



KOVETZ
**HEOROS
HATMIMIM
V'ANASH**



Issue 5 (146)
Lag Baomer



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מוקדש

לכ"ק אדמו"ר נשיא דורנו
יה"ר שירוזה נח"ר רב מבניו־התלמידים השלוחים,
בתוככי כלל התמימים ואנ"ש שיחיו
ונזכה לגאולה האמיתית והשלימה
ויוליכנו קוממיות לארצנו תיכף ומיד ממש



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לעילוי נשמת

אסתר חוה ע"ה

בת יבלחט"א הרה"ת ר' צבי מנחם שיחי'

הערבסט

נפטרה ביום כ"ב אייר ה'תשד"מ

ת.נ.צ.ב.ה.



נדפס ע"י ולזכות הורי'

הרה"ת ר' צבי מנחם וזוג' מרת דבורה עלקע שיחיו

ואחי' ואחיותי'

רחל, יוסף יצחק, אליהו משה, וחי' מושקא ביילא שיחיו

הערבסט

לזכות

התלמידים השלוחים לישיבה גדולה שיחיו
יה"ר שימלא השי"ת כל משאלות לבם לטובה
בכל המצטרך בגשמיות וברוחניות



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Foreword

With joy and gratitude to Hashem, we are pleased to present the next edition of the Kovetz “Heoros Hatmimim V’anash”, issue 5 (146), 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 honour of Lag Baomer, the Yom Hilula of the great Tanna Rabbi Shimon Bar Yochai. As is well known, whenever Lag Baomer fell on Sunday, The Rebbe would take part in the grand parade held in front of 770, where he would deliver empowering Sichos to the thousands of children gathered there.

It is on that note that we have published in the beginning of this Kovetz, excerpts from two Sichos said at the parade of 5740/1980.

May we merit that this Torah publication be the precursor to the time when “A new Torah will come from Me”, the true and complete redemption of all of Bnei Yisroel from Golus, with Moshiach Tzidkeinu in the Beis Hamikdash Hashlishi, speedily in our days, now!

The Editors

We are pleased to announce that B’ezras Hashem, preparations are underway for the printing of the next volume of “Sefer Chiddushei Torah”.

If you would like to participate by writing a Pilpul or giving a Hakdasha, please contact us at ygheoros@gmail.com

B”H

Lag Baomer 5776

Shnas Hakhel

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Dvar Malchus

Hashem is with us, we're never alone

Each event is designed by Hashgochah Protis (Divine Providence). G-d has designated a particular time for everything to happen so that we may learn a lesson from it. Today's gathering is connected with the great sage of a previous generation, R. Shimon bar Yochai. He revealed teachings in our eternal Torah which apply to all generations and all places.

Hence, it is apparent that there is a special lesson in the teachings of R. Shimon bar Yochai which is connected both to the present gathering and to the beginning and essence of Torah, the Ten Commandments.

G-d has promised, and will very quickly fulfill His promise, that "just as in the days of your going out from Egypt, I will show you wonders." The redemption could be made possible in one of two ways.

G-d could remain in Heaven, unaffected, directing the fate of the Jews and the world in such a manner that at the appropriate time, and even beforehand, He will take the Jews out of Golus. R. Shimon bar Yochai explains that G-d is not satisfied with this and feels that it is impossible for Him to remain free, and protect and direct the Jews in all places and times from above, as it says "Behold the Guardian of Israel neither slumbers nor sleeps." True He protects them in the time of Golus and hastens their redemption, but this is not enough. It is impossible for Jews to be in Golus and for G-d to be somewhere else, as it is written "In all their affliction He is afflicted." Not only is G-d in His place and feeling for and living through what the Jews live through in Golus from there, but furthermore, as R. Shimon bar Yochai declares (Megillah 29a) "In every place where the Jews

were exiled, the Shechinah went with them.” Wherever a Jew is in Golus, whether in the U.S., or in another place outside of Israel, or even now in Israel (which is presently in a terrible Golus,) G-d’s presence goes with him into Golus, into every country, every city, every neighborhood, every street.

G-d does not remain in His palace and from there support, protect, and give the Jews everything they need. Rather, as R. Shimon bar Yochai says, He goes with every Jew and remains with every Jew to the last days and last moment of Golus, until the beginning of the true redemption.

