



KOVETZ

Heoros Hatmimim V'Anash



Issue 1 (142)
Hey Teves - *“Didan Notzach”*



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KOVETZ

HEOROS

HATMIMIM

V'ANASH

~ Melbourne ~

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1 (142)

Foreword

With joy and gratitude to Hashem, we are pleased to present the next edition of the Kovetz “Heoros Hatmimim V’anash”, issue 1 (142), a scholarly journal with original insights in all areas of Torah, Nigleh and Chassidus, Halacha and the Rebbe’s Torah, put together by the Shluchim to Yeshivah Gedolah, Melbourne.

The Kovetz is being printed in conjunction with Hey Teves, the day on which “Didan Notzach – Victory was declared ours” in a revealed way (in the federal courts), with regard to the Seforim and manuscripts of our Rebbeim held in the library of Agudas Chassidei Chabad Lubavitch.

In the spirit of this year (5776) being a Hakhel Year, we have published two letters of the Rebbe pertaining to Hakhel, with emphasis on its practical application in Chinuch, Jewish education, as this year marks 40 years since 5736, which the Rebbe labelled as “Shnas Hachinuch – the year of Jewish education”.

In the Sicha of Hey Teves 5752, the Rebbe stated that since the day of Hey Teves is connected to Geulah, the redemption of the Seforim, it is a most auspicious time to offer our fervent prayer to Hashem that he bring the ultimate Geulah, the true and complete redemption of all Bnei Yisroel from Golus, with Moshiach Tzidkeinu leading us all to Eretz Yisroel, to the Beis Hamikdash Hashlishi. May it be speedily in our days, now!

The Editors

B”H

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The next issue of
the Kovetz Heoros
will iy”h be published in honour of
Chof Beis Shevat.

Please submit Heoros no later than
Thursday, 18 Shevat

Dvar Malchus

Lessons from Hakhel

By the Grace of G-d

Chai - 18 - Elul, 5712 [September 8, 1952]

Brooklyn, N.Y.

To All My Brethren,
Wherever You Are, G-d Bless You All.

Shalom U'vracha:

I send you herewith my prayerful wishes for a happy and pleasant New Year, may it bring blessings to us all.

At the end of this *Shemittah* (Sabbatical) Year, and on the threshold of the New Year, we are reminded of the great *Mitzvah*, which is "a strong pillar and a great credit to our religion" (*Sefer Hachinuch*) - the *Mitzvah* of *Hakhel*, when all the people, men, women, and children gathered during the Festival of *Sukkos* at the holy place in *Yerushalayim* - may it be rebuilt by our righteous Messiah, speedily in our time – to hear selected portions of the Torah, portions inspiring to piety, love and appreciation of the Torah, the observance of the *Mitzvos*, particularly the *Mitzvah* of *Tzedaka*.

Although at all times we are commanded to bring up our children in the way of the Torah and *Mitzvos*, the *Mitzvah* of *Hakhel*, coinciding with this season, impresses upon us our duties towards the children with special force and timeliness.

Therefore, let every Jewish father and mother, every Rabbi and leader, every communal worker and person of influence, heed the call of the *Mitzvah*

of *Hakhel*: to gather the masses of Jewish children and bring them to the *Yeshivos*, *Talmud Torahs* and Torah-true educational institutions; to increase the *Torah-Tzedaka*, the support of true Torah institutions and ensure their existence and growth, in order that all Jewish children, boys and girls, be brought up in the spirit of piety and love for G-d, love for the Torah and *Mitzvos*, love for one another.

In the merit of this, the Almighty will favor us and enable us very soon to fulfill the *Mitzvah* of *Hakhel* in the *Beis Hamikdash* in *Yerushalayim*, rebuilt by *Moshiach Tzidkeinu*, Amen.

With blessings to you and from you for a Happy and Pleasant Year, *Ksivah Vachasimah Tova*,

Menachem M. Schneerson

* * *

By the Grace of G-d
In the Days of *Selichos* 5726.
Brooklyn, N.Y.

To the Sons and Daughters of
Our People Israel, Everywhere
G-d bless you all!

Greeting and Blessing:

In addition to the perennial qualities which each festival, *Rosh Hashanah* included, brings with it from year to year

– Parenthetically, these, too, must be regarded and experienced as *new*, like all matters of Torah and *Mitzvos* which constitute the very life and vitality of a Jew (as it is written, "For these are our life and the length of our days"), life itself always being new a fresh, also for the person who has experienced life for many years –

There are certain qualities which are associated with certain years, and which therefore are of particular significance in the year of their occurrence.

The approaching year 5777 – may it bring good and blessing to all of us and to all our people Israel – has the distinction of being a "Post-*Shemittah* [Sabbatical]-Year". As such it is characterized by the additional special *Mitzvah* of *Hakhel* ("Gather together"), which is described as a "solid pillar and great honor to our faith"(*Sefer Hachinuch*).

During the time of the *Beis Hamikdash* [Holy Temple] it was required to gather the people – men, women, and children, including the very little ones – into the *Beis Hamikdash*, in order that they hear certain selected Torah portions, which were read by the king. This event had to take place at the first opportunity in the new year (namely, *Sukkos*, when Jews came to *Yerushalayim* on their pilgrimage).

To be sure, since the *Beis Hamikdash* was destroyed this *Mitzvah* is no longer practiced – until the *Beis Hamikdash* will be restored again, may it be speedily in our time. However, the Torah and *Mitzvos* are eternal, so that also those *Mitzvos* which were to be practiced only during the time of the *Beis Hamikdash*, by virtue of their eternal spiritual content, have a special significance in their appropriate day or year, which has to be expressed and fulfilled in an appropriate manner (e.g. prayers – at the time of day when the sacrifices were offered in then *Beis Hamikdash*, etc.).

