tsevat in a classroom setting at Hebrew Union College–Jewish Institute of Religion compellingly argued that the literal translation, "wind of the day"—whatever that might mean—does not seem to fit the context of Yhwh coming in judgment, which immediately commenced after He confronted the sinful pair. Tsevat proposed that יוֹם (*yôm*) is not יוֹם **I**, "day," but a homonym, יוֹם **II**, supported by another Akkadian cognate *ūm(u)*, meaning "storm." My argument in favor: 1) it is a lexical possibility. There are three homonyms in Akkadian: *ūm(u)* **A**, "day"; *ūm(u)* **B**, "storm," and *ūm(u)* **C**, "mythical lion" (*Akkadisches Handwörterbuch* [*AHw*], s.v. "*ūm(u)*"). *AHw* lists texts in which *ūm(u)* **B** is connected with the gods. 2) the phonological correspondence is correct. That *ūm(u)* **A** and יוֹם **I** are cognates suggests that *ūm(u)* **B** could appear as יוֹם **II**. 3) it better fits the context. The man and woman's reaction—to hide—is one of panic, which fits better with a terrifying theophany of Yhwh coming to judge than that He is just out for a pleasant stroll when the breeze is cooling off the day. 4) The justification for understanding the word for "wind" as "cool," hinting of the weather patterns in the eastern Mediterranean, is anachronistic and geographically misplaced.

We have already considered the first speech, recognizing that it was designed to achieve the man's disobedience. We may reason too, that it would have been a vital part of the serpent's scheme not to *force* the man to disobey so that he had no choice but to eat. Rather, his disobedience must be a free choice. Anything else would jeopardize the plan.

The serpent most skillfully worked toward his desired end. He deceived the woman. He provoked her to answer. He lied to her. He told her half-truths. She believed him rather than Yhwh. She ate. She gave. He now had the man where he wanted him: caught between choosing Yhwh or choosing his wife. But the Evil One could go no further. He had to wait for man to choose. Not knowing the future he had to wait and see if his plan had worked….All creation held its breath….He ate….All creation groaned and continues to….Everything changed….Death began its reign….And Yhwh initiated His plan for restoration.

In light of this discussion the **coherence relations** are clear. Since the serpent's question **(ac)** was outrageously false, it *caused* the woman to respond **(ad)**. This is *Result*. Obviously, her response did not cause his dissembling **(ae)**. Rather, his initial question **(ac)** and his response **(ae)** were *caused* by the *Anticipated Result* of the Fall of man **(aj)** "he ate." The woman's reaction to the serpent's response is interesting, when we consider the three things she realized. Only the last of these "that [the fruit] was praised for making one successful," echoed the serpent's words. The first two things she realized derived from her own observations. But she would not have been thinking along these lines at all had the serpent not launched his verbal attack on her. Although, he did not compel her to think this way (*Result*), his deception, nevertheless, is responsible for producing in her a mindset (a mental circumstance as it were) inclined to questioning, distrust, and disobedience. Hence, I think that this is *Serialation*. Next, consider her taking and eating. The mindset conveyed in "she saw that" **(af)** *caused* her to take **(ag)** so that she could eat **(ah)**. This ensemble of eventualities therefore is another example of *Anticipated Result*. But her next action, "she gave to her husband who was with her" **(ai)** is most perplexing. Why did she do this?

Setting aside the real possibility that this was an irrational act—it certainly was wicked and cruel—and assuming that she had a motive, what might it have been? I submit two. The first of these could have come from her analysis of what had *not* happened after she had eaten of the fruit of the forbidden tree. She had not died. Thinking that nothing had happened to her when she ate, she might have reasoned that since the tempter's words, "You shall not certainly die," seemed true, the rest of what he had intimated was seemingly true also, namely, that God was holding them back from equality with Him. And that having eaten, she was now as God, according to what the serpent had said. Perhaps she wanted this for her husband. The second possibility was that when nothing happened, she remembered the serpent had said, "… when you [masculine plural] eat…." That is, the transformation would not occur until *both* ate. She had to get her husband to eat in order for her to become as God. Both of these are examples of *Anticipated Result* of the "eye opening" **(ak)** that the serpent had assured them would come.

Now we come to the terrible words, "he ate" **(aj)**. Only *Serialation* connects them to "she gave" **(ai)**: her giving did not *compel* his eating; rather, it provided the opportunity. Why did he eat? In short, he chose her over God.

The aftermath of the Fall, leading up to Yhwh's confrontation of the man, comprises six verb phrases. *Result* links **(ak)** "the eyes of the two of the them opened," with "she saw that" **(af)** through "he ate" **(aj)**, because their eyes would not have opened had the man not eaten. It is not just *Serialation*, because the man's eating *caused* the change.

The **coherence relation** for "they knew that they were naked" **(al)**, is not as straightforward, because we must first determine what the middle-passive stem (*Niphal*) of פקח (*pqḥ*) "(eyes) opened" **(ak)** means. An overview of this root's usage reveals that **(ak)** means that the pair entered into a state with the potential of a certain type of sightedness, which they had not entered before.[80]

This sightedness was not physical. Before the Fall, they would have seen that they were naked compared to land animals and birds: one covered with fur; the other, plumage. They might have wondered why, but it did not affect them: they had no shame.

