

Viewpoint: Create and Make

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Some strict six-day creationists may have overreacted. Old-Earth creationists (OECs) try to leverage the distinction between “create” and “make” into an argument for an old planet. The real error of such OECs is not their exegesis but their insistence that “making” requires a long time, involving natural processes as we know them today. But God’s entire workweek of Genesis 1 was miraculous. It no doubt involved both instantaneous creations and supernaturally fast makings, all within six ordinary days. In my opinion, the text teaches ordinary days *and* the distinction between “make” and “create”.

Introduction

Some strict six-day creationists claim that “create” and “make” are interchangeable in some key verses where I believe they are not. This seems to me to be an overreaction to OECs: “They [OECs] sometimes try to defend the acceptance of millions of years by saying that *bara* refers to [instant] supernatural creation *ex nihilo* (Latin for “out of nothing”) but that *asah* means to make [over ages] out of pre-existing material.”¹

Just because OECs reach wrong conclusions does not mean that each of their exegetical steps is wrong. If we overreact by claiming that one of their correct steps is wrong, then we are the ones in the wrong on that particular issue. Being wrong on even one point damages our cause. It gives them an unnecessary, easy target, to say: “Here’s an example of where strict creationists err exegetically. Hence, their six-day conclusion is wrong.”

The two words *do* have overlapping semantic ranges but also some differences, as any Hebrew lexicon will show. Thus, the words *can be interchanged in some contexts*, but not in others. It is critical to know which is which.

In the spirit of trying to be sure we are as close as possible to what the text actually says, I offer this article. It explains why I think Genesis 1 does, in fact, use the distinctions in the words to make some *key points* (Thesis D – Distinction). We miss these points when we see the two words as interchangeable there (Thesis I – Interchangeable). I believe those key points are intended by the narrator, just as much as six ordinary days.

Distortions. OECs accept God as Creator, but in effect want to *remake* Him as Maker. They distort Genesis 1 by rewriting the bulk of the story! They *reorder* His makings to fit the imagined evolutionary sequence, and *elongate* them to fit uniformitarian ideas. Both are contrary to the gist of the story. ***Thus, proper understanding of the creating and making is vital to the debate.*** And the “creation account” should be called the “creating and making account” (CMA) to make that point.

The key distinction that I see is found in a joke – briefly: A scientist boasts to God that He is no longer necessary, for science can now make life. God says, “Show me.” The scientist scoops up some dirt to put in his test tube. “No, no, no”, says God, “Create you own dirt!”

If, in Genesis 1 and allusions to it, the verbs *are* meant as distinct, then we too distort the story if we equate them there. We erase the distinction between (a) instant creation from nothing and (b) process verbs implying durations. In context, those processes are miraculously fast but not instant – not even close.

Which is it? Are *bara* and *asah* synonymous in key verses in Genesis 1, or not? Does the fullness of the story depend on an intended distinction between the words? Or does it use them interchangeably, for variety of expression?

What about later allusions? They simply *reflect* what is taught, so the narrator’s intent is critical. If Thesis D is true, then the allusions also have more robust meanings than under Thesis I.

Other later verses that do not allude to the CMA may use the verbs in other ways, including synonymously. Our concern here is not those other uses, but the ones in Genesis 1 and allusions to it.

So which thesis is correct, and how do we judge them?²

Thesis I: Does Parallel Mean Synonymous?

Parallels. Is. 41:20 is often used to support Thesis I³, "...the LORD has done [*made*] this ... has created it." But consider other parallels in the preceding verses:⁴

10 I am with you ... I am your God

11 will be shamed and dishonored ... will be as nothing and non-existent

12 Those who quarrel with you ... Those who war with you

14 Fear not, you worm Jacob, You men of Israel

19 I will put the cedar in the wilderness ... I will place the juniper in the desert

Do these parallels imply that the underscored pairs are interchangeable? Certainly, there *is* a strong relationship between the members of each pair. However, to say they are equivalent is to miss Isaiah's intent. He is poetically giving breadth and depth to what he is saying.

These are examples of *synthetic*, not synonymous, parallels.⁵ In effect, each takes the union of two semantic ranges. There would be no point in the union of identical ranges. Similarly, in written agreements, lawyers often use a string of words that mean roughly the same thing. Why? It is to employ the nuances of all the words. Isaiah is doing the same thing here with pairs. His use of cedar and juniper even suggests more than the union: all trees.