*

The *Mitzvah* of *Hakhel* had two features which, at first glance, seem to be contradictory: on the one hand, it was required to "gather the people, men, women, small children, and the stranger (*ger*) in thy gates" – indicating that everyone, regardless of his or her station in life and intelligence can and must be a participant in the event; and on the other hand, it was required that the portions of the Torah be read to them by the most august person of the nation, the king.

One explanation is the following:

The Torah was given to us in order that it permeate and vitalize each and every Jew without exception – man, woman, child and *ger* – so thoroughly, and to such an extent and degree, that one's entire being, in all its aspects, senses and feelings, will become a Torah and *Mitzvos* being.

And in order to attain this end, most deeply and fully, the Torah was read on that occasion by the King, whose awe-inspiring quality filled the audience with an overwhelming sense of tremor and subservience, to the extent of complete self-effacement.

*

The significance and instruction of the *Mitzvah* of *Hakhel* for each and every one of us is, that it calls upon us to avail ourselves of the opportune awe-inspiring days of *Tishrei*, to gather our fellow-Jews – men, women, and children, including the very little ones – into the hallowed places of prayer and Torah, in an atmosphere of holiness and devoutness; and gather them for the purpose which was the very essence of the *Mitzvah* of *Hakhel*, as stated in the Torah: *In order that they should listen and should learn, and should fear G-d, your G-d, and observe to do all the words of the Torah* (Deut. 31:12).

Particularly it is the duty of everyone who is a "king", a leader, in his circle – the spiritual leader in his congregation, the teacher in his classroom, the father in his family – to raise the voice of the Torah and *Mitzvos*, forcefully and earnestly, so that it produce a profound impression and an abiding influence in the audience, to be felt not only through the month of *Tishrei*, nor merely throughout the year, but throughout the seven years from the present *Hakhel* to the next; an influence that should be translated in the daily life, into conduct governed by the Torah and *Mitzvos*, with fear of Heaven, and, at the same time, with gladness of heart.

May it please the One Above, Whom Jews crown on *Rosh Hashanah* as the "King of Israel" and "Sovereign Over All the Earth", to bless each man and woman in carrying out the said task, in the fullest measure, and this will also speed and bring closer the time when the *Mitzvah* of *Hakhel* will be fulfilled in all its details, in the *Beis Hamikdash*, with the appearance of our righteous Moshiach, speedily in our time.

With the blessing of
Ksivah Vachasimah Tova
For a happy and sweet year,

/signed Menachem Schneerson/

Chassidus

Chassidus on Gravity

Hatomim Aharon Menachem Mendel Kastel

Alumni of Yeshiva Gedolah

Introduction

This article sets out to establish an authentic Torah perspective on gravity, drawn cautiously from the sources but in constant consultation with accepted scientific theory. Explanations borrowed from physics have been used extensively, if somewhat hesitantly and where possible (surprisingly often) backed up with citations from within Torah. Chassidus has been used as a base text due to its extensive discussion of such topics (relative to other texts), abundance of explanations and examples and its innumerable references to the entire gamut of Torah sources.

Reconciling science with Torah (as this article will attempt to do) is a complex and fraught task, so it seems appropriate to open with some guidance. In accordance with the well-known proverb "We have nothing [in the way of guidance] other than the words of the son of Amram [i.e. Moshe Rabbeinu]"¹, an excerpt from a letter of the Rebbe (the 'Moshe Rabbeinu' of our generation) encouraging such efforts, another for guidance and some thoughts from the Rema (Rabbeinu *Moshe* Isserles) have been presented.

The Rebbe writes in a letter: "His [Rabbi Dovid Shapiro's] sefer reached me- Responsa Bnei Tzion volume one- gratitude is extended

1) Rashi on Shmos 14,4 s.v. VaYa'asu Kein

for honouring me with this gift of his; his work. **I rejoiced to see [therein] discussion of subjects relating to science within the words of our sages Z"L** in calculation of the years etc., **since the number of people involved in this area of our Torah has diminished drastically and those who are knowledgeable in this field are fewer still. ...**" ²(Emphasis added.)

Elsewhere, the Rebbe harshly criticizes attempts at reconciliation: "About the apologetics; not only are they not useful, on the contrary they are quite damaging, as has been seen particularly in our times. This suggests that even in earlier periods this was not the correct path, even if it seemed profitable at the time. My rationale and reason is that apologetics are essentially a compromise, and a compromise is, by definition, the opposite of truth. In the end, the truth will come to light and this will lead to the complete demolition of the edifice built upon this compromise, along with all the conclusions reached through its study; even though those conclusions may be true in their own right since they are also the conclusions that would be reached through the true theories. This was always my determined stance and the experience of my time in America has added many proofs from actual practice and from the behaviour of the youth. ..." ³

The Rebbe continues at length to detail the history of apologetics; explaining that many scholars in earlier generations tried to reinterpret Torah to be in step with the science of their day. They took the science as absolute and distorted Torah to fit. This disproportionate approach reached such a degree that the Jewish leaders of the time were forced to prohibit learning the works of these scholars. Today their efforts are worse than for naught. The scientific

2) Ibid. Vol. 2, letter 233, pg. 136. This letter seems especially relevant since in the course of the discussion there the Rebbe brings up gravity. That excerpt will be brought at the end of this article.

