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NOTE: This is an **updated and final version** of our earlier *drafts* ‘Contemporary Western Astrology: A Philosophical Critique’ (2021, 2022, 2023).

**An In-depth Philosophical Critique of Contemporary Western Astrology 2024 [[1]](#footnote-1)**

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The imagination of mankind is naturally sublime, delighted with whatever is remote and extraordinary, and running, without control, into the most distant parts of space and time….

David Hume, 1772, An Enquiry Concerning Human Understanding, section 12, paragraph 25.

Abstract

The focus of this monograph is on **contemporary** natal astrology (which is centered on the time and location of one’s birth) as presently construed by most Western astrologers.[[2]](#footnote-2) A birth chart will give a picture of **planetary** positions when a person is born as seen from the birthplace (but not the precise positions of the planets, only geometric projections of these positions on the ecliptic line, Bret-Morel 2016, chapter 6). But its **interpretation** is largely based **not** on astronomy but on the mythological attributes of gods that the Greeks allocated to the planets. In other words, the chart interpretation is not of planets but largely of Greek planetary gods. Because they saw Mars as the god of war, Mars in the astrological birth chart is now interpreted as if it had the attributes of the Greek god of war with keywords like Energy, Heat, and Activation. But other cultures had other ideas. Thus, the Aztecs saw the god of war as the Sun, not Mars.[[3]](#footnote-3) Contemporary astrology is **not** based on clinical observation as many astrologers contend, but on conventional associations from mythology, the sounds of words, names, along with associations based on colour, analogy, and metaphor. Like other occult practices (Tarot with **special cards**, numerology with **numbers)** astrology gives supernatural or paranormal significance to labels attached to **the stars**. Such purported extensive, intimate knowledge of our present-day and future lives is not supportable by scientific theories and requires belief in a set-up cosmic design. At all levels, its claims are at variance with scientific findings across both social and natural science fields. As in all paranormal fields, the interests of followers will be kept up by the announcements of startling new positive scientific findings or new research programs, every once in a while. The reader needs to be aware that we have been here before when it comes to astrology. Such announcements need to confront the fact that over one-thousand studies have been conducted on mainline astrological claims (a large number were by astrologers anxious to find support for their beliefs) and no straightforward, reliable, repeatable studies by independent investigators have emerged. The need for replicability by independent scholars does not seem to be a concern in astrology where positive studies are taken at face value by practitioners as support for astrology. Negative studies are ignored or re-analyzed until they find support for astrology. Given the extravagant claims of astrologers (check any bookstore or internet astrology site) that astrology is ubiquitous, its claims should be **easily found** by diverse, independent investigators across the Western world. The fact that they are not easily uncovered, if at all, is evidence itself against any **scientifically considered** astrology. The further fact that astrologers have to come up with more and more complex explanations to account for it being difficult to uncover what is supposedly obvious (ie astrology as described by its practitioners), is a further indicator of astrological irrelevance. Our critique casts serious doubt on the foundations of much of contemporary Western astrology (especially when considered a kind of science), showing that in its popular contemporary forms it is incapable of generating knowledge.

**Introduction**

Astrology, in most of its varied forms, claims that **over and above the natural motions of the celestial bodies** (which are composed of rock and gaseous materials), another force (s), either somehow causes or mirrors the myriad events on earth, including those of socially constructed entities such as nations, businesses and corporations, future and past, and, is described by **symbolic relationships** of various kinds between these heavenly bodies. And in most forms is somehow tied to the moment of birth! A perusal of internet sites on astrology, or leafing through any ‘metaphysical’ section of your local bookshop, will show there is no one thing, apart from a focus on **symbolic meanings** (what astrologer McRitchie 2022, calls the astrological ‘semantic taxonomy’) of the planets that seem to unify what goes under the label ‘astrology.’

Adherents of all kinds consider astrology varyingly; a science, an art (or both art and science), a proto-science, an occult practice, an esoteric science, a divinatory practice, a spiritual practice, a system of magic, a post-modern or post-positivist practice, and a philosophy. To retain their beliefs, astrologers will often jump back and forth between these positions depending on the situation and whether it is being critically examined or not. Then there may be an overemphasis on belief in some cases. Some astrologers are content to accept their craft as a language rather than a science. This would make it a psycho-social tool that can only use existing knowledge, rather than being a source of (new) information. The question here being just how far into the unconscious/subconscious (or even collective unconscious) can be penetrated in a consultation?

There is also no widespread agreement on how the **astrological** symbolism came to be and remains attached to celestial events, with a variety of very divergent possible sources, including revelations from ancient gods, an implanted set-up in our minds by an astral intelligence, connections intuited by minds using paranormal means, inferences from planetary appearances, archetypal meanings in the unconscious mind, to ancient skilled observers who through centuries of refined observations, established the connections found in contemporary astrology (a number of these views are critically considered in Kelly, 1997/2005).

There is an astonishing variety of **very different** astrological belief systems across history and geography (see https://en.wikipedia.org/wiki/List\_of\_astrological\_traditions,\_types,\_and\_systems, for a start). And rampant unresolvable disagreement reigns across both history and geography on the complexity of the systems, the factors considered important, the values, practices, and underlying metaphysical beliefs, along with the experiences and expectations associated with the different systems (see Dean, *et al*, 2022, pp 71-74, 79-102 for how widespread the differences are).

Are we to believe that all of these radically different views of astrology pick out some parts of our lives and life on earth? Cultural inheritance is largely the main factor in which particular astrology one believes. The dogmatic advocates of Western astrology would be equally dogmatic about Vedic astrology if born in India, or one of the varieties of Asian astrology if born in Asia. It is memorable that both China and Vietnam astrology associate particular zodiac years with most animals in common, and contend people born in each of these years reportedly share some of the characteristics associated with the zodiac animal for the year in which they were born. Hence we have talk of the Year of the Rat (Ox, Dog, Pig, etc). However, while Vietnam and China share most of the same astrology, they differ in one Zodiac animal. While China celebrates the Year of the Rabbit in 2023, the Vietnamese celebrate the Year of the Cat in the same year! These animals have different characteristics. Baby booms have been related to the Year of the Cat in Vietnam, and the Year of the Dragon in China because cats and dragons are associated with good luck (Bryson, 2023). Believers in each country find their local astrological beliefs fit what their astrology tells them they are like.

If astrology is in some sense universal or perennial (as some astrologers claim), why do people across astrological traditions hold mutually incompatible astrological beliefs? There seems to be no one, non-trivial underlying set of beliefs or common core embedded in all of the astrologies across history and geography, apart from a vague ‘as above so below’.[[4]](#footnote-4) When we consider the full range of these systems, to claim veridicality for any one of these systems is to consider the others either false or more limited than one’s local astrology.[[5]](#footnote-5) [[6]](#footnote-6) [[7]](#footnote-7) Each astrology is rooted in its own cultural, and historical context (and this includes Western astrology), which encompass different values, goals, views on human destiny and notions of transcendent realities. We might also ask, are there levels or grades of manifestations of astrology? Do some offer a more accurate and comprehensive view of earthly events better than others (e.g Western vs Vedic vs Jewish astrologies)? Or are they all somehow equal vehicles for revealing terrestrial happenings (and how could we find out)?

Many astrologers claim that the differences between astrologies, or even between astrologers within the same astrology, demonstrate the great richness of the discipline, which stems from its complexity. But the complexity of each system is actually too divergent and too great for individual use: on the contrary, it is the source of serious problems, not any kind of plausible explanation. Possible celestial configurations are so numerous that an astrologer cannot use them all, the astrologer must choose those which he will use for his interpretation. In fact, any astrological synthesis is impossible; *the astrologer becomes the author of his interpretations* because he can only partially translate "the message from the stars" but also because another astrologer will choose other configurations for a different interpretation.  (Dean, *et al*, 2022, p. 125; Bret-Morel, Astrologie : des astres ou des points virtuels ? Conséquences sur la critique, Bruxelles, 2015 https://youtu.be/itjSdxOSrmI?t=2931 ).

Nevertheless, **if**, as many astrology books and internet sites seem to suggest, that all astrological approaches are correct in *some sense*, we have the problem that there is no way any particular one can be considered correct. And, importantly, across human history and geography, exclamations of the outstanding success and insight provided by the local astrology are found in **all** of the very dissonant, contrary astrological beliefs and practices across the world. It is also worth pointing out that across human history and geography, more exclamations and displays of alleged astrological insight and success have been with non-Western astrologies than Western (if only because non-Western astrologies are believed by more people).

However, experienced astrologers will each have their own favourite set of chart factors: some will use hypothetical planets, others will use selected **named** asteroids, still others will avoid using the slow-moving outer planets and tiny asteroids, some believe super-moons (when the moon looks bigger in the sky) play a special role in people’s lives, others don’t, etc along with their preferred order of importance, regardless of whether their system agrees with anybody else's (and it will tend not to agree anyway, thanks to their reliance on personal validation [[8]](#footnote-8)– for example, one experienced astrologer might say to another, "unlike you, I find transits to be much more useful than progressions".) [[9]](#footnote-9) Indeed, entire schools of astrology can differ on what they see as important, the most famous case being the Ebertin school's rejection of houses. According to Barton (1994), the same kind of differences existed in ancient Greek astrology, where learning astrology was possible only from a teacher, and teachers showed off their mastery by advocating factors their opponents were ignorant of. Actual validity was rarely a concern. And there is always the Golden Rule that only the whole chart should be used in practice, which automatically involves selecting and ranking whatever particular factors your Golden Rule endorses. What about the so-called ‘whole chart’? Depending on what is included regarding the individual astrologers’ personal experience and training, a somewhat different story with different emphases regarding the actual course of a client’s life will be told.

The role of personal experience in astrologer’s beliefs

Their **own personal experiences** and self-focused motives play a predominant role in beliefs in their system of astrology (however much it differs from other astrological systems). As astrologer Cochrane (undated) recently tells us,

“Every time we interpret an astrology chart we are doing research because we are seeing if our astrological ideas and theories work with this new chart that we are looking at”

On the other hand, ex-astrologer Serge Bret-Morel contends most astrological sessions are nothing like doing research. Indeed, typically, astrologers will initially throw out interpretations to see if anything sticks, and if so, they will pursue the topic in more detail.

When I met people for whom I was erecting their birth chart, I would give them some interpretations and watch their reaction. When they said to me something like ‘Yes, that’s interesting’ we would talk about it. Then with the rest of the astrological chart, I was able to develop other related interpretations to the point I had just found. It is all similar to the board game BATTLESHIP where you don’t know where the ships of the adversary are, and you try plausible guesses. In the naval game, if at some point you hear ‘hit!’ then you say to yourself, ‘Ah, there’s something there’ and for the next hit you will try in the same area and consequently succeed much more often. By proceeding in this way in an astrological consultation, one can quite quickly tackle fundamental problems for the client and bring them another point of view. This approach is very effective, and little beforehand would have allowed me to know what they were going to talk about. Then I say, Where are the planets today? Alright, let's do with what we have”.(Bret-Morel, & Feytit, 2020, translated from French). (Bret-Morel, & Feytit, 2020, translated from French, see also footnote 6 this article).

Cochrane plays down scientific research on astrology, unless it promises to somehow support astrological claims, and the continuously suggested explanatory logical possibilities expounded by many astrologers (however problematic from a scientific perspective) are produced never-ending to maintain the belief that the day will surely come when astrology becomes a full-blown science.[[10]](#footnote-10) The rhetorical dimension of such a process is clear: astrologers rarely ever seek to deepen their explanatory suggestions because they are *ad-hoc*. They exist only to resolve their cognitive dissonance at a given moment and not as a research program that could lead to the improvement of the discipline and, perhaps, to a great discovery.

Astrologers supposedly **already know** ‘it works’ through their daily experience---(as do Tarot readers, numerologists, palm readers, clairvoyants, phrenologists, Enneagram advocates, Myers & Briggs proponents, psychoanalysts, and most mainstream practitioners of all types (see Kelly, 1997/2005, footnote 23), however in the latter cases extensive studies are conducted to separate plausible from less plausible approaches and claims.) [[11]](#footnote-11) [[12]](#footnote-12) **Whatever** astrological system they use, success is obvious to them: American psychological astrologer and counselor Glenn Perry (1991) says,

There is no greater proof of astrology’s validity as a diagnostic and prognostic tool than its daily application in clinical practice. Each hour of every working day I witness how the charts of my clients reflect their underlying psychodynamics, their interpersonal relations, the apparently random events they encounter, as well as key periods in their process of growth and change.

Astrologer Benjamin Dykes, an advocate of traditional/medieval astrology that is **very different** from the psychological astrology practiced by Perry tells us, “In my own practice I see every day that traditional methods of delineation and prediction work” <http://www.skyscript.co.uk/bdykes.html>. Consequently, many practicing astrologers will reject any criticism of astrology out of hand (check astrology books and internet sites). Unfortunately, such responses cover–up the fact that every astrologer of **every persuasion** (such as Perry and Dykes), and whatever divergent parts they include in their charts can claim the same thing (and do), and this doctrinairism can only prop up the seemingly unstoppable proliferating of largely new entities and techniques into contemporary astrology (e.g possibly exoplanets [[13]](#footnote-13), newly named asteroids (but only some asteroids, mainly those named after mythological characters, or the client him or herself), black holes, ‘sites of energy’ etc) without any apparent end. As astrologers from traditions from all over the world claim personal experiences of success and outstanding insight into their own lives and those of their clients, affirming such experiences provides no rationale for thinking one’s own astrological traditions are true as opposed to theirs.

Furthermore, while many individual astrologers **claim** that in their practice they empirically disregard astrological factors that ‘don’t work’ while retaining those that do ‘work’ with clients, this, even if followed, would provide no guidance for the astrological community. Whatever factors an individual astrologer claims don’t work will be found to work for other astrologers as a search of astrology books and internet sites will show.

Astrologers testimonies are not of some one thing called ‘astrology’ but of their own particular brand of astrology. And they can **all** provide marvellous testimonies for their own approach, and **all** claim that their particular form of astrology indisputably works, however divergent their astrological tenets and techniques are from those of other astrologers. This extreme disagreement makes the talk of astrology’s defenders that ‘we need to test astrology, not astrologers’ rather ambiguous, if not impossible in practice.

A Sacrosanct System

If we are uncritical we shall always find what we want: we shall look for, and find, confirmations, and we shall look away from, and not see, whatever might be dangerous to our pet theories. Karl Popper.

A review of contemporary astrology sites on the internet, or most astrology books in your local bookstores or library, will show that for many astrologers the astrological systems and associated factors of all kinds are generally considered invulnerable and immune to any disconfirmation or serious critical self-evaluation, while anything that seems positive is widely broadcast as showing the validity of astrology itself (see Kelly, 1997/2005; 1998; Kunth & Zarka, 2018; Kelly, Dean & Saklofske, 2020; Dean, Saklofske & Kelly, 2021). As astrologer Perry (2018) says

[For astrologers] every [astrological] knowledge claim, every method and technique, “works”. Such an attitude compensates astrology’s shadow―the fear that nothing works…To keep these fears at bay, an unspoken but powerful taboo has arisen: *Thou shalt not criticize anything astrological*. (italics ours).

Hence, Phillipson (2003) says, **whatever approach** to astrology they use and whatever entities they include “astrology is self-evidently true and accurate for anyone who tries it; therefore, people who cast doubt on it must be either ignorant or working to some secret and sinister agenda.” [[14]](#footnote-14) But if the practice of astrology is self-evident, then presumably there should be fewer disagreements within a particular astrological tradition, nor large differences among astrologies across the world. Any criticism of their provincial approach to astrology is commonly attributed to detractor adherence to belief in ‘malignant’ philosophical positions such as ‘materialism’/naturalism, ’positivism’, ignorance of ‘real or serious astrology’, a conspiracy, or they reject criticism as ‘ideological’ (only skeptics are ideological, it seems), or a result of one’s psychological ‘shadow’, or toxic personality.

The **major** factors in most mainstream Western astrology (signs, planets, Ascendent, transits, etc) are so interconnected with other astrological factors that to abandon any traditional Western tenet would be catastrophic for their entire system. For example, consider the traditional astrological symbolism associated with Mars (named after the Greek mythological god of war) which is symbolically related to energy and violence among other things. No empirical studies (however well conducted, and however many negative findings are accrued) would overturn this symbolism for most astrologers. This is because in most Western systems of astrology the symbolism associated with Mars does not stand by itself but is inextricably connected to a myriad of other symbolic associations in astrology charts which would **all** become problematic in such circumstances. For example, Mars is the ruler of the zodiac signs Aries and Scorpio, along with the 1st and 8th houses, and is tied in with the element Fire. Mars also plays a constructive or destructive role when associated with the Ascendant (as in Synastry charts) and other bodies in the solar system (as in Mars conjunct Pluto Natal). The symbolism tied to the planet Mars can be related to all sorts of diverse entities as seen in the different systems of Western astrology. Mars can conjunct asteroids (transit Juno conjunct Mars) and tie-in-with hypothetical planets as in Uranian astrology (Hades opposing draconic Mars) and so on. The consequences of abandoning the Mars symbolism, for the vast majority of astrologers----whatever any negative studies uncover, or how many---would be too costly to abandon, reconsider, or revise for astrology.

And the same goes for the symbolism attached to the largely mythologically related names tied to the other planets and celestial bodies. Here is another example: consider contemporary claims about the astrological zodiac, a central plank for most approaches to astrology---which in the West consists of 12, **astronomically empty**, equal 30-degree sections of the sky that is divorced from the constellations the zodiac signs were once named after. [[15]](#footnote-15) As Mayer (2021, p. 92) points out, zodiac signs as conceived by many astrologers and readers of newspaper horoscope columns, are

dealt with the same way as with the difference of biological sex, body size or eye colour. While the latter characteristics are indeed biological facts, the sun sign is treated only as if it were a biological fact. But the zodiac divided into twelve, thirty-degree sections with the respective zodiac sign assignments represents an artificial measuring circle, i.e. a human construction and not a natural characteristic of this period of time.[[16]](#footnote-16)

Despite the implausibility of zodiac signs on many levels, contemporary astrology, as practiced by **most Western astrologers** would be unrecognizable without them. Not only are zodiac signs the pubic face of astrology (horoscope columns are found in the vast majority of Western newspapers and most women’s magazines), but for many astrologers one’s zodiac sign is the biggest influence on one’s life (check your local bookstores astrology books and internet sites), and it often plays an important role in your birth (natal) chart and is tied in with other factors in astrology.[[17]](#footnote-17) Your birth sign is the ruler of houses, for example, Libra is the ruler of the 7th house and your zodiac sign is tied-in with the ancient elements (water, air, fire and earth), and which planets and nodes are in each sign at a particular time can be important in birth chart interpretation. If astrologers gave up zodiac signs, contemporary Western astrology would look vastly different, apart from the confusion that would result in popular culture. Once again, at the present time, the social costs for astrologers would be far too high. **Whatever studies show, or however severe the criticisms of zodiac signs are or become, the present-day astrological community won’t budge.** The popular role zodiac signs play in the network of most Western astrology is too essential to its practice to be given up. However, it should be noted that many **Eastern** astrologers (e.g Vedic astrology in India) reject **Western notions** of zodiac signs and tie their own notion of zodiac signs in with the constellations and have no difficulty with claiming their system works just as well as those in the West claim their systems of astrology work. Vedic astrologers similarly claim their version of zodiac signs provide strong important information about a person (<https://www.astroved.com/blogs/12-zodiac-signs-vedic-astrology>). To the question ‘What’s your sign?’ it depends on whether you are a believer in Western or Vedic astrology. In the West you are a Taurus, in the East an Aries. In Chinese astrology, your sign (represented by an animal) depends on the year you were born.

As mentioned, there is no widespread agreement on what methodologies would settle astrological disagreements (see Courgeau, 2022 for how astrology contributes to misunderstandings of human life). Disagreements in other disciplines are subject to public philosophical and scientific debates (see, for example, Svensson, 2022 and Wood and Uluutku 2023 on evolution, Zimmer 2023 on consciousness, or the public debates on interpreting quantum mechanics, or in astronomy regarding the Hubble constant and other issues, sentience in insects etc) but not astrology. **Without any sound basis, nor agreement on any methodology to resolve disagreements (most astrologers reject quantitative approaches or limit its possible contribution), any notion of ‘progress’ or self-correction in astrology is deeply problematic.** Indeed, what passes for ‘progress’ in astrology seems to consist of adding new astrological techniques, adding symbolism to newly discovered astronomical bodies, and in a perfunctory way aligning it with successful theories in the hard sciences to give it some superficial credibility (e.g quantum mechanics, relativity, chaos theory, dark matter, emergence, etc) even though astrologers did not anticipate such developments (see Kelly, 1997/2005).[[18]](#footnote-18) This recalcitrance on the part of astrologers to confront serious philosophical criticism is an oft cited reason a number of reflective astrologers have given up astrology (see Dean *et al*, 2022, pp 23-54).

