

**THE SECOND
COMING**

Astrology

All the best from *the Skeptic*

1986 - 1990

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Astrology

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Astrology - The Oldest Con Game. Part II.

- For Part I, see 'In The Beginning' page 8 -
Vince Ford

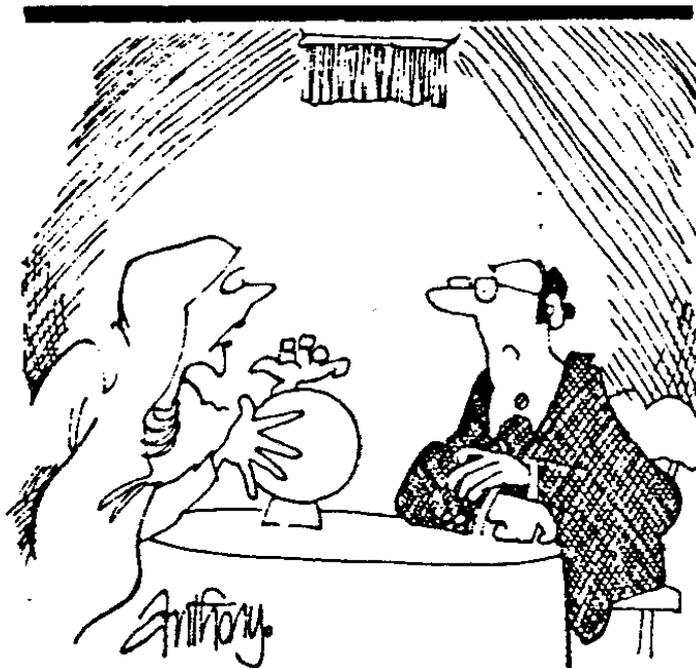
One of the real killers for astrology should have been its utter failure to predict the existence of Uranus, Neptune and Pluto. After all, the astrologers were very quick to assign influences to them following their discovery. Why was their presence not predicted from study of those influences in the centuries before their discovery. For centuries astrologers must have been working with horoscopes that were hopelessly in error. Such errors should have been open to analysis if astrology is the science that its practitioners would have one believe. As it was, the outer planets were discovered by mathematicians and astronomers who were investigating gravitational influences on the known planets and who were searching for the bodies they had predicted to explain the errors in astronomical planetary tables. This is a classic example of the complete failure of predictive astrology and the success of predictive astronomy. Astrologers have since tried their hand at predicting new planets, Vulcan and Cybele for instance, but so far no trace of them has been found. This lack of success has not worried the astrologers. They seem to be able to hold two

conflicting views - the early horoscopes drawn without the outer planets, and the post-Uranian horoscopes. Both horoscopes are considered to be of equal value (which of course they are - value = 0).

So one of the big differences between astronomy and astrology is the way in which their practitioners look at the sky. Astrologers see only the zodiac, fixed, immutable, populated by 12 equal signs and traversed by the sun, moon and planets exerting their various influences on a helpless humanity. Contrast this with the universe revealed by astronomy -

a limitless, evolving cosmos in which humanity is seen as part of the complete scene of evolution from hydrogen atoms to life via the nuclear furnaces of the stars.

Another difference between astronomy and astrology is the way in which the two relate to other sciences. Astronomy unites all the physical sciences. An advance in physics, for example, leads to a better understanding of astronomical problems and vice versa. Indeed most of the major advances in science have come about as a result of astronomy. Newton and Einstein, for example, made their most important discoveries when developing mathematical methods to solve astronomical problems. Astrology, on the other hand, stands aloof from any science. Not only can its ideas not be reinforced by reference to other sciences, but it suffers badly when compared to any of them. The 'fluence', for example, cannot be explained or tested by any of the laws of physics or mathematics, nor are its supposed effects compatible with the results of the life sciences. The sciences provide an internal check on each other; the findings in one (such as geology) being consistent with findings in the others (like biology). In the case of astrology however, its claims run counter to just about everything we know in physics, biology, psychology and astronomy. Although all scientific theories have a few problems, astrology is so full of anomalies that it can only continue



"Well, let's get started - you haven't got all day"

to operate by denying all the other sciences and the accumulated knowledge that has lifted humanity out of the Dark Ages.

If astrology is a science, as its adherents claim, then it must be testable in the way other sciences are. In science, any theory must be tested by experiment and if the experiment gives a result that says the theory is incorrect, then the theory has to be scrapped or modified to fit the

observed facts. How does astrology stand up to this sort of testing? Several large scale surveys have been done, mainly in Europe and the US, to test astrological beliefs. Snell and co-workers used two random samples of 1500 entries from biographies of leaders in various fields to test the hypothesis that leadership qualities were tied into the zodiacal signs (Virgo is supposedly a weak leadership sign). No trends were found significantly above those expected from random chance. Roger Culver tests his astronomy classes each year for relationships between physical characteristics and sign. So far no positive correlation has been found. This is not surprising since astrologers cannot agree on just what, for instance, an Aries should look like. Michael

Gauquelain tested the claim that the sign determined the profession. He used a sample of 15560 successful professionals in ten different professions. No correlation was found. Gauquelain reported a possible correlation between successful sportsmen (not basketballers and the position of Mars. This was immediate headlines - "Scientist proves astrology works". However Gauquelain proved conclusively that none of three tests worked. The sport/Mars effect only showed for successful sportsmen as defined by Gauquelain. When an independent test was done with someone else defining "successful", the effect vanished.

Probably the most telling test was done by

Silverman, a psychologist at MSU. He used twelve personality descriptions from an astrology text, one for each sign, and gave them to two independent test groups. The first group was not told what was being tested or where the descriptions had come from, and was asked to pick the description that described them best. Less than 30% chose the description for their sign. The second group was told what the descriptions were and to which sign each description pertained. 70% chose the description for their own sign as the best one. This is a classic example of the “Bandwagon Effect”. If people know the expected answer, that is the answer they give regardless of its relevance. After all “50 million Frenchman can’t be wrong.”

There are a few simple tests that anyone can do to convince themselves of the fraudulence of astrology. Firstly, compare the “Stars” columns in four or five different newspapers. If there is any scientific basis to astrological prediction the columns should be practically identical and contain solid predictions. Instead you will find no general agreement and no prediction, just generalized wishy-washy verbiage of thoroughly general meaning. There may be a good reason for the lack of solid prediction. A few years ago a friend of mine was assured by an astrologer that Friday would be a great day for romantic interest. On Friday his mistress gave him the heave and his wife found out about it. The astrologer was severely battered about the head and shoulders. Secondly, keep an accurate record of the number of times your local astrologer gets predictions right and wrong. You will find that they are much the same as could be expected by random chance. If you cannot be honest enough with yourself to avoid the bandwagon effect, keep tabs on someone else. Another simple test. Check two people who have the same birthday. If there is anything at all in astrology they should be very much alike in appearance, behaviour and lifestyle. The ones I’ve checked people as birthdate.