Likewise, in v20 the point of the parallel is to include the differences between *bara* and *asah*. This supports Thesis D, not I.

Dual references. A similar mistake is to infer interchangeability because "God is said to have both 'created' and 'made'" separately a particular object.⁶ That is like saying "steer the car" and "drive the car" together mean that "steer" and "drive" are synonymous. Likewise, "in several verses they are even used together to describe the same event."⁷ That presupposes that they cannot be describing *distinct aspects* of that event: "as I cooked it, I burned it" does not imply that cook and burn are equivalent, quite the contrary.

Timing. Another error is to overlook the timing: Is. 42:5, "Who created the heavens and stretched them out" refers to two events. He first (1:1⁸) instantly created the heavens *ex nihilo*. Then later He stretched them out to make (1:7) "the expanse of the heavens": their stretched-out form. Stretching is a process that takes time (but not billions of years, for God). He both (1) *created* the heavens in an initial form, and then later (2) *made* them into an expanded form.⁹

That pattern appears repeatedly in the story, and is its overall form: God the Great Potter *created* the "clay" then *made* the "vase".¹⁰ That suggests Thesis D, justified next, with answers to objections following.

Thesis D: God as Potter

The purpose of Genesis 1 is to introduce God as Creator, Owner, Designer, Artist, Maker, Craftsman, ... Provider. It does so by telling His own broad-brush story of the real God kick-starting the physical universe in real time by creating real raw material and making it into real objects and real living creatures.

Begin. A main point of 1:1 is that God started by creating something from nothing.¹¹ What He created was a primordial version (1:2) of the *whole* universe — His "raw¹² materials". The *whole* is indicated by the *merism* "the heavens and the earth". It means everything that exists (Col. 1:16). It is also found in 2:1 and many other places.

This was all He needed from which to make the finished products and "all their hosts" (2:1). *No more material would be needed for all the making in 1:3-30.*

Even when He twice more created (1:21, 1:27), He did not create additional material. Rather, He made the bodies from then-existing dirt (2:19, 2:7). Therefore, something new and non-material *came into existence* in each case. What?

Life. 1:21 introduces "life", in the sense of Leviticus 7:11, "life is in the blood". It uses "create", even though making was implicitly included¹³ (2:19). The vital issue is that life *came into existence* for the first time. With no new material, God conceived and implemented from pre-existing material a new concept: mobile, sentient creatures with "life" in their blood.

The next day God made (1:25) or formed (2:19) the land animals. They were brought forth from the ground (1:24). "Make" is used there because the life concept had already *come into existence*. He did not need to create anything that did not already exist.

Spirit. God also implements (1:26) a newly conceived (1:27) thing: His own image in a living creature. The concept of a living creature already existed, but He created a major variation on it. Again, no new material was needed: He formed a body for “man *of* the dust of the ground, and breathed into his nostrils the breath [*spirit*] of life; and man became a living being” (2:7). A radically new thing *came into being*: a human being – a living creature with a spirit.¹⁴

Later, God “fashioned into a woman the rib that He had taken from the man” (2:22), with emphasis on her body: “bone of my bones, flesh of my flesh” (2:23). She too was *created* in God’s image (1:27). The text does not specify a creation that started with Adam and ended with Eve. It only says that God created both.

Therefore, the answer to “What?” above was twofold: life and spirit. What are the implications?

Create. Genesis 1-2 teaches three instant, *ex nihilo*, “creations”: (1:1) of material, (1:21) of non-material life, and (1:27) of non-material spirit. The latter two did not exist before but *instantly came to be* in bodies made of pre-existing materials.

In each case, *coming into existence* is the essence. By definition, *this must be instantaneous*, for something cannot come into existence gradually.¹⁵ Material or non-, it either exists or not.

This is the sense in which *bara* is used in all three verses in Genesis 1.

Make. In stark contrast, “make”, “form”, “sprout”, “fashion”, etc., are *process* verbs. They indicate that time was involved. Contrary to OECs, God was doing things supernaturally fast! However, the text nowhere hints that any step was “near instant”.¹⁶ Rather, God was modelling the idea of *six working days*, followed by a day of rest (Ex 20:11, 30:17).