3) Ibid. Vol. 16, letter 5449, pg. 133.

theories they worked with have since been rejected (in some cases not long after) leaving a body of commentary that both Torah and science agree is simply nonsense. The Rebbe bemoans the continuation of this cycle into the present day with genuine G-d-fearing scholarly (but scientifically ignorant) Rabbis endorsing the obsolete compromises of previous generations whose scientific premises have long since been put to rest. These compromises can cool a person's faith and create a tepid truth.

The Rebbe concludes: " I will add the following lines, since I am concerned you will find it difficult to question and raise objection against the foundations upon which are built the edifice of the Jewish philosophers- whose builders worked so hard to construct it. There is a well-known adage that is brought in the works of many Rishonim and also told by the Tzemach Tzedek in one of his letters to the enlightenment movement of his times: "Love Plato, love Aristotle but love Truth more than all of them."⁴

On the surface these two letters seem at odds: the first encouraging (and engaging in)⁵ the reconciliation of, and cross-consultation between, science and Torah, and the second adamantly insisting that all apologetics are tragically and essentially flawed, only leading away from truth and faith. Perhaps the initial reaction to the second- hesitation and doubt- is worth preserving before suggesting any answers (in line with the first). It can create a mindset of caution, introspection and critical analysis that is indispensable in such a complex field.

The most obvious resolution, however, would seem to be a set of criteria for any such interpretation: good Torah and good science. The

4) Ibid. Pg. 135.

5) The continuation of the letter. An excerpt has been printed at the end of this article.

Torah aspect has to be valid according to the usual accepted system of Torah interpretation and must not alter any axioms⁶. The science should be current⁷ and taken on its merits rather than trusted on its word. It must be seen in the context of general scientific development⁸ and scrutinized for other incongruences with Torah in general⁹. If these criteria are not satisfied, the attempt is doomed to be nothing but destructive.

The Rema writes: "If someone will say that the words of our sages are received [tradition], and perhaps that is in fact the case, I won't argue with him, for if it's a tradition, we must accept it- even though it is distant from reason. However, if logically there is an answer then whatever can be done to explain our sages' words so that they shouldn't conflict with commonly accepted fact, so much the better..."¹⁰

"... Indeed the words of our sages are built upon the true wisdom, which is clean of any distortions and perversions, even though occasionally it seems at first glance that they don't concur with the words of the empirical scientists, particularly in the area of

6) Such as creation in six days- the 'literal' reading (read: 'honest reading') of the verse and the simple belief of common Jews (one of the examples given in the second letter). Note also the saying of our sages: "No verse departs from its simple meaning" (Shabbos 63a; Yevamos 11b, 24a).

7) For two reasons: firstly it is pointless to use outdated science and secondly because current science seems to be reaching a point where it realises the truths that Torah has known all along (see also the next footnote).

8) Such as the Theory of Relativity and non-Euclidean geometries which have challenged the absoluteness of physics and geometry respectively and opened up intellect in general- revealing that intellectual conclusions can only be subjective ie. dependent on the frame of reference or set of axioms and that none is ever provably (ie. intellectually) truer than another. Both of these are referred to by the Rebbe in that letter. Other similar advances include Quantum Physics and 'Gödel's Second Incompleteness Theorem'.

9) Otherwise the reconciliation could include these other incongruences unknowingly and without the requisite thought required before introducing any foreign elements into an explanation of Torah.

10) Toras HaOlah, vol. 1, chapter 2, pg. 32.

astronomy... The reader would be afraid and shocked to say that our sages Z"L didn't know the scientists' ideas. Anyone who cares about the honour of his Creator and the honour of the Torah sages should not think this way, rather he should study their words carefully, since certainly it is found in all their words ... that they knew the secrets of astronomy in the same way the gentile sages knew them and better, because they also knew other ways that were hidden from the gentile sages..."¹¹

Guided by these sentiments, this article will explore the wealth of Chassidus relevant to this mysterious force. It will ask what Chassidim believe and on what basis. It will then clarify the perspective of the Rebbeim. Gravity will find its parallel in Chassidus and the two will be placed side-by-side and analysed for any discrepancies. Perhaps one more glimmer of truth will be revealed, uncovering the underlying unity between physics and Chassidus. This will bring closer the day when the forces of the soul described in Chassidus will be as apparent as the phenomena discussed in physics, when physics will be transparent to its spiritual causes. It begins today, and what is a day without HaYom Yom?¹²

11) Ibid. pg. 35.

12) "It is the true HaYom Yom, [with it] each day is a day."- The Frieddicker Rebbe in his Igros Kodesh, vol. 7, pg. 231.

Part 1 – Didn't the Alter Rebbe Say There's No Such Thing?!

1- HaYom Yom

It is commonly believed in Chabad circles that Chassidus rejects gravity (the theory that any two masses attract, which is the force that causes us to fall etc.). The source of this belief can be found in HaYom Yom¹³:

"The following are the words of the Tzemach Tzedek in one of his maamarim¹⁴: The Alter Rebbe, when speaking with his sons on the Tuesday of Parshas Balak 5562 (1802), said the following: "The astronomers ask that since the earth is spherical like an apple, why don't the people living opposite us, down below in America, fall off? ... Their resolution is incorrect ...

"The Alter Rebbe stated that the solution is as follows: "It's explained in Etz Chayim that the nine heavenly orbs receive their vitality from the spiritual rung described as iggulim, "Spheres". Now a sphere has neither top nor bottom. Thus the sky above the people who are opposite us, down below, is above them exactly as the sky here is above us. And the earth there is below relative to the sky that is above it.¹⁵"¹⁶

13) 14 Tammuz. Translation taken from SIE edition.