So if astrology fails every test thrown at it so far, if it denies the accumulated knowledge of centuries and insists on remaining as a leftover from the Dark Ages, and (worst of all) insists that the universe is very different from what it patently is, how does it survive? Astrology today is big business and is wrapped in the trappings of genuine science. All astrologers have their computer, and use genuine astronomical ephemerides to calculate positions (even if they then do insist on labelling the “correct” position with the name of the constellation one to the west). Above all they have the media sewn up. No paper or magazine for the general market is without its “Stars” column. People who are confused about science, do not understand

what science is all about I and do not know what it has to offer are easily misled by the trappings and convinced that “there must be something in it or the paper wouldn’t print it”. Unfortunately 50 billion earthmen can be wrong, and it does not matter what glittering technological trappings a philosophy is wrapped in, if the basis is demonstrably untrue the philosophy is a sham.

To quote astronomer. Jay Paschoff of Hopkins observatory in the US, “From an astronomer’s point of view, astrology is meaningless, unnecessary and impossible if we accept the broad set of physical laws we have derived over the years to explain what happens here on earth and throughout the rest of the universe. Astrology snipes at the roots of all science. Moreover astrology pat are as mixed a batch of any batch, regardless of iness and is wrapped ently does not work. If people want to believe in it as a religion, or to have a personal astrologer to act as a surrogate psychologist..”, fine, but they should not be deluded by the false scientific gloss that astrologers Cloak their activities in. The only reason that people may believe they have seen astrology work is because it is a self-fulfilling means of self-delusion conceived of long ago when we knew far less about this exciting and vital universe of ours.

Some astronomers treat astrology as a harmless joke, but I cannot see it that way. Astrology is as deadly harmful as any of the multitudinous ways that exist for people to “cop out” of making their own decisions and taking the consequences of those decisions. That is probably the largest factor in keeping our poor race in the mess it is in at present.

One parting thought. The heavens do have a great effect on humanity. The sun is the source of all the energy on which life on our planet depends. The moon is the cause of the tides which keep the oceans moving and without which life many never have evolved. The planets and stars have been a source of wonder ever since people first looked up. The attempts to find out just what they are have led to the great breakthroughs in the physical sciences that have lifted humanity above the level of the beasts. But these heavenly influences are all physical, not the type of mystical fluences that astrology would impose.

Vince Ford, a research officer at Mt Stromlo and Siding Springs Observatory, Australian National University.



Astrological Birth Control

Mark Plummer

Would you rely on astrology as a birth control measure?

Beverley Farrell of Crows Nest (NSW) does and has an advertisement for her Astrological Birth Control system in the current issue of the Australian Astrological Monthly review.

Just send her \$35, your name, address, time, date and place of birth and she will send you a folder charting your Astrological Fertility Days for the next three years!

Ms Farrell told me that she has been promoting her system for five years and has used it as a fertility measure for women who find it hard to conceive. Ms Farrell calculates the angle of the sun to the moon at the moment of a client's birth.

Ms Farrell claims that when this angle is repeated each lunar month the person is fertile at that time.

Thus she claims that women have two fertility cycles. One is the normal ovulation cycle, the other is an

astrological cycle which reaches a peak each time the sun and moon reach the same angular relationship as at the moment of a woman's birth.

Ms Farrell says the astrological fertility date does not always coincide with a woman's ovulation date.

She further claims that spontaneous ovulation occurs when the moon returns each month to its designated angle to the sun. Thus a woman biologically capable of conceiving can have two fertile periods within a menstrual cycle.

Ms Farrell has written that the ancient concept of copulating on the "right" day, or even at the "right" hour (if the exact time of birth is known) is a viable proposition for women who are genuinely interested in conceiving.

For those women who do not want to conceive, adherence to Ms Farrell's system means a lot of abstinence. She says that women who do not wish to conceive have to abstain for two days before and after the astrological fertility dates and the natural ovulation dates (should they not coincide).



According to Ms Farrell men can have their moments of high and low sperm potency. Thus, if a couple wish to-conceive they can benefit by both partners knowing their Astrological Fertility Days.

Ms Farrell based her system on the theories of a Czechoslovakian psychiatrist, Dr Eugen Jonas. Jonas held that the astrological cycle is responsible for 70-85% of all pregnancies, and that abstinence based on his theory is 98% effective as a birth control method.

Before you rush your cheque for \$35 to Ms Farrell it is worth knowing what scientific experts have had to say.

Dr Stewart Nicol, the Australian Skeptics' Tasmanian representative and lecturer in the Department of Physiology at the University of Tasmania, believes there is no relationship between the date of birth and fertile periods. He said that he is amazed that Ms Farrell doesn't even ask for a woman's current menstrual date.

He said that it would be easy to test her predictions of fertile periods by calculating a women's body temperature and other indicators of her menstrual cycle. Dr Nicol also said it would be easy to set up a test to check Ms Farrell's claims as to a man's sperm potency.

Dr Tony Wheeler, the Australian Skeptics' Queensland Branch Secretary and tutor in the Department of Physiology at the University of Queensland said that women's menstrual cycles and fertility dates are too irregular for Ms Farrell's system to work. He believes that it is nonsense.

Scientists have examined the theory of Ms Farrell's mentor, Dr Jonas.

Perth Skeptic, Dr Geoffrey Dean, has specialised in collecting information on astrological research. He has examined Dr Jonas' work and found serious objections to his theory. He found that the majority of independent studies failed to confirm Dr Jonas' theories.

He says Jonas was led to his theory by the high failure rate of the rhythm method of birth control. This method was widely used in Czechoslovakia, partly because the population was predominantly Catholic and partly because other methods were not available at that time. Thus his method was intended to supplement the rhythm method with all its shortcomings.

However, Dr Dean points out that the latest research in human ovulation by the Melbourne in-vitro-fertilization teams at the Queen Victoria Hospital and the Royal Women's Hospital is the best refutation of Jonas' and Farrell's theory of a second ovulation cycle tied to the sun/moon angle.

The teams have been able to observe the functioning of the ovaries directly

by ultrasonic imaging techniques. They have found no evidence of a second ovulation cycle outside the normal cycle. They confirm that fertilization occurs at the time of the most fertile period in the normal ovulation cycle and not at any other time.

So the presence of an astrological fertility time has been conclusively disproved.

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Controlled testing ... Of what?

Harry Edwards

Contrary to what Anthony Garrett says in his article, "The Paranormal: Fact and Fiction" (*the Skeptic*, Nov 86), that "horoscopes are not susceptible to testing under controlled conditions" - I submit that they are.

There are two basic types: natal charts mundane horoscopes.

Both are erroneously based on the principle that the distant planets directly influence terrestrial life and events, and that as the movement of the planets is predictable, so therefore are the events they allegedly influence - an immutable future is assumed.

This belief is ameliorated to an extent in natal horoscopes to accommodate skepticism by using the word "trends" rather than the absolute commitment implied by the word "predict". It is further abrogated by reassuring the subject that one's destiny can be dictated by the exercise of "free will".

How "free will" can influence an immutable geophysical disaster only Moses knows!

Natal charts can only be evaluated in retrospect, an impossibly time consuming project, but as the writer points out, the ambiguity inherent in all astrological character profiles, coupled with the subject's self-perception, renders them invalid.

Testing therefore is possible if one wishes to spend a lifetime proving the obvious.

A simpler way, however, is to give an astrologer a date and place of birth (no name or sex) taken from a headstone in a cemetery, or obtained from a Registrar of Births, Deaths and Marriages, and ask him or her to erect a natal horoscope.

The date chosen should correspond with that of a famous person born around the end of World War 1

John F. Kennedy, Gamal Nasser, Solzhenitsyn, Edmund Hillary or Billy Graham, to mention a few whose lives have been well documented.

