

THE BIG BANG THEORY OF CREATION: *BARA* AS SUDDEN EXPANSION

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The Torah is not a book of science; however, there is some correspondence between the biblical account of Creation and the modern Cosmic Inflation (Big Bang) Theory. The current theory of cosmogony states that Creation started with a “big-bang” from one particle (singularity) that started to rapidly oscillate with immediate hyper-inflation and continuous expansion of the universe (brane theory, from the term “membrane”). For many thousands of years after the big-bang, the particles were so thick that photons (light) couldn’t escape. Could this idea be expressed in the first three lines of the Bible?

In the beginning God created [bara] the heaven and the earth. Now the earth was unformed and void, and darkness was upon the face of the deep; and the spirit of God hovered over the face of the waters. And God said: 'Let there be light.' And there was light (Gen.1:1-3).

The word translated as “created”, *bara*, has posed great difficulties for interpreters of the Bible. Shadal observes that the term *bara* is never used to describe a human action, only an act of God. Furthermore, it is generally associated with the creation of something remarkable, as in *But if the Lord brings about (yibra) something unheard of . . .* (Num. 16:30).¹ Clearly, it is a word denoting a very special act of creation.

Since the etymological root of *b-r-a* is to “cut out and form”,² this presupposes the use of material, something is formed from a previously existing substance. However, the word *bara* is generally understood to be used in the Creation account to denote *creatio ex nihilo*, creating something from nothing (*yesh me’ayin*).³ Traditional biblical commentators and medieval Jewish philosophers struggled to explain this paradox and had to offer forced interpretations.⁴

One of these interpretations was the *homer hiyuli*, a type of primeval ether with substance but without form, yet having the potential to become a form. Ramban understands the biblical term *tohu* to refer to this. Gersonides

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referred to it as *homer rishoni* (original substance). It was understood that from this substance everything else was formed.

Interestingly enough, another etymological stem of *b-r-a* means: to feed, to eat, to grow fat and healthy. This usage is found in the term *bari*, as in Genesis 41:2 when the fat, healthy cows in Pharaoh's dream are described as *briot basar* and in Judges 3:17 describing Eglon the King of Moab as a very fat (*bari*) man. All these definitions imply an expanding state. Similarly, S.R. Hirsch has explained *b-r-a* and its kindred roots of *barah* (to flee), *barah* (to taste or to eat), *parah* (to blossom), *parah* [*p-r-ayin*] (grow wild), and *para* (something protruding, wild, or rioting), as meaning to strive to get out or getting out of a state of being constrained or bound.

Based on this we can propose that the word *bara* here also refers to growth and expansion. Genesis 1:1 would then mean that "In the beginning God *suddenly expanded* the heaven and earth." The subsequent escape of photons is expressed in the phrase '*Let there be light*'.

This idea of an expanding creation is already found in TB *Hagiga* 12a, "R. Judah further said: At the time that the Holy One, blessed be He, created the world, it went on expanding . . . until the Holy One, blessed be He, rebuked it and brought it to a standstill." There Resh Lakish interprets God's name Shaddai as "I am He that said to the world: Enough (*dai*)!" And the Maharsha on this talmudic section comments that this "stretching" was like a warp being pulled (similar to the brane theory of cosmogony).

Lastly, the word *b'reshit* usually translated as "*In the beginning*" could mean oscillate. Indeed, the Brown-Driver-Briggs Lexicon sees the word as a verbal construct (gerund) from the word *rosh*. In other words, with a rapid to-and-fro oscillation of the head. Thus the verse can be understood as indicating the rapid oscillation of the singularity (*b'reshit*) resulting in the continuous expansion of the universe (*bara*).

NOTES

1. S.D. Luzzato's *Commentary to the Pentateuch* (Jerusalem: Horeb, 1993) p. 4.
2. F. Brown, S. Driver, C. Briggs, *The Brown-Driver-Briggs Hebrew and English Lexicon* (Peabody, MA: Hendrickson Publishers, 2003); D. Z. Hoffman on Genesis 1:1, and Rashi on Ezekiel 23:47. Ibn Ezra (to Genesis 1:1) explains similarly, that *bara* means "to cut, to set a boundary."
3. Y. Kiel, *Da'at Mikra – Bereishit* (Jerusalem: Mossad Harav Kook, 1997) p. 3. This understanding even predates rabbinic literature, and is already found in 2 *Maccabees* 7:28. See Vol. 44, No. 4, 2016

S.D. Luzzato's Commentary to the Pentateuch (Jerusalem: Horeb, 1993) p. 4. However, this interpretation is by no means universal, and some rabbinic exegetes understood that the world was created by God giving form to eternal matter. This appears to be the view of Ibn Ezra and R. Samuel ibn Tibbon. See M. Shapiro, *The Limits of Orthodox Theology* (Oxford: The Littman Library of Jewish Civilization, 2004) pp. 71-73.

4. See Ibn Ezra and Ramban on Genesis 1:1, and Maimonides, *Guide for the Perplexed*, 11:30; 11:17.



עשה תורתך קבע

THE TRIENNIAL BIBLE READING CALENDAR
DEDICATED TO THE MEMORY OF CHAIM ABRAMOWITZ

October	I Chronicles	12 – 29
	II Chronicles	1 – 10
November	II Chronicles	11 – 36
	Genesis	1 – 2
December	Genesis	3 – 31
January	Genesis	32 – 50
	Exodus	1 – 9
February	Exodus	10 – 37