And only then does “G-d return (with) your exiles” — with you. Until the last moment of Golus, G-d is together with every one of us in every place and in every situation in Golus. He hopes and desires that the redemption of each and every Jew will come; only then will He leave Golus together with the Jews of every land, every street, every house. G-d will go together with them, with each and every one, to greet Moshiach in the true and complete redemption.

The above also answers the question: Since we are in Golus how can we study Torah and fulfill Mitzvos without considering the difficulties, without considering the “law of the land” even though it may not go against any aspect of Judaism, without considering the fact that even Torah calls the Jews “the smallest of all the nations” in numbers, a minority when compared to the other nations, and to the secular culture?

R. Shimon bar Yochai set the example which demonstrates how we are to deal with such difficulties. The Alter Rebbe writes that “for R. Shimon there was no destruction.” Even though R. Shimon had to hide in a cave for thirteen years because of the Temple’s destruction and the Roman decrees, nevertheless, in all matters that are connected with the Temple, with things that are holy for the Jews, there was no destruction.

This holds true and foremost in respect to the Ten Commandments, to the entire Torah and all its commandments, and surely in regard to the education of Jewish children and their training in Torah and Mitzvos. Therefore, according to the Torah the Mitzvah of educating a child begins as soon as the child begins to talk. Then we are to teach him and have him repeat “The Torah which Moshe commanded us is the heritage of the congregation of Ya’akov.” The Torah which Moshe taught to us on Mt. Sinai is passed on as an inheritance to every Jewish child. As soon as he begins to speak he has the entire inheritance. His teachers and his parents give him the Torah in a manner in which he can begin to grow with it.

This answers the above question. A Jew is never alone. Wherever he is, even a desert like Sinai, even in a neighborhood or surroundings in which he is the only one connected with Judaism, with Torah and its Mitzvos; heaven forbid to say that he is alone. Even if he is a young child who has just begun to speak, he has G-d’s Torah with him. Furthermore, through the Torah, he connects to G-d Himself, as our sages commented on the verse, “Take ‘Terumah’ for Me” — (By taking Terumah) you are taking Me; as R. Shimon bar Yochai stressed, even in the lowest Golus, “G-d’s presence is with you.” G-d is together with him.

G-d is not in a palace but rather “I will dwell within you” among the Jews, within the Jews, in each Jewish heart. Each Jew has a complete Jewish heart. From the moment a child is born, he lives because he has a living heart; and for the Jew the heart is a Jewish heart. This remains complete even in Golus. Even there, their hearts are awake to Torah and Mitzvos. In their hearts, the Shechinah, G-d Himself, is found, together with all His strength and might.

Thus it is self-understood that when a child (or adult) decides that he wants to follow G-d’s way in his everyday life although he is in Golus there

is nothing that can prevent G-d from going with the child or the adult on the path which he has chosen. Then they will follow G-d's path, "keep the way of G-d, practicing Tzedakah and justice." Justice can be interpreted to mean Torah, and Tzedakah – Mitzvos, since Tzedakah includes within it all the Mitzvos.

It is only through such an approach that one's involvement in Judaism will not be affected by all the things around him. We can understand why he is not affected. He knows "G-d is with him" — and not only with him in the same city and the same street, but "I shall dwell within you — within his own heart." Then, "the heart spreads out to all sides." Just as the heart gives life to all the parts of the body, all of his deeds, speech, and thought become filled with Judaism because of his Jewish heart.

This will bring about, in the near future, the fulfillment of the promise "And Zion will be redeemed with justice and those who return to her with Tzedakah" through "keeping the way of G-d practicing Tzedakah and justice;" each and every Jew will be redeemed.

When one studies Torah and fulfills Mitzvos eagerly, G-d hastens the time when He will take him, along with each and every Jew, complete, healthy, and happy, "with eternal joy on their heads," out of Golus with the true and complete redemption led by Moshiach.

* * *

Sefiras Haomer – Time is Precious

There is another point connected with Lag B'Omer. It is one of the days of the Omer, the days which are counted by the Jewish people.

The main aspect of the Mitzvah of Sefiras HaOmer is the counting of the days that are connected with "the season of our freedom" — the going out of

Egypt — and the holiday of Shavuot — the season of the giving of the Torah, — receiving the Torah which was given as “an inheritance to the congregation of Ya’akov,” an inheritance to every child as soon as he is born. (Even though we don’t teach him this verse until he is able to talk it applies as soon as he is born for he is a Jew and has a Jewish heart, that influences and gives the strength and life to all his limbs.)