Once the astrologer has erected the charts (I say charts, as two would be required, for despite their alleged infinite precognitive knowledge they are unable to determine the sex of a subject) with detailed character analysis, the trends in the subject's life, their achievements, failures and ultimate destiny: the results could be quite startling when the subject is revealed to be a one week old baby who died along with 21,000,000 other persons in the influenza epidemic of 1918!

The argument of "free will" is thus disposed of, and even though the stars are traditionally beneficent when it comes to health and longevity forecasts, ethics preclude astrologers from telling their subjects to expect an early departure date, confirming the sceptic's view that astrologers, clairvoyants and psychics only tell their clients what they would like to hear.

Should the more sagacious astrologer smell the red herring and attempt to interpret accordingly, then one would be entitled to ask, "If a specific configuration of planets can signify an untimely end, how does astrology equate the 30,000,000 premature deaths in World War 11 with almost as many different configurations?"

Mundane horoscopes (i.e. the astrological predicting of events other than those of a personal nature) are easy to monitor, and were the subject of my research in 1983-85.

In this type of horoscope, an arbitrary date of "birth" is used: the date of a company's incorporation, the date of an institution's establishment; or in the case of a nation like Australia - 1788, January 1 1901, or 2pm Thursday April 1, 600 million BC; in the latter case, either will do as the result is directly proportional to the breadth of the astrologer's imagination.

The predicted events gleaned from such fantasising must logically be based on an immutable future, but I wonder if astrologers had warned of the coming of Cyclone Tracy, whether the combined "free will" of 15 million Australians could have averted the tragedy?!

Under scrutiny was Old *Moore's Almanac*, a well-known and revered publication in astrological and farming circles since 1697. My study of it concluded that its longevity was due to the credulity of its readers rather than any pretext of it being a reliable preview of the future.

A principal contributor was Doris Greaves, founding member and president of the Australian Federation of Astrologers, member of AFA (USA), and author of several books on the subject of astrology.

Doris attached much importance in her predictions to the coming of Halley's comet - the Labor Party's

landslide victory in 1983 and the disastrous Ash Wednesday bushfires. A similar landslide victory to the Liberals and the Darwin cyclone when the malevolent comet was a decade further out in space, however, does little to support her contentions.

Of the 150 predictions specific enough to be termed such, 93% failed to materialise. The remaining 7% hits were obviously based on information readily obtainable from a variety of orthodox sources together with way out speculation and guesswork.

This lamentable record was further exacerbated when taking into consideration the 600 headline events of equal or greater magnitude during the same period of which there was no mention, including some 20 major earthquakes, 17 political assassinations, 9 elections, the world's biggest drug bust (\$1.3 billion in Columbia), 65 aircraft disasters, the Union Carbide gas leak which killed 2500 people, and dozens of fire, train, bus, mine and assorted catastrophes which took the lives of tens of thousands of people.

Why were they not seen, and why were we not warned if the future can be so easily determined by mathematically compiling a chart?

During the past three years, I have challenged through the local and national press at least four astrologers to prove their claims by erecting a chart, detailing their interpretations, and by making just one specifically worded prediction - none have accepted.

On reconsideration, perhaps Anthony is right, but for the wrong reason -there's nothing to test!

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What star sign are you really?

Sir Jim R. Wallaby

In a scientifically designed opinion poll, conducted among my acquaintances, it is revealed that 97.35% of Australians know their "star sign". What is not revealed is how many of them know what it means.

Some time in the dim, distant past, star gazers ascribed patterns to the stars and named them after various animals, 'mythical heroes and artifacts. It requires a far degree of imagination to see the supposed resemblance of these constellations to the objects for which they are named, but we must remember that the ancients did not have television and had to do something to fill in their nights.

At about the same time (give or take a millennium) some of the stargazers decided that these

TABLE 1

Constellation	Sun entry astrological date	Sun entry actual date	Time/days
Aries	March 20	April 18	22
Taurus	April 20	May 11	35
Gemini	May 22	June 15	26
Cancer	June 22	July 11	21
Leo	July 23	August 1	38
Virgo	August 22	September 8	47
Libra	September 22	October 15	25
Scorpio	October 22	November 19	6
Ophiuchus	Never heard of it!	November 25	18
Sagittarius	November 22	December 14	34
Capricorn	December 22	January 16	30
Aquarius	January 22	February 15	24
Pisces	February 21	March 10	39

constellations, and various other celestial bodies, in some way controlled human affairs, and thus invented astrology.

The important constellations were those 12 that lay along the ecliptic (apparent path of the sun) and a narrow band on either side of it, approximately 18° in total width. This was named, presumably by a Greek, the zodiac (circle of animals). The important thing about the zodiac is that the sun, the moon and the planets are always within its compass. Well, nearly always. Mercury and Pluto (the second of which the ancients knew nothing about), because of the tilt of their orbits, are sometimes outside the zodiac.

In about 100 BC, astrologers set down the rules of their “science”, which are still used today. They decided that the sun spent equal time in each constellation, i.e. 301 or approximately 30.5 days. We can be reasonably accurate with the date of this event, because 100 BC was the time when the sun entered the constellations at approximately the time that astrologers said it did (and still do).

But time, as they say in the classics, marches on, and so does the zodiac. The earth, as well as revolving around the sun and rotating on its axis, over a period of 25,800 years, describes a great circle against the background stars. This is known as precession and is best viewed as the wobble a top develops as it runs down.



This has an effect on our perception of the zodiacal constellations, and in the 2000 years that have ensued since the rules of astrology were set in concrete, the zodiac has moved around by one full sign. Not only that, but two other constellations now intrude into the zodiac. The first, Cetus (the Swan), only just intrudes and in fact does not cross the ecliptic, and can safely be ignored by astrologers (they ignore a lot of other things, so a little bit of Swan should cause no problems).

The other constellation, which should be more difficult to ignore, is Ophiuchus (the Serpent Bearer) which takes up 75% of the space ascribed by astrologers to Scorpio. Ophiuchus gets no recognition from astrologers, and the reasons for this may be that it is hard to pronounce or that 13 signs is a bit difficult for simple mathematics (or simple mathematicians).

Of course, astrologers have an answer to this problem. Why not, they claim to have the answer to every problem. They claim that their signs share nothing but the name with the actual constellations (thus ignoring the history of their “science”). Their signs are patches of arbitrarily designated sky all exactly 302 in length and having no physical references at all.

Of course, the constellations are purely arbitrary constructs too, the constituent stars having no physical

connection with each other (to a large degree), merely being patterns that happen to fall within the same line of sight when seen from earth. Move a few tens of light years away and no familiar constellations would be apparent.

All of which is a rather long-winded way to get to the answer to the original question, “What sign are you really?”

Back in 100 BC, your sign and its co named constellation were in roughly the same place. Table 1 shows just how far out of whack things have got since then. Also shown are the number of days that the sun spends in each constellation. Amazingly enough, only one is even close to 30.5 days.

If you care to work it out, the sun is only in the constellation and the equivalent sign on 106 days of the year. If we were to arbitrarily make the constellations equal in their zodiacal contact, the sun would spend only 22 days in both together, and by the year 2113, it would never be in both the constellation and the signs at the same time. Of course, in 25,700 AD or thereabouts all will be well again.