The Focus of this article

This monograph will focus largely on the **common symbolic (semantic) meanings** that underlie most contemporary Western astrologies (mundane, horary, electoral, medical, spiritual, etc).

This article is a critical examination of the concepts, and assumptions underlying the practices of **the majority** of astrologers in the contemporary Western world (Europe, North and South America) which can be found in books at your local bookstore or on typical internet astrological sites and magazines such as The Mountain Astrologer, and the Astrological Journal. The focus is largely on conceptual and philosophical issues rather than on astrologers and not the large empirical literature on the topic (as found in Culver & Ianna, 1988; Crowe, 1990., Komath, 2009; Dean, Mather, Nias, and Smit, 2022; Courgeau, 2022, pp. 39-58). While there have been several philosophical critiques of astrology in the academic literature (Krips, 1979; Thagard, 1980; James, 1990; Kelly, Dean & Saklofske, 1990; Kanitscheider, 1991; Dean, Loptson, *et al*. 1995; Kelly, 1997/2005; Kelly, 1998; Reudell, 2019; Duka, 2020; Natale, *et al*, 2022; Mukerji & Ernst, 2022 criticize homeopathy as ‘argumentative bullshit’, and their arguments equally apply to astrology), this present article is an extension of Kelly (1997/2005, 1998) and the serious conceptual and epistemological issues raised regarding astrology in those articles. This monograph should be read after those earlier articles.[[19]](#footnote-19)

The focus of this article therefore is mainly on natal astrology when considered a science (natural, psychological, occult, etc.), or considered indirectly supportable by empirical research, as it seems most astrologers and clients (whatever they **say**) understand astrology in a realist way as such. However, we suspect that even most non-realist astrologers feel cheered when a scientific study produces results that can be interpreted as support for astrology, or they have difficulty resisting an appeal that quantum indeterminacy, talk of a holographic universe, chaos theory, or dark matter that is surmised to somehow make astrology more plausible.[[20]](#footnote-20) The majority of astrologers seem to believe astrology can provide **objective** information about human beings and world events, (check out astrology books and astrological internet sites).

What exactly is astrology?

We can define astrology as the (historical) idea that planets (including sun and moon) have (psychological) characters, and that their relative positions (statically and dynamically) can affect individual beings, social entities and situations, and even inanimate events. The focus of this essay is on natal astrology, which is described as

A birth or natal chart is a sky-map positioned on the birth of the individual, called the native, as a microcosm at the relative center of the Solar System, and in the greater macrocosmic sense, at the center of the universe. Hence, the native’s planets (including the Sun and the Moon) are relative planets because they, in a fashion, move around the native, as does the native’s universe (McRitchie, 2022, p. 707).

The importance of Western astrological factors can typically be ranked as planets, aspects, signs and houses respectively. Some astrologers do not use houses at all; and perfectly adequate chart readings could be made without reference to signs, only using the vernal equinox as a reference point for the aspect circle. Planetary qualities are indeed fundamental, but even here there can be areas of disagreement concerning the outer (“newer”) planets, and of course the asteroids. So all is far from completely standard conceptually.

Astrology, as examined in this monograph, describes **symbolic,** semantic connections between astronomical events and present, past, and future happenings on the earth interpreted according to certain received rules (analogous to cookbooks) usually tied to particular astrological traditions.[[21]](#footnote-21) [[22]](#footnote-22) As Rossi and Le Grice (2017) point out,

Simply stated, astrology is the practice of interpreting the **meaning** of **observed correlations** between human experience and the positions, interrelationships, and cycles of the planets (including the sun and the moon) in the solar system (Introduction).

Further,

Each planet …..**symbolizes something** in all our lives - a universal component of our experiences. They rule over different parts of our psyche - different desires, different needs that create who we are. Therefore your own personal combination of zodiac sign, planet locations and houses end up depicting a portrait of you in something known as the natal [birth] chart. We get this natal chart from a mapping of the heavens during the moment of your birth into the world (<https://labyrinthos.co/blogs/astrology-horoscope-zodiac-signs/astrology-planets-and-their-meanings-planet-symbols-and-cheat-sheet>).

For example,

In [Western] Greek mythology, Venus is Aphrodite, the goddess of beauty and love. Venus regulates the world of love and desire, lust, artistic expression, and the pleasures of life. It represents one of humanity's most basic drives: the need to relate. That's Venus in Astrology. [[23]](#footnote-23) ([Venus in Astrology - Meaning, Signs and Birth Chart • AstroMundus](https://astromundus.com/en/venus-astrology/), accessed, Feb 4, 2022).

Note the symbolism is everything in astrology. The physical characteristics of the planets, such as their size, whether they are mostly made of gaseous material or rocky material is considered irrelevant. Hence, astrology while ‘**founded** upon mathematical and astronomical data, [it is] **interpreted** according to general [astrological]principles’ (Carter, 1925, p.14).

Each planet’s position in the sky is interpreted by the categories of: its sign, its diurnal house (a 12-fold frame of reference affixed to the local horizon and meridian), and its aspects (its angular distance to the other planets). For example, a cookbook described position would be for: Mars in Sagittarius, Mars in the ninth house; and Mars opposite Moon (with Mars and Moon on opposite sides of the earth, 180 degrees apart). (McRitchie, 2022, pp. 206-7)

The above is important to keep in mind. A consultation with a professional astrologer will involve the interpretation of a birth chart and will contain the celestial constituents of the approach held by the astrologer. The astrological symbolism associated with the different planets and entities can be modified (enhanced or diminished) by the symbolism of the other planets or entities in the chart: “a multiplicity of factors in any natal chart are assumed to converge, intersect, or otherwise blend together ...” (McRitchie, 2022, p. 708). For example, when Ganymede (the largest moon of Jupiter) is prominent (such as when located between Jupiter and Earth) then Jupiter still has the same symbolic interpretation, however the meaning of Ganymede modifies it somewhat, and indicates what symbolic parts of Jupiter receive more focus and emphasis (<https://www.astrolog.org/astrolog/astromoom.htm>, accessed June 6, 2023).[[24]](#footnote-24) Ever since the days of Alan Leo (1860-1917) students have been routinely taught to *combine* the influences of factors acting together, a process that is central to their textbooks, classes and examinations. The combining of factors is attempt to show that we can loosely deduce from, so to speak, the astrological definitions/associations of the individual planets involved.

On the typical astrological world-view, for many astrologers, “no occurrence is random, and that the universe is an intelligent design” (Fernandez, 2022, p. 33) (of course, some religions hold the same view, without embracing astrology). If we accept this view, should we modify how we talk about luck, responsibility, and the likelihood of events in our lives?

How do we get the Astrological Principles

While mathematics is tied to the astronomical data used by astrologers, how do we arrive at the astrological **principles or cookbook claims**? A perusal of astrology books and internet sites suggest a form of astrological foundationalism is very popular. Hence, according to many astrologers, the **meanings** attached to the astrologically significant entities of contemporary astrology are based on a pedigree of centuries of documented observation and practice, along with a linear corpus improved over time:

…we must ask how the astrological meanings could have been derived, which takes us away from causality to questions of observation. We have postulated that astrological identifications are based on **empirical observations**, which are **developed** through the practice of astrology….These are simply things that are empirically observed, like any other properties or behaviors in nature.(McRitchie, 2016; 2017, 2022, p. 714, bolding ours).[[25]](#footnote-25) [[26]](#footnote-26)

This view of astrology, held by some astrologers, as a proto-science that arose from observations and practices that were painstakingly improved over the centuries conflicts with views held by philosophers of science from Kuhn (1962) onwards, along with informed historians of astrology such as Campion (1986, letter, Astrological Journal, 28/2, p. 76) : "The myth that astrology is based on observation was fostered by the ancient Greeks ... The available evidence indicates that astrology owes its origins to early religion and magic". While the sciences today are independent of magic, it still seems to be the overriding undercurrent in astrology’s survival today.

Astrologer Richard Tarnas (2009) pointed out that soon **after** **Pluto was** **named**, astrologers found that their observations (surprise!) fit the Western Greek mythology associated with the label of the god of the underworld, Pluto:

Observations of potential correlations with Pluto by astrologers in the subsequent decades suggested that the qualities associated with the new planet in fact bore a striking relevance to the mythic character of Pluto, the Greek Hades, and also to the figure of Dionysus, with whom Hades-Pluto was closely associated by the Greeks (p. 46-7).[[27]](#footnote-27)

Along the same lines is the common talk by astrologers of astrology having a 2500-year or thereabouts cumulative whiggish history constituted of the piecemeal and gradual addition of new celestial objects as they are discovered, along with new techniques. This seems highly implausible for several reasons:

(1)There are no known historical sources that support such a belief. (2) There are far too many [astrological] combinations for our unaided abilities to make sense of, regardless of what might be observed. (3) Even with modern methods of analysis [unavailable to the ancients] no link strong enough to be directly observable by the ancients has been detected. (4) Nor exists evidence for early observations that later became corrupted. In short, astrology could not be based on observation. (Dean, Mather, Nias, & Smit, 2016, p. 28; a useful short overview of the early history of astrology can be found in Courgeau, 2022, Ch 3 and Dean, *et al*, 2022, pp. 57-70, 103-130 ) [[28]](#footnote-28)

Signs are important for many astrologers these days, but the central role of astrology of signs has only really existed for a century, it is NOT a tradition.

If astrology had been invented 50 years ago, we could accept the idea that it is still laying down its foundations, but that is not the case, according to many of its adherents. A discipline, whatever it is, cannot be FOUNDED on an appeal to ignorance! However, for 2500 years this has supposedly been the case for astrology and it is no longer acceptable (see Serge Bret-Morel, <https://youtu.be/6pHU9GKFYyk?t=3329>. We will also argue that the astrological practice of most contemporary astrologers is not consistent with this common historical claim. This is also a problem acknowledged by some other astrologers, especially those with a historical background, who **do not** perceive a **cumulative line** to contemporary astrology based on alleged successive additive observations and practice. Rather, a prominent contemporary American astrologer tells us,

Modern astrology, as it was practiced in the 20th century, and as it is practiced even today by the majority of western astrologers in the early 21st century, was **not** the result of a linear development and refinement of the subject over the centuries which culminated in the form that it is in today. This is one of the great myths surrounding modern astrological practice. Rather, modern western astrology is largely the result of a handful of influential 20th century astrologers who inherited a few fragments of the astrological tradition and then created a new construct around it which was then infused with their own religious, ethical and theoretical speculations (Brennan, 2008; accessed Jan 18, 2021; also Campion, 2004, Ch 6).[[29]](#footnote-29) [[30]](#footnote-30)

Twentieth century astrology is the astrology of the astrological signs. If we consider 19th century natal charts we see that the houses are prominent, not the signs. The transition to the current zodiac representation has put the signs forward and it is psychoanalytic psychology that has somewhat fed how the astrological signs are viewed.

What can modern astrology allegedly tell us?

Why take any notice of astrology in the first place? In the sciences to get some idea of how people’s lives may vary, we consider **genetics together with environmental, social and economic variables**. A poor autistic person will have a very different life compared with a wealthy talented person. But most astrologers claim the birth chart goes far beyond such broad outlines. For example Charles Carter, the leading British astrologer of his day and noted for his clarity, makes this definitive statement in his Principles of Astrology(1925, p 18):

Practical experiment will soon convince the most sceptical that the bodies of the solar system indicate, if they do not actually produce, changes to: 1. Our minds. 2. Our feelings and emotions. 3. Our physical bodies. 4. Our external affairs and relationships with the world at large.

There is no reason to think that anything could provide more than that achieved by the sciences or our life experiences. To claim otherwise implies that astrologers are more informed than highly educated specialists, just for starters.

A typical view from astrologers is that,

You may know who you are, but your chart reveals who you can **become** [that is, your potential]. Your **Character Portrait** horoscope identifies more than just obvious personality traits that you will gladly recognise. It will uncover hidden talents and unravel complex parts of your nature. It brings a level of self-understanding that will lead to greater self-confidence. It can lead to more successful relationships and friendships and open up career possibilities that you may never have considered before …**The Character Portrait covers the whole pattern of your life**. [[31]](#footnote-31) ( https://www.equinoxastrology.com/characterportrait.htm, accessed Jan 13, 2021, italics ours).

And, astrologer Andrikopoulos (2013) tells us,

The astrological chart is a rich source of information on our unique energy pattern [[32]](#footnote-32)…In working creatively with the knowledge we find there we are able to raise our vibration of attraction; in this state we are able to attract a soul-mate, someone whose vibration is a match for our own uniqueness.

Astrology claims to provide information about human beings and worldly events **not easily** available from other sources, supposedly making certain possibilities open to us. As a typical example of an astrological public reading, consider the analysis of the relationship between musician Harry Styles and actress Olivia Wilde in the New York Post (Jan. 12, 2021): [[33]](#footnote-33)

“I don’t think it’s going to be a long-term thing,” Madi Murphy, astrologer and co-founder of [The Cosmic Revolution](https://thecosmicrevolution.com/), recently told Page Six [of the New York Post] of their romance. “That being said, it doesn’t mean it’s not going to be a successful relationship,” she said, noting that time is not the only measure of a relationship’s success. “I do think they’re going to learn a lot about each other and learn about themselves and both be catalysts of change and personal transformation for each other.” Murphy explained that 26-year-old Harry, whose sun sign is Aquarius, has not yet experienced his Saturn return, the astrological “period of emotional adulthood” and a “cosmic coming of age time.” And the 36-year-old “House” alum’s sun sign, Pisces, is also directly aligned with the singer’s Saturn placement, giving the relationship an underlying theme that there’s work to be done together. “They’re going to come out of it as different people and it’s not necessarily going to be about a romantic connection,” she said, hinting that they could end up collaborating on a successful work project or charitable endeavor further down the road. Murphy also noted that they share the same Venus sign in Aquarius, and thus speak the same love language. Styles may have ignited a part of Wilde that lay dormant for a while (https://pagesix.com/2021/01/12/whats-in-store-for-harry-styles-and-olivia-wilde-according-to-astrology/accessed Jan 13, 2021)

# The relationship between the two celebrities ended about six months after the above was written. Such a reading is typical of Western astrology books, and astrology sites selling horoscopes, by covering all outcomes: basing the reading on what is already known about the person, along with a general knowledge of people (including the typical issues and problems people face at different stages of their lives), an awareness of typical celebrity relationships (and their customarily ephemeral time span), in company with some guesswork, the usual qualifications (‘I don’t think’, ‘tendency to’, ‘potential’, ‘inclination’, ‘may’ etc) and vagueness (‘not a long term thing’, ‘speak the same love language’, ‘emotional adulthood’, etc) which allow them to cover all bases. A few astrologers proclaim that astrology can only offer partial explanations of human behavior [[34]](#footnote-34), while the majority (check any book on astrology in your local bookstore or any astrology internet site) seem to believe that astrology is all-encompassing.

# The way astrology is presented by most astrologers, one surmises that astrology will provide some kind of a comprehensive understanding of everything (or almost everything). For example, astrologer Crimmin (2021) says, “Everything under the sun, including garden[ing] styles, can be viewed through an astrological lens” (italics ours). Similarly, at the online Astro-Talk site, we read, “[In] our Horoscope dwells every aspect of our body, soul, life, and purpose” (<https://astrotalk.com/astrology-blog/astrology-and-mental-health/>).[[35]](#footnote-35) And, “****Astrology is the ancient science of interpreting**** the relationship between the physical world, the spiritual world, and the cosmos to****answer all of these questions and more.”**** [*Astrology Basics Explained: A Beginners Guide to the Stars* (mysticmag.com)](https://www.mysticmag.com/horoscopes/the-basics-of-astrology-explained/) (accessed Feb 24, 2022, italics theirs). Also, “Astrology explains everything, and it does so on many levels and on whatever level you are at this very moment....but not in a causal way...astrology connects everything.”(<http://risinglightastrology.com/> accessed June 9, 2022). Similarly, in advertisements on the back or inside covers of Horoscope magazine UK astrologer Currey marketed full-page ads telling us, "Tell Robert Currey three things about yourself and he'll tell you everything about yourself". In exchange for your date, time and place of birth and $45, you discover "your ideal careers path, how others see you, the key to social, romantic, spiritual and material success, as well as deeper – and often hidden -- strengths ... discover who you really are. ... And even if you don't know your time of birth, we can still tell you a surprising amount from just two". And astrologer Gillette (2023, p. 28) tells us:

what we experience, or are disposed to do, is the product of the background pressures (outerplanetary cycles), the contemporary mood (inner planet cycles) and triggers to act or to happen now (Moon and angles). Potential triggers are constantly occurring. Only a few will indicate specific outcomes. This does not invalidate the benefit of knowing background pressures that may trigger future events, in order to adjust environments to encourage the most beneficial outcomes.

To put it in more anachronistic terms, astrology, as these astrologers see it, can reflect the inner essence or nature of things through their symbolism.

Presumably, astrology is almost God-like in its possibilities, compare: “… not a single sparrow can fall to the ground without your Father knowing it.”([Matthew 10:29-31](https://biblia.com/bible/niv/Matt%2010.29-31)). A quick examination of astrology books (check your local bookstore and astrological internet sites), will show this seems to be a commonly held view. [[36]](#footnote-36) Such extreme claims reveal an issue at the heart of present-day astrology regarding the statement (by many astrologers) that the birth chart along with ongoing celestial configurations provides a detailed outline of almost every part of our lives. Let’s put this in perspective: as Schellenberg (2019a) points out, we humans haven’t existed that long on this planet, maybe only 300, 000 or so years. Dinosaurs were around several hundred millions of years longer than us. So unless a major catastrophe occurs, we will be around for a **very long time** in the future. [[37]](#footnote-37) Even if astrology in its myriad forms has been around for a few millennia, given an evolutionary time scale, such extravagant astrological claims to deep insight regarding what goes ‘on below’ are very suspect. That we would have arrived at this position of such powerful insight about the contingent and unpredictable lives and events on earth in so short a time period seems miraculous in the extreme. When we combine this with the fallible, limited nature of human beings, we should adopt strong doubt that any approach could have arrived at such an all encompassing account of human beings so quickly. (Hence the common appeal to transcendent realms and gods to underwrite astrology in all its disparate forms).

We’ll leave the reader to think about the immensity of time that the human species likely has left for improvement in all areas of knowledge, except somehow astrology! which (according to most contemporary astrologers’ books or internet sites) seems **already** miraculously comprehensive in its scope (Schellenberg, 2019b).

**Astrology's competing assumptions**

**1.1 The traditional assumption**

The traditional metaphysical assumption of astrology (the Hermetic maxim) is both as old as astrology and deceptively simple: it assumes that happenings in the microcosm are related to happenings in the macrocosm in specific **symbolic** ways, a connection usually summarised by *as above so below*.[[38]](#footnote-38) [[39]](#footnote-39) For most astrologers, this is a fundamental and ubiquitous feature of the nature of reality. A problem is that the ‘as above so below’ is so abstract that it is difficult to assess. The devil for astrologers is in the details. Whenever astrologers try to make this slogan more specific, the result seems to be either silly, uninformative, or vague obfuscations (see Kelly, 1997/2005).

So, how do we know what to include and what to exclude in ‘the above’? [[40]](#footnote-40) We can’t pay attention to everything going on in the solar system or beyond, how is the selection on what to astrologically focus made? The answer varies among astrologers: while the planets are considered essential (but not necessarily all planets, for example, the outermost planets are not included in most Hindu astrology); some astrologers include (some) asteroids, others do not; some include the moons of other planets (e.g <https://www.astrolog.org/astrolog/astmoon.htm>), others don’t; some include dwarf planets e.g Ceres, Eris, Makemake and Haumea, many don’t; some include hypothetical planets, most don’t; some include comets and meteor showers, others do not; some contend solar and lunar eclipses are important, others do not; some want to include exoplanets (planets outside our solar system, many light years away) [[41]](#footnote-41) most don’t; some think the fixed stars should play a role in astrology, others don’t [[42]](#footnote-42), and so on. All claims are typically accepted with open arms, with little, if any, critical evaluation by the astrological community. Those who advocate tiny asteroids or dwarf planets or the inclusion of exoplanets or black holes in their astrology contend they play **a large role** in the lives of people, while others give them a minor role or no role. All seem to have equally satisfied clients, and all can fit their own diverse astrological symbolisms to ‘explain’ ongoing and past events on earth.