That suggests that *God may have been continuously busy causing things to develop during the six days*. Likewise, He is continuously busy now: “in Him all things hold together” (Col. 1:17b). There are even hints that some things occurred at night.¹⁷ Certainly, Scripture nowhere says God rested then, or that He was ever idle. The story allows all or portions of days for Him to *work* the processes reported.

Thesis D does not require processes lasting any specified length of time. It simply allows the time allowed by Genesis 1. It *is*, however, based in part on the fundamental difference between (non-zero) taking some time and (zero) taking no time at all. To the OEC, even a day is a radically short period, but God was not hurried that He should make the processes “near instant”.

Thesis-I objection. Doesn’t the form of the descriptions (e.g., 1:6-7) “God said it; God made it; and it was so”, imply “near instant”?

No. If I say, “I am going”, then I go, then I say, “I went”, there is no implication as to how long I was gone.¹⁸ The narrator too is addressing humans. Those statements tell us nothing about how long the making took in between. The context, however, limits them to a particular time (e.g., day 2). To suggest that the makings could have been “near enough to instantaneous”¹⁹ is at odds with the flow of the story.

Science. God may have used processes that we no longer see, or He may have accelerated natural processes to achieve His goals. He did not tell us those details or the exact timing. Yet He did tell us the order of the events and the time they took all together.

It is reasonable for scientists to attempt to infer details within the framework defined by the account. Those inferences might shed light on the evidence that the universe formed rapidly. They might also help us see how some people misinterpret evidence and imagine “m-billions” of years of formation.

What is not appropriate is rewriting the report, effectively remaking the Maker.

Summary. Using the verb *bara*, 1:1 teaches the entire material universe *instantly* came into being from nothing. 1:2 says the result was in an unfinished form.

1:3-30 use verbs, such as *asah*, that denote non-instant processes. 1:21 uses *bara* again to describe the instant coming into existence of living creatures with “life” in their blood. No new material was needed, as confirmed by 2:19. Thus, it must have been their bodies that were formed (*yatsar*) of the ground and the “life” that was created *ex nihilo*. 1:25 uses *asah* because nothing new was needed for the land creatures.

1:26-27 use both *asah* and *bara*. Again no new material was needed, as confirmed by 2:7 and 2:22. Surely, (a) the man’s body was formed (*yatsar*) from dust, (b) the woman’s was fashioned (*banah*) from a part of the man, and (c) the human spirit was created (*bara*).

Hence, God created (*bara*) primordial material, life, and spirit; and He made (*asah*, *yatsar*, etc.) all bodies, heavenly and earthly, from the raw material.

CMA. The story, then, says: (1) God *called into being* an unfinished universe (1:1) – His raw materials (1:2), then (2) He took six ordinary days to *make* them (1:31) into His desired finished products (2:1), then (3) He rested for a day (2:2-3) because He was finished. Part (2) includes God *forming* the bodies for animals (2:19) and man (1:26; 2:7, 22) and *creating* non-material “life” for them (1:21) and His image-spirit in man (1:27).

Distinction. As surely as the text teaches that 1-2-3 scenario, it teaches a distinction between the two verbs. The narrator has carefully used them in different ways with distinct implications. To me, this firmly establishes Thesis D. Further confirmations appear below.

Three Create Verses, Three Controversies

“Create” is used in three verses in Genesis 1. All three have been used to suggest that create and make are synonyms. Consider some Thesis-I reasoning:

(1) The *merism* in 1:1 refers to the entire universe. However, the stars do not arrive until day 4. Does this mean 1:1 is a summary or title of the entire account?²⁰ Does “create” there summarise all the “make” words used in the rest of the account?²¹ No:

- (a) If 1:1 is a summary and not an actual creation, how then does the earth already exist in 1:2? The text seems clearly to say that God created the raw materials in 1:1, and then formed them in the subsequent verses. If not, this is an open invitation to OECs to argue it all could have existed for billions of years. After all, if Planet Earth already exists in 1:2, and 1:1 is only a summary, then the story does not say when it all began. That puts a gap *before* 1:1!
- (b) 1:3 begins with “Then” (*waw*-consecutive), thus introducing an action by linking it to a prior action. 1:2 describes a state of being, not an action, so 1:1 must describe that prior action. Since 1:1 describes God’s first action, it is not a summary.²² Besides, the summary comes at the end (2:1-3), as usual, and two summaries are not needed in this efficient report.
- (c) In the flow of the story, 1:1 focuses on the *existence* of the universe, not its formation. The raw materials came to *be* instantly. No initial formation of them is stated in 1:1-2, so “make” is inappropriate in 1:1.
- (d) If “create” summarizes “makings”, the narrator’s intended focus on coming into existence is destroyed. But God as Creator “calls into being what does not exist” (Rom. 4:17b).
- (e) The *merism* does mean the entire universe, but in unfinished form (1:2). The material from which God would “make” the stars existed at the beginning, but it was not yet transformed into “lights”.

No, 1:1 indicates the initial *existence* of the *entire*, unfinished universe: all the raw material needed for development. A main point of the verse is that nothing physical existed previously. That point is muddled if “create” summarises the development.

(2a) 1:21 says God created the first living creatures: sea creatures and birds. But 2:19 says the birds were formed “out of the ground”. Does this mean either word could be used in either place?

No, in this super-brief CMA, 1:21 focuses on “something new”. 2:19 focuses on “something old”. The new was the “life” of these creatures. God brought the organizational principle of life into *existence*. The old, albeit only days old, was dirt. Hence, the two together tell us that this creation included *both* a formation from dirt *and* the imposition of a new organization *ex nihilo* on that formed dirt. The narrator uses the differences in the semantic ranges to focus on *two distinct aspects*: the new and the pre-existing.²³

(2b) 1:21 uses *bara* of some creatures, but 1:25 uses *asah* of others. Does this mean the words are equivalent?

No, God created the first living creatures (life) on day 5. On day 6, He simply re-employed that same creative concept, along with dirt for the bodies.

(3a) In 1:26, God says, “Let us make man in Our image”, and then in 1:27 He creates man in His image. Does this mean the words are being used interchangeably? Are both words referring to man’s spirit?

This question begs another: “Did man come from existing material or out of nothing?” 2:7 answers this question: “Then the LORD God formed man of the dust of the ground, and breathed into his nostrils the breath of life (cf. Jo. 20:22); and man *became* a living being”.

We reasonably infer that man is *both* made and created.²⁴ His body is made of dirt, as it were, and he became a man when God breathed a newly *created* breath (spirit) into him. Primordial dirt (something old) already existed, so only the spirit (something new) was *brought into existence*. 1:1 tells us no new material was needed.

This is neither a contradiction nor an indication of equivalence. There is another option: it describes *two distinct aspects* of man.

(3b) But isn't it man's spirit, not his body, that is in God's image?

The narrator apparently expects his readers to recognize from observation that it must be the body from dirt and the spirit as a new creation. Thus, *both* our bodies and our spirits are in God's image. The spirit is obvious. The body must "fit" because God's Son would one day take on such a body as his own. Again, the narrator uses the differences in the semantic ranges to focus on the pre-existing in 1:26 and 2:7, and the new in 1:27.

(3c) "Male and female created He them" (1:27). Does that mean 2:22 was the continuation of the creation of mankind, thus a non-instant creation?

The poetic structure of 1:27 would *allow* that interpretation. It does not *require* it. The wording seems intended to say that God created a new kind called "man" and that they come in the male and female genders. It is compatible with: (a) a single creation that lasted from man to woman, (b) two separate, instant creations with time in between, or (c) a single creation followed by a derivation²⁵ that required nothing new to *come into existence*. Simply saying that God did it does not tell us which way.²⁶

Interpretation (c) seems most compatible with 2:22 and 2:7. Both (b) and (c) support Thesis D and in context seem preferable to (a), which would support Thesis I. Interpretation (b) was justified above.

How Long Does It Take to "Make"?

Now consider how the CMA purposefully uses the process verbs. If we cooperate with the narrator, we accept that these actions all together happened within six ordinary days. Most occurred in a single day or less. There is no hint that any was "near instant".