Naturally enough, astrologers will say “So what”. Having divorced their signs from the constellations in the far past, they are happy with their current views of the zodiac. That is all very well, but there is no evidence that the actual constellations have any effect whatsoever on human destiny and at least the stars within their constellations have a physical reality. Why then should we believe that the even more arbitrarily designated signs, which have no physical reality at all but were merely made up by early astrologers to counter the effects of precession, can be influential. The conclusion is, of course, that they do not, and there is plenty of evidence to support this conclusion.

In a later article, I will look at the matter of planetary influences, which astrologers seem to believe is even more important.

If you wish to startle the next person who asks you “What is your sign?”, you can use the information in Table 1 to reveal the constellation in which the sun resided on the date of your birth, and challenge your interlocutor to guess your birth date. As for me, if I use real stars and real times, I am a Libran. If I use astrologers’ time and real stars, I am an Ophiuchan. And if I use astrologers’ stars and time, I am a Scorpio. No wonder I’m confused!

Sir Jim R. Wallaby was born into a poor gypsy family, but at six weeks of age, he was stolen by passing royalty. He regards himself as a wit, and in this he is haft right. Lloyd George never met his father.

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Was It Ever Rational to Believe in Astrology?

David Widdowson

Given what we currently know about the universe, it is of course unreasonable to believe that the positions of the heavenly bodies can affect the behaviour and personality of people on Earth; that is, to believe in astrology. But has such a belief always been unreasonable? After all, there were the observed effects of the Sun on the weather and the moon on the tides, as well as other supposed correlations such as between the lunar month and the menstrual cycle. Did such effects make a belief in astrology rational? To examine this question, it is necessary to look at the historical basis of astrology.

One of the central features of astrology is the system of ‘star signs’ and the characteristics that are associated with each sign. For instance, people born with the Sun in Leo are thought to be strong, proud, forceful and natural leaders. Why is this the case? Was it because ancient people observed Leonians to be like that? This turns out not to be so; rather, it was that these were characteristics of lions, therefore they came to be associated with people of this sign. This type of connection can be seen in many of the signs; for example, people born under:

Aries - like a ram, are quick tempered and impulsive

Taurus - are stubborn, persistent and determined, like a bull

Cancer - as a crab, are outwardly hard but inwardly soft (emotional)

Libra - the scales have a balanced personality, harmonious

Capricorn - are tough and tenacious, like a goat ... and so on.

This type of ‘magical’ correlation between the names given to the signs and the characteristics they produce in people has a certain crude logic to it, but you could hardly say it was a rational system. Just because a constellation looks like a bull, it doesn’t follow that a person born when the Sun is in that sign will have a bullish character; such a belief is magical rather than rational.

In any event, most of the constellations are not named after the shape of the stars, but rather from other factors such as the seasons, myths and legends.

Characteristics of the signs also derive in part from

the planets that were thought to rule them. The properties of the planets were in turn based on fairly simple symbolic correlations; for instance, the Sun was strong and dominated the Earth, hence it gave strength, leadership. The moon was subtler in its effects, so was associated with emotions. Mercury, the fastest planet, was quick, shrewd, clever, and ‘mercurial’. Venus, bright and beautiful, represented love, beauty and goodness.

Mars, red, meant war, hatred, cruelty and evil. Jupiter, bright, white ‘majestic’, was happy, optimistic, and ‘jovial’. Saturn, dull yellow and slow, was gloomy, ‘saturnine’.

When it came to assigning rulerships by the planets over the signs, one would expect there to be an attempted match between the properties ascribed to each. But actually, the ascription of planetary rulerships (by Ptolemy, around 150AD) was actually arbitrarily based on the supposed order of planets from the Earth, as Table 1 shows.

As can be seen, Mars is given the rulership of the first sign, Aries, then the rulerships move in to the Earth and then out again; the only exception is Leo which ‘naturally’ rules the Sun. (Even this may not be the case if the Sun was thought to be closer than Mercury and Venus, although this is unlikely.) So, apart from Aries and Leo, the ascription is purely arbitrary and not based on any reasonable belief. The arbitrariness leads to some incongruous associations; for instance, surely Virgo is more suited to Venus than Taurus is.

By the way, the discovery of three new planets caused quite a problem for the system of planetary rulerships (as it did for astrology in general) because there were no signs for the new planets to rule. One solution was to have two planets rule some signs, but, to use the astrologers’ crude symbolism, it may be possible for a king to rule two kingdoms, but surely two kings can’t rule the same kingdom!

A further arbitrary element in the characteristics of the signs comes from their classification (also by

Planets (in order)	- rule -	Signs (in zodiac order)
Saturn	Aquarius	← Capricorn
Jupiter	Pisces	Sagittarius
Mars	Aries	Scorpio
The Sun	↓	Leo ↑
Venus	Taurus	↘ Libra
Mercury	Gemini	↑ Virgo
The Moon		→ Cancer

Ptolemy) according to the four elements and the three qualities. The elements and their properties were: Fire - volatile; Earth - practical; Air - lively; and Water - emotional. The three qualities were Cardinal (active), Fixed (stable) and Mutable (changed by external factors).

There are twelve combinations of element and quality (e.g. cardinal fire, fixed earth, etc) and each sign in order was given one combination as is shown in Table 2.

It can be seen that every fourth sign is ruled by a particular element and every third by a certain quality. The only aspect of this that is not arbitrary is the order of the elements, which contrasts with the order in Aristotle’s system fire, air, water, earth. This was probably done to give Capricorn and Taurus to earth, and Cancer and Pisces to water. There are still some incongruities; perhaps Aquarius should be water, Scorpio fire, Leo cardinal, etc etc.

To summarise, this study shows that the basis of astrology is neither reason nor experience, but rather:

1. A ‘magical’ belief in the correspondence between the properties of a star sign or planet and human characteristics; and
2. The generally arbitrary ascription of planetary rulerships and the classification of the signs.

Both factors are completely foreign to science and other rational fields of thought. To illustrate this, imagine physicists using the ‘astrological method’ to explore

the subatomic world. Their reasoning might run like this: How many subatomic particles are there? Let’s ascribe each a letter of the alphabet. OK, so there are 26 of them. What are they like? Well, A is the first letter so the A particle is the

Classification	Fire	Earth	Air	Water
Cardinal	Aries (1)	Capricorn (10)	Libra (7)	Cancer (4)
Fixed	Leo (5)	Taurus (2)	Aquarius (11)	Scorpio (8)
Mutable	Sagittarius (9)	Virgo (6)	Gemini (3)	Pisces (12)

first and most basic. The B particle? Well, that swarms around like a bee. The X particle is difficult to know. Etc, etc. Of course, this is absurd, but no more absurd than astrology is.

Astrology's irrational basis explains to an extent how it survived the scientific revolution and why it flourishes today in spite of all the rational arguments used against it. It also seems that it will go on flourishing where irrationality continues to thrive.

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Presidents don't lie ... do they?

Harry Edwards

Invariably, in a last forlorn attempt to avoid the finely honed blade of rationality descending to lop off the head of the believer in your basic Babylonian baloney, an oft heard cry of desperation arises "We don't know how it works, but it does" and "What's the harm in having a bit of fun, anyway?".