What the text says is they *knew* they were naked, which it does not say previously. Moreover, 2:25 does not say that they could not *see* that they were naked— they certainly could. And although it does not say that they did not *know* that they were naked, did they? No comment is made about whether they knew or not, before the Fall. Their nakedness is mentioned as fact. But after the Fall suspicion and fear tainted knowledge, as seen later in the text. We infer from this and the meaning of פקח that knowledge of their nakedness is something they had not had before— suggesting that this admittedly difficult text exhibits *Result*.

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[80] This brief survey appears in Boyd (2014, p. 464) in the discussion there on the Fall of man.

Notice, furthermore, that the text does *not* say that they were ashamed of themselves or each other because of this new knowledge present after the Fall. But the text plainly states that before the Fall they were *not* ashamed of their nakedness. Is it logically sound to infer—as many do—that after man ate, they *were* ashamed? In what sense? Certainly, the Fall happened and nakedness as a reality, which produced no shame, was replaced by knowledge of nakedness, which produced a focused effort to cover themselves. It is often reasoned that their shame for themselves and of each other moved them to cover themselves. But the text does *not* say this. What other reason would they have had for wanting to cover themselves? The answer is in the text. Although it is *possible* their shame at their nakedness motivated them, the text indicates otherwise. Whom did they think would see their nakedness? The animals? Possibly. Each other? Shame between a husband and wife? Or was it YHWH? I submit that it was He: they were terrified of the inevitable confrontation with their Creator, He whom they had flagrantly defied.

Consider their effort in preparing for this dreaded meeting. "They sewed fig leaves" **(am)** implies they made something like needle and thread, which they had to manufacture from scratch. They sewed the fig leaves into a type of fig leaf fabric, which could then be made into clothing **(an)** which would cover their nakedness.

What are the ***coherence relations*** revolving around "they sewed" **(am)** and "they made (wraps)" **(an)**? It depends on how the eventuality complex is viewed. Between them is *Serialation*. The fig leaf fabric was employed to make the tunics, but did not cause them to be made. However, as a pair, their relationship to the surrounding verbs is a classic example of *Anticipated Result*. The hoped-for result was that these coverings would allow them to weather the confrontation.

I believe that the following scenario ensued after the fallen pair made their make-shift clothing. No doubt, being fallen, they felt quite pleased with themselves at their accomplishment: two sets of clothing. They had deluded themselves into thinking that they would be able to proudly stand when YHWH came. But then they heard **(ao)** the sound of YHWH God coming in the wind of the storm—and all their false bravado evaporated. When the man and his wife recognized that the confrontation was at hand, their expectation of the coverings being some kind of shield for them, was dashed by a terrifying reality: YHWH God was coming to judge them. As a result

they hid among the trees of the garden **(ap)**. The verb, being in the reflexive-iterative stem (*Hithpael*), speaks of the desperate thoroughness with which they attempted to do this.

What is the ***coherence relation*** here? It *seems* to be *Result*, because their fear when they heard YHWH coming caused them to hide. But they did not have to hide. It was their choice. Therefore *Serialation* relates "they heard" **(ao)** to "they hid" **(ap)**, in the final analysis.

6.4 *Summary*

I have performed a careful close reading of the narratives of Genesis 2–3, using temporal reasoning. Therefore, I have proven that they are perfectly coherent, without any resort to allegory, spiritualizing, or any other unwarranted hermeneutic. Moreover, they in no way contradict the creational order of Genesis 1:1–2:3.

7. Conclusion

This study has accomplished six significant milestones. 1) Statistical and literary arguments have demonstrated that Genesis 2–3 is an historical narrative. 2) The long-standing assumption that the narrative verb forms (*wayyiqtols*) indicate sequence has been overturned. Nevertheless, biblical Hebrew narrative is characterized by an abundance of *wayyiqtols*, often occurring in chains, and undeniably, in biblical Hebrew, the linear sequence of the text often matches that of the eventualities: text and time tend to march hand in hand.[81] But we have proven that the mere linking of the *wayyiqtols*, that is, their *syntactic* relationship, does not determine their *temporal* relationship. 3) The accusation that the order of Creation in Genesis 2 contradicts that of Genesis 1 has thereby been answered. 4) Since sequential *wayyiqtols* do not *necessarily* represent temporally sequential events, temporal sequence must be determined semantically in each transition from verb to verb. 5) A model by which this can be done has been overviewed, showing how to apply temporal reasoning to biblical passages. 6) A close coherent reading of Genesis 2:7–3:8, employing temporal reasoning, has been performed; thus, repulsing the grave charge of incoherency.

By temporal reasoning we have now shown that neither contradiction nor incoherencies exist in Genesis 2:7–3:8. A fair mind would yield this point, that *these* particular objections to historicity,

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[81] Ricoeur—as usual—has a pithy comment to the point: "My first working hypothesis is that ***narrativity and temporality are closely related***—as closely as, in Wittgenstein's terms, a language game and a form of life. Indeed, ***I take temporality to be that structure of existence that reaches language in narrativity and narrativity to be the language structure that has temporality as its ultimate referent. Their relationship is therefore reciprocal***." (Ricoeur 1980, p. 169; emphasis mine). For references and additional discussion, see Boyd (2014, p. 466, fn. 22).

incoherence and contradiction, have been overruled. In sum, we have stopped two assaults against the historicity of Genesis 2:7–3:8 and successfully counterattacked.

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