**Further, the *above* is the cosmos** **as seen from the Earth**. The essential astrological components are recorded in the astrological *birth chart*, an earth-centered map of the heavens *above* at the moment of the terrestrial happening *below*, which can be represent **anything** with a unique moment of coming into existence, however disparate, such as the birth of a person, a company, a dog, an ant, an idea, an event (such as a marriage, or losing a job, moving into a new house), or an entire age.[[43]](#footnote-43) Exactly how it works is ‘explained’ by various disagreeing (and poorly developed) theories varying from esoteric physical causes to Jung's quality of time theory based on non-causal mirroring, and his theory of synchronicity, along with appeals to transcendent realities beyond science.

**1.2 A competing assumption: physical causes**

As it happens, *as above so below* in the early days had awkward side issues such as seeming to deny free will, which led to a long tradition of defending astrology by moving its connections from the occult to physics, for example by Ptolemy in Alexandria around 200 AD, by the influential Islamic astrologer AbûMa'shar in Baghdad around 800 AD, and by the Franciscan friar Roger Bacon in England around 1250 AD [Teri Gee (2012) Strategies of Defending Astrology: A Continuing Tradition*.* PhD thesis, University of Toronto]. Today this assumption has lost ground due to a lack of likely physical causes such as gravity, magnetism, quantum effects, and radiation, along with how such causes could set the stage for **disparate lifelong** aspects of our lives such as our love lives, career prospects, and physical and cognitive development over our lifespan, let alone on-goings regarding abstract ideas and institutions, but it is still supported in some astrological quarters in the hope that future science might find a plausible physical cause.

**1.3 Another competing assumption: psychological astrology**

Here, the *as above so below* assumption exists but the connection is made by the mind. This approach, which became popular in the 20th century, seems to be at present, the most common astrology in the Western world. A description of this approach is as follows:

As with mythology and psychology, astrology operates in the land of archetypes (or a collective pattern or symbol) of the collective unconscious and personal unconscious. The planetary symbols and meanings relate to universal representations that can be found everywhere in the human experience. For example, the Moon in astrology represents our internal, emotional selves, our mother, and the things that are unconscious in us, but is also a physical entity (https://www.wildwitchwest.com/about-archetypal-astrology.Accessed April 25, 2021)

The goals of psychological astrology are concerned with self-awareness, personality integration and personal transformation, as are most non-astrological psychodynamic approaches. However, most of the research in present-day **psychology** is in cognitive science along with neuroscience, which differs considerably from what is taken seriously in astrology and Jungian psychoanalysis in most of their contemporary forms (Wiseman, 2022, Bloom, 2023, further, consult any introductory psychology textbook).

**1.4 Yet another competing assumption: divination**

The *as above so below* has been challenged by another competing assumption, namely the assumption that the alleged connection between the heavenly bodies and earthly events does not empirically exist. There is a historical precedent for this approach. On this view, “astrology is based on one-off, non-repeatable instances, in which everything depends on the astrologer’s ability to read the symbolism and endow the horoscope with meaning” (Campion interview, 2020).  Brockman (2016) points out, “it is neither necessary nor sufficient that there is a particular planetary correlation in the sky [that underlies particular human behaviours]. “ Instead, astrology is considered to be divination, (akin regarding numerology, geomancy, the I Ching, tea leaf reading, oneiromancy, and Tarot) a process seen as a reaction to a non-human responsive cosmos (Cornelius, 2002, 2011; Brockbank, 2011, 2016, 2017 [[44]](#footnote-44); Phillipson, 2019a, b), or helped by divine intermediaries such as gods, spirits, or daemons. Either way, the *above* is no longer connected to the *below* **in a consistent empirical fashion**. Specific astrological planetary combinations are neither necessary, nor sufficient for the identification of terrestrial human actions, but, may function, at appropriate times---in the right context (which often defies rational explanation) as signs for specific human behaviours. This view of astrology is not considered in this monograph. [[45]](#footnote-45)

**1.5 Some limitations of the assumptions**

The *as above, so below* assumption is actually seen to work (or so it is claimed) whenever the birth chart is interpreted by received cookbook rules but is nevertheless subject to certain received limitations (which can also be appealed to whenever any potential disconfirmation of astrology is found):

– Stars incline, not compel.

– Birth time is often unreliable.

– Client does not know herself.

– The potential shown by the chart is unfulfilled.

– The manifestation is untypical.

----Given the many similar factors in any analysis, it is difficult to know which astrological factors are actually responsible for astrological effects

--Each planetary configuration in a birth chart has a range of possible meanings.

---The same planetary configuration in different people’s birth charts may manifest differently.

– Another chart factor is interfering (these can always be found).

– The astrologer is not infallible (perhaps making a bad interpretation during a bad transit).

---Client was exhibiting her free will

– There is more to astrology than we know.

– Astrology cannot be tested by science.

– it was done by ignorant astrologers with improper motives (the assumption being there are bad astrologers, but also good ones).

---Astrologer has a lack of experience

These limitations often play a double role in astrology. They are both part of the tenets of particular astrologies and can also serve as *ad hoc* excuses to get around potential disconfirmations and difficulties in individual readings. These limitations are rarely developed in ways to improve the astrology in a testable way. Astrologers of different persuasions focus on different subsets of *the above* to avoid disconfirmation. For example, psychological astrologers will focus on the notion that planetary configurations in a birth chart may have a range of possible meanings, and, even where the same configuration in present in different people, they emphasize it can express in different ways. The appeal to such varying sub-sets of excuses will protect every approach to astrology from potential disconfirmations or possible revisions.

**1.6 A fundamental problem with all assumptions**

The problem with all the assumptions (with the possible exception of astrology in its divinatory forms) is that literally a thousand empirical studies have failed to **consistently show** that astrology (whatever its assumptions) provides useful or reliable empirical adequacy (Dean, Mather, Nias & Smit, 2022). What astrology indicates may be *meaningful* to the client but is not necessarily *getting it right (*Dean, Saklofske, & Kelly, 2021*)*. In other words, it may be fruitless to examine astrology **on empirical grounds** because there is nothing empirical to examine except probable psychological biases, group-think, philosophical naivety, unconscious signalling, informal reasoning fallacies, motivated reasoning, and echo chambers---sealed-off groups of believers---which restrict information flow to only what confirms astrological beliefs along with discouraging criticism (Pigliucci, 2010, 2023; Boudry, 2013; Arp, Borbone, & Bruce, 2018; Fantl, 2018; Simler & Hanson, 2018; Ballantyne, 2019; Nguyen, 2020; Tavris & Aronson, 2020; Galef, 2021; Marshall, 2022; Blancke & Boudry, 2022). Others have taken a Vice-Epistemology approach to ingrained false and misleading beliefs. Here, the focus is on epistemic **vices** such as gullibility, dogmatism, closed-mindedness, failing to recognize one’s cognitive limitations, cognitive laziness, and metacognitive overconfidence (Nadler & Shapiro, 2021.,Tvrdy, 2021, Kidd, 2021). Nor can there be hope that suitable physical theories will explain astrological claims when there is little or nothing to explain.

The Pervasiveness of astrology in Western society

It is impossible to avoid astrology in society since we are inundated with daily newspaper horoscopes, astrologers on talk shows, astrological internet sites, articles and advertisements in newspapers and magazines, along with astrology books common in the metaphysical section of any book store and library (see Herreid, 2019, Natale, *et al*, 2022; Pratkanis, 2023 for more on how Western culture supports such beliefs). [[46]](#footnote-46) So, it is no wonder that many people contend astrology is a science, or that there is ‘something to astrology’ (whatever that means).[[47]](#footnote-47) It is therefore worth stepping back to see how astrology is now (in the 21st century) **so different** and **at variance** with the rest of what we know or believe today. A useful talk on astrology from 1969 (in French) can be found at <https://youtu.be/VfmdcVKN0oE>. Little has changed in the last 50 years.

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| Two thought-experiments [[48]](#footnote-48)  Imagine an extraterrestrial alien anthropologist, who has been provided with the current state of our knowledge about ourselves and the world **as revealed by the social and hard sciences**, history, and philosophy, visiting the earth this year. Let’s put this in context. The discussion the alien desires is about understanding ourselves. What would she/they/he expect to hear? We would talk about environmental, cultural evolution, phenotype plasticity, and genetics along with recent work in epigenetics, microbiomes, neuro-psychology, evolutionary psychology (Cashdan, Silk, & Willard, 2020; Barrett, 2020; Barker, 2022; Crimmins, & Faul, 2023; Henrich, *et al*, 2023) health psychology (Marks, Murray, & Estacio, 2020; Christensen, *et al*, 2023), investigations regarding how life experiences shape health and disease over the entire life course (Penkler, 2022), neuro-philosophy (which bridges philosophical and cognitive disciplines with scientific research and at the forefront – brain research) (e.g Sapolsky, 2018; Simler, & Hanson, 2018;Henrich, 2020; Henrich, *etal*, (Forthcoming)., Richards & Pigliucci, 2020;Muthukrishna, Henrich and Slingerland. 2021; Watkins, 2021) and our increasing knowledge of the sensory worlds of different animals on earth (Yong, 2022).[[49]](#footnote-49) Our philosophical thoughts on society and life may also be of interest (Loptson 2020 would provide a good start). Someone then says maybe your birth date and the timing of your birth is important. You might think of whether forceps were used in the delivery, how roughly the baby was handled, the cleanliness of the hospital, or the skill of the staff on hand at that time, as well as local environmental and economic conditions in the society during that time period etc. But if then, someone asked whether what happened in the Himalayas at the moment someone was born may be important, we would not know what to say. How could what is happening in the distant Himalayas at the same time as a child’s birth affect or even mirror what is destined for the newborn? Was the child’s father, or rich uncle, climbing a mountain in the Himalayas at that time and fell to their death? Then, an astrologer pipes up with ‘what about the state of the entire solar system at the child’s birth time’? The astrologer then adds, “this also applies to non-physical things with ‘birth times’ such as ideas, companies, universities, thoughts, and businesses’”[[50]](#footnote-50) One might think, now things are really out of whack. Think of how this relates to our background state of scientific knowledge about the world in the 21st century. There is no fit. [[51]](#footnote-51) The astrologer then adds even more wackiness. What is astrologically important is especially how the state of the solar system only **appears** to those of human beings on earth. Indeed, the overwhelming importance of how human beings see things in astrology exemplifies a view that we are somehow of central importance in the scheme of things, a view somewhat questionable from an evolutionary perspective.[[52]](#footnote-52) If we were on another planet (e.g Mars) planetary conjunctions and transits would look very different since we would be looking at the same planets from a different perspective. Would earth-based astrological symbolisms still apply or would completely new symbolisms be required? Further, it gets worse, how we interpret what is going on in the solar system relative to **our lives** requires **symbolism** based on whether we can tie the solar system bodies, to a large extent (in the West), to names and commonly with the mythology of **Greek and Roman gods and word associations**. For example, Mercury is astrologically associated with communication since it is named after the messenger of the gods. What is going on here? *Given the background* provided by the contemporary state of history, philosophy, the social and hard sciences, and our evolutionary history, the alien would **not expect** to hear talk of astrological associations between terrestrial and solar system events. There is a total disconnect. Nothing in the Western myths and other associations themselves suggests when the names were applied to planets they would suddenly take on a mystical meaning over people’s lives (for example, some astrologers claim an asteroid with your name plays a role in your life). Did astrological relationships with earthly events only occur when the species of human beings reached a particular stage of development? How could we find out? The names we have attached to the planets and other bodies (moons, asteroids, etc) don’t work like the symbolism we use in everyday life. My calling my cat ‘Mars’ or having a brother called ‘Mars’, or putting a photograph of Mars on my wall, doesn’t have any astrological effects (unless your name is the same as an asteroid, nor would even landing on Mars, apart from likely expected, non-astrological physical changes in the astronauts, but--- somehow attaching such labels to a planet made of the same kinds of materials found on earth, when suddenly considered in a birth chart, seemingly, adds specific magical power to the object. Indeed, the magical label also supposedly foreshadows events over our entire lives----our love lives, social lives, career opportunities, health possibilities, and so on, for as long as we live. You get the point.[[53]](#footnote-53) Nothing in any of our areas of knowledge such as the hard or soft sciences could prepare us for such extravagant talk in the 21st century. The social and physical sciences (including biology and neuroscience) already provide good explanations of our behaviors and that of animals, and are becoming more and more fruitful and wider in scope in providing more and very applicable knowledge all the time; we have no need of astrology.  Let’s approach astrology with another related thought experiment: For the sake of argument, forget that astrology ever existed, but we still have the science that we have today. If some group of people (for whatever reason) now decided that the heavens caused or correlated with personally and /or socially important events on earth, **where would they start**? Given that science has progressed immeasurably over the last several hundred years---we now know much more about the solar system, universe and, ourselves than even a century ago. There is no reason to think we would start anew with the same **earth-centered** celestial configurations that contemporary astrologers claim to exist, nor tie in beliefs with any symbolisms based upon ancient mythologies, and various associations that present-day astrologers base their interpretations upon. Further, we are more aware today regarding the role of chance and luck play in our lives (see Bandura 1982 for an early paper on this topic). Why would people living today **even begin** to believe people born from April 20 to May 20, astrological sign Taurus, tend to be stubborn, (would they even classify people along the lines of Western astrology?), or claim that whenever two or more planets ‘line up’ from an **earthly perspective**, signify important events on earth ? Perhaps they would place **central importance only on** lunar cycles or solar eruptions and other possible physical effects or social effects of appearances of our moon (e.g eclipses, Harvest moon, etc), and pay little or no attention to distant objects such as the planets or tiny car-sized asteroids. After all, the planets are just physical objects (balls of plasma, gasses, and rock), like everything else. It is only the contingent, cultural histories that have occurred in the West that are associated with the astrologies we now have (as the differing astrological histories around the world show). Any newly-from-scratch astrology, in other words, would be **completely different** than what we find today in books and astrology sites, but, our science would likely be roughly similar to what it is today if all our scientific knowledge was destroyed, and if we started over.[[54]](#footnote-54) The fact that we do not have the faintest idea how to answer or even approach many critical basic questions that we might raise about (Western) astrology such as those brought up by the astrologer Carter (1927) almost a century ago----and this situation still endures after astrology*, in some form*, has been around for 2500 years or so--suggests that we are dealing with claims that are greatly in need of critical examination. |

So, let us take a closer look at some of the essential aspects of contemporary Western astrology. We can start with talk of the topic of the ‘quality of the moment ’tied in with one’s moment of birth.

The Quality of the moment

We need to first ask, what is ‘**the moment**?’ In Western natal astrology, this is generally tied to the time of our birth. The exact time you are born is therefore considered of special importance in Western astrology (Grof, 2009, p.52, 57-59). As Harding (2019) says,

The astrologer will cast a chart for a moment of time. Generally, this is the time of your birth. The chart will depict the positions of the Sun, Moon and planets as they appear in the sky relative to the place of birth. Thus, charts for the same moment, but set in different places, will hold essential differences.

Why the focus on time of birth? A popular response is

“The birth time indicates the exact moment your soul entered your body when you were born. It’s required to be able to figure out your rising sign, which is considered to be the most ‘you’ part of your birth chart in astrology”. <https://www.astrology.com/article/birth-time-meaning/> Accessed Nov 23, 2022.

Indeed, the astrologer Kampanes (2022) goes further and tells us,

the life and destiny of each ‘born soul’ is not determined by the celestial configurations at the moment of its birth, but is predetermined before birth, by some higher intellect!... the moment of our birth is predetermined in order to conform to the universe’s ‘kaleidoscopic’ pattern at a specific moment, so that it becomes feasible for the soul to identify the challenges that is bound to face at the various stages it will go through in life.

Archetypical astrologer Richard Tarnas (1987/2013) says something similar to give importance to the birth chart with its specific configuration of planets:

I personally believe that the circumstances of our birth are not accidental, but are in some sense a consequence of our spiritual and karmic character. Like many others, I have come to believe that **we choose the circumstances of our lives, we [pre-birth] choose the family and culture and age into which we are born, and that this choice is somehow made from a higher level of our spiritual being** than that of which we are usually conscious. From this point of view, the birth chart is not the randomly allotted prison structure of our inexorable fate, but can be seen rather as defining the basic structure of our potential unfolding--suggesting the personal gifts and trials that **we have chosen** for this lifetime to work with and evolve through (italics ours). [[55]](#footnote-55)

One might note that to save the **astrological notion** of the importance of the birth moment, Tarnas (and Kampanes) and many other astrologers invoke *ad hoc*, problematic metaphysical theory. There is no attempt to defend their metaphysical beliefs, and neither show any awareness of the vast philosophical literature on such topics.[[56]](#footnote-56) Indeed, in some parts of the world, your birth-date can even offend the gods, although happily there are rituals that the unfortunate individual can undergo that can reduce the negative impact (see https://skeptic.org.uk/2023/07/fan-tai-sui-the-chinese-superstitious-belief-that-your-birth-date-has-offended-the-gods/

Many astrologers in the West tend to acknowledge, with variations, the view made by the 20th-century German astrologer Thomas Ring (1892-1983):

During pregnancy, the developing fetus becomes increasingly attuned to the astronomical environment and its rhythmic structure, including the earth….the (future) mother chooses instinctively, and unconsciously, the ‘appropriate’ point in time for conception [[57]](#footnote-57)….human behavior is determined by the genotype (genetic makeup), cosmotype (‘cosmic’ makeup) and phenotype, resulting from genotype, cosmotype and environmental factors (Mayer, 2020, pp. 778-779). [[58]](#footnote-58)

Terms and expressions such as ‘attuned’ and the mother ‘choosing the appropriate time for conception’ do no more than name the supposed effect requiring explanation, and say nothing about the way such a supposed effect is produced.[[59]](#footnote-59) McRitchie (2016) goes further and tells us that,

Environmental and lifestyle factors, **such as those described in astrology**, are easily underrated yet can shape an individual’s personality and habits in ways that are difficult to assess in other disciplines. An experimental evaluation of **astrologically conceived environmental influences** should more realistically be regarded as no less challenging than psychologically conceived evaluations of innate personality. (italics ours)

While it is unclear what ‘astrologically conceived’ means, one might also note that while we have a basic (and increasing) understanding of genetic and environmental factors in the social and biological sciences, such ‘astrologically conceived environmental influences’ talk draws a blank. Has anyone identified any ‘astrologically conceived environmental influences’? What could they possibly be?

From the perspective of contemporary physical and biological science, as astrologer Carter himself points out,

…the importance of the moment of birth of a thing seems hard to explain in terms of physics (Carter, 1927, p. 15)…there is no particular or evident reason why the stellar influence [or ‘stellar framed imprint’] should impress on the infant more durably at the moment of birth than at any other time, and that it is [further], hard to imagine even with admittedly mysterious forces finding anything at the birth of an abstraction such as a company [or a business or a decision or a nation] upon which [stellar forces] could make any impression (Carter, 1927, p. 24).

From modern scientific social and biological perspectives, astrology is giving too much weight and influence to what is largely a random process.[[60]](#footnote-60) The astrological emphasis on the moment of birth and what it portends is at variance with what we already know from our own collective experiences, and what we have learned from the sciences:

You did not choose to be born or where to be born. Nor did you choose your parents or your siblings, if you have any. You did not choose your sex, or your mother tongue, or your physical characteristics, and you did not choose the basic characteristics of your character. Nor did you choose the socioeconomic class or group into which you were born or the basic opportunities and difficulties that were placed in your way as you grew up. ….Moreover , **throughout life this continues to be so**: the people you meet, the interests that you develop, the place you end up living in and much else besides; all of this is largely a matter of luck or chance, good or bad. (Hamilton, 2016, p. 37; also, see Frank, 2016, Heesen 2017, Kaufman, 2018, Riggle, 2022).

We might also add that the astrological focus on the moment of birth as centrally important **in learning about our future lives** in relative detail is deeply problematic. There is evidence that many of our prenatal experiences in the womb play a far larger role in our lives than the astrological **moment** of birth (Paul, 2011; Jasthi, *et al*, 2022; Fox-Skelly, 2023*).* Paul points out that research has shown that pre-birth factors that occur throughout gestation---think of maternal health and psycho-social factors, for example---contribute to our individual intellectual and emotional nature and may have long-term effects. One would also need an exceptionally strong theoretical underpinning to claim that the moment of first breath underlies claims regarding “the whole pattern of your life [including revealing] hidden talents and [the ability to] unravel complex parts of your nature”, let alone forecasts regarding your love, family, and career experiences throughout one’s life. [Equinox Character Portrait (equinoxastrology.com)](https://equinoxastrology.com/characterportrait.htm).