In addition, the Mitzvah has a lesson which can be related to what has already been said. Although we have the promise that G-d will take each and every Jew out of Golus, we pray every day that the redemption come as quickly as possible. In the same way, every Jew, beginning from the time he is very small, a young boy or a girl, should count his/her days. He should not think that it does not matter when he does something, that it is not important to count this day, for instead of doing it today he has time to do it tomorrow. He must know that when we own something precious, we hold it and count it so that, heaven forbid, not even a portion of the precious thing be lost. Even a small portion is dear to him and he treasures every aspect of the thing. A Jew must count his days. When G-d gives him a day, he must know that “days are created,” that G-d gave him a precious thing and that he has the free choice to make the day a day of happiness like Lag B’Omer, a day when “G-d is happy with His ‘creations’” (which were created for the Jews as our sages commented, the world was created “Be-Reishit — for Israel who are called Reishit”). This comes about through “Israel rejoicing in its Creator.” The Jews rejoice with G-d to whom they are connected through fulfilling Mitzvos and studying Torah.

Thus he counts days. This, in turn, brings him to appreciate how precious each day is; how each day can become a day of Mitzvos, as each moment of the days of the Omer is connected with a Mitzvah, the Mitzvah of counting the Omer. He uses these days to come closer to receiving the Torah which God gives to him and every Jew. This is also connected with Jewish children

since G-d gives the Torah to every Jew because “our children are our guarantors” for us, because the children follow the Torah’s path.

Sefiras HaOmer teaches how each day of the year can be filled with Mitzvos as is every day of Sefirah. Through these efforts, the day will become a day of great happiness.

The ones who must begin and show the way are the children. They are our guarantors. Each and every Jewish child in each and every place throughout the generations has been given the mission to bring joy throughout the entire world. The true joy will come when “the L-rd will return the exiles of Zion,” as we say “then our mouth will be filled with laughter, and our tongue with songs of joy,” when G-d will take the Jews, and also the entire world, out of Golus. As long as the Jews are in Golus, the entire world is in Golus and does not carry on as it should.

The Jews will take themselves out of Golus by acting as free people, as our sages declared “Who is a free man? One who is occupied with Torah, as it is written ‘Charus’ — engraved on the tablets, do not read ‘Charus’ read ‘Cheyrus’ — free.” A Jew is free when he studies Torah and fulfills Mitzvos without any difficulties.

The children must make sure that their parents do not become slaves to Egypt; rather they should be servants to G-d, serving G-d with joy.

Through the efforts of a Jewish child, who has freed himself from the exile of his body and from the exile of the non-Jewish children who surround him — for “you are the smallest among the nations,” — the entire world is redeemed from Golus. For the child not only refuses to follow the behavior of the other children but openly shows them the way one should live, “keeping the way of G-d” in his daily life. He counts the days, which leads him to count also the hours and the moments, and make sure that each is

filled with Judaism, with Torah, and with Mitzvos. This, in turn, causes us to leave Golus with joy and happiness.

Then we will have holidays. Even the days that are deeply connected with Golus will be transformed into festivals and holidays. During the counting of the Omer, there are days that are connected with sadness; these too will become days of joy.

The main joy will be the receiving of the Torah with, in the words of the Previous Rebbe, happiness and inner feeling. We prepare for this by counting every day which leads to counting every portion of the day. This causes G-d to count every deed, every day, and every Jew especially, and causes us to proceed with all the Jews to receive the Torah with happiness and inner feeling.

And even before then, to proceed to the true and complete redemption led by Moshiach. Then we will bring all the sacrifices and fulfill the Mitzvah of Sefiras HaOmer as a commandment of the Torah.

The Rebbe's Torah

The relationship of mathematics and Torah in the teaching of the Rebbe

Rabbi Dr. Shimon Cowen

Director, Institute for Judaism and Civilization

This essay is dedicated to the memory of Professor Avraham Micha ben Yitzchak Hasofer, whose Yahrzeit is on 22 Sivan. His life exemplified something cultivated to a unique degree in Chabad – the scientist or academic who at the same time is a fully committed chosid. Beyond this, he was the “Rebbe’s man” in his readiness to fulfill the Rebbe’s wish that the relationship of Torah and science be presented publicly in speaking engagements, conferences and publications. I knew, from shared activities and friendship with him, how generously and wholeheartedly he performed this shlichus. He was an individual with profound loyalties, high scruples and a special combination of intellectual passion and intellectual humility. May his memory be blessed.

