

Astrology



Roots of Astrology

- **6000-4000 BCE:** Sumerians seek to bring order to their universe through observation
- **Astrology:** attempts to correlate celestial and terrestrial events
- Based on astronomical measurements
- Drove many astronomical observations
- Later applies to human temperament and morality

- But astrology is a **pseudoscience**, *unconcerned with testing its own validity.*
- Astrological theories rely on unknown forces.

Astrology through the ages

- **~1000 BCE, Babylon:** Priests use positions of celestial objects and events to divine auspicious actions for the kings.
- **~150 BCE, Alexandria:** Ptolemy writes *Tetrabiblios* (published in 1519), about the observed influences of the Sun, Moon, and planets on human activities.
- **800 CE:** Astrology well established in East. Becoming observationally and mathematically rigorous.
- **~1200 CE:** Astrology arrives in West in Islamic thought/practice.
- **Late 14th cent:** Chaucer writes about astrology.

Astrology through the ages

- 1473**: *Astronomicicon* by Marcus Manlius published in Nuremburg by Regiomontanus.
Books I, V are astronomy;
Books II - IV are astrology.
- 16th/17th cent**: Kepler, Galileo, and others cast horoscopes (because it pays).
- ~1690**: Henry Coley lays out theory of “weather and natal astrology”
- ~1700**: Newton invents calculus and applies it to physics. Astrology becomes superstition



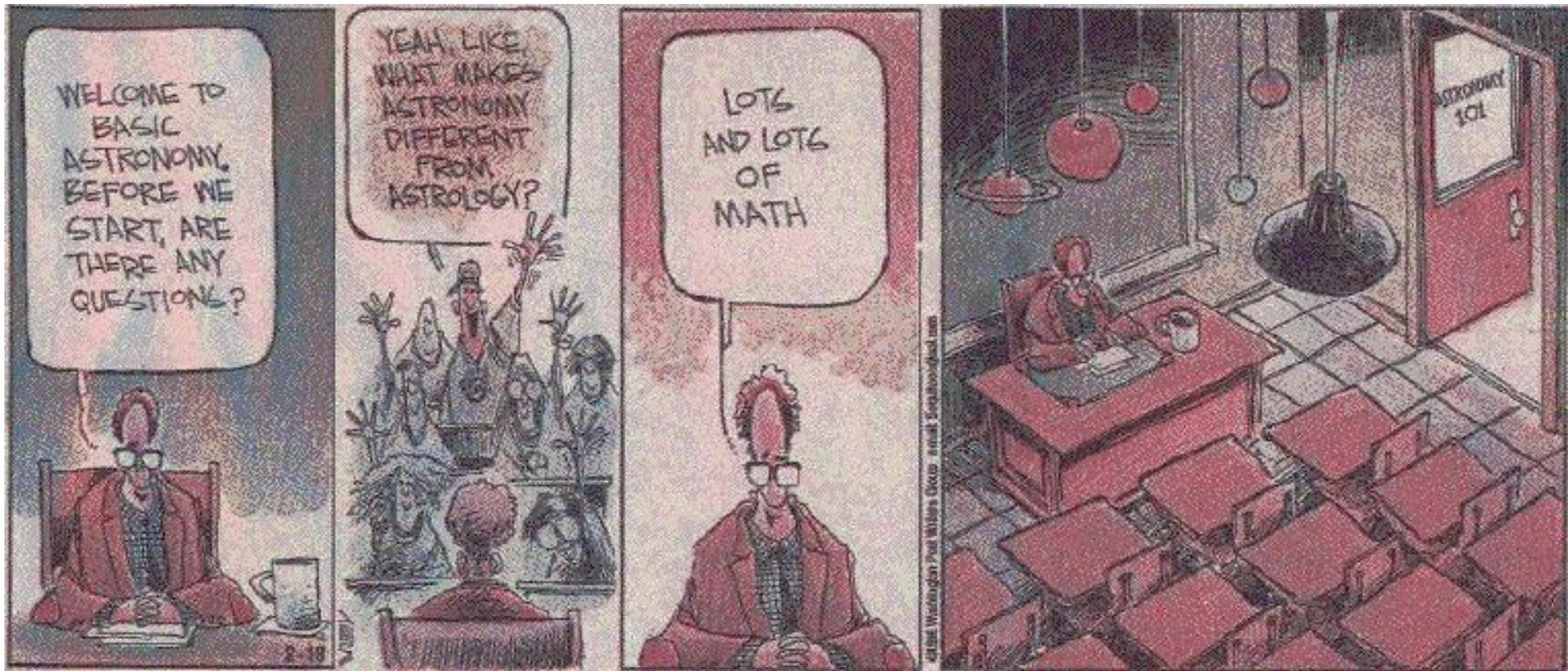
Anno 1586 Dom 10 Tag September
 5. die nachmittag 1/2. Tag
 Von S. Michaelen. Der Welt gedenken.