Several basic conflicts with contemporary biology immediately arise. The biological and social sciences acknowledge the existence of the genotype and phenotype, but talk of ‘cosmotype’ (or astrology code or blueprint) would be considered superfluous and empty. While much is **already known, and increasing daily in the sciences** about the genotype, along with cultural evolutionary effects, microbiome, and epigenetic influences that contribute to the resulting phenotype, nothing is known about any ‘cosmotype’ nor how it would interact with the genotype, or much less, set a pattern for, or sculpt central future aspects of our lives.[[61]](#footnote-61) Astrologers provide us with no worthwhile idea how astrological causal activity is to be understood, especially in regard to the natural biological and environmental way physical causes operate. A further problem with such astrological theorizing is that it does not fit with evolution. How could evolutionary or epigenetic changes allow us to track planetary configurations that are not part of our earthly natural environment? (Neptune, Uranus, and Pluto are not even visible to the naked eye and nor are most asteroids). The planetary associations of significance to astrologers---especially those involving the outer planets and asteroids---are largely not only invisible to the naked eye but do not have any effects that evolution could respond to. [[62]](#footnote-62) Evolutionary adaptations are made in response to the **earthly environments** physically confronted by organisms.[[63]](#footnote-63) The difficulty is additionally compounded when the outer planets and other astronomical objects were unknown until relatively recently. Further, there are thousands of asteroids, how could we become only attuned to selected (named asteroids that share your name) asteroids out of many thousands that are otherwise largely indistinguishable from each other? It would seem astrologers would have to deny evolution or assume evolution was designed to produce beings by an astrologically-inclined, benevolent god.  Astrological talk of socially constructed entities such as ideas, corporations, nations etc having astrological birth-times adds even deeper problems. Where and how does the supposed imprint occur with abstract, socially constructed entities such as institutions or ideas?

These problems **should** create serious problems for most contemporary astrologers–-if we take astrologers at face value in their books and sites (see any astrology book in your local bookstore, or consider the magazine The Mountain Astrologer)—after all, the alleged cosmotype (stellar imprint) supposedly has a **stronger** **relationship** to our lives than any genotype or environmental influences (after all, how many examples do astrologers provide of people who completely, or even somewhat, override their supposed cosmotype?) One might also ask: While genetic engineering will soon allow us to modify much of our genetic structure, could we override or modify our cosmotype in the future? Could advances in science potentially find ways to make astrology redundant? Is it (whatever ‘it’ is) impossible to override? How would we know? [[64]](#footnote-64)

Some Western astrologers are well aware that the Western emphasis on time of birth is far from straightforward and frequently ignored (daylight savings time can create some further timing dilemmas for astrologers as well, see Arens 2023). For example, Campion in *The Book of World Horoscopes,* (2004) says,

There is a clear gulf between the rhetoric of astrology – that precise data is vital – and the practice (to judge from astrological books and journals) – which is that, in many cases, it just doesn't matter. …All that is required for the interpretation to be correct is that the time is believed to be correct (preface, p.13)..

Why relative to the **place** of birth? [[65]](#footnote-65) The place and time of birth in themselves are not really that important for astrologers: what is important for most Western astrologers is that they change the position of the Ascendant and, consequently, the positions of the planets in the astrological houses. While we can all agree that being born in different countries or even regions of the same country may have different cultural, religious, and environmental relationships with one’s life and opportunities, astrologers however, contend that even being born an hour later or even a few minutes later than someone else in the same locality (everything else being equal) makes a difference because **the celestial configurations at that later time in our solar system will be different from the view of where the birth occurs.** The planets can therefore supposedly play a large role in your birth chart even though they are sometimes as far away from the earth as 7.5 billion kilometers (Pluto) or are a tiny asteroid!

Indeed, most cultures, while interested in the sky, did not place the importance on the exact time and place of birth that Western astrologies do, and where cultures do emphasize the timing of birth they draw different conclusions from that timing than contemporary Western astrologers (see https://en.wikipedia.org/wiki/List\_of\_astrological\_traditions,\_types,\_and\_systems). How would one decide among such traditions? Why prefer contemporary Western astrology over other approaches? Perhaps mixtures of traditions are best, how would one know? **How could Western astrologers persuade other astrologers with different views that theirs is better (using their own criteria of better) or vice versa?**

Further, what is the ‘**quality of the moment’**, that is, *what follows* from ‘the moment’? The psychoanalyst Carl Jung said "Anything born in the moment of time carries the quality of that moment". This is an extravagant and enigmatic claim, but what does it mean? [[66]](#footnote-66) Jung seems to have meant this as possessing the qualities of the season and year in which we were born**.** This is rather unhelpful. The specifics often depend on what astrologer you ask.

To set the future outlines of your life (however generally it is conceived to be), would not the ‘quality of the moment’ have to further include the same detailed aspects of all those other people you come into contact with----who astrologically “represent parallel universes or parallel worlds so to speak.” (McRitchie, 2022, p. 707) (consider how some people have strongly influenced your life), and the physical aspects of future social and physical environments as well, and do this for all people? To have a good understanding of **anyone** requires an understanding of much of their constantly changing environment ((and perhaps an awareness of events taking place around the world (through the news) and how that affects them)) along with their being a product of the peculiar contingent historical, political time period they are born in. Think also of all the myriad continually changing external factors that influence a person’s day-to-day life, from social and environmental stresses, deprivations of all types, etc over the course of a lifetime. Indeed, even our identity and how we perceive the world and understand ourselves is shaped to a large extent through external influences such as our culture, our social network, and how we are raised. **How do the heavens somehow encode all of this, even if only in broad outline?** Keep in mind we are **not** talking here about the long-term social effects on your life such as being abused or bullied as a child or your genetic inheritance, rather, the claim that the rest of your whole life, and all it (?) encompasses, is **somehow** astrologically set or encoded to that defining moment of your birth. Capturing an understanding of the basic sketch of one’s life (including specifics such as the best day to get married, or whether one should adopt a child or not, or accept a job offer) also requires awareness, in addition, something of your external environment, both physical and social, both past and future. It also assumes a somewhat determined future in a strong sense. After all, believing that the sun will continue to rise and that future pandemics are likely to occur, pales before believing that somehow the solar system, in some **symbolic** god-like fashion, encodes (even a rough outline of) the future love life and career prospects of billions of people, let alone, somehow the prospects of non-physical companies, ideas, and countries Such forecasts of someone’s future even in the short term assumes the impossible (see Kahneman, Sibony, & Sunstein, 2021, see chapter 11).

The celestial bodies yearly move in the same patterns across the sky in predictable ways, and yet this sameness is supposedly **symbolically associated** with the gargantuan, volatile, and continually changing events on earth, many of which involve socially constructed movements and actions that are similarly changing over time (think of changes in fashion and rule changes in sports). **The same** celestial configurations that ostensibly tell us about human beings also supposedly simultaneously tell us about animal lives and non-physical entities such as ideas, businesses and nations! Further, at the same time, a planet will form a positive configuration for someone, a negative for another and none for a third.

Time Twins and time of birth

One would expect birth times to be relevant to the evaluation of astrology by time twins----those individuals born at the same time in the same place. Indeed, one might expect this to be a central plank on which astrology is based. As Phillipson (2019, p. 150) points out:

Time-twins....are people who, whether siblings or not, were born sufficiently close in time and space that their horoscopes are virtually identical – in some cases, so close that an astrologer would not distinguish them as different in any way. This would seem to cut out many of the problems in testing astrology. By looking at time twins it is possible to evaluate the viability of correspondences between charts and the lives and characters of the subjects to whom they belong, without relying on any specific form of astrology. This is because in looking at time-twins one implicitly looks at two kinds of correspondence, the first of which does not involve astrology. The first type of correspondence is between the lives and characters of given pairs of time-twins. The second type of correspondence is between the horoscope that is shared by the time-twins, and their shared characteristics and life events. To the extent that the first type of correspondence does not exist, the possibility of astrology is rendered null – for so long, at least, as astrology is expected to deliver straightforward objective correspondences between horoscopes and individual lives.

Phillipson quotes the late British astrologer John Addey as saying:

If astrology is true then those born close together in time must have similar elements in their lives....’, and characterised the comparison of time-twins as an important way of evaluating ‘the truth or falsity of the astrological hypothesis’

Of course, the similarities would have to be beyond what one might expect by twins (as with identical twins) sharing the same or similar genetic profiles, being brought up in similar family situations and social and physical environments, and the inevitable probabilistic outcome that some pairs will be similar through chance alone (Evans, 2023 for a review of studies on nature and nurture with twins; and see on chance and coincidences Beck, 2016, Rosenthal, 2018). What does research show? Phillipson points out:

Subsequent research has seen a pattern broadly similar to that seen in other astrological research ..... a lack of vindication for astrology on the scale astrologers might have wished for and expected, and disagreement about whether there was or was not any evidence that would merit further investigation of astrology.

This is an important point, astrologers make wildly **grandiose claims** about the importance of astrological configurations in the birth chart and daily ongoing worldwide affairs. Weak relationships, even if confirmed, would hardly support the **extortionate claims** made in astrologer’s books or those made on astrology internet sites.

How have astrologers responded to this discommoding situation with wrong charts? The speculations provided in response have been weak *ad hoc* appeals that further reduce astrology’s already low credibility. Phillipson continues:

[A well-known astrologer] has twin daughters who were born so close together in time that they share the same ascendant degree. He told me that they have considerably different characters, and that the explanation which works best in his experience is to say that the first-born takes the horoscope for the moment of birth, whilst the second-born takes that chart after it has been ‘turned’, so that the cusp of the third house (the house of siblings) becomes the ascendant. The younger twin, therefore, has a chart which is changed and defined by the fact of being a sibling. A similar idea, albeit with wider scope for differentiation between siblings’ charts, was proposed by [another astrologer]: ‘My feeling about twins, having looked at them for years, is that they tend to polarise the chart – they tend to hold onto different corners of the chart… that’s my experience.’ To illustrate the idea of holding onto ‘different corners’ of the chart, [he] gave the example that one twin, wishing to distinguish themselves from their sibling, might choose to do this by identifying more with the Moon in their horoscope than with the Sun. The idea, then, is that an individual’s horoscope would not define their life and character in an absolute way, but that it would be one factor amongst several, and that the way in which the chart manifested would be conditioned by these other factors. One example of such ‘other factors’ would be that someone who is born as a younger twin may have their chart significantly affected by that fact. That would not explain the difference in character between time-twins born to different families, and in fact remarked that time-twins from different families sometimes resemble one another more closely than time-twin siblings because of the absence of a drive to differentiate oneself from a sibling.

That differences between characters of time twins can exist is a serious problem for astrology. These differences would not be expected if astrology was a source of useful information about individuals. The responses when such differences are found are *ad hoc* hypotheses to maintain astrologers beliefs. These *ad hoc* hypotheses can be astrological (one sibling identifying with the sun, the other with the moon), or non-astrological (one sibling is psychologically reacting against the other twin in some way). There are serious problems either way. There is no plausible independent evidence for the astrological maneuvers, and putting forward non-astrological factors creates new problems of their own for astrology.

The after-the-fact rationalizations using non-astrological factors hardly fits with the claims made in many astrology books and internet sites that planetary configurations are all- important, **and** there is no plausible theory of how astrological effects (whatever they are conceived to be, causal or non-causal) could describe or take into consideration cultural, and social dynamical factors, or astrologically determine what weights would be assigned to each. Further, we are, **in advance**, given no guidance when such particular astrological appeals to explain away differences between time twins (appeals to moon and sun sign or being a sibling, etc) are appropriate **before the differences were acknowledged.** The proposed excuses are egregious examples of *ad hocery*.

Given that the moment of birth is supposed to astrologically set the (at least) basic outlines of future lives, in such cases, we would expect such initial unforeseen differences to throw off astrological life trajectories, or does the cosmos somehow ‘reset’ things to get the astrological future experiences of individuals ‘back on astrological track’? One might also add that if such influences can over-ride or thwart astrological influences early on, why not throughout the lifespan, making astrological ‘effects’ moot or much reduced in later life events for many people. [[67]](#footnote-67) The alternative to ‘other factors ...conditioning the way the chart is manifested’ would be that other factors can, at times, override the chart manifestations largely or completely.[[68]](#footnote-68)

Ironically, some astrologers aver that it is exceedingly difficult to actually test this ancient claim, despite its centrality to astrological belief. Astrologer McRitchie (2016, p. 167) tells us that the claim that time twins should lead easily checkable similar lives assumes too deterministic a position. He tells us that

One challenge is that it is not easy to find enough close time twins to make accurate inferences. [[69]](#footnote-69) Another challenge is that astrological theory is not very deterministic. Even if natal charts are each considered as a whole, as they generally are in time twin studies, there is no theory on how much twinning of personality or lifestyle to expect. Astrological textbooks offer options of related interpretations for each natal chart feature and this reflects the adaptive choices that a native can make throughout life. Just as in genetics where it is understood that different environments and epigenetic configurations can contribute to differences in genetically identical twins…., it can be similarly argued that different adaptive choices within identical astrological environments can contribute to differences in time twins. (pp. 167-8).

Such points **should** make McRitchie wonder about the central premise of astrology, namely those born at the same time in the same location should exhibit strong commonalities. Then, he adds, we have the additional problem of

how the hits or close resemblances in twin states are defined. What if one time twin is 182 cm tall and the other is 180 cm? If one is an oboe player in an orchestra and the other is an avid karaoke singer, do they closely resemble each other? (2016, p. 168).

The analogy provided by McRitchie between genetics and adaptive choices does not get off the ground. While we have some (and continually increasing) understanding of the role of genetics and epigenetic-environmental responses on our behaviors and minds, we are at a loss to understand abstract talk such as “different adaptive choices within identical astrological environments can contribute to differences in time twins.” We would also need a theory connecting the interactions between a person’s ‘adaptive choices’ and ‘astrological environments’ with biological and social environments. However, if we have such problems even with time twins, this would seem to have been a serious underlying problem with all of the claims of astrology from the start. (For an extended discussion of the problems of time twins for astrology, see Dean, Mather, Nias, and, Smit, 2022, pp. 795-809). After all, if we can’t straightforwardly spot astrologically related similarities with **time twins**, whence astrology? This would seem to create very serious problems for finding out (as the ancients are supposed to have found out by observations and discussion) whether **any** astrological relationships exist between the cosmos and terrestrial events. If astrology was as non-deterministic and multivalent as McRitchie claims, there would be no hope of the ancients making the observations that supposedly led to astrology in the first place, and little or no justification for astrologers making the specific claims one may still find online astrology sites and books in local bookstores and libraries. It would also create difficulties regarding detecting **any** astrological patterns throughout the life span of people. That is, the same difficulties will arise in comparing any two or more people on any aspect of astrology. This just adds to even more skepticism that any astrological relationships exist in the first place.

The Problem of Wrong Charts Working.

Astrology contends similar birth charts will supposedly reflect similar people. However, it is the experience of many (perhaps most) astrologers that they have unwittingly used a birth chart based on the wrong date of birth (and the wrong date could be hours, days, weeks, or years off-base), yet, the chart ***still accurately fits the client/native****.* This is a serious concern since wrong charts utilize not isolated astrological factors (such as zodiac signs), but ‘whole charts’ which involve evaluations of the main factors considered pertinent in interpreting an individual’s life. Astrologers have no way of knowing whether a birth chart is correct or not by just looking at it and seeing if it fits a person’s life. Most astrologers, with some imagination, can fit any given birth date to subsequent lives of any individual or nation, company, or idea. A typical example of this can be found in the Dutch book Hoe Waar Is Astrologie? (How True Is Astrology?) (1993) where the birth chart (horoscope) of singer Michael Jackson was found to fit his life perfectly. Indeed, the meaning of each chart factor was actually confirmed by excerpts from his biography. The accuracy was amazing. No wonder astrologers claim astrology works! Alas, the birth chart was not Jackson’s but rather the birth chart of one of the worst mass murderers in history (Dr. Marcel Petiot). Consider another illustrative example out of many that could be provided (see Dean, et al, 2022, pp. 856-859 for many others). Astrologers have long fixated on December 21, 1879 as Russian leader Stalin’s birth-date.

The problem that arises is that in 2001, the historian Jean-Jacques Marie, a specialist on the USSR consulted the registry papers from the Church of Gori, where Stalin was born, and, looking at his birth certificate discovered that the so-called official date used by astrologers was *off by one-year and three days!* Astrologers therefore have ‘illustrated” how accurate astrology was in fitting life events to the birth chart from a wrong birth chart![Astrologers using both dates (wrong and accurate) had no trouble fitting the two different birth date charts to events in the life of Stalin]. Between the 1920s and the 2000s, it was THOUSANDS of astrologers who have used with satisfaction an erroneous date of birth for which the astral configurations are different from those of Stalin's actual birth. That's not one astrologer who would have made a mistake, one day. This involvesthousands who have reproduced the wrong date, who have read and re-read each other, and there is not one who at one point said, "It doesn't work, it doesn’t fit many of his subsequent life events" or "There are enough important problems to be in doubt." No, it “worked“! This calls into question several authoritative arguments of astrology:

----The importance of the skill of the astrologer: amateurs, professionals, teachers accompanying their students to train on the biography of this illustrious character to familiarize themselves with astrological interpretation, writers who "demonstrated" to skeptical persons of the relevance of astrological interpretation to decipher an individual's personality, or to understand world events because of his decisions (which can be astrologically analysed), etc. : all have used a fake birth chart with satisfaction.

---- The importance of an (old or new) astrology compared to other astrologies: these astrologers who used the false birth date of Stalin belonged to all the possible currents of Western astrology (which are numerous and even sometimes incompatible) but probably also to the different astrologies of the whole world (Indian, Chinese, etc). No group, however, ever came to the conclusion that the astrological patterns under their eyes did not apply to Stalin's personality or the events of his life.

---- The popularity of astrology: if so many astrologers and their followers agree on astrology’s validity, it's because they believe it's based on something real. The wrong Stalin chart showed they have all agreed on something false.

These thousands of astrologers (those who have used this fake birthdate AND those who have read or listened to them), failed to see it was a fake birthdate and this is a serious problem: is the astrologer really able to distinguish the true from the false in his interpretations? (this example of Stalin is considered in detail in). Further,if astrologers don’t realise they use a bad chart with a client, the “research every time we analyze an astrology chart” can not be considered as convincing research. Bret-Morel & Feytit, 2020, pp. 176-178.

Phillipson (2019, p. 283-4) points out that this is a common experience of astrologers:

This question is brought into sharp focus by the common experience amongst astrologers of finding after an accurate and well-received horoscopic reading that a ‘wrong chart’ had been used – that is, a chart calculated for a time or date which did not belong to the astrological client. [Many well-known astrologers have admitted to this]: [Dutch astrologer] Rudolf Smit had an experience of this type, where he gave a successful reading to a client and then found that he had used the wrong person’s chart. He cited the experience as one that encouraged him to begin questioning the truth of astrology. Similarly, [British astrologer] David Hamblin gave a successful reading for a client, who subsequently realised that he had been born in a different year. As was the case with Smit, this caused Hamblin to question the truth of astrology. In a recent thesis, [astrologer] Keith Burke cited the ‘wrong chart’ experience of Hamblin and a similar one for [German astrologer] Peter Niehenke (involving a successful interpretation based on a chart with an error of 20 years in the birth date) and then added, ‘I had the same “wrong chart” experience’. Further examples could be adduced and in fact the experience is sufficiently ubiquitous that [British astrologer] Cornelius, after describing a ‘wrong chart’ experience of his own asked, ‘Which astrologer is there who has not had this experience, or one very similar?’ A similar estimate of the experience’s frequency came from [astrologer] Alie Bird who argued that astrology’s inherent magic really comes to the fore in cases where what later transpires to have been the ‘wrong’ chart works; not only works, but works **far, far better** than the ‘right’ chart would have done. I would suggest that all experienced astrologers have examples of this phenomenon in their portfolios.

Successful wrong chart readings are noteworthy in that it is not to their own advantage, nor that of astrology itself to report such readings. This is an indication their occurrence should be taken seriously. If at times, a wrong birth chart can work ‘far, far better’ than an accurately timed birth chart, the astrology practiced by most contemporary astrologers is in real trouble. That should not happen at all, or why ask for an accurate birth time in the first place? (Indeed, there is also no evidence from studies that astrologers using birth times based on daylight savings time are more accurate than those based on ‘real’ birth times). Indeed, for all astrologers know, there may be a multitude of birth date charts that ‘work better’ than charts based on accurate birth times. As Bret-Morel and Faytit (2020) point out,

“This is a SERIOUS problem for astrology:

* on the technical level: in many instances, almost all the astronomical parameters used would not be the right ones
* on the symbolic level: the associated symbolisms are themselves erroneous
* ethically: the same parameters and symbolisms still support the interpretations formulated for clients and what is affirmed in the name of astrology
* on the metaphysical level: does astrology really describe intimate reality if astrologers are not able to determine when they are wrong?”