14) Or HaTorah, Nach, vol. 1, p. 669.

15) Rambam (Hilchos Yesodei HaTorah, 4,2) gives a similar definition of up and down.

16) The source of this HaYom Yom is Igros Kodesh of the Rebbe Rayatz vol. 2, letter #617, pg. 496 (also printed in SH"M 5708 pg. 235-6). Other versions include two in Sefer HaMaamarim 5562, vol. 2, pg. 475 (the Mittler Rebbe's record) and pg. 477. All other versions are referenced in the endnotes to pg. 475.

Many people who read the HaYom Yom religiously each day assume “their resolution is incorrect” refers to gravity.¹⁷ They may be shocked to learn that in the sources of the HaYom Yom¹⁸, it is clearly not discussing gravity. It states there¹⁹, “however their answer is incorrect - which they answered that since man is composed of the element of earth and each element draws its element, therefore the Earth draws the people - since they are of its element - and doesn’t let them fall. But this is not true.” It is clear that it was not gravity (as such) that the Alter Rebbe rejected on that Tuesday over two hundred years ago.

2- But then what does it mean?

Now that we have clarified that HaYom Yom does not refer to gravity - and rather seems to reject the idea that we are drawn to the Earth because we are composed of the element of earth²⁰ - we are left with a very strong question: How can Chassidus reject this explanation

17) Although many realise that since fall is an empirical fact, the question is not whether gravity exists, but what form it takes and its cause. These are the issues this article will seek to address (particularly from part 2 and further).

18) Igros Kodesh op. cit. and see Sefer Hamaamarim 5562, vol. 2, pg. 477. Most of the other versions are similarly clear (with the exception of the Mittler Rebbe’s record).

19) Sefer Hamaamarim, op. cit.

20) For the general concept of the four elements (in contrast to chemistry’s “elements”) see Igros Kodesh (Vol. 19, letter 7242*, pg. 239) where the Rebbe explains the intention is not that these four are indivisible (as are the elements in chemistry) and suggests other explanations including that the intention is to their characteristics- hot and cold, wet and dry- not to their substance. Note however that each instance has to be treated separately as sometimes it is clearly referring to the actual substance (such as Rambam, Hilchos Yesodei HaTorah in most of chapter 4. See also SH”M 5659, pg. 50 (37) about the dust dissolved in the water that can be separated out through evaporation). This is a vast subject in its own right which requires a treatise of its own.

based on the four elements, when that is the very explanation that has been brought innumerable times within Chassidus?²¹

There are those who wish to differentiate and claim that the explanation found in Chassidus is not that the element draws all that is composed of it, but rather that the element of earth in a stone gives it a nature of its own to fall. Meaning that there is no outside force acting on the stone and causing it to fall, rather it falls because it has an independent nature of falling²² - whereas the physicists theorised that the Earth being the element of earth attracts all its constituents and *this* is what Chassidus negates.

However this doesn't seem right at all²³- Chassidus clearly states that "everything is drawn to its source."^{24,i,ii} The Rebbe makes it very

21) A few examples: SH"M 5656, pg. 294; 5661 pg. 196; Hemshech 5672, Vol. 2, pg. 682.

22) In accordance with the language in Sefer HaMaamarim 5661, *ibid.*: "for the nature of the stone is to descend below because of the dominance of the element of earth within it."

23) Another support for rejecting this is the language Chassidus uses (Sefer HaMaamarim, 5693, S.V. Nasata LeYereiecha, Sections 3 and 4 and elsewhere) "The nature of heaviness [or weight]" (as opposed to "the nature ... to descend"- see previous two footnotes) which is describing a property of the stone (an adjective so-to-speak) and not an action (a verb). The stone doesn't have an independent nature to fall – its true nature is that it responds to another outside force, such as gravity by falling because it's not weightless. This is also logical – how can an inanimate and inflexible object (such the discussed stone) cause itself to move? Furthermore, it's well known that a stone in space does not fall, which proves that its fall is not a completely independent nature within the stone, but rather a nature in relation to the Earth. (For more explanation of the difference between force and nature see endnote ii.)

24) A general rule in Chassidus, found in Hemshech Rosh HaShanah 5666, beginning of the Maamar on Parshas VaYigash and Toras Chayim Shmos, 95a (and many more instances are cited there in footnote 408). For additional references see endnote i. For discussion about the usage and application of this concept see endnote ii.

clear that gravity is an expression of this law²⁵: "... [It is] brought in many places²⁶ that *everything*²⁷ is drawn to its source and therefore earth falls down etc. ...". Similarly the Mittler Rebbe writes²⁸ that water descends "because it is drawn to the element of earth that is below"²⁹. So it is clear that Chassidus holds that it is Earth that draws the stone and falling is not the nature of the stone alone.³⁰

Furthermore, it is difficult to say that the intention of the Alter Rebbe in negating their answer [that the earth-element is attracted to Earth] was that in truth, according to Chassidus the element of earth falls on its own accord, because *he said nothing of the sort*. If that was his intention, he would have mentioned something about it, particularly since it is a fine distinction. But in fact, all we find in his answer is a definition of up and down.

25) Likkutei Sichos, Vol. 6, pg. 112, footnote 45. See also SH" S 5749, vol. 1, pg. 284, footnote 34- cited in full below part 3 section 3.