The Torah understanding of mathematics

Mathematics is a worldly science (one of the *chochmos umos ha’olam* and a *chochma chitzonis*). According to the Rebbe’s view, it is not a “game”, a set of purely theoretical or definitional constructions, possibly or possibly not awaiting application in physics or some other more practical science. Rather mathematics purports (whether or not it actually succeeds) to

theorize about the properties and features of “number”. There is “wisdom” and even genius in its constructions, and great potential and actual use of mathematics, but like all other worldly sciences this does not make mathematics “true”.

The word “true” here, is reserved for absolute truths, which are alone to be found in Torah, the authentic blueprint¹ of creation, and its mitzvos. When mathematics, as the science of number, is consistent with what Torah says about number, and the way it speaks about number – *whether in an exact or approximate² mode* – that mathematics will be true in an absolute sense. So also, where Torah texts themselves have made statements of a mathematical nature, and we know how properly to interpret these, that is mathematical truth. So too, this will apply when mathematics at some level is part of the direct instruction of mitzvah, such as following the method of calculating the sighting of the new moon, as set out in the *Mishneh Torah* of the Rambam, or counting the *Omer*. Another case where mathematics or any other worldly science will be said to be true, is when it converges with Torah, i.e. when it illustrates, in its language and terminology, what Torah says.

Even when mathematics is used which is not that incorporated in Torah texts or the performance of mitzvos – and cannot be validated as absolutely “true” – Torah still “respects” and acknowledges appropriate uses for mathematics. Like all other worldly sciences, mathematics has value, whether it is used in a way to prepare for a mitzvah (as a *hechsher mitzvah*), such as

1) Breishis Rabbo, beginning of Chapter 1, cited in Likkutei Sichos, Vol. 12, p. 197.

2) See below on mathematical approximations in Torah.

measuring a mikvah; or at a further remove for the purpose of make a livelihood, which is required to live a Torah lifestyle (as a *hechsher* of a *hechsher* for the performance of mitzvos)³. Even when mathematics is developed without any thought of connection with the life of Torah and mitzvos, it has value, as something which potentially contributes to civilization, *yishuvo shel olam*, inasmuch as it has potential application for good purposes (and does not distract one from the service of G-d).

Notwithstanding that mathematics, like any other worldly science, is not “true” in an absolute sense, Torah therefore “underwrites” its practical application, within the ethical guidelines given by Torah. We board an airplane, constructed on the basis of “laws of aerodynamics”, with their component mathematics, even though these laws might not be absolutely true. This is because Torah permits us to do so. We are not thereby considered willfully risking our lives. For rigorous mathematics, like rigorous physics and good animal husbandry are *pragmatic* disciplines, by which society steers paths through the worlds of nature, economy and society. The human being was told to work and the technologies and methodologies of work rely on training afforded through the worldly sciences. What “functions” or “works” for good ends, is good for that reason alone (and when ethically used, HaShem to a degree “guarantees” its effectiveness) but that does not make it true.

What follows from the distinction between that which is absolutely true – what is known from Torah or the absolute

3) See Likkutei Sichos, Vol. 12, pp. 197-199 on the relationship of Torah to the worldly sciences.

ethical values, which Torah and mitzvos teach us – and the “non-absolute-truth” of the worldly sciences, in our case, mathematics? The short answer to this question is that no statements of absolute truth can be generated from mathematics alone, where these are uncorroborated by Torah. Thus the Rebbe writes (and explains why, *even arguing from the standpoint of mathematics itself*, mathematics cannot be claimed to be absolutely true) in a letter dated 25 Sivan 5712 (June 18, 1952), “From your letter I surmise that you are an engineer, though it is unclear to me whether your work involves the construction of buildings or is in the field of measuring distances. In any case fundamental to all of the above is the science of geometry”. The Rebbe goes on to say that all sciences, including the science of geometry, are based upon axioms, and that their acceptance is a matter of choice. “This is most apparent in the science of geometry, which has three different systems [Euclidean, Lobachevskian and Riemannian], each of which is founded upon a number of axioms, and the axioms of one system are contradictory to the axioms of the others...” Geometry is interested in describing the mathematical structure of (dimensions of) space. However, different geometries are based on different, arbitrarily selected first principles, which themselves are not anchored in any absolute truth. The one realm of absolutely true first principles is the Torah, the Creator’s blueprint of creation and moral instructions for it.