How can traditional astrologers deal with this situation? We contend they cannot. [[70]](#footnote-70) [[71]](#footnote-71) Accepted wrong charts show that accurate birth charts are neither necessary nor sufficient for well-received readings. Further, we would contend such wrong chart readings further undermine the belief that **astrological symbolism** can accurately reflect relationships between astronomical events and terrestrial events. [[72]](#footnote-72)

Phillipson (2019, p 285, also, Kelly, 1998, p. 543) brings up the interesting question, what would happen if “astrological software created randomized locations for planets, rather than calculating astronomically accurate positions for a given time”? [[73]](#footnote-73) To some extent, using the wrong chart does this already, in the sense that the planetary configurations are very different from what they should have been with accurate birth data, but astrologers can still fit the wrong chart to any person. But, there is other independent support for our view. A number of astrologers **already** base ‘successful’ readings on **fictional** astronomical data -----hypothetical planets [and FORMER ones like Vulcan or Black Moon or X planet (Persephone) or Uranian planets], astronomical illusions (e.g retrograde motion), drawing interpretations based upon an asteroid having the same name as the client, etc (see following sections on symbolism). Further, with the number of escape routes and qualifications appealed to by astrologers (stars incline not compel, the client does not know herself, potential shown is unfulfilled, the manifestation is untypical, other factors are interfering, astrologers are not infallible, client is exhibiting her free will,[[74]](#footnote-74) etc, (Kelly, Dean, & Saklofske, 2020**) astrologers can explain away anything and retain their beliefs whatever birth chart they use (especially if they don’t know they are using a wrong chart).** Astrologers have so many ready excuses for any mistakes in their everyday practice with clients (see pp. 25-6, section 1.5) that a false astrology in practice can be easily made indistinguishable from one that was supposedly true.

The Gauquelin Research

No consideration of astrology can be appraised without mention of the empirical research of the Gauquelins---Michel Gauquelin (1928-1991) and his wife Françoise (1929-2007). In their day (1950-1990) they were the world's most famous, most formidable, and most productive scientific researchers regarding astrology. They were not the first to investigate the claims of astrology scientifically but they were the first to do it rigorously. They insisted on replication, large samples, and statistical tests. Their research became the focus of worldwide interest and controversy. The data collected by the Gauquelins was indeed remarkable. During more than fifty years of personal and postal retrieval from European registry offices, they collected close to half-a-million birth data, always including name, place, date, and time. So what did the Gauquelins find? First of all, they did **not find** support for many astrological factors such as zodiac signs, planetary aspects, and transits, nor support for similarities in the lives of unrelated time twins (Gauquelin, 1979, 1983). As Dean, *et al*, (2022) point out,

Gauquelin began by testing traditional claims ranging from simple ones such as zodiac signs vs occupation and personality (9200 cases) to more complex ones such as transits at death (8400 cases), planetary aspects within families (2500 cases), and the charts of notorious murderers (623 cases). He ended up with over 200,000 observations, all uniformly negative. For example death did not relate to transiting Saturn, nor soldiers to Sun in Aries, nor did above-chance aspects exist between members of families. As for the house position of supposedly warlike and violent Mars at the birth of 623 notorious murderers, most of whom had died under the guillotine, the results predicted by tradition were completely absent (p. 137).

Until the early 1980s, when personal computers and software made the calculations easy, nobody else had produced such telling evidence against the claims of astrology. Astrologers predictably took little notice. Indeed, the general response from astrologers was that his research must be wrong. Further, Gauquelin wasn’t impressed with astrologers themselves in being able to discern differences between people. He placed an advertisement in a newspaper asking for people to provide their name, place, and, date of birth in exchange for a personalized, ten-page interpretation. Unknown to the respondents, all were sent the same computerized interpretation of the birth chart of Dr. Marcel Petiot—one of France’s most notorious serial killers, who claimed to have killed 63 people. The computer had been programmed by France's leading astrologer André Barbault (who did not know whose chart it was), and the interpretation said things like, *"instinctive warmth ... worthy, right-thinking ... bathed in an ocean of sensitivity ... adaptable ... total devotion to others ... altruistic sacrifices"*. Over 500 people responded to the ad. Of the first 150 replies, 94% agreed that the serial killer’s horoscope was an accurate description of themselves, as did 90% of their families (Gauquelin, 1979).

Mars Effect

Here is where it gets interesting, the Gauquelins later found statistically significant results related to certain rising or culminating planets at the birth of **eminent professionals** in various fields such as athletes, actors, scientists, politicians, writers, musicians, and painters, but for only the **visible** planets (Venus, Mars, Jupiter, Saturn, and earth’s moon).The first relationship to be found was with Mars, which then led to it being named the Mars effect, but it could equally have been named after any of the other planets (Gauquelin, 1979, 1983).The effect was very weak, and, as McRitchie (2022, p. 708) correctly points out,

Indeed, most professionals who have attained eminence in their fields do not have their Gauquelin-correlated planet in either of the two key-sectors.

Further, people with Mars in the Gauquelin sectors could be found in all professions, including non-athletes, only a few more of those with Mars in the relevant sectors were found in very top atheletes (but given the large samples used by the Gauquelin’s, the finding was statistically significant).

However, how could Gauquelin’s findings, however weak, be explained? They were independently replicated, but no physical explanation (gravity, magnetism, radiation, quantum effects) was plausible. They connected with nothing else in science. The same was true of astrological explanations, which do not claim that astrology fails to work for half the planets, or signs, for aspects, and (on Gauquelin's figures) for the 99.994 percent of the population who were not eminent. But the problems did not end there -- four out of five professionals in the data were born before 1900, and those who were born after 1950 seemed to show no effect at all. [[75]](#footnote-75) Gauquelin tentatively attributed this later failure to the increased use of medical intervention (such as induction) after 1950, but this hardly explained his earlier results (Gauquelin, 1983). In any case the effect sizes – which until the 1990s nobody had bothered to calculate – were consistently tiny, rarely more than *r* = 0.05, far too small to be of the slightest practical use.A more promising possible explanation was put forward by Geoffrey Dean following a careful analysis (it took eight years) of the Gauquelin data. He found ample evidence that some parents had misreported birth data to registry offices (unlike today there were no safeguards to ensure accuracy) that favoured particular times in keeping with popular beliefs. For example, planetary effect sizes were smaller on inauspicious days that parents would not want to report (minimum misreporting) and larger on auspicious days that parents would be happy to report (maximum misreporting) (Dean, *et al*, 2022, pp 166-194; see Cypryjański, 2022 for more on birth-date misreporting).Astrologers quickly dismissed the idea of wholesale misreporting as unrealistic (see Dean *et al*, 2022, Ch 6---65 pages--- for responses to their criticisms, Dean is careful to point out that “further work is required” (p. 192 ), perhaps in new directions on this topic. But Gauquelin's samples were so large (thousands of cases) that a minimum of only 1 in 30 births needed to be misreported to make the original outcomes statistically significant. Indeed, after 1950 the medical regulations required the reporting of births to be made by doctors rather than by parents, so the opportunities for systematic misreporting largely disappeared – as did planetary effects (about 15% of all births are induced, and far more in some countries, Cypryjański, Hozer-Koćmiel, and Gracz, 2021).To their credit, the Gauquelin's had considered the effect of data errors on their results and had concluded that, although error-free data was unlikely, the time that planets spend in critical positions was generally eight times longer than an average transcription error, so the registry office data they used was sufficiently reliable for their purpose. But of course, they had no reason to suspect systematic misreporting. For those interested in pursuing this topic on Gauquelin further, a very detailed (but somewhat dated) overview and examination of the research of the Gauquelins can be found in Kelly, Dean, and Saklofske, 1990, and an extensive, recent, **updated** survey in Dean, Mather, Nias and Smit (2022, pp 131-196, 495-526).

Post-Gauquelin research

The death of Françoise Gauquelin in 2007 marked the end of their research. Although their data collection has not been extended, they are popular with astrologers, who remain indifferent to their likely contamination by misreported data (Dean, *et a*l, 2022). So their tests inevitably find something "significant", simply because misreporting mimics astrology so well that it escapes the usual controls designed to detect artifacts. So the result is inevitably touted as proof of **all** of astrology. But this problem extends to the whole astrological research area, not just Gauquelin's. Belief in astrology is so pervasive that any data set is likely to contain believers whose belief has moved them in a direction consistent with astrology. For example, if you know your chart indicates X, you will see yourself as more X-ish than you are (this is called self-attribution), which is why odd-numbered signs tend to score higher on extraversion than even-numbered signs. In other words, to the extent that astrology's pervasive popularity makes finite self-attribution plausible in all areas of human life, tiny but positive effect sizes (rather than zero effect sizes) should be the norm.[[76]](#footnote-76) The effect might be very slight, but if your sample is large enough, and like most astrologers, you attend only to statistical *p* values and ignore effect sizes and fail to divide large sample sizes to see if the effect replicates, the result will often be apparent support for Western astrology (for concerns about the p-value, see Bower, 2021, Dean *et al*, 2022, pp. 704-711). Such studies should also incorporate controls against mistaking attribution effects for astrological effects. Consequently, we would expect local astrologies to be supported in studies with their local populations. For example, we would expect large scale studies on astrology in India to find support for Vedic astrologies and little or no support for Western astrologies, and vice-versa.

One might expect that if Western astrologers were indeed interested in pursuing empirical astrology, they would have started with the Gauquelin findings and proceeding from there. But they preferred to keep intact the astrology they already believed.

Astrological Symbolism: Some Problems

While we are all familiar with the notion of symbolism in our lives [think of our use of metaphors in everyday life (e.g ‘John is tough as steel’, ‘paternalist government’, etc), and symbolism of all kinds in the sciences (Stuart & Wilkenfeld, 2022; Boudry, *et al*, 2020), the arts and literature] (see Altfield & Diggs, 2019, and conventional symbols in Western literature can be found at https://www.dvusd.org/cms/lib/AZ01901092/Centricity/Domain/2891/Gawain%20Symbols.pdf), however, in astrology symbolism acquires what we might describe as possessing a magical or paranormal aspect along with the conventional or mythological meaning. Symbolism in astrology functions **far differently** than talk of symbolism in everyday life and science. [[77]](#footnote-77)

While symbolism in everyday life, science, and the humanities is useful as conveying meaning and insights that can be insightful or misleading, in astrology, the symbolism for the planets is used to convey problematic **self-validating, intrinsic** truths about the details of human lives and terrestrial happenings (at least for those astrologers that contend astrology is a science or can be investigated by scientific approaches).

McRitchie (2023, p.577) directly defends the use of astrological symbolism by claiming other academic disciplines also use symbolism in a similar way,

Symbolism is not a practice peculiar to astrological connections, relationships, and meanings, nor are they confined to the ancient past. At their origins, many scientific disciplines have based claims on symbolism, metaphor, and imagination. Current disciplines have used these to generate hypotheses, which are then subject to testing”.

Scientists do not infer characteristics of objects or people from the **meanings of the labels** attached to them, as astrologers do. In science, we do not find out about future prospects for our lives by seeing if an asteroid has our name in our birth chart, but by empirical investigation and inferences from what we know about the person. Nor do we blend the meanings of words to determine the outcomes of objects that interact with each other (as is done in astrology, numerology and the Tarot). Can you imagine scientists in any academic discipline arriving at testable hypotheses by blending in various ways the symbolisms associated with the factors under consideration? For example, in chemistry considering only the **symbolic meanings** of magnesium and oxygen to hypothesize what would happen when they are combined? McRitchie’s assertion that scientist’s arrive at testable hypotheses is analogous to how astrologers arrive at their ‘hypotheses’ such as “when transiting Pluto forms a conjunction with your natal Venus, you will feel **potent passions and desires** erupting from within as you release old relational patterns ready to be shed’ ([www.astrology.com/aspects-transits/pluto-conjunct-venus/](http://www.astrology.com/aspects-transits/pluto-conjunct-venus/)) is just nonsense.

As we have seen, a birth chart will give a picture of **planetary positions** when a person is born *as seen from the birthplace on earth*. But its **interpretation** in the West is largely based **not** on astronomy but largely on the attributes of gods that the Greeks allocated to the planets.[[78]](#footnote-78) In other words, the Western astrological birth chart is not of planets but largely of Western Greek planetary gods.[[79]](#footnote-79) (After all, the physical attributes of the planets play little or no role in astrology). While we no longer live by the ancient Greek metaphysical underpinnings and along with its associated world order, divine authorities, and motivations, most astrologers implicitly still adopt the ancient archaic system and its inner workings despite the huge gulf between those beliefs and present-day philosophical systems and scientific beliefs (celestial entities in astrology are still classified by the ancient Greek elements of Air, Water, Fire and Earth). These elements

...of nature are Water, Earth, Air, and Fire. These four elements in astrology play a pivotal role. Once used by alchemists and long revered by ancient people, these elements continue to play a pivotal role in our astrological charts. The four elements of astrology are described to help you better understand the zodiac. Each of the zodiac signs is associated with one of the four elements in astrology. These elements help us to learn about different ways of looking at the individual and can teach us which people are more compatible with each other. Like any other aspect of astrology, the four elements have a powerful potential to inform us about the world and our place in it. [https://astrologycosmos.com/four-elements-in-astrology. Accessed Oct 7](https://astrologycosmos.com/four-elements-in-astrology.%20Accessed%20Oct%207), 2023.

Because the Greeks saw Mars as the god of war, Mars in the birth chart is now interpreted as if it had the attributes of the Greek god of war with keywords like Energy, Heat, Activation. Decreasing numbers of people these days will even recognize many of the names of the Greek gods unless they saw the movie *Clash of the Titans.* Younger people are likely to be more familiar with the Norse gods Thor from the films of the same name, or Loki from the TV series. Further, other cultures had other ideas.

Also problematic are the rules for working out how the gods interact to provide the chart reading delivered to the client, all enthusiastically taught by astrologers as a given, and seeming often accepted without question. This acceptance survives for at least two good reasons:

(1) The attributes of Greek gods, and the methods by which they are interpreted, boil down to juggling with symbolism, which is always sufficiently flexible (as in Energy fitting anything remotely energetic) to allow any chart to be fitted to any person. For example, one eminent astrologer compared the birth charts of Prince Charles and Lady Diana **before** their wedding and found "very fundamental rapport ... general emotional and social compatibility ... strong social-cultural-spiritual bond ... excitingly attractive and romantic ... ability to work together in a very practical way" (*Astrological Journal* 23 (3), 1981, 167-170). Another equally eminent astrologer made the same comparison **after** their marital separation and saw in the *same charts* only trauma, anger, rebellion, and disaster. The general emotional and social compatibility had disappeared (*Born to Reign* 1993, p154).

(2) Should the fit happen to be imperfect, or the error glaring, the lack of rigour when juggling with symbolism (as opposed to juggling with facts) makes it easy to ignore. In any case it can always be explained away by plausible excuses – stars incline not compel, birth time is unreliable, the client does not know herself, the potential shown by the chart is unfulfilled, manifestation is untypical, another chart factor is interfering, the astrologer is not infallible, etc (see pp. 20-21).

Together (1) and (2) guarantee that astrology ("as above so below" and "it works") cannot be disproved for any believer. Once hooked it is hard to escape. We can further note regarding astrological symbolism:

*First of all, contemporary astrological symbolisms relate to a hodgepodge of* ***existing*** *astronomical bodies such as planets, selected tiny asteroids, and imaginary points between them, but also* ***illusionary*** *phenomena (planets in retrograde motion or ‘stationary’),* ***non-existing*** *entities (e.g hypothetical planets), imaginary ‘sites of energy’ and supposedly describe prominent events over a lifetime regarding people, their pets, and also disparate* ***non-physical*** *socially constructed entities (e.g companies, nations, ideas). None of these aspects of astrological symbolism has any scientific credibility and plausibility.* Consider examples of the symbolism assigned to planets and asteroids:

**Mars**, [is] the God of War…In astrology, Mars is the planet of energy, action, and desire. It is the survival instinct and can be thought of as the “leftover” animal nature of man. Mars rules our animal instincts for aggression, anger, and survival. Our sexual desires come under the rule of Mars (https://cafeastrology.com/mars.html).

[The asteroid Ceres is named after the ] goddess of the harvest and the natural process of fertility and renewal…[and therefore] represents the process of nurturing and motherhood in an individual's chart, and has been attributed to the sign Cancer as a co-ruler with the Moon (<https://www.astrograph.com/learning-astrology/asteroids.php>).

The asteroid Psyche (discovered in 1852) is named after the Greek goddess who represents the soul, and therefore in astrology “represents the innermost aspects of our being, including our emotional well-being, and our journey towards self-discovery and wellness. (accessed Sept 18, 2023, https: crowastrology.com/asteroid-psyche-in-12th-house/#understanding\_Asteroid\_Psyche)

A wide set of claims are attached to each of the labels and are largely inferred from the mythology associated with the label. For example, consider the planet Mars,

Mars rules our animal instincts for aggression, anger, and survival. Our sexual desires come under the rule of Mars. Whereas Venus rules romantic attraction, Mars is most associated with basic body attraction. This is the planet of action rather than reaction. With Mars, there is no contemplation before action. The drive associated with Mars differs from that of the Sun in that it is self-assertion rather than the assertion of the will; it is raw energy rather than creative energy. Mars is the push that gets us out of bed in the morning, our drive and desire nature, and our active energy. When we are “acting out” our Mars, we are assertive, directed, forthright, and adventurous. On the negative side, we can be impulsive, rash, impatient, aggressive, and forceful. In the [birth] chart, the position of Mars by sign shows our basic sexual nature, how we express our anger (our temper), *what* makes us angry, and our first instinct to act. Our competitive nature is revealed in the nature of Mars’ sign. By house, the position of Mars shows the areas of life where we apply our drive and express our enthusiasm. Planets that Mars contacts are colored with action and self-assertion. These planets can represent the kinds of experiences we seek (https://cafeastrology.com/mars.html, accessed March 4, 2021)

To claim that this detailed, lengthy, mythologically inferred description was based on documented observation (ancient or recent) of planetary configurations and earthly events, along with critical discussion is to stretch credulity to the limit. The mythology tied to Mars somewhat restrains the symbolism that can be deduced from the label (for example, for astrologers, describing Mars as the love planet would not work), and is also difficult to connect to ancient terrestrial observations. The ancients would have to sift through huge data banks (comparable to Big Data today) to separate what fit, what didn’t fit, and borderline cases (where perhaps other factors----other planetary configurations--- were related to the observations) and from all of this, they could somehow deduce this wide consistent picture of Mars! [[80]](#footnote-80) And they would have to do this with all the known planets of the time and their abundant relationships. For astrologers who use hypothetical (non-existing) planets such as Hades, Zeus, Poseidon, etc,) their meaning in a birth chart is similarly tied to mythology, and not based on empirical observation and discussion. For example, **Hades** [god of the underworld] is related to “Poverty, ugliness, suffering, garbage/filth, dirt, sickness, shame, bacteria, secrets, decomposition/deterioration,” etc., while **Kronos** [ruler of the cosmos] has meaning tied to “Mountains, airships, leaders, executives, the government and government officials, nobility, mastery, etc” (https://astrogarden.proboards.com/thread/1204/uranian-astrology-hypothetical-planets).[[81]](#footnote-81) How such claims could be tied to centuries of observation, or even recent observation and dialogue strains the imagination to the breaking point, and other proposed hypotheses fare no better (see Kelly, 1997/2005). While most astrologers do not use hypothetical planets, for those who do, their meanings are based on the **same symbolic processes** (e. mythology, various word and visual associations, etc) that are tied to the meanings of **existing** planetary entities and their interactions (when viewed hypothetically from the perspective of the earth). Clients (Natives) of such astrologers seem just as satisfied as those that eschew hypothetical planets. For some astrologers, symbolisms can even represent imaginary ‘sites of energy’. For example, Plumb (2005) contends,

Black Moon Lilith represents the depth and power of the untamed feminine. Black Moon Lilith is not to be confused with Dark Moon Lilith or the asteroid Lilith; it is not an actual physical body, but rather a center of energy.[[82]](#footnote-82)

Lilith was Adam’s first wife according to Jewish mythology [for more on the mythology of Lilith, see Robertson (2022)]. Here a mythology apart from Roman and Greek is employed. (One might well ask, which mythologies are considered relevant and which are excluded, and on what basis are such judgments made? All they all relevant as long as the name of an astronomical entity has **some** mythological source, even if not widely known?) The expression ‘center of energy’ does not refer to any known type of energy. Inventing sites of energy as having astrological meaning seems no different than the lists of astrological factors that have no physical objects in them such as zodiac signs, houses, midpoints etc., or hypothetical planets, that somehow have astrological significance.[[83]](#footnote-83) The appeal to imaginary points in the solar system such as zodiac signs, midpoints and nodes adds to the issue of how such disparate claims all fit together. In astrology, midpoints are points halfway between two physical bodies such as planets, and indicate where supposedly the ‘energies’ of the planets involved have implications for our lives. While such midpoints have no significance in astronomy or physics regarding our lives, for many astrologers they have **symbolic** personal insights into our lives. Their astrological interpretation is again based on the mythologies and symbolism of the planets involved, and not empirical investigation, for example,

The Venus/Mars midpoint can represent many things. It can represent the coming together of male and female, and can literally symbolize sex in a romantic context, since the female and male sexual archetypes combine, or come together, at the midpoint of Venus and Mars (<https://cafeastrologytopics/midpoints.html>, accessed Aug 24, 2022).