26) The author has found only one other (earlier) source. This does not seem to justify the description, "many places". It's possible the Rebbe saw all the instances of this law as clearly implying this application, thus transforming them into sources. [According to this approach "brought in many places" could refer only to the phrase "that everything is drawn to its source" with the next phrase being an obvious consequence of that law.] Another possibility is that the Rebbe was referring to sources outside of Chassidus which the author has not yet managed to find. In any case this would seem to mitigate the difficulty raised in footnote 31.

27) Italics in the original.

28) In his maamarim, BaMidbar, vol. 2, pg. 788. He also uses terminology such as "The two elements of water and earth descend downwards ... in accordance with their nature" and "the element of earth, which is the category of inanimate [the lowest of the four categories: man ("speaking"), animals ("living"), plants ("growing") and "inanimate" (objects).] that it is heavy [a future tense verb in the original] and it falls to the ground ...". This proves that these terminologies are not contradictory.

29) He continues to explain that this is because the water really comes from the earth (the moisture in the earth, the springs and the tablelands).

30) However it remains unclear why these clear sources are so rare and everywhere else they were concise to the point that the implication is different (see footnotes 22 and 23). See footnote 71.

Rather it is pointless to differentiate between "their answer" and 'ours' in this way and therefore we will maintain that Chassidus also goes with the explanation that earth (the element wherever it occurs) is attracted to Earth, as explicitly stated in many places in Chassidus, as mentioned above.

Therefore the problem remains unresolved - what was the Alter Rebbe intending to reject if this is clearly the outlook of Chassidus?

3- More Questions

There are a couple of other issues which also require clarification:

(A) If their answer is incorrect, the Alter Rebbe should need to provide a replacement, to explain the phenomenon that those who live in America do not fall off Earth, which he seemingly fails to do. All the Alter Rebbe has told us is how to view the concepts "up" and "down" - that they are relative to Earth. But he has seemingly left the main issue unresolved - why do people, and everything else for that matter, fall down towards Earth at all?³¹

(B) The astronomers invent the concept of gravity in their answer. What other force would compel the Americans to fall in its absence (in the question)?

(C) The Mittler Rebbe records this statement of his father, the Alter Rebbe,³² and the way he puts it, "their answer, that the globe attracts from every side, is a big "dochek" [i.e. highly implausible; difficult to accept]."

31) In addition, the Rebbe points out (SH"Y, 5749, pg. 284, marginal note ** (2)) that without gravity, everything should gradually drift away from earth. See below at the beginning of section 6.

32) Sefer Hamaamarim, 5562, vol. 2, p. 475.

[Besides the aforementioned issue, that this answer seems to be the very perspective supplied by Chassidus, it is also necessary to explain:] Why is the notion that the globe attracts from all its sides, a “dochek”, something difficult to accept? What is so unusual or unlikely about this idea?

4- What were 'they' thinking?

Let's examine the question of the scientists and philosophers of that time. On which axioms was their question based?

It is clear that there were two main assumptions that lead them to their question:

(a) Everything falls. All things are subject to an unknown force which causes automatic, natural descent or movement downwards.³³

(b) Space is like a big room which has a top and a bottom, and therefore the direction called “up” is found above Earth, and the direction called “down” is below it (and one side of Earth is the top half, and one is the bottom half).

This second axiom is expressed in the (otherwise superfluous) analogy of the apple³⁴. It seems a rather strange example of a perfect

33) This itself is inexplicable and seems senseless. It seems to be simply a result of their small-mindedness applying their day-to-day experience that objects fall within gravity to space without gravity. See inside further on how this perspective is expressed in their analogy of the apple. (Note that this is probably not the reason the Mittler Rebbe refers to their answer as a “big dochek” seeing as that's in reference to their answer and this is a fault in their initial assumption in their question. However, it may be his intention since it is these assumptions – as they remain present in their answer – that Chassidus rejects (see the explanation inside further on)).

34) “And this is impossible according to the nature of the sphere of an apple and the like that have an up and a down” – the Mittler Rebbe's record, *ibid*. Other versions mostly include similar phrases such as the HaYom Yom itself - brought in full above.

sphere with its stalk and the surrounding dip. Perhaps they had a little trouble picturing earth in space. Imagine an apple- perhaps a green one- suspended in mid-air. Allow your mind's-eye to wander a little- you notice the apple is situated in a room. Well, why shouldn't it be? It's just an ordinary apple in its natural habitat. Ok, it's mysteriously suspended in mid-air. Perhaps it's also a little bigger, with large areas of its surface coloured blue as well and no stalk etc. Maybe the floor and ceiling (and walls) are a little further away, invisible and intangible. It's the same thing though, right? Just like an apple in a room, only it's Earth in space. So just like an apple (if it were actually spherical) may have no top or bottom, up is clearly towards the ceiling and down is obviously towards the floor. So too, as much as Earth is spherical and it is impossible to define a top and bottom, space has a top and bottom to which objects on Earth must conform.³⁵

When they answered that there is a force that attracts things to Earth, they weren't substituting this for their previous understanding - they were building on their errors. They said not that gravity (or its corresponding force in their system) causes one to fall (towards the Earth), but rather that falling is a natural result of the directions of "up" and "down", and gravity just "doesn't allow them to fall" (off the Earth)³⁶.

35) Further support for this interpretation: In the Mittler Rebbe's account this question comes after and together with another: "It is impossible to reach the truth of the matter regarding the Earth's standing still in the center of the sky without falling to either side." [See more about this question in Metzudas Dovid, Iyov 26:7 S.V. Al Blimah, cited in SH" M 5562 vol. 1 p. 310. Note however, that it seems more in line with these astronomers than with Chassidus]. This reveals the same unthinking assumption and instinctive extrapolation.