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Die Abhängigkeit von jenen Hand, das
 ist von Kepler Hand. Aber das
 Anmerkungen der Keplerischen Anmerkungen
 in Epitome

Wien den 15. Mai 1804.



WELCOME TO
BASIC
ASTRONOMY.
BEFORE WE
START, ARE
THERE ANY
QUESTIONS?

YEAH, LIKE,
WHAT MAKES
ASTRONOMY
DIFFERENT
FROM
ASTROLOGY?

LOTS
AND LOTS
OF
MATH

ASTRONOMY
101

Definitions

- Chart consists of 12 30° segments
- Each segment is a **house**
- Houses are static
- Zodiacal constellations move through houses
- Signs/planets are in the
 ascendant (on horizon and rising), or
 descendant (on horizon and setting) for 2 hrs/day
- Angular displacements of planets are the **aspects**

To cast a horoscope...

You must:

- Know the time of birth
- Use longitude to get sidereal times
- Compute the position of the zodiac
- Plot the positions (azimuth) of the planets
- Note the characteristics of the signs and the planets
- Note the positions of the planets within the houses
- Note the aspects of planets

The Variables

- One constellation is in the ascendant
- The Sun is in one sign
- The planets and the Moon are each in a sign
- There is an aspect between each pair of planets
- Moon may be ascending or descending
- Times of transits (when a planet crosses the ascendant/descendant)

Aspects

There are 10 possible aspects (2-8° allowance)