On the other hand, the sun/moon midpoint, for example, somehow reveals your overall character (see https; cornerstone–astrology.com/articles/midpoints-astrology.htm). Nodes in astrology are imaginary points on an imaginary line (the ecliptic) and allegedly relate to one’s life purpose/potential (see, for example, https://astrology answers.com/article/ultimate-guide-to-the-nodes, accessed Aug 24, 2022).

*Second, astrological symbolism encompasses a great variety of divergent and inconsistent* ***practices and techniques*** *such as mythological connections, analogies, metaphors, along with visual and word associations with few or no consistently held rules for their applications.* The mythological name of a celestial body, and other symbolisms such as word and visual ones also tied to celestial bodies are astrologically significant.Can they conflict, if so, which would be the most astrologically significant? No one has shown that any of these methods allow us to reliably arrive at new knowledge (see Goldman & Beddor, 2021 on the use of reliabilism in evaluation). Indeed, many astrologers seem to have little understanding of what constitutes a reliable source of information, hence the reliance on personal validation.

Mythological connections seem to have the most significance in Western astrology:

Jupiter’s moon Ganymede is the largest moon in the solar system. In Greek mythology, Ganymede is the youthful cup bearer to the gods, **therefore**, “Ganymede in the natal [birth] chart represent where we retain our youthful outlook on life, it also represents the faith and wisdom of youth in believing in change and altruism.  Ganymede revigorates the planets it forms aspects to and keeps that energy youthful and alive throughout life. https://neptunesauraastrology.wordpress.com/2014/08/25/ganymed-1036/, accessed June 10, 2021.

The asteroid Apophis [discovered in 2004 and named Apophis in 2005 after an Egyptian evil-doer] **therefore** “represents an inimical or evil influence on an individual, one committed to destruction and anarchy. Apophis is also associated with the commission of horrible, unforgiveable acts, and appears frequently in the charts of mass shootings, terrorism or extreme cruelty, either in the events themselves or the natal charts of their perpetrators” (<https://alexasteroidastrology.com/apophis/>).[[84]](#footnote-84)

Mars looks red (because of the iron oxide in its soil) [[85]](#footnote-85) and blood looks red so there is an astrological connection (colour association) between them (<https://horoscope.astrosage.com/significance-of-colour-in-astrology-and-remedies>). Pluto, discovered in 1930 was named after the Roman god of the underworld and is smaller than the earth’s moon. The astrological (mythological) symbolism attached to Pluto was ***given soon* *after*** ***its discovery*** and subsequently given a place in the interpretation of birth charts, even when, back then, we knew very little about it. There are no astronomical bodies named after Greek mythology that are astrologically associated with descriptions completely different from what the mythology tells us. **The name given to the planet alone was all that mattered.** If Mars was instead named Adonis, all its physical characteristics and the physical laws associated with Mars would remain the same, but all its **astrological** relationships would be completely different [although, some astrologers claim the name is somehow automatically-made (synchronicity) the correct one]. Again, so much for astrological connections with terrestrial events being based on centuries of observation and debate (or even present-day observation and debate).

Similarly, consider planetary ‘returns’: for example, check out this typical astrological site on what a Saturn Return supposedly means in your life: <https://www.horoscope.com/saturn-return/>. The meaning of such returns is not based on empirical observations, nor plausible astronomical nor biological theoretical principles, but entirely on **astrological symbolism,** along with the meaning of the word ‘return’ and its connection with the supposed importance regarding a person’s time and date of birth. Planetary ‘returns’ are associated with the timing of major life events, according to many astrologers, and occur when planets make a complete cycle through the zodiac and occupy the same sign, degree, and house it was in when you were born. While Venus ‘returns’ every 225 days, Jupiter returns every 12-13 years and, Saturn every 29.5 years in an individual’s lifetime. For Pluto, on the other hand, returns occur every 248 years, meaning such returns do not have direct personal significance, but can apply to long-lived socially constructed entities such as corporations and nations. The sample size even for such entities would be too small to make any reliable **scientific** claims, but astrologers carry on regardless on the basis of the symbolism. On the other hand, for astrologers who use tiny asteroids, their wide-reaching astrological significance is typically based entirely on mythology and word associations: the asteroid is supposedly important if it shares the name of the entity under consideration, or sounds similar, or shares a similar spelling, or is a foreign homonym.

“What’s in a name? Well, if your name has a celestial referent in the stars, **it can potentially mean a great deal**….the cosmos is very obliging. Cognates, homophones, even close matches will often work….there are a dizzying variety of choices which potentially depict sexual matters, most of them euphemisms for penis. [The asteroid] Lust is properly pronounced “loost”, as it is named for German astronomer Reimar Lust. But it functions perfectly in its English language usage of “strong physical desire for sexual contact” and “great eagerness or enthusiasm for something”. [Other examples]include Dick (asteroid #17458, named for German astronomer Wolfgang Dick), Dong (#150520), … and Wiener (#18182, named for American mathematician Norbert Wiener), as well as Fanny (#821), Nymphe (#875) and Batchelor (#23248). So, too, will words with alternate meanings. …Determining which asteroids might apply to you personally is a relatively simple exercise. Just scroll through the alphabetical listings of names at the Minor Planet Center (www.minorplanetcenter.org) to search for suitable matches for yourself, family members, friends and colleagues (even pets!). **Remember to look for similar spellings, homophones, gender variants, and also foreign homonyms**….Bilk is named for a place, the town of Bilk, in Germany,…. The town has now become incorporated into the larger metropolis of Dusseldorf. But again, Bilk works very well in its English cognate’s definition of “to cheat someone, especially via a financial swindle.” https://alexasteroidastrology.com/category/asteroid-astrology-research/personal-named-asteroids-astrology/. (italics ours) (accessed March 10, 2021)

If an asteroid bearing your name in your birth chart has significance for your life, if it does not share your name but is still in your birth chart, does it sit there inertly? Given all the sources of astrological meaning tied to asteroids (“**similar spellings, homophones, gender variants, and also foreign homonyms**” are some of these sources more useful or accurate than other sources, and how could astrologers know or find out? Does being born under the zodiac sign Cancer give one a special relationship to the disease cancer? Further, what is so special about your name? A number of people’s names are rather arbitrarily selected (or does synchronicity guarantee the right name will be selected?) Do only last names count? (if so, why?) Does the rareness of one’s name make a difference? Would changing your last name make a difference? What about nicknames? Given that the meanings of words (and slang usages) change over time, this means that your relationship to the symbolism of asteroids could change over time, sometimes quickly. Would the names applied to animals and buildings also count? Why or why not? The most common astrological’ explanation’ for all these diverse types of meaning tied to the asteroids would be to just say the word, ‘synchronicity’. This is what happens when one appeals to an ‘all-purpose explanation’ without guidance from a mechanism, or theory. There are no constraints. Alas, labelling by itself does not constitute an explanation. These claims are not based on observation, or any constructive public discussion, but by fiat.

Even **slang** word associations can play a serious role in many astrological readings. For example, **after** Brett Kavanaugh was elected to be a member of the American Supreme Court, and **after** his love of beer, along with his alleged sexual misconduct were revealed, an astrologer was quick to point out in The Mountain Astrologer magazine that the asteroids Beer (named after German astronomer Arthur Beer in 1971) and Pecker (named after French astronomer Jean-Claude Pecker, and discovered in 1952) were both prominent in Kavanaugh’s birth chart (Miller, 2018). The astrologer then notes the slang usage of pecker in English and consequently, the asteroid “shows a predominance of sexual themes in one’s life”.[[86]](#footnote-86) What role did (or did not) this same asteroid play in people’s lives **before** it was named ‘Pecker’? No role. If the name was changed in the near future, would its relationship to sexual themes change? How would astrologers know? Does the asteroid Pecker play a similar role in birth charts of non-Western peoples who are unfamiliar with the slang associations of the word ‘pecker’? Slang expressions also become defunct over time, do they then cease to have astrological meaning? On the other hand, when considered in a natal chart, the asteroid Beer is given a **literal** astrological meaning:

“this asteroid could grant significance to the drinking of alcohol (not necessarily just beer). If this asteroid is heavily afflicted in the natal chart, it could signify someone who has issues controlling their alcoholic intake.” [(pathstrology.com)](https://www.pathstrology.com/post/a-handful-of-fun-and-unique-asteroids-in-the-natal-chart).

By allowing all sorts of meanings, both literal and symbolic in a large variety of ways, astrology, as practiced by many astrologers, often becomes a giant word association game.

‘Deep space astrology’ considers powerful astronomical entities such as black holes and pulsers which when placed in a birth chart are associated with intense, or strong personality characteristics such as charisma, odd personal peculiarities, and ‘strong senses of energy’ for some astrologers. What is the **rationale** for this supposed association? It seems to be an association based on ‘like relates to like’! Powerful astronomical entities must be connected with extreme/powerful/highly eccentric traits in people. This shows that new or recent associations are added to planetary astrological lexicons, not through research, but because they somehow fit through stretching perceived symbolic associations (Sedgwick, 1984; Miller, 2015). For those astrologers who tell us Supermoons (so called because the moon looks larger when closer to the earth) are noteworthy in our everyday lives we read

depending on the zodiac sign that the [Supermoon] is in, some astrologers believe that a supermoon will amplify the astrological traits of that sign. https:astrostyle.com/astrology/supermoon/

Why would Supermoons supposedly have such effects? Here visual associations (the moon looks big/large) is likely are responsible for such belief about trait amplification. Supermoons are closer to earth than at other times, but so, at times, are other planets in our solar system, and such planetary encounters are ignored by astrologers (see Gunn 2023).

Given that all astrological factors are based on the similar use of symbolism, on what reasoned grounds can one say one factor is more astrologically significant than another (such as hypothetical planets, named asteroids, or invented ‘sites of energy’)? What are the criteria used for entry in the astrological parthenon, and what research supports this? Indeed, as we have seen, for astrologers who use tiny asteroids, many contend (the named ones, anyway) play an important, often oversized, role in a person’s life. It seems that only personal preference or tradition or fiat elevates one factor over another.

*Third, there seem to be no clear constraints on how far the symbolism can be extended or stretched.* How does the **symbolism** somehow set boundaries to what is encompassed in the symbolism? For those astrologers who contend almost everything about people and earthly events can be explored in a birth chart, we need more details. What about the genome and your mutations (we all have some), your bio-genome, your skin color, blood type, adult size, etc. Are these all encoded in a horoscope, however loosely? And whatever answer astrologers give---how do they know or justify this? Appeals to ancient authorities and traditions are not sufficient.

How are the boundaries to the allowed variation set (however roughly)? Is it set by mythology? If so, why give mythology such power? Knowing about such boundaries would help us to understand the nature of astrological symbolism. For the planets, the (largely ancient Greek) mythology seems to play a dominant role. In both Western astrology, and individual astrologers vary in what they consider is consistent with the mythology. For asteroids, as we have seen, word associations often play the commanding role.

Astrologers can use symbolism to fit anything under the purview of astrology. Consider Bitcoin:

Many savvy people in finance believe that Bitcoin (and cryptocurrencies in general) may be the future of money: a revolutionary new technology that could challenge big banks and disrupt the global financial system. .... From my many years of astrological study, I knew that anything that has a verifiable birthday and time can often be accurately forecasted. I found out that the first Bitcoin was created in a process known as “the genesis block,” and the Bitcoin network software protocol was initiated on January 3, 2009, time-stamped 6:15 p.m. GMT, with no known location. This is the most widely accepted Bitcoin birthday, and it was enough to give me a chart to work with, having accurate planetary positions. ....Astrologically, this would correlate well with the transit of Uranus in Taurus. [The Uranus in Taurus transit happens**when Uranus enters the zodiac sign of Taurus**]. <http://sourcepointastrology.com/pdf/1019TMAbitcoin.pdf#:(accessed> March 16, 2022)

Mercury is the mythological messenger of the gods and is therefore astrologically connected with communication, and this **now** expands to include email and instant messaging of all types over huge distances. These latest forms of communication also include radio, i-phones, Tic-Tok, Zoom, Web-X and Skype. **These are *just added* to the symbolism** by astrologers---how does ‘the above’ all keep up? [[87]](#footnote-87) It all depends on the individual astrologer with few or no agreed-upon rules. Such large (often very disparate) discoveries and terrestrial happenings are encompassed within the symbolic jargon so that **whatever** happens is made consistent with the astrologer’s views.

Fourth, given that many different configurations tied to symbolism allow the same or similar interpretation made by astrologers, astrologers are sure to find support for their interpretations somewhere. Astrological symbolisms often have redundancies [because of overlaps in the mythologies or meanings of the words used, or differences between other associations (verbal, visual, or otherwise)]:

similar or antagonistic tendencies that we would presume to amplify, or diminish, or otherwise moderate a theme of given characteristics in a native (person). McRitchie (2022, p 708)

Note the strength of factors in a chart is determined by the symbolism, not **replicable** effect sizes, which would be the case, if scientific studies were considered pertinent. For astrologers, the symbolism will always override any studies that provide results not consonant with the symbolism. The result is “there are [often] too many similar and potentially sufficient factors according to the documented rules in the [astrological] literature to easily sort out exactly which astrological features are responsible for which experienced effects” (McRitchie, 2022, p. 708). If a particular issue is bothering a client, the astrologer will therefore very easily find **some** planetary configurations that reflect or moderates the issue. For example, anger can be due to the positions of Mars, Uranus, Jupiter, Saturn, etc. but also to natal positions in astrological signs or in houses, and the configurations are numerous, which makes it possible to always find something *post hoc* that fits, and can qualify in advance any deviations from what would be expected. [[88]](#footnote-88) This is why wrong charts work as well as ones based on correct birth data.

The claim that astrological configurations are multivalent (can express themselves in a variety of ways), can easily result in conflicts that are only resolvable by ignoring them or by making an arbitrary choice by the astrologer. Brockbank (2011) tells us:

At the simplest level ‘a planet in the twelfth house is weak’ might conflict with ‘a planet in its own rulership is strong’. One would have to start jettisoning the rules so one was left with a series of mega-rules which were empirically based. However, even then one would require a methodology for determining between these mega-rules and this leads to an infinite regress. The problem is that astrological significators are multivalent so one requires some methodology to determine which of the many possible meanings is appropriate. A list of probabilities of different ways a particular astrological configuration might manifest, presumably the hope of the empirical researcher, is insufficient because there will be no empirical way to determine between them.

*Fifth, what ties all these disparate types of symbolism astrologically together?*

We are told by an astrologer that :

One client had an extremely traumatic incident and lost both her husband and daughter. On the day of the event, her natal Uranus was conjunct transiting Psyche (one of the love asteroids), squaring transiting Uranus conjunct her natal Psyche, the asteroid Karma and the South Node. Her husband’s name asteroid opposed the Uranus/Psyche/Karma/South Node conjunction. http://straightwoo.com/2016/05/23/asteroids-astrology-use/

Here we have symbolisms of Uranus, asteroids, and a node together. **What** theory could hold these **very disparate** kinds of **selected** *symbolisms together* so that looking at the planets through the lenses of these various disparate symbolisms could allow one to view people in their important (?) life contours over time? [[89]](#footnote-89) How do they together account for this unity: your love life could go well, your career middling, your health poorly, and these aspects of your life could change suddenly both in-depth and how these parts of your life relate together. What proposed explanation could follow such a large variety of changes simultaneously in eight billion people across the world across each of these very different aspects of one’s life. To provide such an explanation in astrology requires specifics beyond simplistic holistic talk, mysterious references to ‘natural symmetries’, and vague slogans such as ‘as above, so below’, ‘the quality of the moment’, ‘everything is interrelated’, and appeals to ‘synchronicity’. While our genome encodes some of our physical processes, it doesn’t necessarily have any control over the **particular** environmental aspects of our lives we encounter, such as our particular friends, the specific schools we attend, the everyday fortuitous and misfortune events that we encounter, the accidents and chance events and their so often unforeseen consequences---short and long term.

Do all pertinent **astrological** symbolisms (mythologies, word and cultural associations) have something in common? Is there a single property, or a small number of properties, which makes them available for use in astrology? That is, what makes all these very different kinds of symbolism of **astrological** significance? Only because they are tied to objects in space? Because different astrologers, or astrological traditions say so? Where is the theory that ties these disparate symbolisms into a united framework? Astrologers often tie-together all of mythologies, metaphors, visual associations, points between planets, sound associations, names, and even slang and alternative meanings in their meanings associated with the planets. What is the justification for this?

While some astrologers problematically claim that the mythologies attached to some astronomical entities are relevant because the labels were allegedly shown to fit observations made by both the ancients and later astrologers, this won’t even get off the ground with asteroids recently named for astronomers, nor fictional planets such as Hades, nor recently discovered exoplanets (light years away). The result being an endless *post hoc* fittings of events and personal experiences [see Ambridge (2023) for more on this] to celestial configurations that dominate internet sites and magazines such as The Mountain Astrologer and the The Astrological Journal. These retro-fits are easily found with **every approach** to astrology across the world and whatever divergent elements they contain.

If another astrologer denies that any one or more of these disparate symbolisms, tied together, constitute ‘proper/real astrology’ [[90]](#footnote-90), then what defence can he/she/they make for their own symbolisms? There is no evidence that astrologers using these other symbolisms, even those with hypothetical astronomical bodies (e.g Uranian astrologers) are less successful with their clients than astrologers using any other approach (however ‘success’ is considered).

The planets in the birth chart supposedly work **together** in a symbolic fashion

While **scientists** describe the interactions among planetary bodies in terms of the physical forces of physics along-side the characteristics of the planets themselves (i.e. whether are they mostly gas or rock, their size, gravitational effects, distance from the sun, distance from each other, etc**), astrologers** do not generally take these physical facts into account, only their **symbolic** relationships and word-blendings based on the local mythologies and various other associations based on how the heavens look from the perspective of earth. What the astrologer considers to express real-world associations is actually the product of the symbolic astrological meanings themselves and their “semantic complexity blending” (McRitchie, 2022, p. 708), or “mental combinatorial processing” (McRitchie, 2023, p.576). The meanings of astrological relationships involving associations among planets involves a juggling or combining or blending of the mythological meanings or word associations with the astronomical entities under consideration according to received Cookbook rules. Here is a very simple example:

For example, take Venus and Jupiter.....with Venus being the planet of relationships and Jupiter being the planet of success, "when we see a Venus-Jupiter conjunction, that then means we have a successful relationship." <https://www.mindbodygreen.com/articles/conjunct-astrology>

In practice, professional astrologers will enter a variety of other celestial relationships in the analysis, also using the same blending approach, but increasing the complexity of the resulting word game.

Consider planetary aspects, which occur when particular planets are in certain angles with each other [[91]](#footnote-91):

Here’s a metaphor: The planets are like actors in the movie of your life, trying on different roles and costumes as they move through the zodiac signs. Often, these actors will have a “scene” together. Will it be a shoot-’em-up action plot, a romantic tearjerker or a “bromantic” comedy? That depends on the TYPE of aspect these two (or more) planets are forming (<https://astrostyle.com/aspects>. Accessed, Dec 14, 2021)

Aspects in astrology symbolize the energy that flows between the planets in your chart. They tell us how these planets are interacting and communicating with each other. (<https://stalkalice.com/astrology/aspects-in-astrology/>, accessed, Dec 14, 2021)

Aspects can be ‘hard’ or ‘soft’ and contribute to the interpretation of the relationship between the two planets. For a typical internet example:

...if love-planet Venus and communication-planet Mercury are forming a soft (or easy) aspect with each other, they might blend their powers, helping you have a productive conversation with your love interest or open up about an attraction. But if Venus and Mercury are forming a hard (or difficult) aspect, lovers can argue or struggle to understand each other.

