

Reading: Chap. 2, Sec. 2.3, [WWW reading](#); Chap, 15, Sec. 15.1-15.3; Chap. 16

HW 10: Next assignment on Thursday, due in recitation Dec 6 / 9

Exam 3 - Wednesday, Dec 18, 4:30-6:30PM

No Recitation: Friday, 11/22 or Monday, 12/2

Last time: Comets

- Comet anatomy: nucleus, coma, and tail(s)
- Comet Origins and Fates
 - Oort cloud and Kuiper belt
- The importance of comets

Today: Astrology

- Fundamental Thesis of Astrology
- no correspondence with any known physical effect
- Sun sign test
- Double-blind study (1985)
- Nagging questions
- Science vs. pseudoscience
- a prediction

“Men at some times are masters of their fates;
The fault, dear Brutus, is not in our stars,
But in ourselves...”

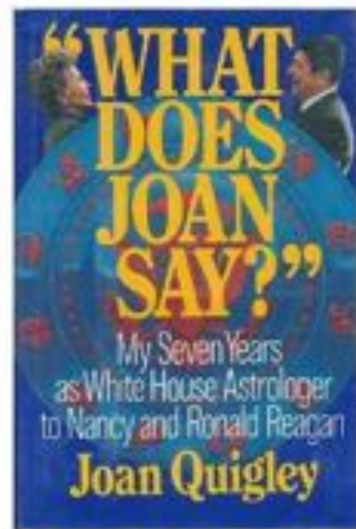
Cassius, in Julius Caesar, Act I, Scene 2

Fundamental Thesis of Astrology:

The positions of the “planets” (all planets, the Sun, and Moon, plus other objects defined by astrologers) at the moment of birth can be used to determine the subject’s general personality traits and tendencies in temperament and behavior, and to indicate the major issues which the subject is likely to encounter.

Can this be so? Can we test this? How?

Astrology in politics



Astrology in politics



Cover

THE PRESIDENT'S ASTROLOGERS

The Reagans have been sneaking peeks at the stars for a long, long time.

One “physical” explanation:

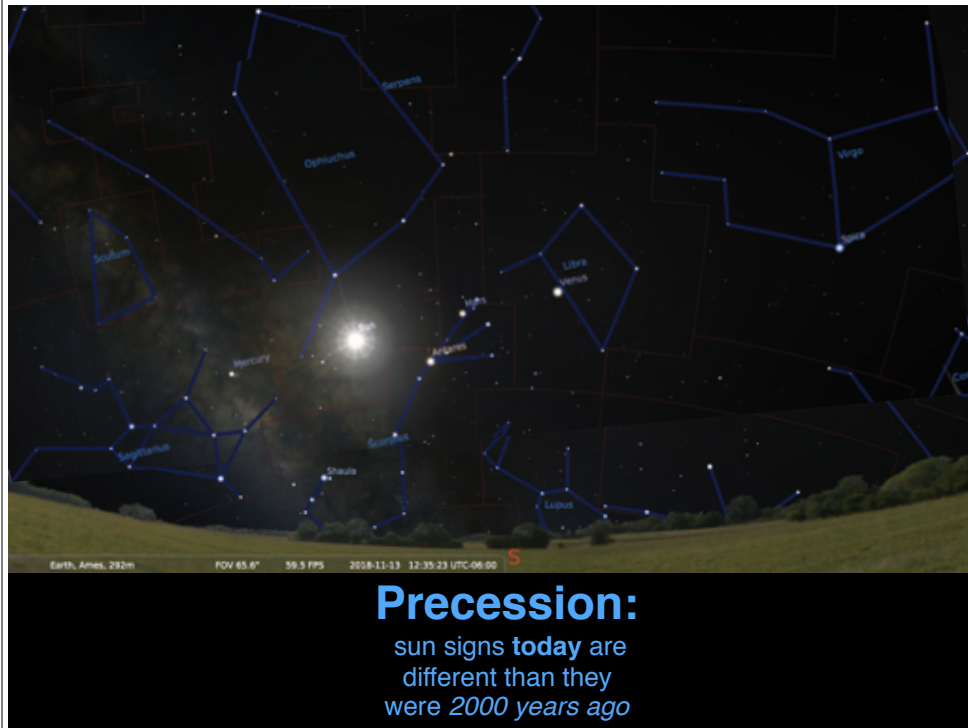
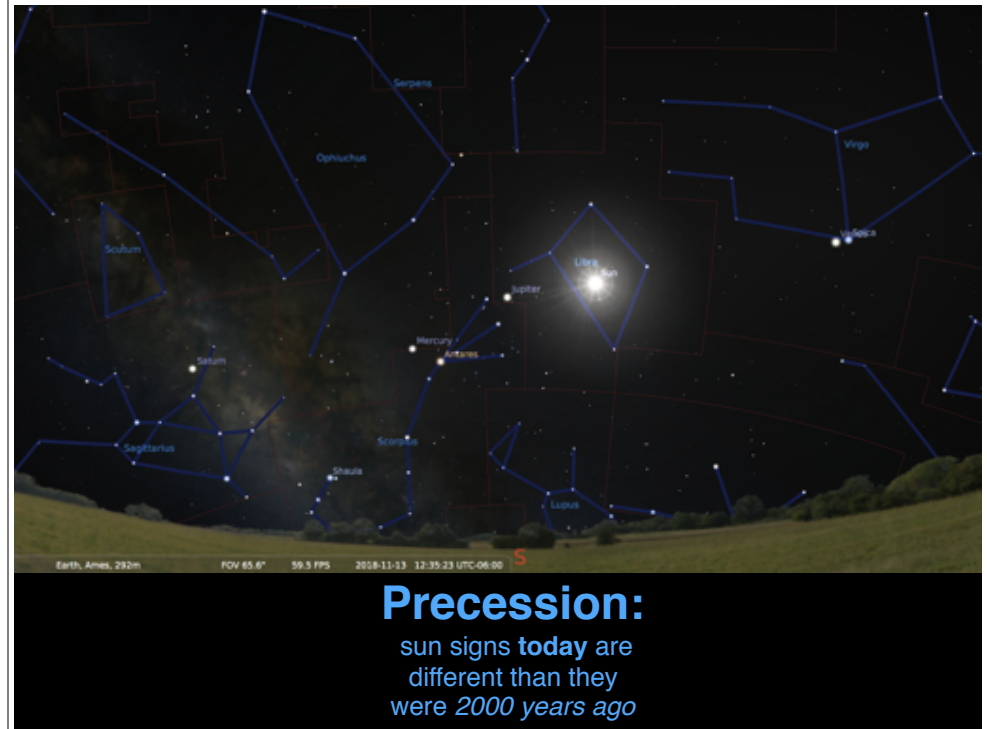
astronomical bodies exert measurable forces on us.