Seven makings. The narrator mentions only ten sequential steps, or main issues, in His extraordinarily brief but information-packed report. (It is somewhat like a contractor would briefly tell how he constructed a house.²⁷) The key verb roots in the descriptions, by starting verse, are: 1 create, 3 be, 6 make, 9 gather-appear, 11 sprout, 14 make-place, 20 create, 24 make, 26 make-create, and 29 give. Excluding the creating and the giving²⁸, there are seven process verbs. Consider their implications:

1:3: First light came to "be" by being formed (Is 45:7). It gradually dawned in the "morning"; then it peaked at mid-day, and faded for "evening" – if we are to take 1:1-5 seriously, as we must to get ordinary days.

1:6: "Stretching the heavens" (Is 40:22; Ps 104:2; etc.) to make "the expanse of the heavens" did not take billions of years – just day 2.²⁹

1:9: Only a portion of day 3, not millions of years, was required for real H₂O to gather into one place and for the land to appear.

1:11: Trees sprouted and matured to the point of producing fruit later on day 3. Even later, (Nu 17:8) in one night Aaron's rod budded and produced almonds.

1:14: God already had all the material He needed, *per* the *merism* of 1:1. He only needed to place and ignite the stars, so they would "be/become lights". Again, it did not take billions of years, only some or all of day 4.

1:24,26: Especially on day 6 God slowed down to man's speed after making the animals: He talked to man, showed him the animals, waited while the man named them, anesthetised him, operated on him, woke him up, introduced him to the woman, etc. (2:15-23).

Thus, *for each making, it is critical that we not miss the narrator's intent by seeing the two words as interchangeable*. That would leave unclear (a) whether God created new material or used existing material, and (b) what, if anything, was new.

Done. Finally, God was satisfied with the result of His creating and making (1:31): "God saw all that He had made/done, and behold, it was very good. And there was evening and there was morning, the sixth day." In six days God had *developed* the raw materials to a finished product

(Ex 20:11, 31:17; Ne 9:6³⁰) that was excellent. It all started with one instant creation, and included two more.

Literary Structure of the CMA

The overall structure of the CMA alludes to key parts of Genesis 1. So, it reflects and emphasizes what is taught there. Under Thesis I, there is only variety of expression to reflect, as to *bara-asah* usage. Under Thesis D, the distinction produces robust meanings.

Brackets. Genesis 2:1, like 1:1, uses the *merism* to refer to the whole universe. It is now finished, “and all their hosts”. Hence, 1:1 and 2:1 “bracket” the description of God’s creating-then-making the cosmos. 1:1 describes the start. 2:1 states that the products of the six-day task were complete, as already strongly implied in 1:31a.³¹

The whole process began abruptly (1:1), and it ended promptly when it was finished (2:1). These “brackets” are thus an important literary device. They indicate the beginning and end of the work. They stand in opposition to a particular OEC compromise with uniformitarianism. Neither the miraculous *making* processes, nor the special *creating*, of those six days are still going on in an elongated seventh day.

Summary. 2:2 and 2:3 triply repeat that the task is done (*asah*):

2a	“His work that He had done”
2b	“His work that He had done”
3b	“His work that God had created and done”

What was both created and done? It was “His work”, the direct object. God created work, then He did it — initiated, then accomplished. What started the work was (1:1, open bracket) His creating the raw materials. “Oh, now I have created some work for Myself!” The job was done when He had made (1:31) the finished products (2:1, close bracket). The structure and wordplay are amazing, and they reflect and affirm a distinction between the words.

The emphasis is on what took time, the making. The word “work” (Hebrew *melawkaw*) is used three times here. It means “occupation, something done or made, business, or craftsmanship”. So 2:1-3 emphasize the work (making) that led to the finished product (1:31a), and His creating is included by context and timeframe.

If the two words were interchangeable in 2:3³², that final critical phrase “created and done” would become redundant: “created and created” or “done and done”. No, this misses the very distinction intended by the flow of the story: God *initiated* the project by *creating* things in unfinished form, then He *made* them into finished forms (*creating* life in some) until they were all *done*. The flow thus implies a distinction between the two words that is reflected in 2:1-3.