36) Note that both the astronomers (as explained here) and the Chassidim, who attempt to differentiate, above would have stones falling in space- unlike both Chassidus (as explained here) and physics, and in contradiction to clear empirical evidence recorded on video and watched by millions of people. So those Chassidim interpret this HaYom Yom to hold part of the very theories it is attempting to reject.

5-The Meaning of the HaYom Yom

This then is what the Alter Rebbe had to reject: agreed there is a force that attracts earth to the Earth just as they described, but still they missed the point. The correct answer to their question (why upside-down Americans don't fall) is not because 'gravity' prevents them from falling but because there's no reason to fall – there's no up and down independent of the globe of the Earth to cause them to fall (even if we maintain their first erroneous axiom that the direction of down itself causes fall). Therefore this is not the correct answer at all (though it is a correct fact).³⁷ The only correct answer is to remove the original error that up and down exist independently, by explaining that down is defined as towards the centre of the globe and up as away from it (as the Alter Rebbe clearly does at length). Then, when the error at the base of the question is removed, the question falls away on its own.

Furthermore, a careful reading of the Alter Rebbe's words (in any of the versions) reveals that **he never actually mentioned things falling down at all**. Nor did the astronomers. The astronomers assumed that things just fall- that's just the way it is. They had a separate question: why no one falls off the Earth in America. The Alter Rebbe addressed the erroneous definitions in their question. There was no reason for him to go on a tangent explaining what they took for granted- that was never the topic of discussion.

So we never rejected the idea that the element of earth in the Earth is what causes people to fall and generally be drawn to the Earth.

37) However, further study is required to understand why the Rebbeim wrote "but their answer is false" and "this is not so" which imply - all that was stated in their answer is false.

6- A Big Dochek

We are now ready to understand why the Mittler Rebbe sees this as such a dochek (and thereby we'll understand better why the Alter Rebbe had to reject it).

According to these scientists, who believed that there is some force drawing everything down independent of gravity, there are two possible ways for gravity and the 'falling force' to interact:

Before discussing these two models, it is necessary to explain one shared aspect: gravity in America has to be twice as strong as the 'falling force'. If gravity were to be only equal to the 'falling force' then the object need not fall off the earth, true, but it would be weightless. The force of gravity would cancel out the falling force leaving a net force of zero. There'd be nothing to cause people *to fall* and people would eventually drift off the earth as a result of their jumping and even walking (which also pushes against the ground)³⁸. So gravity has to be equal to the falling force so the Americans *don't fall up* and twice as strong so that they *do fall down*.³⁹ This is consistent across both approaches: The question is the 'upper hemisphere' (Russia, Europe etc.): how does gravity work there (where the falling force is down (towards the Earth) not up (into space))?

One possibility is that the (combined) *effects* of gravity (and the falling force) i.e. weight, are uniform all over the globe, so that Newton's apple in America has equal weight (i.e. force of gravity together with falling force) to its European counterpart. In such a

38) See footnote 33.

39) This does *not* seem to be the astronomers' intention. As clarified above, their conception of gravity was only to save Americans from falling (up) off the earth, not to create weight. How then would Americans have weight and fall down? It would seem they simply didn't consider it just as they (senselessly and baselessly) assumed that objects in space would fall just as they do on Earth (the link is self-understood if vague).

world, no gravity would be necessary in the upper hemisphere, since neither of the two reasons to have gravity would apply. The object in Europe isn't falling up that it should require gravity to hold it down (since the falling force *isn't* directed *away* from Earth there) and its weight is already provided by the 'falling force'(since it *is* directed *towards* Earth there), so gravity needn't do that either. This conclusion (that there is no gravity in Europe- only falling force) is completely ridiculous. The world is (seemingly) of (at least more-or-less) uniform substance in both hemispheres – what could possibly cause one hemisphere to have gravity and the other to have none?!⁴⁰

The other possibility is that, on the contrary, the *force* of gravity would be constant between both hemispheres. However, according to this approach, the *effects* of gravity in the upper hemisphere – where there would have been equal weight even without gravity (as explained above) – will be three times as strong(!), from the combined pull of the falling force (which is equivalent to the weight in the lower hemisphere) and gravity (which is **twice** the weight there since gravity is required to serve two purposes; preventing upward fall and providing weight). The apple in America is a third of the weight of its equivalent in Europe. This is contrary to daily human experience! It is clear why the Mittler Rebbe wrote this is 'a big dochek'.

This second model⁴¹ seems to be a possible – if somewhat forced – explanation of the Tzemach Tzedek's words that he adds in Or HaTorah⁴² "It's a big push **for no pull is felt at all.**" If so, this would be

40) Obviously it wouldn't be so polarised- divided into two hemispheres; rather it would be more gradual. At the 'upper pole' there'd be zero gravity and then it would gradually increase until the 'equator' where it would reach its highest value and remain uniform across the 'lower hemisphere'.

41) This second model also seems to be the correct interpretation of the Mittler Rebbe's intention. His language that the Earth "attracts (or draws) on all sides" implies that the attraction – its force and pull as it is in and of itself and as it's a property of the earth – is uniform.