Another example: If structured and disciplined Saturn forms a soft/easy aspect to ambitious Mars, you could channel your energy into signing a contract, sealing a deal or making one of your big dreams into a tangible reality. But if Saturn and Mars form a hard aspect, you could come across as pushy, egotistical and impatient—perhaps trying to force an outcome before it’s time.(<https://astrostyle.com/aspects>. Accessed, Dec 14, 2021)

The ‘coulds’, ‘perhaps’ and ‘mights’ qualify **possible** happenings, but if such events don’t happen, astrology is still considered intact. Astrologers would just fall-back on other excuses such as-- a planetary configuration was overlooked, a conflict in the symbolisms moderated the effects of the planetary configurations, the stars incline not compel, planetary configurations in a birth chart have a wide range of possible meanings, the native (client) is just exhibiting their free will, along with--- the same planetary effect may manifest in different ways, etc.

Astronomical events and astronomical appearances

Astrology encompasses both real astronomical events and astronomical appearances and gives equal astrological significance to both. What from an **astronomical** perspective is just an appearance from the earth, from an astrological perspective (the perspective of earth’s inhabitants and astrologers) becomes significant in understanding people’s lives. What is so special about how the celestial events ***appear*** *from the viewpoint of earth*? Examples of such visual appearances would be the ‘retrograde motion’ of planets and ‘stationary planets.’ The astrologer Grasse (2019) provides a description of the former:

A planet like Mercury is said to be retrograde when its skyward path relative to the Earth reverses itself. In actuality, of course, Mercury is traveling in its orbit around the Sun just like the Earth is. However, in much the same way that a train overtaken by a faster train might seem to be moving backward when in fact it's still moving forward along its own path at a steady rate of speed, the reversal of Mercury is a perceptual illusion caused by its position relative to the Earth's slower orbital path [[92]](#footnote-92)….the retrograde phenomenon has nothing to do with the objective status of Mercury itself…. When Mercury's apparent motion reverses itself for several weeks at a time, business contracts begun then seem to develop complications, communications may stall, and technical difficulties arise. While most contemporary astrologers also allow for the possibility of positive effects accompanying these periods, these are generally seen as involving more psychological or spiritual levels of experience.

Astrologically speaking, a retrograde planet seems to change its motion, and is therefore associated with changes on earth! The motion of being ‘retrograde’ is tied to generally negative changes (after all, the meaning of the term ‘retrograde’ is tied to negative things like going backward or being degenerate), but some modern astrologers also tie in positive effects (at the psychological or spiritual level). How they arrived at the latter is anyone’s guess. This astrological idea seems largely based on verbal associations regarding the planets centered on the words ‘change’ and ‘retrograde’ (see Plait, 2023 on Mercury retrograde).

Planetary alignments----two or more planets roughly in the ‘same’ area of the sky from the **viewpoint of the earth**---are also astrologically significant, but not astronomically important, nor of any earthly significance for non-astrologers. There is nothing astronomically important in Western astrological notions such as zodiac signs, midpoints, or houses (see also Culver & Ianna, 1988, and Trachet & Martens, 1988). [[93]](#footnote-93) As Carter (1927, pp. 14-15) says,

[If one believes the planets exert a physical influence] we have to account for a purely physical influence from the [zodiac] signs and houses, where no physical entities are, as far as we know.

Some planetary conjunctions astrologically occur when planets **seem** to be visually moving closer to each other *when viewed from earth*, although in actuality they remain large distances from each other (Berman, 2020). For example, Jupiter and Venus appeared close together in the sky on March 2, 2023 despite being, in reality, more than 400 million miles away from each other in the solar system (<https://www.independent.co.uk/space/jupiter-venus-conjunction-tonight-visibility-2023-b2293045.html>). Their **appearance** from the perspective of the earth trumps what is astronomically the case.

What happens when planets are on the opposite side of the sun? Some astrological traditions speak of planets passing exactly behind the suns body (what is rare): they speak of combustion (the planets influence should be annihilated). The astrologer Barbault doesn’t agree with that: <http://www.andrebarbault.com/DOC/901.pd>. Given a **scientific** view of astrology, one would expect any physical influence from the planets to be blocked or modified by the sun under such circumstances.

The Problem of Animals

Some astrologers associate lucky numbers, herbs, crystals, fashion, past lives, and particular colors with zodiac signs.[[94]](#footnote-94) Other astrologers read birth charts of pet cats and dogs (check your local bookstore and on-line internet sites on the topic). For example, we are told:

In astrology, dogs fall under one of 12 zodiac signs. The sign that your dog was born under impacts the way he interacts with the world. Each sign also has its own set of strengths, weaknesses, personality traits and attitudes (https://www.dogsnaturallymagazine.com/your-dog-is-in-the-stars-pet-personalities-and-astrology; accessed December 18, 2020) Also https://www.everydayhealth.com/pet-health/pet-astrology-are-you-your-pet-compatible/.

These anthropomorphic associations are not based on observational studies or critical discussion among astrologers. [[95]](#footnote-95) So we might ask, what rules or theory governs where the lines are drawn regarding astrological symbolism with animals, and what animals are included and which are excluded? If they can be given a birth date, presumably all could be included, despite their differing natures, and lifespans. However, animals are incredibly diverse in many ways. They differ in physical characteristics, lifespans, living conditions, cognitive abilities (Halina, 2023) sensory worlds, etc. As Franenhuis and Nettle (2020, p. 469) remind us,

Animals are born, mature, reproduce, age, and die. These are the milestones; the rest are details. Some species complete this cycle in days, others over centuries. Some mature fast, others slow. Some have thousands of offspring (e.g., carp), others few. In fact, some animals barely seem to age and die mainly from extrinsic factors (e.g., naked mole rats). Some die while giving birth, serving as their offspring's first meal; others die alone, not having seen their offspring in months or years. Nature is astonishing and macabre. To make things wilder, there is variation among individuals within the same population. Some mature faster than others. Some invest more in their offspring than others. Some reach old age, others die young. This variation may result from differences in genes, experiences, or both. This is life history and there are many puzzles to solve.

Indeed, even “Mammals are one of the most diverse classes of animals, ranging both in size, across many orders of magnitude, and in shape---nearly to the limits of one’s imagination’ (Vigieri, 2023, p. 356). Animals have different senses than us along with divergent sensory arrangements, leading to their living in more varied sensory worlds (umwelts) than human beings (Jong, 2022, Futterman, 2023). One would expect this to be reflected in any astrology regarding them, but it seems not. The **human perspective** is used for all aspects of animal life, and birth times are still considered central, and zodiac signs are freely adopted from human astrology (see MacCormack 2023a, b for a critical view on our human-centered approach to life). Given that animals have birth dates, does astrology somehow mirror, in principle, every creature’s life? And if it mirrors every creature (including ants, which have birth times), why would the same astrology utilized with humans also apply to animals? Humans have many qualities quite different from other animals (Hassett, 2022). [[96]](#footnote-96)

Also, some animals can reproduce at times without males, and some can change sex at times (Burns, 2020). In addition, as Sidzińska (2023, p. 214) points out, even Aristotle knew that

some species of animals have no uterus, that some are viviparous while some are oviparous ..., and that the embryo in some species is attached to the cotyledon ...

For those astrologers that contend animals can be described by astrology, do animals have souls that enter the body at conception? Yet, the same human astrology supposedly applies to all of the different animal species for a number of astrologers (after all, they can be given a time of birth!).

Further, the same awkward issues would arise with animals as with human beings: we are all products of our complex, ever-changing tangled physical and social environments. Hence, understanding in detail any creature’s life would require knowledge of all the (often unique) twists and turns of changing social and physical environments of each creature. According to many astrologers, we are somehow expected to believe the basic contours of each animal’s individual life is also mapped out (in a causal or mirroring way) largely in concert with changing symbolic planetary configurations/patterns.

Post-hoc, after-the-fact retro-fits

The writings of astrologers are consistently involved with after-the-fact, *ad hoc* fits to people’s charts or world events using symbolisms. We see this in astrology books at our local bookstore as well as astrology magazines and astrology sites across the internet. **The problem is that any birth chart----even a wildly wrong birth chart (birth date years off) can be made to fit pretty well anybody or anything by a creative astrologer** [see also, Kelly, 1998; Dean, Mather, Nias & Smit, 2022, pp. 877-888 for discussion of this point]. An instructive example of the extensive *post-hoc* fitting is found in the book [Cosmos and Psyche](https://www.amazon.com/Cosmos-Psyche-Intimations-World-View/dp/0452288592) (2006) by Richard Tarnas (see Dean & Kelly, 2017, pp. 11-16 for a critique of Tarnas, and Dean, Mather, Nias & Smit, 2022, pp. 372-375). A good summary of Tarnas’s views can be found in Woodward (2019):

In *Cosmos and Psyche*, Tarnas stresses that astrology is archetypally but not concretely predictive. In other words, astrology cannot explicitly predict the future, but it can predict the future's archetypal resonance. …[Archetypal] Astrology is not very good for telling you exactly what will happen in definitive, concrete terms. Archetypes….have an inherent multivalency. Archetypes can manifest within a varied range of possibilities. So while it's possible to look at past cycles and find similarities to the present, it's impossible to know which of those previous manifestations will occur for certain (Woodward, 2019).

Tarnas considers historical events and the lives of prominent people to particular planetary configurations and archetypes.

On this (now commonly adopted) view, astrology cannot predict in specific ways, but it can provide a rough sketch that can illuminate upcoming trends. Tarnas’s main interest is in **world transits** with the outer planets (SA-PL order) since their ‘effects’ are more astrologically pronounced and longer-lasting than transits with the quicker inner planets. Planetary configurations with these outer planets, according to Tarnas, trans-culturally suggest historical patterns and trends that can last several years or decades. However, the different events subsumed under his astrological symbolism (of major planetary alignments such as Uranus-Pluto) across history are not only disparate in terms of the topic (science, art, economics, wars, literature, health, political events, etc), but also how widespread across the globe they are in their influence, how dramatic they are, how many other areas of life were related to the historical event, how many people are involved, how long the influence is/was felt, and so on. [[97]](#footnote-97) In his review of Tarnas, Phillipson (2006) points out

over a few pages he [Tarnas] sees the impress of Uranus-Pluto in: Isadora Duncan's dancing (p.174); mass violence and/or assassinations in China, India, France, the Austro-Hungarian Empire, the United States and Italy; the growth of Freud's influence (p.175); the quality of Wagner and Liszt's music and of Baudelaire, Whitman and Melville's writing (p.176); Schopenhauer's philosophy (p.178); the symphonies of Mahler (p.179); the development of plate tectonics theory (p.180).

Given the massive disparate variety of events that can be relatively easily retrospectively fit with general planetary-configuration talk, it is not surprising that archetypical astrologers contend there is massive ‘correlational evidence’ for astrology. But this is an empty claim. Looking across all these disparate topics, creative astrologers will inevitably find what they want with a little imagination with this approach to astrology.[[98]](#footnote-98) The non-astrological reader can be forgiven for thinking that such an approach is designed to be non-refutable from the start.[[99]](#footnote-99) There is little or no questioning of the validity of Archetypical astrology by adherents (Jung’s insights are considered sacrosanct), and unlike other theories (especially in the sciences) its symbolism supposedly has no flaws or limits---as it stands today, it seems already ‘complete’ (there seem to be no noteworthy gaps identified by astrologers that future astrology would be required to fill, after all, many astrologers contend it already informs on all areas of life---check their books and internet sites!).

Prediction of Uncommon Events

Predicting the distant future regarding social and political would seem to be an impossibility, after all, trying to predict what doesn’t yet have any reality seems the height of folly. But to many astrologers, who still claim **specific events** can be predicted (check astrology internet sites), particular symbolic planetary configurations have been associated with particular outcomes in the past, so, the argument goes, very similar, or even the same, outcomes should be expected in the future (check astrological internet sites and astrology books at your local bookstore).[[100]](#footnote-100) Alas, astrologers have difficulty with predicting the rare, ‘black swan’, dramatic, unpredictable events such as sudden wars, earthquakes, or pandemics that cannot be easily extrapolated from previous events even in the near future. **Unfortunately, these are the very events we would desire advance information about the most to prepare for.** The majority of predictive astrologers consistently miss such rare events, and there is initially much hand-wringing by astrologers for a short time (until an overlooked or misinterpreted planetary configuration, etc is promoted), and then business goes back to usual for most astrologers and their clients. (Not only do astrologers typically **fail to predict** important events, astrologers also typically make predictions that **are wrong** regarding important events, see Dean *et al*, 2022, pp. 809-826 for more on astrologers predictions). [[101]](#footnote-101) For example, Phelan (2020) writing in the New York Times, mentions a prominent American astrologer going on CBS News in late 2019 and proclaiming, based on astrological celestial configurations, that 2020 was going to be both a **good and prosperous year**. So, one of the most noteworthy events of the last 100 years ---the 2020 Covid-19 pandemic with its repercussions across the world on all areas of human life ---from huge job losses to large increases in spousal abuse, along with worldwide global death and economic catastrophe---**was somehow overlooked by the vast majority of astrologers**! [[102]](#footnote-102) This prominent American astrologer was not alone----most world-famous astrologers did no better [[103]](#footnote-103)---the result was astrologers doubling down afterward on which *post hoc* planetary configurations they somehow overlooked, or misinterpreted. [[104]](#footnote-104) [[105]](#footnote-105) What about the Nov 2020 American election? Israeli astrologers predicted (wrongly) Trump would win(<https://foreignpolicy.com/2020/11/02/trump-biden-election-prediction-israel-oracles-astrology/>).

**Of course, people make mistakes, but aren’t astrologers supposed to have special information not available to the rest of us?** Similarly for the catastrophic Russian-Ukrainian war which started in Feb, 2022 with its severe widespread economic and other consequences, including fears of nuclear war, across the earth. The vast majority of predictions for 2022 made in late 2021 by astrologers around the world completely missed this disturbing event: there was no mention of any serious conflict in Europe for 2022 **before** the war started in the UK Astrological Journal, nor the American The Mountain Astrologer, nor the December issue of The Career Astrologer all highly-rated magazines for astrologers. (see also, <https://wowastrology.com/blog/russia-ukraine-war-astrology-forecast>, for a typical astrological miss-prediction). [[106]](#footnote-106) This astrologically-overlooked war will shape the world for decades or more to come. Later in 2022 and 2023 some isolated astrologers (as did some psychics, numerologists, Tarot readers and non-paranormal oriented writers) claimed to have predicted the events or knew ‘something was up’ (something is *always up*!). The famous UK astrologer Jessica Adams recently ‘predicted’ for 2023, “that Pluto hasn’t been in Aquarius in 248 years, so we are going to see upheaval the likes of which we haven’t seen since 1774-75, which you history buffs may have already noticed was the period of the American revolutionary wars” (Ford, 2023). Vague ‘predictions’ are made on the basis of the astrological symbolism alone, after all, how many instances do astrologers **empirically have** to underpin predictions of what will happen when Pluto is in Aquarius?

Further, nothing specific or relevant was made by prominent astrologers regarding the Hamas attack on Israel in early fall 2023, despite the claim that both the celestial relationships can *supposedly provide information unavailable from other sources,*  and covers all happenings on the earth (the interested reader can check astrological magazine along with astrological internet sites in late summer of 2023). **After the war started**, of course, astrological sites were filled with their varying ‘explanations’ of celestial configurations describing the events, and typically, redundantly covering what has already been revealed and speculated in the news media. While astrologers continually search the literature for successful predictions, skeptics could do the same and find for every successful prediction, a failed prediction.

Astrologers typically underestimate the likelihood of large numbers of predictions producing coincidences which are interpreted as successful predictions (see Paulos, 2022, O’Shea, 2023, for more on this topic.) It is important to remember if a discipline has no connection with reality and its practitioners formulate many predictions, then the successes will be distributed among everyone (within statistical fluctuations). This is what is seen with astrologers: most have ONLY a few (or no) great predictions to their credit. If astrology was a successful **predictive** discipline, there **should** be innumerable successes and their authors requested by all the big companies and the big States. This is of course never the case today. British astrologer Dennis Elwell pointed out over 20 years ago, focusing on predictions alone won’t get astrologers anywhere, what is needed is astrologers identifying **reliable techniques** that can be used by any astrologer to accurately make predictions:

Amazingly, there is no consensus on the most reliable methods of astrological forecasting, and only minimal discussion on the crucial question of the language that should be used in conveying these insights. With so many predictions being ventured worldwide, the chances are that somebody will get it right sometime. So, you can’t take any particular comfort when your turn comes around. The only merit is to be able to get it right consistently because your methods are reliable, which means that you can show everybody else how to get it right consistently. Given our pretensions, it is crazy that we [astrologers] cannot reach a consensus on what astrology says, rather than what this particular astrologer says. (Phillipson interview with Dennis Elwell, 2015, https://www.astro.com/astrology/tma\_article211019\_e.htm

A difference between prediction in science and how it is considered in astrology is made clear in Elwell’s quote. Scientists would need to be aware of **how the prediction was publically arrived at** and could it be repeated to be acceptable in science. Failed predictions in science are viewed as the theory under consideration is in need of careful examination and possibly revision or rejection. In astrology we have the one-offs. Further, no astrologer’s track record is enough to support a claim to expertise in predictive ability. See also Bret-Morel, "Dealing with forecast failure", in Beliefs and departures from beliefs, Meetings of the Critical Thinking of Montpellier, September 2022 <https://youtu.be/6pHU9GKFYyk>.We find it amusing that while the majority of predictive astrologers completely miss prognosticating major events of great consequence, **once the event has happened or started**, astrologers always find celestial conjunctions to ‘explain’ the consequent ongoing situations! (Serge Bret-Morel, https://www.youtube.com/live/Npfpjl8lbAU?feature=share&t=29970)[[107]](#footnote-107) A perusal of astrology internet sites will show that their commentary on ongoing world events consists largely of jejune repetitions of what can be found in the media news or journalist blogs [[108]](#footnote-108), with the only addition being an ongoing tie-in with the individual astrologer’s favourite celestial relationships (see Serge Bret-Morel, <https://www.youtube.com/live/Npfpjl8lbAU?feature=share&t=30143>). What is most relevant in the context of astrologer’s ‘predictions’ is that **non-astrologers** often make not only predictions regarding the same events with similar or better accuracy than astrologers [[109]](#footnote-109), but also predict events missed by astrologers, and are, of course, not mentioned by astrologers.[[110]](#footnote-110) There is nothing special that stands out regarding astrologers’ predictions when compared to other paranormalists (Tarot, Numerologists, astrologers using other approaches, etc) or even non-astrologers. [[111]](#footnote-111) Consider the following:

In 1914’s The World Set Free, HG Wells wrote about atomic bombs whose radioactive elements contaminate battlefields – three decades before Hiroshima and Nagasaki. British author John Brunner’s Stand On Zanzibar from 1968 imagined Europe’s states forming a collective union, China’s rise as a global power, the economic decline of Detroit and the inauguration of a “President Obomi”. And, naturally, there is George Orwell’s Nineteen Eighty-Four, in which a one-party state uses “telescreens” to identify people from their expressions and heart rate – written more than half a century before the [NSA’s Prism surveillance programme](https://www.theguardian.com/world/2013/jun/06/us-tech-giants-nsa-data) and [China using facial recognition software to track its citizens](https://www.theguardian.com/world/2019/dec/02/china-brings-in-mandatory-facial-recognition-for-mobile-phone-users) (Oltermann, 2021, June 26, https://www.theguardian.com/lifeandstyle/2021/jun/26/project-cassandra-plan-to-use-novels-to-predict-next-war.

Also, consider the Covid-19 pandemic: Bill Gates and several flu experts had been predicting a pandemic for years (https://www.inc.com/jason-aten/bill-gates-predicted-pandemic-heres-when-he-thinks-it-will-end-what-it-means-for-your-business.html), and,

In 2012, author David Quammen wrote a book, [Spillover: Animal Infections and the Next Human Pandemic](https://www.nytimes.com/2012/10/21/books/review/spillover-by-david-quammen.html), that was the result of five years of research on scientists who were looking into the possibility of another Ebola-type disease emerging. The consensus: There would indeed be a new disease, likely from the corona-virus family, coming out of a bat, and it would likely emerge in or around a wet market in China.

and,

For 15 years, scientists have said: "Watch out for corona-viruses; they could be very dangerous." And for five years, Chinese scientist [*Zhengli Shi*](https://www.scientificamerican.com/article/how-chinas-bat-woman-hunted-down-viruses-from-sars-to-the-new-coronavirus1/) at Wuhan Institute of Virology has been warning us to watch out for the corona-viruses found in Chinese bats; SARS is a corona-virus, and it came out of Chinese bats in 2003. That was very dangerous to humans, but it didn't transmit as readily as Covid-19 does. But Shi and her group saw a virus very similar to it in bats in a cave in Yunnan Province and published a paper in 2017 saying, "Watch out for these particular corona-viruses in these horseshoe bats. They necessitate the highest preparedness." That was three years ago...(https://science.slashdot.org/story/20/06/13/1923213/interview-with-the-science-writer-who-predicted-the-pandemic-8-years-ago).

