

## The Unification of Torah and Science: Basic Principles and a Case Study on Electromagnetism

### Part 13--Magnetism and Gravity

In Chassidut we are also taught that when the *kolel* (an additional unit, representing the whole) is added to the numerical value of *barzel* (239), it becomes equal to the numerical value of *Amalek* (240), the arch-enemy of the Jewish people, whose key property is to instill doubt in our true faith in the one God. Appropriately, the Hebrew word for "doubt" (קפּו) also has a numerical value of 240. The source of Amalek in holiness is the five "doubts" of Radla (not doubts regarding faith itself, but "doubts," or different possible hypotheses, as how to define the power of faith in the soul), the highest head of the super-conscious crown. [Indeed, we shall see later that the numerical value of the word "magnet" in Hebrew is 102, the same as that of *emunah*, "faith".]

From these examples, we learn that there are two types of iron, the iron of sanctity and the iron of the profane "shells." However, as we learn from God's prophecy to Jeremiah, the properties of holy steel surpass the power of profane iron to do harm.

## **A Good Magnet and an Evil Magnet**

Just as there exist a good iron and an evil iron, so too there are two classic examples of magnets in the teachings of the sages; one is a good magnet and the other, an evil magnet.

Before we delve into the stories that refer to these magnets, we will digress slightly in order to relate one of the stories in the Torah that lies at the basis of this theme from a Kabbalistic perspective. The ancestor of the people of Moav, who bore that name, along with his brother, Amon, forbearer of the people of Amon, were the sons of Lot by his incestuous relationship with each of his two daughters. In Kabbalah, Amon and Moav represent the "other side" of wisdom and understanding, respectively. The name Moav means "from father," relating to wisdom which is called Abba, while the letters of the name Amon (אֲמוֹן) permute to form the word meaning "pleasantness" (נועם), which is a mother concept.

In the time of King David, the king of Amon was called Nachash<sup>1</sup> [lit. "Snake"]. Nachash acted kindly towards David's parents by caring for them when David was pursued by Saul, so when Nachash passed away, David sent emissaries to console his son and heir, Chanun, during the period of mourning. However, Chanun's young counselors incited Chanun to believe that David had sent these messengers

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<sup>1</sup> The word *nachash* is in fact the root of the word *nechoshet*, which means copper. The numerical value of *nachash* is equal to the numerical value of Mashiach, Messiah, which indicates that King Nachash of Amon was in some way the force that opposed the true Mashiach, King David.

as spies, to prepare for war. Following the advice of his advisors, Chanun sent David's emissaries back to King David in shame, by shaving half of their beards. As a result of this unjustified behavior, David sent the commander in chief of his army, Yoav, to wage war against Chanun, and Yoav succeeded in conquering Rabah, the capital of Amon. David thus appropriated Chanun's crown, which weighed one talent of gold, with a precious stone within it. Obviously, such a massive crown could never be worn on anyone's head, yet the verse states explicitly that the crown was placed upon David's head.

The sages teach us that this was achieved by the presence of a gigantic magnet above the crown in the ceiling of the room where King David sat. The magnet raised the crown into the air to the correct measure, so that it appeared to be sitting upon David's head, yet in actual fact the crown was suspended in mid-air (since gold is not magnetic, there was obviously something else inside the crown besides gold, in order to achieve this feat).

The entire book of Chronicles in which this story appears, is a book of praise for King David. This is why the name David, although normally written with the three letters *dalet-vav-dalet* (דוד), is written throughout the book of Chronicles with an additional *yud* (דודי). This fact brings the numerical value of the names of the kings who owned this gigantic crown, *Nachash* (358), *Chanun* (114), *David*

(with a *yud*; 24) to a total of 496, the numerical value of the single word for "kingdom" (מַלְכוּת), inferring that this crown was the ultimate crown of royalty, the most precious crown that King David owned.<sup>2</sup>

The opposite side of this good magnet, which held David's crown suspended in mid-air, is another magnet, which was used in a similar fashion by Geichazi, the prophet Elisha's recalcitrant disciple, for the sake of enticing the people of the northern kingdom of Israel away from the service of the Temple in Jerusalem. This story in itself is relevant to our understanding of the unification of Torah and science, we will therefore elaborate on the historical events that led to its occurrence.

After the reign of David's son, King Solomon, during which the Jewish nation in Israel enjoyed physical and spiritual abundance and respite from all the neighboring enemies, the kingdom of Israel was split into two; the northern and the southern kingdoms. The northern kingdom was called Israel, while the southern kingdom was called Judah. The kingdom of Judah was a more religious kingdom, principally because of the location of the Temple within its borders,

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<sup>2</sup> In Kabbalah, this signifies the rise of *malchut* to *binah*, the *sefirah* represented here by Amon, becoming "pleasantness" (*noam*) that rests upon the head of David. Even more amazingly, the initial letters of the three names together equal 62, the numerical value of the phrase, "very good" (טוֹב מְאֹד). However, it is also equal to one eighth of 496, the numerical value of "kingdom" (מַלְכוּת), meaning that the ratio of the sum of the three initial letters to the total sum of the three names is 1:7 the secret of the word אֵז. It should also be noted that ten times 62 equals *keter*, "crown." In our science-related context here, we will add that *Chanun* equals *mada*, "science," while *keter malchut* equals *bereshit bara* (the first two words of the Torah, "In the beginning [God] created"), which equals the *milui*, "the filling," of *big bang* in Hebrew transliteration, as we shall see later.

while the kingdom of Israel became more secular. The majority of people went to secular "science" in the north, while the minority went to the south and chose Torah.<sup>3</sup>

In order to keep the people of the kingdom of Israel away from the Temple in the south and away from its services, Yerovam, their king, constructed two huge idols in the form of golden calves, in order to offer a viable alternative in place of the religious services in the Temple. These idols are referred to by the sages as "Yerovam's sin," however, according to one opinion of the sages, it was actually Geichazi who perpetrated this sin by using the scientific knowledge that he gained as a disciple of Elisha, to create a gigantic magnetic force that held the two golden calves suspended in mid-air, which induced a tremendous temptation to worship them.

The common denominator between these two magnets is that a magnet has the ability to raise something above the ground, proving that the magnetic force can overcome gravity.

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<sup>3</sup> The goal is to rejoin the two kingdoms to the extent that they not only have a peaceful relationship with one another, but in order that they work together for a common goal, and even more so, that they become once again, "One nation in the Land." This is the task that the Ba'al Shem Tov came to complete, which is why his spiritual mentor was Achiah Hashiloni, who was the prophet who prophesied the tearing apart of the kingdoms. He became the mentor of the Ba'al Shem Tov because, as his name, which means "bonding together," indicates, he is the one with the power to rectify the torn state.