42) Terumah, pg. 1464.

read to mean that in Russia no additional force – relative to America – is felt⁴³. It seems necessary to find an explanation because the literal understanding is riddled with difficulties. He seems to be saying that gravity is illogical because it's not felt. Quite apart from our various earlier proofs that Chassidus does believe in a similar force (at the very least), what kind of question is this? Why should gravity be felt? Every single person was born into and grew up in a world with gravity – we're used to it, so there's no reason we should be conscious of it. Furthermore, in general gravity does not cause any movement⁴⁴ because it is cancelled out by other forces acting on people (and objects) such as the ground below our feet and our muscles in their default position⁴⁵, so that the net force is nil. Therefore there is no force to feel. Whereas according to our explanation above, he's asking why a traveller from America to Russia doesn't experience a(n increase in) force that he's never previously experienced and whose muscles aren't accustomed to automatically counteracting (similar to astronauts whose muscles don't know how to react to zero gravity).

7- Conclusion

At first glance HaYom Yom seems to reject gravity. A careful reading of its sources reveals that it never referred to gravity but was rather talking about an explanation based on the Four Elements – which are discussed extensively in Chassidus itself. There are those who wish to differentiate and say those scientists opined that Earth attracts earth whereas Chassidus holds that the dominance of the element of earth causes a nature within objects to fall. This is illogical and in contradiction to clear citations from Chassidus. The real meaning of

43) Although this still doesn't quite explain the strength of his phrase "no attraction is felt at all".

44) See however Sefer Hamaamarim, 5693, *ibid.*, section 3. Brought below Part 3, section 4.

45) These are all forces but explaining how is beyond the scope of this article.

HaYom Yom is that it corrects one of the axioms behind the scientist's question – namely that there is an up and down defined independently of Earth. It explains that down is towards the Earth's centre and up is away from it and the other up and down don't exist since the heavenly spheres that compose space are rooted in the supernal spheres termed "iggulim" which have no top or bottom. Neither HaYom Yom nor the astronomers were discussing why things fall down. The discussion was only why Americans don't fall off the earth. Their solution was described as a dochek by the Rebbeim because it would create problems reconciling the interaction between the two forces-gravity and their 'falling force'-with observable reality and logic. So, there is no evidence to suggest Chassidus rejects gravity and it does believe in a similar force based on the Four Elements. What remains unclear is whether Chassidus' 'Earth Attraction' is synonymous with gravity or differs in some details.

Part 2- So Torah agrees with gravity, right?

1- Setting up Definitions

Part One explained that Chassidus does not reject gravity and has a parallel concept of a force which attracts earth to Earth. What remains to be discussed is whether this parallel concept is really gravity dressed up in classical terminology or if there are perhaps some differences between them. Gravity is the idea that any two masses attract, proportionate to their respective sizes and the distances between them. The reason a person doesn't observe this between a chair and a table (for example) is because they are so small compared to the Earth.⁴⁶ The parallel within Chassidus – as far as it's been

⁴⁶) This has a dual effect, firstly the gravity between them is completely overwhelmed by the gravity between each of them and the Earth, and secondly the force between them isn't large enough to be noticeable, even without the Earth's gravity overshadowing it.

explained so far – is simply that anything containing the element of earth⁴⁷ (or at least in which earth is dominant) is attracted to the Earth. Both of them are comprised of an attractor, an attracted object and the attraction acting upon both of them.

2-Does Earth only attract earth?

The question begs to be asked: Gravity applies to all substances (with mass being the only determinant); does the elemental Earth's attraction draw all elements or only earth? If "everything is drawn to its source"⁴⁸ then surely fire is attracted to "its source above in the General Element of Fire which is below the orbit of the moon"⁴⁹, air to the atmosphere and water to the oceans and underground water table. If so, then each has its own nature and the Earth's attraction draws only earth (and objects in which it is dominant⁵⁰) – in stark contrast to gravity. The implication in Mishneh Torah⁵¹ is similar "the way of fire and air is to go upwards i.e. from the centre of the Earth towards the sky, and the way of water and earth is to go downwards i.e. from below the sky towards the centre - for the centre of the sky [and the Earth] is the lowest possible point." It seems the Rambam holds that the nature to go down doesn't apply to all elements.

47) However, from the Mittler Rebbe's Chassidus cited above (in Part one, Section two, in footnote 29) there is already indication that this force applies to other elements as will be discussed in the continuation.

48) See footnote 25.

49) Tanya, Section 1, Chapter 19 at the beginning.

50) As implied in SH"M 5661 (cited above in footnote 22) and other places.

51) Hilchos Yesodei HaTorah, Chapter 4, Halacha 2.

3-Earth Attracts Everything

However the Frierdikker Rebbe writes⁵²: "All the elements have the nature of descent"⁵³. This is a clear statement that gravity affects all the elements even in Chassidus' conception of it.

Elsewhere the Frierdikker Rebbe explains how this results in the rise or lesser descent of the various elements⁵⁴: "The reason [why the four elements are positioned fire on the top, then air, water and earth on the bottom] is because of the natures Hashem implanted in the creations. Hashem made nature such that an object which is heavy should be below an object that's light, an object which is light should rise above an object which is heavy, and an object which is lighter should rise higher. And in the four elements of fire, air, water and earth, each element which is heavier than the other descends lower and each element which is lighter than another rises higher than the other ... the element of water is lighter [than earth] ... the element of air ... is lighter than water and the element of fire, being more spiritual than air; Hashem implanted in it the nature of ascent ..."

The explanation of this passage seems to be that the heavier object descending (because of gravity) needs an empty place to descend into so it pushes aside the lighter object below to clear space and the lighter object is pushed upwards into the space previously occupied by the heavier object. So the rise of the lighter objects is merely a result of the fall of the heavier ones (which is a result of gravity). Therefore the implication of the Frierdikker Rebbe's words is that this nature is consistent across all four elements i.e. the reason why some of them

52) SH"M, 5697, pg. 296. Cited in SH"S, 5749, vol. 1, pg. 283, footnote 28 to make this point.