In addressing this favourite argumentum ad ignoratum, knowing the nature of the energy, force or law fundamental to the process is surely essential if any claim of astrological influence is to be taken seriously. Further, after 4000 years, despite the devotion of noteworthy intellectuals to its study, and notwithstanding the exponential increase in knowledge in all the scientific disciplines, astrology, at least to the rational mind, remains superstitious nonsense.

In the second instance, by relegating the "science" of astrology to the status of a fun game, the proponents themselves denigrate the art, and abrogate any worth as a divinatory system or a serious character assessment tool.

Using an extreme and perhaps fatuous analogy, "having a bit of fun" to my mind likens the adherents of astrology to those who voluntarily expose themselves to the risk of AIDS for the same reason.

A review of the historical testimony left us by the Moonies, the Raj Neeshi, the Rev Jim Jones and other purveyors of intangibles, miracles, the quick fix and "wisdom" from extraterrestrial sources, dispels any suggestion that this is an absurd analogy, for it is a simple progression from having faith in and dependence on an astrologer, psychic or guru, to the membership or following of an organisation in which the credulous, unsuspecting and innocent are manipulated to part with their money, minds, and in extreme cases, their lives.

The Case of R. Reagan

If superstitious beliefs and their supposed influence on the destinies of mankind are of concern to the rational mind, how much more concerned should we be to learn that one of the world's most influential men - the President and commander-in-chief of the USA, in whom is invested the power to exercise control not only over the lives of millions, but, in theory at least, the very survival of our planet - is himself directly and/or indirectly influenced by the minds of those trapped in a mythological time warp?

This bizarre scenario of a president whose intellectual fortitude is such that the baseless prognostications of 20th century shaman override his capacity for decision making, is revealed in a new book "For the Record" by former chief of staff Donald Regan.

In the book, Regan discloses that both Ronald and Nancy Reagan have been consulting astrologers for the past 50 years, and that the timing of many important public events has been determined by astrological advisers to them.

Not that this creates a precedent - George Washington, Thomas Jefferson, Ben Franklin, Richard Nixon, the Fords and Henry Kissinger all reputedly consulted astrologers, were interested in or had recourse to astrology, and the wives of presidents Lincoln, Harding and Wilson all consulted clairvoyants. The entertainment industry too, in which Reagan made his debut and ultimately used as a vehicle to public office, is one renowned for superstitious beliefs, many of which, Regan reports, were taken by the president into the political arena.

Although an antagonist of Nancy Reagan, the former chief of staff's revelations do not appear to be a partisan attempt at one-upmanship, nor unnecessarily vindictive, as they are confirmed by other sources.

Press secretary Martin Fitzwater, for example, admits to Mrs Reagan's interest in astrology, and in the president's own autobiography published in 1965, Ronald Reagan refers to Carroll Righter (an astrologer) as "a good friend of 20 years" and says "every morning Nancy and I turn to see what he has to say about people of our respective birth signs" and that reading a horoscope written by an astrologer helped him make major career decisions in the early 50s.

Astrologer Joan Qulgley is also referred to by Nancy Reagan as "my friend" and, according to Donald Regan, "the first lady seemed to have absolute faith in the clairvoyant talents of the woman in San Francisco". In a 1987 book, another close friend of the president, Michael Deaver, says "Ronald Reagan is incurably superstitious" and "during a photo session following a

White House ceremony on May 3, a reporter asked President Reagan about reports that his schedules were based on astrological forecasts, to which the president responded that no policy or decision in my mind has ever been influenced by astrology”.

For what it’s worth, a psychological stress evaluation carried out by Charles R. McQuiston at the time to analyse the statement showed that Reagan was under tremendous stress as he spoke. McQuinton concluded that “it was indicative of deception and conflict - the president was lying to us.”

In addition to providing a field day for cartoonists and skeptics, the revelations have also provided a bandwagon onto which all astrologers and psychics of note have hastened to climb, alleging that they too had personally advised the Reagans or at least knew of others who had.

Foremost of these is the perennial crystal ball gazer, seer and super-psychic Jeane Dixon, who churns out lamentably inaccurate predictions and gives advice through syndicated columns in those prestigious bastions of journalistic integrity, the *Star* and *National Enquirer*.

Although the Reagans are said to have lost faith in Ms Dixon’s occult powers some years ago, she was nevertheless quick to take advantage of this golden opportunity to enhance her standing with the credulous, and a White House aide confirmed that she had been advising the first lady for decades, ever since she had predicted that Ronald Reagan would become president when she first met him, then a B-grade actor and before he entered politics.

For the record, Ms Dixon now predicts “a Democrat president who will be running in a future election”! 1988, 1992, 1996, 2000?!

Joan Quigley, a San Francisco heiress who calls herself a serious “scientific” astrologer, also alleges that she has been advising Nancy Reagan since they were first introduced by TV host Merv Griffin early in the 70s.

After the attempted assassination of President Reagan in 1981, Quigley claims to have been consulted by the first lady because “she knew I could protect him [the president] from further trouble”. Who needs a bullet proof vest and the CIA with an assurance like that?

The Nob Hill socialite made Nancy a believer by showing her (after the event) how the astrological charts could have foretold that the period on or around March 30, 1981 (the date that John Hinkley Jr attempted to shoot Reagan) would be extremely dangerous for the president.

Her most recent forecast was for a major earthquake to hit San Francisco on May 5, 1988. She evidently believed in her own prescience, as she left town that day but returned after the city felt nary a tremble.

Carrol Righter of the astrology institute in Los Angeles that bears his name, was unavailable for comment due to his demise a few weeks before Reagan’s revelations hit the fan. Until Righter’s spirit manifests itself through an enterprising channeler, Edward Helin, an astrologer employed by the institute acts as spokesman, advising that the late lamented prepared astrological charts for Ron Reagan as far back as 1937. His advice included the best time for the Jane Wyman-Ronald Reagan split in 1949; the most auspicious time to re-marry Nancy Davis in 1952; the Goldwater support speech in 1964 (the Republicans lost); and the swearing in of Reagan as governor of California in 1967. A calendar and a pin would have saved a lot of unnecessary calculations, I humbly suggest.

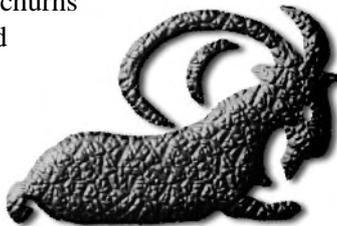
Bernard Gittleson, while researching his book “Intangible Evidence” on psychic phenomena, interviewed Carroll Righter two years ago and was told that towards the end of the Vietnam War, Reagan recommended to Washington that the astrologer (Righter) be used to help the war effort, as it had been reported that the Vietnamese troops were winning because they used astrologers! Military historians, political commentators and the less credulous may have some difficulty in coming to terms with that particular revelation.

Ronald Reagan also reportedly had Righter, Californian astrologer Joyce Jillson, and the late British astrologer Sybil Leek, prepare charts of eight vice-presidential candidates. George Bush got the job, because as a Gemini (an air sign) he was compatible with Reagan, an Aquarian (also an air sign, or is that hot air?).

While it would be easy to dismiss the whole sad scenario, in spite of its disturbing implications, as a figment of the pulp press’ imagination, perhaps it would be better to settle for an unqualified objective conclusion that where there is smoke there’s fire.

One wit, writing to the *Sunday New York Times*, commented “The report that important decisions in the White House were based on astrological advice is most disturbing. The results could undermine the faith in astrology!”