Now whilst it is true, that physics has at different times appropriated various mathematical theories and used them to describe reality – to name a case in point, Albert Einstein took Riemann’s geometry to formulate his theory of relativity – this

simply shifts the question. Is the physics which uses *that* geometry of space a true physics? The fact that this model works, and is borne out through all kinds of experiments, and seems to have a greater explanatory power than previous theories, still does not make it true in an absolute sense.⁴ Only Torah – the blueprint of creation – can tell us whether the axioms or first principles of a mathematical theory are absolutely true.

A consequence of the “non-absolute-truth” of mathematics is in the area of gematria, the numerical equivalences of Hebrew words, which are cited to indicate connections between the concepts denoted by the words. As pointed out by the Rebbe, the fact that the numerical values of two words could be mathematically computed to demonstrate numerical equivalence does not *of itself* prove anything. This is because equivalence of gematria is the *bechina ho'achrona*⁵, which bears out in numerical equivalence concepts which (and *because* they) are *already* known to be related in their spiritual source (from Torah)⁶. Professor Hasofer engaged in lengthy scholarly debate in the volumes of the journal *B'Or HaTorah*, in which he expressed his opposition to the mathematical and statistical analysis of the Torah text (producing the “Torah codes”), on the grounds that mathematics and statistics *themselves and of themselves* cannot not discover or postulate true connections.

4) As Karl Popper has acknowledged, that science is not about absolute truth, but about producing testable theories.

5) See Likkutei Sichos, Vol. 26, pp. 206-208.

6) Such as the gematria of “Elokim” and “HaTeva”, both of which have the numerical values of 86. It is the G-dly power associated with the name Elokim – contraction – which produces the concealments of nature (HaTeva). This is eventually manifested in their numerical value.

The connections which *they do find* on their own are not guaranteed to be true from a Torah perspective, and can and have in fact produced quite “unholy” results.

“Mathematical” qualities of Torah

Those aspects of Torah and its mitzvos which are associated with mathematics are clearly those which have in them the aspect of number. Such are mitzvos associated with counting: counting the *Omer*, calculating *Shmittos* and *Yovlos*, the laws of *Kiddush HaChodesh* to establish whether it is possible to sight the new moon in the expected time, sanctifying Shabbos after seven days (with applications to one in the desert, who has lost track of the date). There are other commandments which also have an aspect of counting or measurement, such *Techumim* in *Eiruvim* and *Shabbos*, personal purification in from various *tumos*, and the numbers of people gathered together required to say different *d'vorim sh'b'kedusha*. There are also halachos which have a mathematical aspect such as *Kinim*, and geometrical features such as *Kilayim*. We shall return to some of these. Then there are also the *shiurim* of Torah.

Clearly the hidden dimension of Torah, *p'nimiyus haTorah*, is openly associated with the concept of number. The *s'firos* (related to the word *mispar*, number) and the process of combination and permutation of the letters of the names of things in the Holy Language and the *cochos* built into them is discussed in the *Sha'ar Hayichud V'ho'emuna*. Here the entire creation is presented essentially as a process of contraction, compounding differentiation, combination and permutations in the letters of speech, which themselves are rooted in the *s'firos*.

There is clearly a “mathematical” quality to the spiritual structure of creation based on the ten *s’firos* and their “webbing”.

I am neither a mathematician nor a physicist, but I note that the current mathematical physical theory, known as “string theory”, offers deep analogies with the ten *s’firos*⁷. Obviously that alone does not prove its validity, but the absolutely true unifying theory of nature with its mathematical substratum will be one, which as mentioned earlier expresses in scientific terms, and in terms of physical phenomena, essential Torah concepts about the unity of G-dliness and the creation. It will converge with the truth of Torah⁸. Until that time, it will not be wholly true. The “ultimate science” is the Kabbalah: it is for natural science and mathematics, *on their terms* and by their canons of scientific rigour, and with regard to the phenomena which they study, to “enclothe” and express the absolute truths of Kabbalah.

There are a number of mathematical criteria or rules stated in Torah which are not “mathematically precise”, but rather approximate. Thus, Chazal said, with regard to the conveyance of *tumas meis* or for the purposes of the width of a *korah* in *eiruv* that a cylindrical object which has a circumference of three *tefachim* will have a diameter of one *tefach*. Three is not the exact value of the irrational number *pi*, which mathematics uses to calculate the relationship of the circumference and diameter. It is an approximation, however, which was sufficient for halachah, and what the halachah was intended spiritually to achieve. Similarly Rambam writes in *Hilchos Kiddush HaChodesh*, that

7) See N. Berg, “Unifying theories in physics” in S. Silman, *Scientific Thought in Messianic Times*, NY: RYAL Research Institute, 2010.