Bridge. 2:4 also reflects the distinction by alluding to the brackets. It both indicates the end of the CMA and links to the following accounts, which provide more details. 2:4 is thus a bridge or hinge verse between the accounts. It is an inverse parallelism that focuses on the two brackets, God’s initiation by creating (1:1) then completion of the task (2:1). Importing the information alluded to, we get:

These <i>are</i> the generations of	History, account, report
A the heavens and	Unfinished , e.g., no stars
B the earth	Unfinished , e.g., no life
C when they were <u>created</u> ,	To be developed: 1:1
C’ in the day the LORD God <u>made</u>	Now transformed: 2:1
B’ the earth and	Finished planet w/life
A’ the heavens.	Finished space w/stars

“In the day” parallels “when” and means “in the time”; the context indicates that that time was six days, when God had done (*asah*) His work. The introduction of the name “LORD God” is the link to the next accounts, which use that name instead of “God”.

By the words used, ABC alludes to 1:1, when the heavens and earth were primordial (1:2): the initial product that God *created*. Likewise, A’B’C’ alludes to 2:1, in light of 1:31, when the heavens and earth were finished, “with all their hosts”: the final workproduct that God had *made* from what He had created. The context indicates that the latter includes His *creating* life forms.

This is not a strict chiasm with a single focal point or line. Rather, it is an inverse parallelism. ***It points to and highlights the two aspects of God’s creativity: His creating and His making.*** It reflects the distinction employed in Genesis 1 by focusing on *the two distinct aspects* of the

overall report. Hence, it is contrasting or antithetical parallelism³³, *not* synonymous parallelism.³⁴ Moreover, it has a more robust meaning than Thesis I gives: simply a double repetition of the assumed summary in 1:1.

As with Is. 41:20, the whole point is the differences in the semantic ranges of the two words. Without the contrast, we lose the distinction 2:4 makes between (1:1) the *creation* of the original, unfinished universe (the *work* to be *done*), and (2:1) the complete, finished product.

Structure. The structure and cohesion of the account is important in rebutting OECs. Some of them want to separate 1:1-2 as a preface that is not part of the main storyline, but gives background before the story starts³⁵. That is just time for billions of years of cosmic development to occur. Others agree that 1:1-2 describe God's first action and its result, but want to insert a gap between 1:2 and 1:3³⁶. Both have day 1 starting with 1:3, which means it had no referenced night time, contrary to 1:4-5.

No, the main storyline starts with 1:1, the "left bracket". The description of day one is 1:1-5. The entire six days are described by 1:1-31. The "right bracket" 2:1 both emphasizes what should already be obvious from 1:31, that the description of the creating and making is complete, and segues into the seventh ordinary day of Sabbath rest.

Conclusions

Our refutations/rebuttals of OECs will be more effective the better and more precisely we understand the CMA. To me, Thesis I muddles the story, so it does not say all that the Narrator intends. Consider side by side some implications of:

Thesis I: It is not clear whether:

- (1:1) the "earth" came from nothing or from matter that existed before the story started;
- (1:16) God might have needed more material from which to make the stars;
- (1:21, 2:19) there was anything newly *ex nihilo* about the living creatures;
- (1:26-27, 2:7) God needed anything new from which to make man, thus allowing for a purely material view of man.

In addition, since *bara*, *asah*, *yatsar*, and *banah*, are all used with respect to common objects, they must all be synonyms. Hence, the CMA is not so efficient a communiqué after all.

Thesis D:

- (1:1) all the raw material needed to form the entire finished cosmos came from nothing, as the result of God's first reported act;
- (1:16) God had only to ignite existing material to make the stars become lights;
- (1:21, 2:19) God (1) made bodies from the ground and (2) created life from nothing;
- (1:26-27, 2:7) God (1) made man's body of ground dust and (2) breathed into him a spirit (breath) created *ex nihilo*, both in His image.

Allusions to the CMA using *asah* and *bara* do not prove, but only reflect, the CMA usage. I could analyze many more verses claimed to prove Thesis I and show that instead they reflect the distinction. They all have more robust meanings under Thesis D than under Thesis I.

Nothing about Thesis D leads to or justifies millions of years. That is, the distinction between *bara* and *asah* gives no aid to gap theorists and other OECs, though they may think it does. Their ideas can be soundly refuted on other bases.³⁷ Their positions require (1) *twisting* words and verses that imply ordinary days, (2) *assuming* that God's makings were natural processes at the speeds we observe today, and (3) *rearranging* God's stated order of events.