A more serious note was struck by Jeremy Stone, president of the Federation of American Scientists



who, when the astrology question caused concern in the 1980 presidential campaign, wrote to Reagan concerning his (Reagan's) discussion of fortune telling by one of his friends, Jeane Dixon. Stone asked him if he wouldn't deny this, since "we didn't feel that we should have a president whose decision making might be biased by a belief in these superstitions".

Reagan replied before the election saying "I don't take astrology columns *very* (my emphasis) seriously, and don't make decisions based on them".

Disconcerting though it may be to know that he considers them at all, perhaps we can take consolation in the knowledge that presidents don't lie ... do they?

Vol 9 No 4 - 1989

What Star Sign are the Skeptics? Report on the Skeptics' Sun Sign Survey

Ron Evans

My thanks to those 316 subscribers who took the trouble to take part in this survey. Particular thanks, and profound admiration, to the subscriber born on November 3, 1989. I really did agonise over the propriety of excluding this entry - with just a little faith it could have been accepted (even though it arrived on October 20). Perhaps we Skeptics do lack imagination; perhaps we really are dogmatic and inflexible. Oh well, I'm a Capricorn and we are like that, apparently.

The survey in the Spring 89 issue of *the Skeptic* was prompted by the preposterous assertion that most Skeptics would be Geminis in particular and Earth signs in general. Gemini itself is an Air sign, so the challenge was not altogether precise. Nor was it especially serious. Still, the challenge was made for us to put our position to the test and, with our propensity for challenging others, it was difficult to refuse. That we publicly accepted the challenge and committed ourselves to publishing the results is, I think, to our credit.

A detailed statistical analysis of the result is not offered, The sample is too small and readers can draw such conclusions as they feel warranted. A couple of the signs do seem remarkably under-represented in the traditional Zodiac and one sign does stand out in the actual Zodiac. It would be interesting if a similar survey were conducted in, say, Britain or the USA. Perhaps a Skeptic in one or both of those countries

might like to take up the idea.

Before any valid conclusions can be drawn from the results, the problem of the annual distribution of births has to be addressed. If there are concentrations of births at a few times of the year, the so-called sun signs will be correspondingly concentrated. It simply cannot be assumed that if any particular sun sign occupies say 31 days of the year then 31/365 of the population will be born with that sun sign.

It is commonly believed, and I think rightly so, that humans, collectively, are constantly coupling. There may be no indisputable evidence of this but one's observations are that in some way or other, and for some reason or other, people are always at it. There may be certain rhythms involved but they are not seasonal ones. However, as much as the activity is constant the results are not.

The statistics show that Australians do have a slight seasonal preference when it comes to reproducing themselves. The preferences are not large but neither are they insignificant. In recent years, the monthly distribution of live births in Australia has been:

January	8.3%	July	8.5%
February	7.9%	August	8.6%
March	9.0%	September	8.4%
April	8.4%	October	8.5%
May	8.6%	November	7.9%
June	8.2%	December	8.0%

For several reasons, no account has been taken of these fairly minor fluctuations. Firstly, the figures relate only to births within Australia and not all Australian Skeptics are Australian born. Secondly, the figures are only for the four years between 1982 and 1985. It may well be that these monthly variations are no more than a contemporary phenomenon caused perhaps by modern contraception. Contraception is of course not new but it is far more efficacious and available now than it was four or five decades ago when most of us were born. (By the way, the average age of respondents to the survey is 45.6 years. Isn't that interesting? See Barry Williams' article in this issue for more such interesting observations.)

The point to be made here is that the current undulations in the incidence of birth may be for reasons which did not prevail at the time when most respondents were born. I venture the opinion that births were more evenly spread throughout the year before the advent of modern medicine.

The third reason for ignoring the monthly incidence of birth is the sheer complexity (for me at least) of the calculations. Calendar months are not equal in length,

and worse, they do not in any way correspond with the sun signs. Any attempt to match calendar months with the signs of the zodiac would require some very extravagant extrapolations. All in all, I think that we can safely overlook this troublesome complication.

Caveats

One last caution before the results are given. Which zodiac is to be used? Certainly, there is no unanimity among astrologers themselves. Linda Goodman's zodiac has been used but it should be remembered that there are several variations. But, while astrologers may differ about such things, astronomers do not. The constellations are where they are by convention and there is no argument about it. For the actual positions

of the constellations one needs only to refer to that world renowned authority, Sir Jim R. Wallaby OBE(se). (The OBE(se) by the way is an ancient but little known Imperial Award bestowed upon selected fat persons.)

Sir Jim's article in the Spring 1987 edition of this publication, entitled "What Star Sign Are You Really?", is a masterpiece in all but arithmetic. Sir Jim says in that piece that the period between April 18 and May 10 (inclusive of both dates) is 22 days; between September 8 and October 14 is 47 days; between October 15 and November 18 is 25 days; between November 25 and December 13 is 18 days; between December 14 and January 15 is 34 days; and finally, between February 15 and March 9 is 24 days. Sir Jim, with respect, these can't all be typing errors. Perhaps

TRADITIONAL ZODIAC

SUN SIGN	% OF YR	NO OF RESPONSES	% OF TOTAL RESPONSES
Sagittarius	7.9	36	11.4
Capricorn	8.2	28	8.9
Aquarius	8.2	27	8.5
Pisces	7.9	30	9.5
Aries	8.5	17	5.4
Taurus	8.5	16	5.1
Gemini	8.5	31	9.8
Cancer	8.8	23	7.3
Leo	8.5	26	8.2
Virgo	8.5	36	11.4
Libra	8.2	29	9.2
Scorpio	8.2	17	5.4
	99.9%	316	100.1 %

ACTUAL ZODIAC

Sagittarius	9.0	30	9.5
Capricorn	8.2	27	8.5
Aquarius	6.3	20	6.3
Pisces	10.7	30	9.5
Aries	6.3	13	4.1
Taurus	9.6	32	10.1
Gemini	7.1	16	5.1
Cancer	5.8	22	7.0
Leo	10.4	32	10.1
Virgo	10.1	38	12.0
Libra	9.6	24	7.6
Scorpio	1.6	6	1.9
Ophiucus	5.2	26	8.2
	99.9%	316	99.9%

your long suffering Mum and Dad should give you back to the Gypsies.*

The Envelope, Please

And so, to the results. The first table is based on the traditional zodiac as used by Linda Goodman et al. The second is the actual zodiac which shows where the constellations are at present. This latter comes to you from Sir Jim R. Wallaby OBE(se), and complaints about any inaccuracies contained therein should be directed to that quarter.

The point of this exercise was to compare the percentage of the year occupied by a particular sun sign with the percentage of respondents born into that sign. Any significant disparity would be of interest. And what, in fact, do the results reveal?

At first glance, it can be seen that Skeptics are fairly evenly spread throughout all the signs. However, a couple of signs do seem to vary from the norm by a noticeable degree. Ophiuchus** shines out in the firmament as the Sign of the Skeptic while Aries is almost on the endangered list. A mere statistical aberration or have we stumbled onto something truly mysterious? It's almost certainly the former but another survey is needed before we can be our old dogmatic selves again. May we never become too timid to put ourselves to the test from time to time.