53) However, there he refers only to the lower three elements. This is also the implication where it is cited in SH"S *ibid*. See part 3 section 2 (and on).

54) SH"M 5708 pg. 204, and see the continuation of the Rambam's words there and BaMidbar Rabbah 14, 12.

rise is *not* because gravity doesn't affect them, but rather because it affects the heavier ones more and really gravity affects everything. So Chassidus agrees that Earth attracts not only earth but also the rest of the elements and there is no such distinction between gravity and the force Chassidus describes (the Earth's attraction of earth).

How then is each of the elements drawn to *its* source as Chassidus states? The Rebbe explains⁵⁵ that since, as Shlomo HaMelech states in Koheles⁵⁶, "Everything came from the earth" this is the source shared by all the elements to which all of them are attracted. So Torah agrees with gravity in its entirety.

To be continued iy"h...

Endnotes

i) Additional references for "Everything is drawn to its source": From the Mittler Rebbe: Ner Mitzvah VeTorah Or, Sha'ar HaEmunah, pg. 73a; Imrei Binah, Sha'ar HaTzitzis VeSha'ar HaTefillin, section 25; Toras Chayim BeReishis, pg. 82a [223]*; SH"M, Shmos, vol. 2, pg. 628; VaYikra, vol. 1, pg. 296; BaMidbar, vol. 1, pg. 53; pg. 78; Vol. 2, pg. 547; Devarim, vol. 1, pg. 324. From the Rebbe Maharash: Toras Shmuel, 5640, vol. 1, pg. 338; pg. 345**. From the Rebbe Rashab: Kuntres Ha'Avodah, pg. 30; Hemshech 5666, s.v. UMikneh Rav; Hemshech 5672, vol. 2, pg. 1029; SH"M, 5664, pg. 210; 5677, pg. 143; 5679, pg. 392. From our Rebbe: SH"M, 5728, pg. 167 (Toras Menachem Hisvaduyos vol. 52, pg. 265). Selected miscellaneous sources: No'am Elimelech, Likkut Shoshanah (pg. 445); Yalkut Me'Am Loez, Koheles, on verse 7,24.

ii) Most of these references describe a 'nature' rather than a 'force' (as will be explained). This is problematic given that they have been cited here regarding the force of gravity. One of the common topics (Toras Chayim Shmos 95b; 110d; 116b and many more) for which this rule is used is the nature of a son to be drawn after his father. This is a very illustrative example- obviously this nature doesn't pick him up off his feet and propel him through the air to his father. He needs to walk on his own two feet with all the motions, forces and nerve signals involved. So clearly, there are two separate systems involved here- one, direct cause and effect

55) SH"S 5749, pg. 284, footnote 34.

56) 3,20. This is not the simple meaning of the verse but rather the interpretation in BeReishis Rabbah 12,11 and Koheles Rabbah on this verse (3,26). Also cited in Toras Shmuel, 5629, pg. 102 (93); 5631, vol. 1 pg. 217.

i.e. a force or single action and two, nature which is a reason for a whole chain of cause and effect or a psychological or spiritual tendency. Other examples are similarly 'nature' and not 'force': living creature's desire for life (Sha'arei Teshuvah, Sha'ar HaBechirah, 17a), the neshamah's desire to expire (SH" M of the Mittler Rebbe, Nach, pg. 491) and even how this can bring about a desire to do teshuvah (SH" M of the Mittler Rebbe, Shmos, Vol. 2, pg. 628). Furthermore, the Rambam (Mishneh Torah, Hilchos Yesodei HaTorah, 4, 3-5) describes the nature of all the elements to return to their source and makes it clear that this is a gradual process with many stages and one which takes a long time- not at all similar to the force of gravity.

However, the Rebbe (in SH" S 5749, pg. 284, footnote 34- quoted below in full) uses this expression in reference to gravity, citing "[the saying of our sages] "Throw a stick into the air, it will land on its root-side" (BeReishis Rabbah, end of parshah 53) and see Hemshech 5666, S.V. VaYigash, at its beginning". Even a cursory examination of the first source reveals that it refers to a clear force acting immediately on an inanimate object (it even seems possible that this force is gravity). The second source seems to almost explicitly differentiate between 'nature and 'force': "In truth, even regarding the ascent [of the neshamah] it is impossible that this is only because of its nature to be drawn to its source. For the nature of everything to be drawn to its source; this is specifically when it is aware of its source. There is, however, a force of attraction within each-and-every-thing, that [causes it to be] automatically drawn to its source, similar to "Throw a stick into the air, it will land on its root-side", but this is a nature without awareness and is not the concept of attraction and pining, rather, being in a state of pining to be re-included into its source, is specifically when it is aware of its source". (Emphasis added.) The Rebbe Rashab is describing here a 'nature' that requires awareness- a psychological phenomenon, (so-to-speak)- in contradistinction to a force that works 'automatically' and 'without awareness'. Two other examples of this saying being applied to a 'force' and not a 'nature' can be found in Toras Chayim; the rise of (physical and inanimate) fire (Shmos, 394b) and sparks returning to the blaze of a torch (ibid. 347d). There are more examples cited in other footnotes and endnotes here.

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לעילוי נשמת

האשה החשובה מרת רחל גיטל חיה ע"ה

בת ר' אברהם אבא הלוי ע"ה

נפטרה ביום י"ב כסלו ה'תש"ס

ת.נ.צ.ב.ה.



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