

Astrology! Does it work?

(an introduction to skepticism)

By BRENT SILBY

We've all done it. It usually happens in a moment of weakness. You see the newspaper sitting on the table, inviting you to take a little peak into your future. Quickly you turn to the horoscope section and browse down the list until you find your star sign. With baited breathe, you read through the short paragraph to find out what events are in store for you over the next few days. Often the predictions seem vague, almost like they aren't yours. But occasionally something fits and you find yourself exclaiming, in a moment of clarity, "ah, yes, of course...I understand".

Astrology is a significant and ancient part of our culture. Essentially, astrologers claim to be able to predict the future by referring to the position of the planets and stars. Astrologers believe it is possible to categorize people's personality according to their date of birth. To do this, Astrologers use two-dimensional charts of stars and planets which show their visual position as seen from Earth. This so-called *horoscope* chart is divided into 12 groupings, which are said to govern different aspects of human life. Ancient and traditional, this belief system has changed little in the last 4000 years. There are not many examples 4000 year old knowledge that we take seriously today, but somehow Astrology has survived.

So, why do people believe in the predictive power of Astrology? It seems to be a common human trait to look for meaning, even in situations where there is none. People need to have reasons for why things happen. Astrology provides convenient, simple reasons for events. Astrologers usually tell people exactly what they want to hear, and this can be comforting. People feel safe and secure when they know that there are reasons for what's happening to them,

and they feel even better when they know that life is unfolding according to a predictable scheme. This drive for security is also a driving force behind people's urge towards religion.

But there is an obvious problem. Most of the time Astrology doesn't work. The predictions made by Astrologers either fail to eventuate, or are so bland that they are essentially meaningless statements of the obvious. Furthermore, most of the time astrologers don't actually tell us what's going to happen. Instead, they simply tell us what we should do. For example, your horoscope may tell you to prepare for a long trip, or to seek the number 7, or to keep an eye on a friend who may betray you.

Given Astrology's low success rate, it seems incredible that people continue to support it. Why do people continue to believe? Why do people continue to flick through to that horoscope section in the newspaper? Well, unfortunately we humans are not as rational as we like to think. There is a flaw in human reasoning that compels us to look for evidence that confirms our beliefs rather than focusing on evidence that refute our beliefs. If an astrological prediction works once, then that's enough for most people to conclude that its reliable. The single instance of apparent success seems to camouflage the hundreds of instances in which Astrology doesn't work. In short, people gloss over Astrology's regular predictive failures while focusing on the one time it seemed to succeed.

Refuting Astrology and Fortune Telling

Given our disposition to search for confirmation rather than refutation of beliefs, we have to work hard to see through the trickery of the astrologer. We need to think rationally about whether Astrology works, and we need to focus our search on evidence.

But what evidence could we possibly find to refute Astrology? Well, a starting point may be to purposefully carry out actions that contradict the Astrologer.

For example, if an Astrologer (or any fortune teller) predicts that: *tomorrow you will be killed by a truck as you cross the street*, you could easily render the prediction false by staying at home all day. Simple! Just don't leave the house.

Would this be enough to show that Astrology (and fortune telling in general) doesn't work? Well, on the surface it would seem so, but fortune tellers have tricks up their sleeves. First, it is unlikely that any fortune teller would make such a definitive prediction. It's too risky. Such precise predictions could easily fail to eventuate and blow the Astrologer's game. If, however, they did make a definitive prediction and it didn't come true, the fortune teller could draw on a stock standard response and claim that they had simply predicted a *possible future*, and that in this case it didn't occur. Our response to this would be to question whether fortune telling and Astrology are of any use at all, if the most they can do is predict *possible* futures. After all, anyone can imagine *possible* futures. Every time I cross the street I can imagine a range of possible futures—especially when I see a truck driving towards me. Unless fortune tellers can foresee the *actual* future, their predications are worthless.

Another issue for Astrology is the fact that Astrologers cannot explain how their field works. If Astrologers want to be taken seriously then they surely have to offer some explanation for how it all works. It's not enough to say it's *magic*, or *mystical*, or *unexplainable*. We want reliability, which means we need an explanation in terms of a mechanism that can be examined and understood.