I conclude with the observation that the challenge failed. Gemini does not predominate and neither collectively do the Earth signs. The Earth signs, Capricorn Taurus Virgo, have 80 Skeptics among them; the Air signs have 87; the Water signs have 70 and the Fire signs have 79. Ho hum.

My thanks to Chris Whitburn for his help on the computer and to our challenger for instigating what turned out to be an interesting exercise.

* **Sir Jim R. Wallaby replies:** I was suffering from gout at the time and had one of my feet bandaged, thus destroying 25% of my computing ability. Anyway, no-one else has picked it up in the past two years, which shows what an innumerate lot you Skeptics are.

** Ophiuchus is a real constellation which, for no discernable reason, is ignored by astrologers.

Editors' note: We would also like to thank our readers for their response to the survey. In all we received 330 replies (some arrived too late to be included in the statistics). This is almost 40% of our readership, which is nothing less than staggering. Any voluntary survey which requires respondents not only to give personal details about themselves but also take the time to

complete the form and mail it, at their own expense, and yet still receive such an overwhelming response is the envy of statisticians and magazines everywhere. It indicates the dedication and interest and, not the least, the good humour, of our readers. What Skeptics lack in numbers they obviously make up for in quality. We thank you.



Star Sign Survey Some Interesting Statistics

Barry Williams

The editors should have been aware that asking me to write anything about statistics was akin to putting Erich von Däniken in charge of the space program. However, for what it is worth, here are some things that struck me as being of interest.

As I was the one who emptied the mail box, I decided to test the validity of the old trick question, "How many people do you need to have together before you have a better than even chance of two of them sharing a birthday?" That is, the same day and month, not necessarily the same year. Most people answer 366 or 183 or some suitably large number ... the correct answer is 23, for reasons explained in "Half Your Luck" by the late Prof Peter Mason (Penguin Books, 1986).

To test this proposition, I opened the first mailing of responses, which, quite fortuitously, consisted of 26 answers. After opening 10 letters, I found my first pair of "twins", after a further four a second pair appeared, and a third pair arrived at 19 letters. Three sets of "twins" in 26 responses. Amazing! Had I been of a psychic bent, I could have started a whole new movement based on better than chance results like that.

When we had 316 responses, I carried out a further refinement of my original experiment. At this point, we have 62 sets of "twins", 14 sets of "triplets", four sets of "quadruplets" and one set of "quintuplets". Not only that, but four of the sets of "twins" were "identical", i.e. born in the same year. Those readers out there who were born on 1814/24, 2416142, 30/9/44 and 21/10/53 may be delighted to know that they have an "identical twin" somewhere in the Skeptical network. By the way, those quins were born on July 24, obviously a very skeptical date.

Oddly enough, these facts leave us with the interesting phenomenon that 81 dates account for 1

87 respondents, while the remaining 284 days accommodate 129 birthdays (no, I didn't forget February 29, it's just that no-one was born on that day).

With the bit firmly between my teeth, I cast around for other interesting facts. What could a statistically illiterate person discern in this mass of data? As we had not asked people to specify their gender in the survey, we couldn't determine the number of Skeptics broken down by sex (however Tim Mendham suggests that the answer to that is "probably most of them"). We could however look at an age distribution:

10-19	3	1%
20-29	33	10%
30-39	77	24%
40-49	104	33%
50-59	41	13%
60-69	40	13%
70-79	12	4%
80-89	5	2%

It would seem that skepticism is most prevalent between the ages of 30 and 49, with a strong predominance in the 40s. I suppose that is reasonable; under 30, one probably retains a few illusions (to say nothing of delusions) and after 50, nature starts whittling the numbers down a bit. The most popular age for our respondents is 44, with 17 members, followed by 38 with thirteen, 48 with twelve, then 36, 40 and 46 all with eleven. Note that they are all even numbered ages in an odd numbered year. Wow! The major concentration of subscribers lies between the ages of 36-52 inclusive (157 respondents or one less than half).

I am sure that some of the social scientists among our readership could explain it better than that but I did confess to being a statistical nincompoop.

When we look at the months people were born, we should average around 26 per month. Most months have around the average, plus or minus 5, but April with 15, and September with 43, are obvious standouts. Actually, one of our respondents predicted that September would be high because of "all of the 'bonking' that goes on over the Christmas holidays". I don't know how he accounts for April, although one of the wags on the national committee suggested that post-taxation-time blues could account for the lack of desire among would-be reproducers.

The youngest respondent was 18 and the oldest was 89. I am personally particularly pleased to recognise a subscriber who was born in the closing months of the 19th Century. He taught me a lot about reason and

rationality. He is my father. Just to add to the mysterious side of this, my mother is one of the quins. There must be something in this after all!

No-one shares my birthday; I am obviously unique. I did consider checking to see which was the most popular day of the month to be born, whether the over-50 members were more randomly selected than the under40s, and a whole heap of other things. I was becoming quite excited by the whole thing. It is amazing how easily one can get wrapped up in finding patterns when none exist. Had I kept going, I would probably have reinvented numerology. But enough is enough.

By the way, if the respondent who told us that he was born on August 34, 1949, would care to send me \$100 in a plain brown envelope, I will reveal the reason why he has been missing out on birthday presents for the past 40 years.

Vol 10 No 1 - 1990

Astrology Metaphysics

Ian Drysdale

After the recent successful prosecution of the "psychic" John Fitzsimons in Victoria, the Victorian committee was interested to see a new starter in the same field. The flier read in part:

FREE LECTURE

Ian Parnell, who has spent half his life researching the mysteries of the Universe, answers many of the questions that have eluded mankind for centuries.

The venue was the Moorabbin Lecture Rooms, in the bayside suburb of Melbourne. The first (of many) disappointments on entering the meeting was the request for "\$3 to cover costs". So much for the 'free' lecture.

Ian Parnell (or Ian Muir from his business card - maybe a name from a past life?) appeared to be in his mid30s with appearance and manner in line with the New Age era. Attendance was thirty-three, three or four of whom appeared to be friends or followers of Mr. Parnell/Muir. The majority were female in the 20-30 age group, with a few males in this age group and an elderly couple at the other extreme.

The lecture itself was titled "How we ourselves are the creator of what we experience" and was far from inspirational. The delivery was dull and interrupted by

long pauses; Mr. Parnell/Muir was vague and seemed to get bursts of energy, followed by long pauses as he lost his train of thought. He started with the disclaimer that we must believe what we want to and not to accept everything he said (good advice). His basic philosophy could be split up thus:

Astrology	-	70%
Christianity	-	10%
ESP/Spirits	-	5%
Guardian angels	-	5%
Eastern religions	-	10%

The astrology section didn't go too well. His first astrological reading was of a young lady in her mid-20s:

Parnell/Muir: You are artistic.

Young lady: No.

P/M: You are musical.

YL: I can't sing a note.

P/M: You play an instrument.

YL: No.

P/M: Have you tried?

YL: No, but I know I couldn't.

P/M: Do you think Jimi Hendrix just picked up a guitar and started playing? We are wasting too much time.

The second was an elderly lady:

P/M: You have had a major change in your life.

Elderly lady: I have set out to change my life.

P/M: You have broken up with your husband.

EL: No, that is the only thing in my life that hasn't changed.

P/M: We are wasting too much time.

What followed them was quite disturbing. A young lady in her early 20s had come to the meeting to get answers to her problems. She had started studying magic and Satanism, then moved on (down?) to numerology and palm reading. From here it was on to the Bible and sitting in a pyramid for a couple of weeks. She was frightened because she was being drawn deeper into Satanism.