Gravity and Tidal Forces (lbs):

132 lb, 5’3” person

	Gravitational	Tidal
Earth	132	3.3×10^{-4}
Buddy @ 1 foot	6.0×10^{-9}	1.2×10^{-9}
Sun	8.0×10^{-2}	8.3×10^{-12}
Moon	5.9×10^{-4}	2.4×10^{-12}
Jupiter	3.2×10^{-6}	6.7×10^{-17}
Mars	1.80×10^{-7}	5.11×10^{-18}
pillow	7×10^{-1}	--

Astrological force must not depend on distance – all “planets” have more direct effects than above



Precession:

sun signs today are different than they were 2000 years ago

TRADITIONAL ASTROLOGICAL DATES			ACTUAL ASTRONOMICAL DATES TODAY (c. 2000 c.e.)		
Constellation	Date Span	Days	Constellation	Date Span	Days
Aries	21 Mar - 19 Apr	30	Aries	19 Apr - 13 May	25
Taurus	20 Apr - 20 May	31	Taurus	14 May - 19 Jun	37
Gemini	21 May - 20 Jun	31	Gemini	20 Jun - 20 Jul	31
Cancer	21 Jun - 22 Jul	32	Cancer	21 Jul - 9 Aug	20
Leo	23 Jul - 22 Aug	31	Leo	10 Aug - 15 Sep	37
Virgo	23 Aug - 22 Sep	31	Virgo	16 Sep - 30 Oct	45
Libra	23 Sep - 22 Oct	30	Libra	31 Oct - 22 Nov	23
Scorpio	23 Oct - 21 Nov	30	Scorpius	23 Nov - 29 Nov	7
			Ophiuchus	30 Nov - 17 Dec	18
Sagittarius	22 Nov - 21 Dec	30	Sagittarius	18 Dec - 18 Jan	32
Capricorn	22 Dec - 19 Jan	29	Capricornus	19 Jan - 15 Feb	28
Aquarius	20 Jan - 18 Feb	30	Aquarius	16 Feb - 3/11	24-25
Pisces	19 Feb - 20 Mar	30-31	Pisces	12 Mar - 18 Apr	38