Of course, the Astrologer would probably respond by suggesting that many scientific theories could not be explained in the past. An example is Plate Tectonics, which, as a theory, was around a long time before anyone could propose a mechanism for how it works. But this response would be misguided. There is a big difference between Plate Tectonics and Astrology. Plate Tectonics describes events consistently which is why the theory gained support. In its early days, Plate Tectonic theory was known simply as Continental Drift. It was

highly theoretical, but it offered an explanation for certain features of the natural world—not the least of which was the fact that continents appear shaped to fit together, much like a jigsaw puzzle. Unlike Plate Tectonics, Astrology doesn't provide any definitive answers to questions about the world. It is inconsistent, subjective, and doesn't always work. The closest an Astrologer can come in terms of providing a mechanism for how their field works is to point to the orbits of the planets and the positions of the stars. Planetary motion is an ordered, predictable mechanism, so this could be the Astrologer's way out of the problem.

Unfortunately for the Astrologer, the predictable mechanism of the planets does not seem to provide consistent Astrological results here on Earth. Consider the central Astrological claim that the positions of the planets and stars will, at the moment of our birth, determine our personality and will continue to determine the type of life that we lead. If this is true, then all people born with the star sign Capricorn should have the same personality. Furthermore, any prediction for Capricorn should be the same for all individuals born in December—including animals. But this does not seem to be the case. In fact, people born under the same star sign can lead vastly different lives. They even die at different times. Besides, what's so special about the moment of birth? Surely the moment of conception would be the point at which the stars and planets define a individual's personal characteristics.

An interesting and related point is the fact that Astrologers using the same charts seem to make vastly different predictions. Here's a research assignment for you. Go out and buy three newspapers and two magazines. Flick to your horoscope in each of these, load two Astrology websites and compare your readings in each of these media. You will find staggering inconsistencies. It seems that Astrologers, using the same methodology, generate totally different results. This is a major problem. Surely all predictions for Pisces should be the

same! If Astrologers can't agree with each other, then why should we trust any of their predictions?

But wait! There's more. Astrology places significant importance on constellations. These are the shapes that one can draw through a "connect the dots" type game with the stars. Our ancestors connected stars together to draw shapes relevant to their culture, signifying important aspects of their day-to-day life. But these shapes are arbitrary. Ancient people could have connected the stars in a number of different ways. It just so happened that they drew shapes that they deemed important, and these shapes have embedded themselves in history. The shapes in the stars are nothing but a human invention and without people on Earth, there would be no constellations. In fact, over the next hundred million years as the stars move through the galaxy, our current constellations will disappear. Their shapes will gradually skew away until they fade from existence, never to return.

A further issue for Astrology is the fact that it is based on ancient star charts that did not include all the planets in the Solar System. How can Astrologers claim that their system works if they don't take all the planets into account? Surely ancient Astrological predictions would have been bugged by consistent errors, which would have hinted at the existence of other influencing planets. But no Astrologer has predicted the existence of unseen worlds. In fact it is science that discovered the existence of other planets, not Astrology.

Many Astrology supporters may gloss over these points, or explain them away as quirks in the Astrological system, but this is unsatisfactory. If Astrology is to be taken seriously then it must be a robust predictive system that works consistently. The fact that Astrologers make inconsistent readings based on star signs that are nothing more than an arbitrary human invention should give all rational people a reason to doubt their predictions. Our natural inclination to seek confirmation rather than refutation of theory is an intellectual impairment that can only be overcome with deliberate, rational analysis of the situation.

Rather than focusing attention on a single instance of apparent success, we must force ourselves to shift attention to the multitude of failures. A single success cannot outweigh a string of failures. We humans are intelligent and continue to uncover the mysteries of the Universe through science. We do ourselves a disservice by continuing to propagate ancient beliefs as real. These ancient ideas hold us back. Let's move forward. Let's liberate ourselves from an archaic world view. Let's use our rationality to discover the real truth of the Universe and our unique place within it.

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