8) See *Likkutei Sichos*, Vol. 15, p. 47.

some of the figures for calculating the position of the new moon, which he tabulates, are not exact, but they are sufficient to achieve what the halachah is intended to achieve in fulfillment of the mitzvah. In other words, these approximations are sufficient for Torah, to achieve the spiritual qualities which these mitzvos are intended to manifest and draw into the world. In these cases they require neither the precision nor the *exact* validation of mathematics.

Those aspects of Torah and mitzvos, which have a mathematical character, do not have to match worldly mathematical considerations, whether in terms of exactitude (where Torah accepts approximation) nor a counting in the way “world thinks”. They are defined on Torah’s terms and only as such do they express and manifest transcendent Torah concepts. An example of this is the counting of the Omer, as explained by the Rebbe⁹. An *eved c’na’ani* who was freed and so became a Jew during the period of the counting of the Omer, and who *had* been counting the Omer up to the day on which he was freed, cannot now as a Jew continue to count the Omer with a brocho. The reason for this is that his counting up to the point when he was freed, was not a mitzvah. He was not commanded in it, neither *min haTorah* or *m’d’Rabbanan*. Up to that time, his counting was a purely worldly counting, which has no *Torah* significance, and it is as though he had not counted previously at all. Consequently, allowing for the view that the counting of the Omer is a continuous and cumulative mitzvah, since he does not have a complete Torah counting from the beginning of S’firas HaOmer, he cannot now, upon becoming a Jew, count the Omer with a

9) Likkutei Sichos, Vol 1, p. 271 and elsewhere.

brocho. In other words, only a counting, which was (a) commanded by Torah and (b) done in the way that Torah requires, has Torah significance in fulfillment of this mitzvah to count. Only so can the essence or quality of this “mathematical” mitzvah be accomplished and manifested.

The dynamic of quality and quantity

Mathematics, as the science of number, of course has a connection with this world. Objects and times are numerable. We can count them, and the Torah in a number of cases bids us to count them. The counting of the Jewish people before they received the Torah was important to ascertain their completeness, as signified by the presence of the number of 600,000 men of military age¹⁰. When 10 men are present, it is possible to have a minyan. When 49 days have elapsed for an individual Jew (whether or not he or she has counted them¹¹), the Yom Tov of Shavuot arrives for that person. When seven days have passed, Shabbos arrives (and there are distinct laws here for a person lost in a desert, who also has lost track of the date, as mentioned above). In each of these cases, as a result of a counting, a spiritual essence – a G-dly *quality* – is drawn down: the giving of the Torah, the ability to say *d’vorim sh’b’kedusha*, a Yom Tov and Shabbos.

Moreover, sometimes as the quantity changes, the quality drawn down also changes. If three men eat together they may form a *zimur*; if the number changes to ten, they may mention HaShem’s name in their *zimur*. The Rebbe gives another

10) Likkutei Sichos, Vol. 2, pp. 293-297. See this sicho for much of what follows.

11) Likkutei Sichos, Vol. 3, pp. 995-1001.

example of how quantity can affect quality. If I am occupied in *one* particular mitzvah, that can exempt me from other mitzvos of greater qualitative “superiority”. In other words, quantities – whether counted, or merely present, according to the requirements of the mitzvah – draw down transcendent qualities and changing quantity affect *which* qualities shall be drawn down. One could add here that the fact of my geographical location and time, my quantitative coordinates in space and time, determine whether the sanctity of Shabbos and Yom Tov will be drawn down for me. Moreover the “quality” of the Yom Tov, whether it is spread over one day or two days, will depend on a quantity, my geographical location, in the Land of Israel or the Diaspora, respectively¹².

The Rebbe explains why this is so. It is not because there is an independent significance in the quantities: that by itself does not draw down any transcendent G-dly quality. Rather it is because Torah has provided handles on physical reality – quantitative factors achieved through my counting, or which have arrived by themselves – through which physical reality can be connected via a mitzvah to G-dliness¹³.