- **Major aspects:**

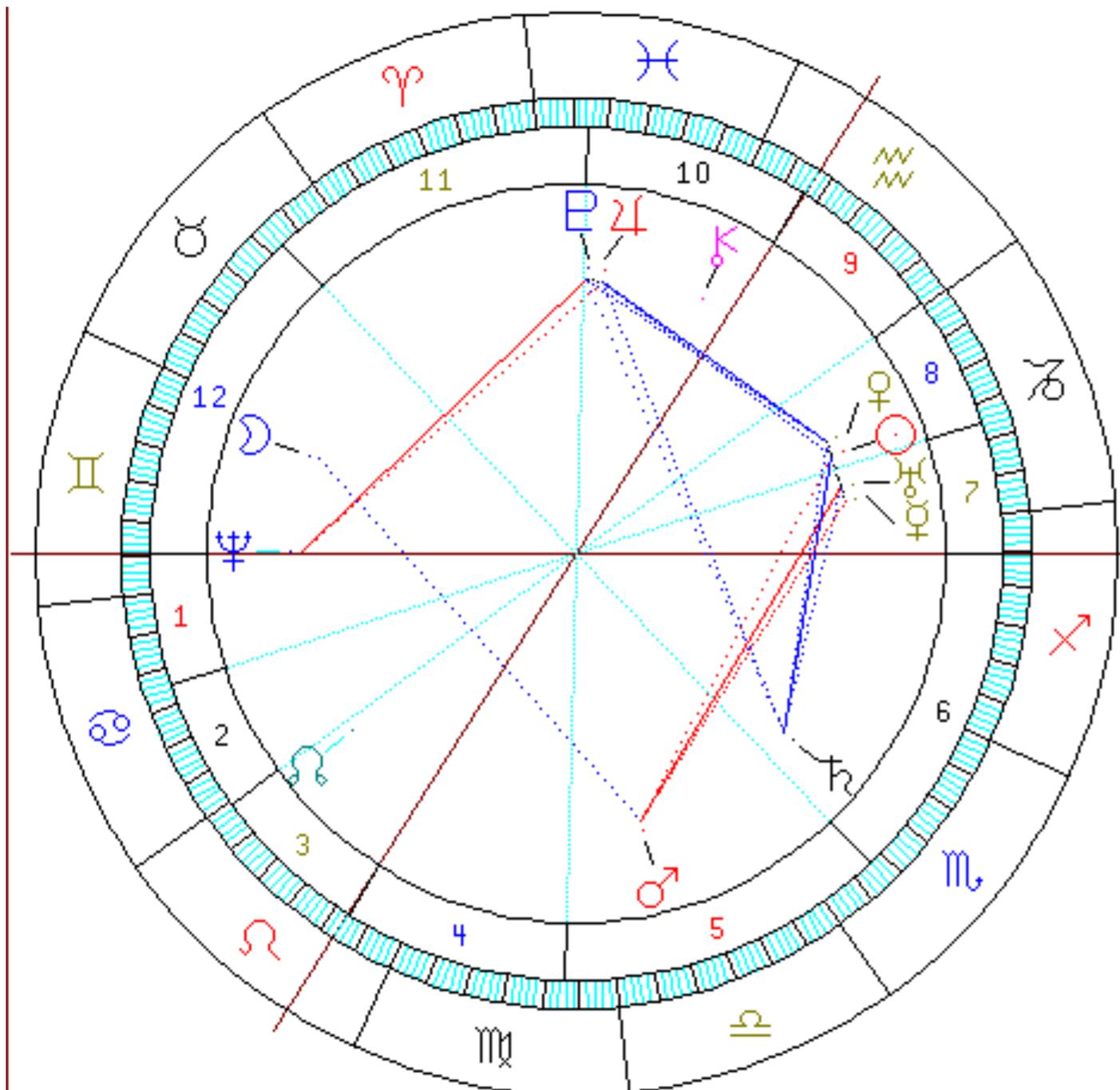
- Conjunction - 0°
- Square - 90°
- Triune - 120°
- Opposition - 180°
- Parallel of declination

- **Weak aspect:**

- Sextile - 60°

- **Weak aspects:**

- Semi-sextile - 30°
- Semi-square - 45°
- Sesquiquadrature - 135°
- Quincunx - 150°



ASTROLOG 5.710
 Astrodienst free chart
 Thu 27 December 1571
 14:37 (T-merid m8e52)
 Weil Der Stadt, GER
 8°52E 48°45N
 Placidus houses.
 Tropical, Geocentric.
 Julian Day = 2295226.0844

- 1st house: 24Gem25'18"
- 2nd house: 12Can30'07"
- 3rd house: 0Leo24'25"
- 4th house: 22Leo00'43"
- 5th house: 22Vir40'49"
- 6th house: 7Sco56'07"
- 7th house: 24Sag25'18"
- 8th house: 12Cap30'07"
- 9th house: 0Aqu24'25"
- 10th house: 22Aqu00'43"
- 11th house: 22Pis40'49"
- 12th house: 7Tau56'07"

- Sun: 15Cap27'48" - 0°00'
- Moo: 4Gem01'28" - 4°28'
- Mer: 5Cap34'21" - 1°12'
- Ven: 18Cap35'14" - 0°56'
- Mar: 8Lib16'31" + 2°25'
- Jup: 18Pis37'27" - 1°13'
- Sat: 13Sco48'28" + 2°16'
- Ura: 8Cap40'31" - 0°20'
- Nep: 23Gem50'36"R - 1°16'
- Plu: 21Pis57'59" -15°55'
- Chi: 28Aqu12'46" + 5°30'
- Nod: 2Leo45'13"R + 0°00'

Fire: 1, Earth: 4,
 Air: 4, Water: 3
 Car: 5, Fix: 3, Mut: 4
 Above Hor: 9, Below: 3
 East half: 6, West: 6
 Ang: 5, Suc: 3, Cad: 4

Sun Signs

Most serious astrologers discount Sun Signs as too simplistic, but others claim they are 80% accurate.