The CMA is a masterpiece of efficient communication. We know that it ultimately had to come from God because He was the only one present during the task.³⁸ God is the author of language. He is the ultimate communicator. There are no other interchangeable words in this highly information-efficient³⁹ report. Why should create and make be the only synonyms found there?

Author's Brief Biography:

Frank DeRemer received his BS and MS in Electrical Engineering, with Honors, then his Ph.D. in Computer Science from MIT (the Massachusetts Institute of Technology). His Ph.D. thesis was completed in 1969 and was ground-breaking in the area of the practical translation of (designed) computer languages, in a field known as "programming linguistics". Frank was Assistant then Associate Professor of Computer and Information Science at UCSC from 1969

through 1982. One of his papers is “one of 50 most influential and technically excellent papers on programming languages and their implementations during the period 1979-1999” (<http://www.cs.utexas.edu/users/mckinley/20-years.html>). See also http://en.wikipedia.org/wiki/LALR_parser, .../LRGen, and .../Programming_in_the_large. He co-founded a computer software tools company, MetaWare Incorporated, in Santa Cruz, CA, in 1979. His analyses of Genesis and an in-progress NKJ Chronological Bible are available at www.GenesisHistory.org.

References

1. Mortenson, T., *Did God create or make in Genesis 1?*, <<http://www.answersingenesis.org/articles/am/v2/n3/did-god-create-or-make>>, 15 August 2007.
2. I apologise to readers who find that I belabour some points. I treat them from several perspectives to try to persuade those already of contrary opinion – especially those already published as saying the words are interchangeable in the cases treated here.
3. Three who claim Is. 41:20:
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Ham, K., *et al*, *The Answers Book: Revised & Expanded*, Master Books, Inc., Green Forest, AK, 2000, ISBN: 0-89051-161-6, p. 69.
4. Thanks to Mark Amunrud for this observation.
5. Bratcher, Dennis, *Parallelism in Hebrew Writing*, <<http://www.crivoice.org/parallel.html>>, 5 October 2007.
6. *Ibid.* (Mortenson)
7. *Ibid.* (Mortenson)
8. Verse references without the book name are always to Genesis; e.g. 1:1, 1:26, 2:19.
9. Don't miss the would-be Hebraism: expand the expanse.
10. *Ibid.* Ham, p.72, penultimate paragraph.
11. Although those who argue that 1:1 is a summary muddle this issue, as argued later.
12. DeRemer, F. *et al*, *Viewpoint: Days 1-4*, *JC* 21(3) : 69–76, 2007; <<http://www.genesishistory.org/content/Days1-4new.pdf>>. See for a proposed answer to the question, just how “raw” those materials were, or even if they were “material” at all, as we know it now.
13. One could say that the implicit inclusion proves interchangeability. However, that overlooks the emphasis being placed on one of the two aspects of the event by the unique aspect of the word used.
14. Still, 1:26 (*asah*) foretells 1:27 (*bara*), which is elaborated in 2:7,15-25 (*yatsar*, *banah*), so each word is used to refer summarily to steps including the other, but with emphasis on its own primary distinction. Again, the issue is emphasis on one aspect rather than another, not synonymity.
15. It cannot be non-existent at one moment, partially exist in the next moment, then fully exist later.
16. Contrary to Thesis-I proponents wanting to blur the *bara-asah* distinction. The exact amount of time is not the point. Did some process require only a microsecond? Perhaps, but what was the point of His taking six days? Yes, God is *capable* of doing things even faster than implied. But to model work, it was appropriate that He use the time available.
17. *Ibid.* (DeRemer).
18. The variation in order, “God said it; it was so; God made it”, is also employed for reasons of literary structure, but with the same intended meaning. Obviously it became “so” because God “made it”.
19. Private, anonymous communication by a reviewer of an earlier version of this paper.
20. Three who claim 1:1 is a summary:
Grigg, R., *Morning has broken ... but when?*, *Creation ex nihilo* 23(2):51–53, March 2001,
<<http://www.creationontheweb.com/content/view/386/>>;
Batten, D. ‘*Soft*’ gap *sophistry*, *Creation* 26(3):44–47, June 2004, <<http://creationontheweb.com/content/view/553/>>.
21. I can only speculate as to how Thesis I got started, but this may be its genesis. If so, the two Theses rest on distinct interpretations of 1:1. Certainly if “create” summarises the “makes” in Genesis 1, one must see every *bara* and *asah* in or related to Genesis 1 as synonyms. However, if instead 1:1 is God's first action, resulting in all the raw materials needed to make every finished body in the universe, then *bara* is used there to mean something not in the semantic range of *asah*: bringing something physical into existence. Moreover, the other two verses that use *bara* do not require more material to come into existence, but each does need something new. It is reasonable, then, to conclude that *bara* in all three cases means to bring something into existence, and *asah* in 1:3-30 means to transform the raw materials into the earthly and heavenly bodies.
22. Indeed, making 1:1 a summary is worse exegetically than the OEC ploy of making 1:1-2 a preface or adding a gap. At least, the OEC has God's first action in the indefinite past, but the summary idea leaves it out altogether.

