

Since several people are not sure what the difference is between astronomy (which I study), and astrology, I will (in brief) make the distinction for those who are interested.

Astrology and astronomy used to be linked more closely a few thousand years ago or so. Today, western astrology and astronomy are regarded as very separate things. **Astrology** deals with projected locations of the planets in the solar system against the background stars, and how this effects our emotions/actions/relationships with others, where as **astronomy** (or astrophysics) is the physical study of objects in space, i.e., how the Sun and solar system where formed, how our galaxy (the Milky Way) got its spiral structure, what drives powerful radio jets from some supermassive black holes in far away galaxies, etc.

One concept familiar to all western astrologers is the constellations of the Zodiac: Aries, Taurus, etc. These are the names of the 12 constellations which the Sun 'passes through' during one year. If you say 'I am a Leo', then that is supposed to mean that when you were born, the stars projected to be behind the Sun (as seen from Earth) were stars of the constellation Leo. It takes about 1 month for the Sun to move from one constellation to another (360 degrees in a circle, and there are 12 months; $360/12 = 30$ degrees per month). Constellations are just names for a particular *projected* group of stars; the stars are not typically associated with each other physically.

A common 'flaw' in astrology as seen by astronomers is that, the 'sky' that astrologers use in their charts (called *birth charts*) is out-of-date, i.e., it is based on much older sky positions. What I mean is that, the sky as we see it at night today from a certain location, will look drastically different from the sky we would observe at night from that same location 14,000 years from now. In other words: the 'North Star' is currently a binary star called Polaris. In 14,000 years, the star which will be seen at the same location that Polaris is at now, will be another star called Vega. this is because the Earth slowly wobbles like a spinning top that's losing its spin power. But the Earth's rotation axis takes about 26,000 years to make one full wobble cycle, so over the course of a human lifetime, we don't really notice the effects. The reason why the Earth precesses is due to the torque exerted on the Earth by the Moon and the Sun. This is not straightforward to understand if you have not learned about the celestial sphere. To visualize this, you can look up 'precession of Earth' on Google Images.

The consequence of this on astrology is that, when I say I am a Gemini since I am born in early June, the Sun was not actually projected against the constellation Gemini when I was born, since due to precession, everything is skewed. The Sun was actually in the constellation Taurus. Everything is roughly 25 degrees off-kilter.

Having said this, it is not clear to me that this is even seen as a flaw for western astrologers, as they appear to use what is called the 'Tropical Zodiac', which is not based on the *actual, physical* locations of the planets projected along the zodiac, but rather is based on the seasons.

There is much more to be said about astrology than I have said here, but the basic difference between it and astronomy is that: astrology is not a science as the definition of 'science' goes. It may be considered a pseudoscience; some consider it more of a belief or just something to refer to for fun. Astronomy is a science; it is a branch of physics. If you are still not satisfied, I encourage you to look on the web for further knowledge (i.e., Wikipedia).

Sept. 12, 2006 – A.J. Ruiter