The Rebbe similarly quotes the words of the *Sefer Asora Ma'amoros*¹⁴, that the Torah speaks essentially in spiritual concepts (“*Elyonim*”) and refers (“hints”) secondarily in lower, physical concepts (“*Tachtonim*”). That is to say, the way in which the spiritual concept is to be drawn down is through a procedure

12) See Shulchon Oruch Admur Hazoken, Orach Chayim, Mahadura Basra 1:8.

13) Through mitzvos, Jews “connect [G-dly] quality with [physical] quantity” Likkutei Sichos Vol. 2, p. 294.

14) Ma'amar Chikur Din 3:22, cited in Likkutei Sichos, Vol. 3, pp. 37 ff.

or through ascertainable features, within the physical world, which Torah prescribes as requisite for that essence to be revealed. Torah is speaking at *both* levels: the essence and the conditions. With regard to the “mathematical” aspect of Torah, this means that not only does Torah prescribe the spiritual concept (the “quality”); it also prescribes the physical procedure or conditions (the “quantity”) by and through which the spiritual quality is to be expressed and drawn down. HaShem in this way enables a connection or fusion between the spiritual and the physical world to occur. For the intention is not simply that a spiritual essence should be manifest, but also that it should permeate the physical and become united with it. This, as we know, is the unique significance of the giving of Torah and Mitzvos. Mitzvos, with a mathematical – a counting or quantitative – aspect, bring this out especially, since number is the most “primary” concept in creation: the first creation, time, is itself change, measured by number¹⁵. The fusion of *quality* (G-dliness) with quantity (the created physical world) symbolizes the intent of Torah and Mitzvos in the most heightened way.

It is, of course, only HaShem, who is able to provide the power in mitzvos – through *co’ach ho’Atzmus* – to accomplish this fusion of opposites, spiritual and physical, transcendent quality and physical or created quantity. This is brought out in another “mathematical” domain, the relationship between finite units and infinity. Here the question arises, mathematically, of whether infinity can ever be attained by the continuous addition

15) See Likkutei Sichos, Vol. 26, p. 62, on why the first mitzvah given to the Jewish people as a whole had to do with Kiddush HaChodesh, namely because time is the first created phenomenon.

of new finite units, in other words, by counting theoretically, on and on. Infinity – or as we say in the language of Chassidus, *b'li g'vul* – is by definition a *transcendent* concept. It appears to be logically out of reach of the *immanent* reality of countable finite numbers or entities. What bridge could there be between them? The Tzemach Tzedek himself, speaking from the standpoint of logic and mathematics, states that it is impossible. In relation to the question of the “infinite” extension of time, he states: “since [time] is made up of the [progressive] aggregation of units [of time], it is impossible that it could be infinite in actuality”¹⁶.

This statement of the Tzemach Tzedek, however, conflicts, as one person wrote to the Rebbe, with the statements, cited in *Tanya*,¹⁷ that HaShem created *heicholos* and angels (and as put elsewhere, “worlds”) “beyond number”, i.e. in actual infinity. Now, even though these *heicholos* are spiritual they are still created entities within the immanent realm of creation. How then could they be aggregated to actual infinity? The Rebbe responds¹⁸ to this question, or a question similar to it, by responding, as paraphrased by Dr Tsvi Sachs:

The Tzemach Tzedek’s statement is made based on the fundamental principle that G-d prefers to create the world [as in the case of time] so as to conform to human logic...However, G-d is above all limitations and contradictions, and when he so chooses, He can and does create the world with qualities which

16) Mitzvas Ha'amonas Elokus, Chapter 11 in Derech Mitzvosecho.

17) Chapter 46.

18) See Hosofos to Likkutei Sichos, Vol. 10, pp. 178-179.

contradict human logic [as was the case with the heicholos and angels, in the words of the Rebbe's letter: *b'co'ach ho'Ein Sof*]¹⁹.

Here too, a fundamental question of mathematics, involving the actual unification of a transcendent quality – “infinity” – with a quantitative feature of the immanent creation – “finitude” – is resolved by reference to the power of *Atzmus*, which is able to unite them. Indeed it is the power of *Atzmus* (whether in the operation of mitzvos, which fuse the physical and the spiritual, or in special creations of HaShem), which is Torah's answer to the “mathematical” conundrum of the *unity* of finite and the infinite.



19) T.Y. Saks, “The Concept of Infinity and Mathematics and Chassidus – Mathematical Infinity” in S. Silman, op. cit., p. 472.