

# On the Patterns in the Stars

Gopi KrishnaVijaya

Before the Age of Science rolled along, the stars spread out in the sky had been seen as the tapestry of the gods – as their dwelling, as well as the home of those who die a hero's death. The sight of them inspired pure awe, and it was taken as self-evident that the realm of the stars was untouched by anything earthly, and was therefore heavenly. Aristotle described in his works the corruptible sub-lunar sphere, which is within the orbit of the moon, and the eternal super-lunar sphere, which encompassed the starry world. As late as the 18<sup>th</sup> century, the philosopher Kant declared: "Two things fill the mind with ever new and increasing admiration and awe, the more often and steadily we reflect upon them: the starry heavens above me and the moral law within me." The positions and patterns of the stars spoke the language of the gods, which was shown by means of the mythic images of the constellations.

When the Age of Science did arrive, it impacted this older worldview strongly and almost completely modified it. What was the essential idea, the core theme that flooded the minds of us earth-dwellers over the past three centuries? It can be summarized in two sentences:

1. Stars are nothing but balls of gas
2. Their positions and patterns in the sky are simply a matter of coincidence

One can see how incisively these thoughts have altered our feelings towards the skies. If stars are merely balls of gas, and gases follow earthly laws, what is the point of reverence? If the planets are simply chunks of rocks, then what of the stories of Mars and Venus? If all the patterns are just like scattered sand, then what importance can Aries or Pisces have? Of course, we are still avid star-gazers, and the skies do not lose their beauty, but the deeper feelings of the soul are no longer stirred, because in some corner of the mind we "know" that they are "nothing but balls of gas" scattered about willy-nilly.

And so the matter seems settled. But, let us attempt a deeper look at this picture, the modern picture of the world. We will take up the two sentences mentioned above one after the other.

## Stars: Balls of Gas?

Consider this question: have you ever seen a ball of gas? A gas, such as air, spreads into every nook and cranny available, and one is hard pressed to detect where it is *not* present. Lighter gases rise, heavier gases settle below. And yet, nowhere in our earthly experience do we see a gas form a ball with a sharp outline, the way a liquid does. And if the modern picture is true, the stars must contain nothing but what we can understand easily with our earthly physics. Of course, we can say that these are "extreme" conditions, high pressure, high temperature, etc. based on our understanding of the light coming from the stars. But such excuses do not work, because the world of outer space is a *vacuum* – gases do not simply roll themselves up into a ball *in a vacuum*. Even a water drop cannot survive a vacuum, and evaporates away in all directions. A gas has no chance of surviving.

Let us, for argument's sake, take it for granted that somehow, in a way unknown to us, a star such as our Sun is indeed a hot ball of gas. Let us now focus on the temperature. When there is a hot object suspended somewhere, like a hanging bulb, it is clear that heat increases as we get closer to the bulb, and we will

burn our hands if we touch it. The temperature readings around the Sun, however, show something astonishing: it becomes hotter the farther you go away from the Sun! On the surface of the Sun, it is only a few thousand degrees, and as we move away towards the corona, it rises to millions of degrees.

Thus, the entire idea of a “hot ball of gas” crumbles away when we look at it closely, revealing further wonders and un-earthly conditions that we cannot simply extrapolate towards. As in the case of temperature, the laws of the stars seem inside-out to the laws on earth: hot objects get colder as you approach them, gases become solid-like in a vacuum. And these laws are mysteries still to be delved into.

### **The Patterns: Coincidence?**

Let us start with the biggest “coincidence” of all. The Sun and Moon are almost the same size from our point of view. Another major coincidence: the Sun, Moon and planets all move approximately in one giant circular path: the so called-ecliptic. In spite of all the space available, they do not aggregate randomly like a swarm, but in an orderly way in a narrow band. Even the fanciest modern theories do not address clearly how such a process could ever occur “coincidentally”.

Venus shows us the *same* face whenever it approaches earth the closest. This is quite remarkable, as Venus is supposed to have its own path relative to the Sun, and not a satellite like the Moon which shows us the same face all the time. The planets have a rhythmic order to their placement, which is called Bode’s Law in physics. No one in the mainstream astronomical community has provided a reason for Bode’s Law. Even Newton’s equations of gravity serve to do nothing more than to place the movements of planets into a certain mathematical pattern, just as a person witnessing a coordinated dance can develop a mathematical shape to the lines traced by the dancers. All the coordination then has only one explanation “allowed”: coincidence.

The constellations are no less astonishing, as they carry an echo of their names of antiquity. Gemini (Twins) is full of twin stars, and twin-magnetic tails, while Pisces (two fish) is full of twin galaxies. Virgo, the fruitful one, hosts the largest “nest” of galaxies, while Sagittarius the Archer contains the dark center of the Milky Way. All are, of course, “coincidences”.

When we keep all this in mind – regarding the structure of the stars, and their positions – even to the modern mind well versed in science there are more than enough mysteries of the un-earthly kind. More than balls of gas scattered around, stars reveal an un-earthly pattern, of the heavenly kind.