Mr. Parnell/Muir was clearly unnerved by this situation and dismissed her question with a vague reference to "bad karma" and continued on with the lecture. This young lady was deeply disturbed and in need of help.

The next 'highlight' of the lecture was bizarre. Mr Parnell/Muir described how his wife had left him, taking their two children when he was 28 years old. This he reasoned was due to the 28 year cycle of Saturn and the fact that Jupiter (influences personal relationships) was at its lowest point. Then he stated

that in a vision of a past life in the 16th century, he had also split up with his wife but he had kept the children in that case. Interestingly, the words his wife used when she left were identical to those he used to leave his wife in his past life. This revelation brought sighs of amazement from the audience.

He then went on to demonstrate how everybody had a guardian angel - even if you don't believe in them and even if you don't want one. With possibly an eye to the nine or ten eligible young ladies in the audience, he described how this very night, 25/10/1989, was the high point of his Jupiter cycle, inferring this would be the night his personal relationships would come good.

By the way, the answer to the question in the title of the lecture is: we choose all our future experiences when our spirit enters the foetus in the womb.

A list of the titles of future lectures (39 in all) was supplied and I looked forward to some of them with great interest.

I missed the following week, "The significance of life on Earth", but was determined not to miss the next one, "The similarities between life on earth and educational institutions". Unfortunately, this lecture was cancelled (as were all the following lectures), I presume due to lack of interest.

It appears that Mr. Parnell/Muir will not cause any major headaches to the Skeptics or his hapless followers in the future, but I believe he could have gained ten or twelve followers from that audience if he had been more articulate and more convincing in his lecture. We must all keep a vigilant watch for future 'practitioners' such as Parnell/Muir and Fitzsimons.

NB: "Astrology metaphysics" is the heading on Parnell/Muir's business card. I'm not sure if this is the title of his 'research' organisation or just an indication of his interests.

Vol 10 No 2 - 1990

Sun-sign and suicide A case study in 'creative' journalism

Dick Champion

A favourite ploy of journalists, both professional and amateur, is to take a recently published item as 'inspiration' for a story. A common example is the book review, where the substance of the author's work

is retold, followed by a footnote giving the name, title, publisher, price, etc. Whereas this is relatively harmless, except to the poor author, the ploy can run to extremes where any similarity to the original item is obscure, to say the least, thanks to unwarranted embellishment by the journalist. This article describes a case in point and tries to let the crying need for skepticism speak for itself.

It is best to begin with a bald account (except for some attempted translations) of where it all began, in a two-page article in a psychological journal of less than top rank (Stack, S. & Lester, D., 'Born Under a Bad Sign? Astrological Sign and Suicide Ideation', *Perceptual and Motor Skills*, 1988, v. 66, 461-462).

The authors set out to test the hypothesis "that the internalization of the traits associated with astrological signs affects suicide ideation" (p. 461). (As a psychologist I suggest this means that the things conventionally said in astrology about a person with a given sun sign affect what they think about suicide.) The authors cited earlier evidence of "no association between birth month and the likelihood of completed or attempted suicide" (p. 461).

They suggested, however, that "special astrological sun signs may indirectly influence social attitudes but not behaviour" (p. 461). (They presumably treat social attitudes as a form of ideation or thinking).

In 7 000 or so cases from an existing bank of data, "suicidal attitudes were measured in terms of whether the respondent would approve of suicide in each of four life situations" (p. 462), eg., where a person has an incurable disease. A chi-squared test for each situation led to four non-significant values, thus failing to confirm the authors' hypothesis. They apparently noticed, however, that the results for Pisces were the most 'promising' (my term) and they found that the chi-squared test on the data for Pisces vs. all the other signs combined gave a statistically significant result in the incurable disease situation. They also found that the persons with the Pisces sign were more approving of suicide than the rest of the sample over all four situations combined.

The authors then turned to independent anecdotal evidence that the Pisces sign is "most predictive of the gloomy life" (p. 462). They found evidence in literature that "in both Greek and Indian interpretations, people born under the Pisces sign will have lives

characterized by various kinds of losses" which "... are often associated with suicidal mood and behaviour" (p.461). They speculated that the people who believe they are predestined to a life of loss will be more depressed and hopeless and hence more approving of suicide. The authors concluded that they could not tell whether their findings reflected "astrological phenomena per se or socialization factors wherein the reality of a bad sign becomes a self-fulfilling prophecy" (p.462).

The crucial consideration in taking this study seriously or not is whether the authors were really wise before the event about Pisces. They did not mention Pisces in their basic hypothesis, as quoted above, although they referred to evidence in the literature before citing their data. In the

best case they based a hypothesis about Pisces on independent evidence and then confirmed it experimentally, coming to a wisely cautious conclusion recognising the difference between a sheer association and a causal connection. In the worst case they broke one of the basic rules of statistical inference by selecting out their strongest result, finding it to be

'significant', and then justifying their result by 'evidence' gathered after their selection. My reading of their article (especially as a skeptic, let alone a psychologist and statistician to the stars) does not allow me to decide between these alternatives and any compromise would be suspect.

In this shaky setting the creative journalist comes on the scene with no such compunctions. The result is an article in the 'Only Human' series of the *Sydney Morning Herald* of November 23, 1989, the regular contributor of which is described as a PhD who lectures at the University of Sydney. The heading for this particular article sets the tone: A TENDENCY TOWARDS SUICIDE MAY BE JUST A BAD SIGN FROM THE SUN, although the author cannot necessarily be blamed for it.

From here on, it is clear where the blame lies. The two US behavioural scientists are said to have shown that it is possible to be born under a bad astrological sign (aren't we all? - my improper comment) and that one's sign can actually have a bearing on behaviour or attitude. (Note that their study was confined to attitude.) According to the article, "the two researchers have uncovered evidence that someone's astrological sign can predict his or her inclination towards suicide".



Specifically, the sign of Pisces is “significantly associated with suicide ideation”. On the contrary, the researchers did not claim to find causal (predictive) relationship and the special selection of Pisces is of doubtful validity. As far as the last point is concerned, by claiming that “Dr Stack and Dr Lester suggest a theory to explain their findings” (in the Greek and Indian interpretations of astrology, etc.), the journalist seems to imply a ‘wisdom after the event’ approach, although I doubt that was his intention.

The journalist states that the researchers’ study generated little attention, but the implications of their findings refused to go away. “Traditional scientists”, he says, “those who demand hard empirical evidence and who scoff at the mere suggestion that astrology could have any possible predictive value, have been forced to confront the findings of Dr Stack and Dr Lester and even reconsider long-held positions”. My colleagues and I must have dozed off and missed all this. Anyway, don’t the researchers disavow any conclusion that they are necessarily dealing with astrological phenomena? But even though the journalist explicitly recognises this, he goes on creatively unabashed: “Until the Stack and Lester study, astrology was never before investigated to see whether any links existed between it and suicide”.

The journalist saves the best joke till last, by allowing that the “Pisces finding is merely a statistical quirk - a chance, random, anomalous (sic) finding without causal significance or meaning”. Why wasn’t he content to say this and this alone in the beginning? But no, he concludes in true journalistic style: “Look up into the sky. The spirits are about to speak”. Good on you, *SMH!*