How many planets should you use?

6 (the classical planets + the Moon)

8 (6 + Uranus, Neptune)

9 (8 + Pluto)

Sun signs are tied to locations of constellations about 2000 years ago

The Astronomical/Astrological Zodiacs

| Constellation | Dates | Dates |
|---------------|-----------------|-----------------|
| | Astronomical | Astrological |
| Sagittarius | Dec 18 - Jan 18 | Nov 22 - Dec 21 |
| Capricorn | Jan 19 - Feb 15 | Dec 22 - Jan 19 |
| Aquarius | Feb 16 - Mar 11 | Jan 20 - Feb 18 |
| Pisces | Mar 12 - Apr 18 | Feb 19 - Mar 20 |
| Aries | Apr 19 - May 13 | Mar 21 - Apr 20 |
| Taurus | May 14 - Jun 19 | Apr 21 - May 20 |
| Gemini | Jun 20 - Jul 22 | May 21 - Jun 21 |
| Cancer | Jul 23 - Aug 9 | Jun 22 - Jul 22 |
| Leo | Aug 10 - Sep 15 | Jul 23 - Aug 23 |
| Virgo | Sep 16 - Oct 30 | Aug 24 - Sep 22 |
| Libra | Oct 31 - Nov 22 | Sep 23 - Oct 22 |
| Scorpius | Nov 23 - Nov 29 | Oct 23 - Nov 21 |
| Ophiuchus | Nov 30 - Dec 17 | --- |

Tests of Astrology

- **Mars Effect** (Gauquelin 1955). Are champion athletes preferentially born with Mars in the 1st or 4th houses?
 - Initial positive results ($\alpha=0.05$) found biased.
- **Select your own chart:** in 7 studies with professional charts, 81/230 hits; 83 expected by chance
- **Are you your own opposite?** In half of 22 professionally-prepared charts, characteristics were reversed. Astrologers and their clients could not tell the difference.

Tests of Astrology

- Sun sign compatibility? No correlation with 3000 couples marrying or 500 divorcing.
- Choice of profession: No correlation with Sun sign for 6000 politicians or 17,000 scientists
- Horoscope of mass murderer sent to 150 people. 94% said it described them well.
- 3000 specific predictions about celebrities:
 - 10% correct, 90% incorrect
- **References:**
 - <http://www.astrosociety.org/education/astro/ast3/astrology3.html>
 - Neihuys, J.W. The Mars Effect in Retrospect, Skeptical Inquirer, 21, 24, 1997

Questions to ask your astrologer

- What is the likelihood that 1/12 of the world's population is having the same kind of day as you?
- Why is the moment of birth more important than the moment of conception?
- Are horoscopes cast before the discovery of Uranus and Neptune incorrect?
- Should horoscopes include Pluto?
- Do extra-solar planets count?
- Are ascendants/descendants meaningful in Alaska?
- Is astrology a subtle form of bigotry?
- **Why aren't astrologers rich?**

Does Astrology Work?

That depends on what you mean by **work**.

- Astrology has **no demonstrated predictive power**
- Astrology **can make people feel good about themselves** in a complex and confusing world
- Astrology is **cheaper than psychotherapy**

| | |
|--------------------|---|
| <i>Aries</i> | The stars and planets will not affect your life in any way. |
| <i>Taurus</i> | The stars and planets will not affect your life in any way. |
| <i>Gemini</i> | The stars and planets will not affect your life in any way. |
| <i>Cancer</i> | The stars and planets will not affect your life in any way. |
| <i>Leo</i> | The stars and planets will not affect your life in any way. |
| <i>Virgo</i> | The stars and planets will not affect your life in any way. |
| <i>Libra</i> | The stars and planets will not affect your life in any way. |
| <i>Scorpio</i> | The stars and planets will not affect your life in any way. |
| <i>Sagittarius</i> | The stars and planets will not affect your life in any way. |
| <i>Capricorn</i> | The stars and planets will not affect your life in any way. |
| <i>Aquarius</i> | The stars and planets will not affect your life in any way. |
| <i>Pisces</i> | The stars and planets will not affect your life in any way. |