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23. 2:19 does not mention the sea creatures, so we are apparently expected to fill in that blank from observation and parallelism. They, like the birds, must have bodies made of dirt and newly created life.
24. Morris, Henry, *The Genesis Record*, Creation-Life Publishers, San Diego, CA 1976, p. 73.
25. Case (c) would be analogous to conception: is a human created then, or is he somehow a derivative of his parents, spiritually as well as physically? If created, then this is equivalent to (b). If derived, then it is not a continuation of the creation of mankind but another making. In either case, (c) supports Thesis D.
26. Similarly, 1:1 tells us that God created two things but not whether simultaneously or sequentially: the *waw*-disjunctive is non-committal. If He created the heavens and then the earth, there were two instant creations described there, not one that took time.
27. *Ibid.* (DeRemer).
28. God gave or designated food for man and animals by speaking to man (1:29). It took a small amount of time for the words to have effect on man's ears and for man to process the information. So this also was a process but nothing was made.
29. *Ibid.* (DeRemer).
30. Ne 9:6 alludes to 2:1, thus to the whole CMA, not to 1:1 alone.
31. 1:31a is not a statement about the sixth day only. God had already pronounced the animals "good" (1:25b). It is not "everything made on the sixth day" but the unqualified "everything" that was not just "good" but "very good". It all fit together, worked perfectly, and served God's intended purpose: all the workproduct of the six days — the habitat for humanity, including humans. Thus, *asah* in 1:31 refers to all the work of the six days, including the three creating steps (1:1, 21, 27). The focus is on what took six days, the making, but the instantaneous creations are included by the context.
32. Two who claim interchangeability in 2:3:
Ibid. (Mortenson);
Private, anonymous communication by a reviewer of an earlier version of this paper.
33. *Ibid.* (Bratcher).
34. Five who claim interchangeability in 2:4:
Ibid. (Mortenson);
Ibid. (Gadsby);
Ibid. (Grigg);
Grigg, R., *From the beginning of the creation*, **Creation 19**(2):35–38, March 1997,
<<http://www.creationontheweb.com/content/view/600>>;
Ibid. (Ham).
35. DeRemer, F., "Good approach misapplied to get 'analogical days'", **JC 21**(2): 35–39, August 2007,
<[http://www.genesishistory.org/TJ21\(2\)_PROOF_pp35-39.pdf](http://www.genesishistory.org/TJ21(2)_PROOF_pp35-39.pdf)>.
36. DeRemer, F., "Young biosphere, old universe?", **JC 19**(2): 51–57, August 2005,
<<http://www.creationontheweb.com/content/view/4757>>.
37. *Ibid.*, as one example.
38. Note that I am not making this claim with respect to the whole Bible, just the CMA. This claim is likely unprovable, but it is not a naïve view of inspiration. It is based on the observation that so much of the Bible is known to be written by eyewitnesses or careful interviewers of eyewitnesses. God was the only eyewitness of His creating and making, and He had to communicate it to someone in words. It seems likely to me that that someone would have been careful to record such important words. Alternatively, there is precedent for God writing things Himself, e.g., the Ten Commandments (Ex 31:18), and giving them to a trusted servant. Since Adam and Eve needed to know about this God introduced by the CMA, it seems possible, even likely, that God would have spoken or written the CMA for them. Possibly it was the first Sabbath lesson in writing. ☺
39. Gitt, Werner, *In the Beginning Was Information*, 2001, CLV, Bielefeld, Germany, ISBN 3-89397-255-2