See also https://www.nytimes.com/2021/02/04/opinion/michael-goldhaber-internet.html, and Oltermann (2021) where novels might be useful for predicting wars. These predictions and speculations would be based on a wide knowledge of current and past events, along with an insight into societal and environmental trends, and the ability to carefully extrapolate into the near future, and luck. [[112]](#footnote-112) No need for any supposed astrological forecasts.

How Astrologers View Astrology

What is the relationship between ‘the above and below’, and what is the nature of its connection to our lives? Astrology is approached by most contemporary Western astrologers in roughly, two different ways: either astrological planetary configurations have physical **causal** relationships with terrestrial events, or the celestial relationships **mirror** (non-causally) or reflect events on earth.

*On the first approach, astrology is considered a science or proto-science by a number of advocates.* This position is typically tied-in with a downward physical causation model, where the planets allegedly have subtle but widespread physical effects on terrestrial events. Providing such explanations would be complicated. Much is astronomically counterintuitive, for example, Mercury is the average closest planet to Earth rather than Venus, contrary to what most astrologers imagine (Gunn, 2023). If we calculate the intensities of the gravitational forces of the planets involved in astrology and it can come as a surprise to find that it was Venus which at times had the most gravitational influence, due to the fact that it comes closest to Earth and is much bigger than Mercury and Mars (Bret-Morel, 2016).

Scientific explanations for astrology are typically considered promissory. For example, astrologer Egan (2017) says,

astrology in fact must be compatible in some fashion with science. Here, we are particularly talking about physics, since physics may be seen to be the “root” science from which all other branches grow. For instance, psychology and astrology reference humans. Humans are products of biology, and biology comes from chemistry. Chemistry, in turn, is an expression of the physics that determines its laws. Ultimately, all parts of our world must fit together to form a whole.

In other words, there are physical causes for astrological claims, but they are not known to us at the present time. One wonders how Egan could consider astrology autonomous from physics and astronomy through its symbolism and yet be simultaneously reducible to physics. It is unclear what kind of a physical explanation could help us understand astrological claims such as Mercury conjunct Pluto natal is related to intellect and curiosity, or transit (asteroid) Juno conjunct Jupiter is related to people’s attracting partners? Let us step back here and consider how **completely different** any astrological forces would have to be from any forces or influences known in the physical and biological sciences.[[113]](#footnote-113) We can start by again referencing Carter (1927):

The peculiar characteristics of astrological forces appear to be ….very penetrative, since no means has been found for screening their action…[they are] extraordinary in their subtlety [they can manifest themselves in many different ways]…[they are capable of lasting influence], for example, the forces depicted [at the time of birth] endure through life…[and are] possessed of great breath of action, in as much as they affect, directly or indirectly, man’s mind, passions, emotions, body, and circumstances, as well as, probably the corresponding elements of animal and plant life…and also to **some extent inanimate things, and even things existing only abstractly [such as companies, nations, ideas]** (pp. 13-14) [[114]](#footnote-114)

With Carter’s view of astrology, he seems to be alluding to the possibility of an entirely different causal network than the single one considered in everyday life and the sciences. [[115]](#footnote-115) There is no reason for us to believe that there is another (e.g occult, psychic) causal network that exists alongside, or can interact with our natural causal network. We live in a world in which what happens forms a closed network.

Further, **the strength** of the astrological relationships with terrestrial events are supposedly undiminished over time. That is, the significance of the symbolic relationship of planetary configurations in one’s life remains unreduced over the lifetime, and the only changes are in the way they are supposedly manifested over time. In addition, there are no physical forces that only start to work after a celestial entity (such as an asteroid) is named, or plays a special part in your life if it fits your name.

The relationships with the **symbolic** (mythological, word/image associations) **nature** of the planets ostensibly don’t weaken over time. No forces that have these characteristics have been detected by science, and there is no hint of them existing or what they could even be like (Stoljar, 2017). It would also be highly unlikely that any set of different physical influences---even if they existed--- could consistently, over time, work together in the required systematic way (consistent with the variety of astrological symbolisms) to produce what would be recognized as astrology. In the last sentence in the above Carter quote, Carter (1927) further reminds us,

It is customary to erect horoscopes for ships, houses, and other objects, the time chosen for such [horoscopes] being [any of] the laying of the keel, or cutting of the first turf, or the launching, or the moment of first occupation….here we reach a region which is, I think, beyond the range of the physical sciences (p. 20).

Carter is saying astrology exists largely in the area of metaphysics, not science. While both astrology and astronomy deal with the same cosmos, they view the cosmos very differently (see also, Grof, 2009). Carter does not mention wrong charts, however they are relevant to this topic. Wrong charts work too well to be ignored and considered only of negligible importance. Such charts can work because of the richness of the astrological system (the multivalent expression of planetary configurations, the many different ways the same outcomes can be expressed, the large number of factors included in the above, etc). There are so many astrological techniques and symbolisms that there is inevitably something can find to produce a match *a posterior*.

Indeed, as pointed out before, even tiny asteroids (at least those already **named**) can supposedly play a very significant role in people’s lives, say many astrologers, even though on any causal framework, such a claim would be problematic. Why would any force only start to act when the asteroid is named? The main asteroids in astrology are typically associated with the symbolism of ancient Greek and Roman mythology and their interpretation within that framework is tied to events on earth:

The four major asteroids, Ceres, Pallas, Juno and Vesta, were discovered within a few years of each other at the beginning of the 19th century, and named for female goddesses in the Roman pantheon. Their discovery has been synchronous with the rise of the women's movement in the West. These four asteroids seem to symbolize four different facets of the feminine and represent a fresh way of regarding the feminine principle in astrology (https://www.astrograph.com/learning-astrology/asteroids.php)

Four asteroids are named after female goddesses and from there a relationship is inferred regarding the women’s movement on earth, and since there are four asteroids named after female goddesses, the further inference made by these astrologers is that they represent four dimensions of the feminine. While tiny asteroids are claimed to play an important role in people’s lives through astrological **symbolism**, (which can be as simple as the asteroid sharing your name, so can, for some astrologers, hypothesized planets (e.g. Hades, Zeus, etc) and for other astrologers extremely distant black holes, pulsars, quasars, etccan play an astrological role (deep space astrology). [[116]](#footnote-116) Again, none of this fits with anything else we know about the universe.

It is important to note that many (perhaps most) contemporary Western astrologers reject a causal account of astrological symbolic relationships with terrestrial affairs. Indeed, Brennan (2011) points out that the occult-oriented astrologer, Dane Rudhyar, as far back as 1936,

explicitly rejected the notion that “the planets or stars actually influence individual beings by the fact of their sending to earth radio-like waves, or rays…” [Rudhyar] goes on to say that even if some sort of rays were discovered which did have an effect on biological processes …this would in no way prove the usual findings of astrology … this would solve only a fragment of the problems involved in the sum total of astrological ideas. (Dane Rudhyar, The Astrology of Personality, Lucis Publishing Co., 1936, pgs. 43-44) Rudhyar’s argument was essentially that even if some sort of celestial force is discovered which influences terrestrial life in a way that accounts for some astrological assumptions, this still probably wouldn’t account for the vast majority of what astrologers claim that astrology is capable of, as many of these assertions only make sense within the context of a sign-based conceptualization.

Rudhyar is arguing that even if the planets could be shown to influence human behaviors, unless the astrological **symbolism** of the celestial bodies was supported, any physical effects would be irrelevant to astrology. For example, even if a physical explanation could be found for say, claims that the planet Mars is associated with curiosity and communication, it would be ignored since it conflicts with the accepted astrological symbolism associated with Mars. Grof (2009, p.52; also, Tarnas 1987/2013) adds, “…the idea of a direct material effect of the planets on the psyche and the world is, of course, implausible and absurd.” Indeed, symbolism comes first and is all determining. “Unfortunately, there is no asteroid named Thanatos. If there were, we could see where we stand in this life versus death existential equation. We might point to asteroids Requiem (#2254), Hades (#399) or Nemesis (#128) as stand-ins for Thanatos, but they are not quite the same” (Kevlin, 2023)

Why theory in astrology is needed

Without a well-grounded theory of astrology, astrologers cannot begin to answer concerns regarding any **claims** of astrology, nor can they decide among contrasting claims, nor throw anything out. How all the types of astrological symbolism fit together and relate to the world needs to be answered. There is no **well-developed** scientific astrological theory that ties together all of the heterogeneous mythologies, and word and name associations together, making the entire present-day astrological framework one big uncoordinated hodgepodge of claims and techniques. Appeals to tradition only put the question back a step: which tradition and why? This requirement is especially important for those who consider astrology some kind of science or proto-science. Unfortunately, an examination of online astrological exponents claims suggest that a number of astrologers cling to the expectation that some physical mechanism (e.g geomagnetism, vibrations, etc) will eventually be shown to support allof the main elements of Western astrology, including somehow competing techniques and claims. This is a problem acknowledged by astrologer Carter (1927, preface) almost a century ago (and we are no nearer a resolution to this problem today):

Until we have some working hypotheses we shall not only be unable to make any sort of case for the validity of the science [of astrology], apart from the empirical [which is seriously lacking, see Dean, Mather, Nias, & Smit, 2022], but we shall be liable to grave errors in practice through failing to have some clear ideas as to the nature and scope of the forces we are professing to interpret.[[117]](#footnote-117)

**A good theory should connect the various symbolisms to contribute to solving such problems.** For example, how do mythological claims (Mars is associated with war) fit with symbolic claims such as **your** name (or even a naughty slang expression) tied to an asteroid has **astrological** significance for you life? Without such a theory, how can astrological belief be maintained that one has happened upon the best or a useable set of astrological tenets? And which factors should be discarded? One very speculative attempt at a theory for astrology can be found in Jung’s appeals to archetypes and a synchronous transcendental reality. This view will be considered in more detail later in this article. For now we just need to point out the view requires appeal to extremely problematic notions such as souls, primeval archetypes, a divine astral intelligence and a transcendental reality that somehow underlies a pre-established harmony regarding the “above and below”. Contrast the world-wide agreement in regard to what scientists endorse:

Suppose that you would ask scientists which scientific theories you should accept or what entities you should think are real. Most of them would give you a list consisting of roughly the same answers: atoms, genes, cells, planets, tectonic plates, general relativity, theory of evolution, chemical bonds, etc. There is agreement among scientist with respect to many scientific theories. The process of scientific knowledge progresses by experiment, evidential analysis, theory revision, and unification. This process ultimately leads to a convergence of accepting a subset of scientific theories that have been well tested and confirmed. As a consequence, scientists are also in a position to evaluate the success of their employed explanatory reasoning in this process. In short, scientists mostly agree about the set of knowledge obtained from the scientific study of the world (Allzen, 2023, p. 16).

In contrast, if you ask astrologers across the world, the answers would largely focus on what their **local** astrologers believe. There are no agreed upon strategies to support the claims of astrological entities nor their distinct claims.

*The second approach involves the commonly accepted alternative to the ‘astrology is causal view’ (with its adherence to scientifically discoverable causal planetary effects) is that the heavens only mirror or reflect what is happening on the earth.* On this view of astrology, no cause-effect relationship is assumed, there are effects correlating with the planets (angular) geocentric positions in relation to each other around the (typically tropical) zodiac. This alternative a-causal view is often described by ‘mirroring’, ‘reflecting’ or ‘correlating’ metaphors. What appear to be causal relations between the heavens and earthly events occur instead in a pre-established mutual harmony. For example, McRitchie (2022, 2023) plays down the possible role of a physical explanation for astrological correspondencies with terrestrial events and contends the relationship is correlational. Similarly, Grasse (2019) says,

the planetary patterns at the moment of birth don't cause particular traits or tendencies so much **as reflect them**. The simultaneity of celestial and earthly events are… a "meaningful coincidence," with the position of the planets and the life of individual's lives representing joint expressions of the same **underlying pattern of meaningfulness** (italics ours).

Likewise, Brennan (2011) says,

the majority of modern western astrologers today hold the view that the movements of celestial objects such as planets and stars do in fact correlate with terrestrial events, but they do not cause those events to take place. Or in other words, celestial objects act as signs of events that they correlate with, but not cause….

What allows celestial events to supposedly be well-coordinated with earthly happenings? To keep cognizant of all the ongoing complexity of changes would seem to require a kind of theistic-guided evolutionary designer. And note the correlation is not just with physical events happening on earth, it is also with the workings of **socially-constructed entities** (such as nations, elections, sporting events, etc) and happenings of all eight billion people within their minds. If the reader started a new business tomorrow or began to compose a song, it would come under the purview of Western (psychological) astrology. This is an extremely tall claim to justify. The typical answer is that it is achieved by some *deus ex machina* (e.g a kind of theistic-evolutionary god), although it is unclear whether this god set it all up in advance or is just required to keep interfering in order to keep the harmony going. To modern minds, this notion seems extremely ***ad hoc****.* This claim that ‘the cosmos reflects or mirrors what is happening on earth’ just seems another astrological pseudo-claim along the lines of “as above so below”, “everything is interconnected” and “the quality of the moment is reflected everywhere” [[118]](#footnote-118) which have a veneer of profundity until one tries to make sense of them. Adding terms such as ‘reflect’ or ‘mirror’ for the word a-causal (or correlational) fail to increase our understanding of what is going on. [[119]](#footnote-119) Further, a large variety of **different** present-day forms of astrology adopt this a-causal perspective and include different entities and symbolisms within their astrology, and where they concur, they often differ in the weightings assigned to the astronomical entities. It is not clear how all these different astrologies, or even differing techniques within each astrology can simultaneously be supported either causally or a-causally.

Let us try and expound what the astrological a-causal view encompasses: there exists a world of symbolism (based on mythology, and various word and image associations) that exists either entirely in our heads, or partly in our heads and partly in a transcendent realm, or entirely in a transcendent realm (depending on what astrologer you ask) that somehow flows continuously and simultaneously with celestial movements of all kinds (e.g planets, selected asteroids, moons, hypothetical planets, etc), and somehow become signs of all the minutiae and ebb and flow of all eight billion human beings on earth, along with selected inanimate and political abstract objects and events on earth. As astrologer Becca Tarnas (2021, also R. Tarnas, 2009, p. 28-9; Brennan/Tarnas, 2016*)* says*, “….*astrology can be understood as a continuously ongoing, collectively [empirically] verifiable synchronicity: the meaningful coincidence of the positions of the planets relative to the archetypal unfolding of human events on Earth” (http**://**becca tarnas.com, accessed March 22, 2022, bolding ours). While talk of signs has some hold on references to physical happenings, talk of signs for abstract, non-physical events or ‘entities’ seems to be a non-starter.

Whereas the causal view of astrology would imply that effects vary continuously to interacting celestial-terrestrial relationships, the a-causal view holds that the relationship is attributed to a continuous synchronous correlation. How do we know it is continuous? Perhaps the correlations occasionally diverge or slip? The expression ‘continuously ongoing’ requires elaboration. We too often forget that, at every moment, a planet is at a specific place in the sky and with Earth. However, with regard to the billions of human beings, a planet is both in conjunction with the planets of birth of some, in opposition to the same planets of birth of other people, in square for others, etc. In fact, "the planet" or "the position of the planet" therefore means nothing in itself since it creates many possible configurations for different people at the **same time**. Further, given the importance of evolutionary change over time, we would expect astrology to somehow continuously monitor the process of evolution in its adaptive processes and non-adaptive processes (e.g genetic drift, gene flow, etc). [[120]](#footnote-120)

Again, as before, the physical characteristics of the planets are considered largely irrelevant to the symbolism which is retained unchanged in both approaches to astrology. From an astrological viewpoint, the relevant solar system bodies could have, in principle, all been the size of match boxes of differing shapes, or all the same size as earth but only of differing shapes, as long as mythologies or naming associations could still be applied (keeping in mind that, for many astrologers, some named, visually unobservable tiny asteroids can play a significant role in astrology). [[121]](#footnote-121)

This correlational view is typically tied to an external existing transcendental realm (an “underlying pattern of meaningfulness’).

A transcendental reality and a creative astral-intelligence underlying it all?

Let us elaborate on what allegedly maintains the supposed harmonious correlation. Carter (1927) says the correlation (or pre-established harmony) between celestial events and terrestrial happenings is the result of a relationship to some third factor: consequently, *the above and the below* are not causally related in any consistently discernible way. Carter contends that just saying ‘the heavens mirror mundane events’ alone is not going to get astrologers theoretically very far---they need to further explain the **underlying** order and arrangements of this correlation:

If we attribute the [relationship] of celestial and mundane phenomena to a simple fact of synchronism, surely we must seek a third overriding principle which orders and arranges both (p. 8)

Carter is claiming an underlying ‘ordering principle’ is required to maintain the correlation over time. Keeping in mind we are not talking about a causal relationship here, but a correlational relationship between **symbolism** and terrestrial affairs.

Carter himself had his Aristotelian ‘prime mover’ to set up the mirroring (1927, p. 8) [[122]](#footnote-122) Buck (2018) says that psychoanalyst Carl Jung, in later life, held that a metaphysical reality, beyond the physical, accounts for all of the phenomena across occult domains (including Tarot, I Ching, Tea leaf Reading, and Numerology) (see Jung, 1978, p. 516; Jung & Pauli, 2001):

[Only]…a pattern or order **underlying and supporting** all of creation, could account for the ‘transgressivity’ of matter and spirit experienced in synchronistic phenomena [which is] accessed in [the astrological birth chart] and other intuitive methods such as [the] I Ching and Tarot (Jung, 1975, p. 141). Cited in Buck, p. 219. Bolding ours. [[123]](#footnote-123)

The astrologer Tarnas advocates a similar view: “a conception of the universe as a fundamentally and irreducibly interconnected whole, **informed by creative intelligence** and pervaded by patterns of meaning that extend through every level” (cited in Klein, 2008; see also Grof, 2009, p.55). Such a view is an extension of Jung’s suggestion of a global archetypical patterning underlying both the human mind and all of physical reality (Jung, 1978, Jung & Pauli, 2001). This appeal to a transcendental realm aims to provide astrological claims regarding the connection between ‘above and below’ with a stronger foundation than could ever be provided by any contingent scientific claims. Presumably, this also holds across the entire universe which extends (at least) 47 billion light years in every direction, unless there are transcendental boundaries of some kind (Gott, et al, 2005). There are several very extravagant claims made in the above statements. On Tarnas’ view, the transcendent reality consists of interconnected multi-levels rather than one fundamental transcendent reality.[[124]](#footnote-124) How are these levels interconnected? Does this interconnectedness of everything mean that everything must have come into existence at the same time (hence the need for a god?). What is this transcendental reality based on (or is it turtles all the way down?) The use of terms and expressions such as ‘patterns of meaning’ and ‘levels’ can create the illusion of having some understanding of such talk. While our earth-based minds have an understanding of such terms (meaning, level, etc) in our natural lives on the earth, what could they mean when referring to a transcendental realm? If the transcendental reality and our physical reality are radically different, how do they interact or mirror each other? And any metaphors or analogies we use are similarly based on what we normally know in our natural, earthbound lives, how could they possibly clarify something transcendent and utterly different?

These individuals not only contend a transcendental reality exists, but also that **they** have some determinate conception of it. Indeed, Tarnas (1987/2013) surmises that a metaphysical creative intelligence gave us astrology as a gift to make our lives go better:

my sense of astrology is that the constant coincidence between planetary positions and human lives exists as a kind of **universal code** for the human mind to unravel, so that we can better understand ourselves and our world, rediscover our deep connection to the cosmos, and be more complete human beings.[[125]](#footnote-125) [[126]](#footnote-126)

One might expect that the creative intelligence, on this viewpoint, to have provided people across the earth with a more universal astrology to unravel rather than the very diverse forms it has taken. Other questions immediately arise: given we don’t have direct access to this transcendent reality, how we could ever know such an ethereal (astrologically-oriented) transcendent reality even exists, which Tarnas attributes human pre-existence in a karma-oriented, spiritual world? (Tarnas,1987/2013).[[127]](#footnote-127) [[128]](#footnote-128)

Neither Tarnas nor Grof consider this astral intelligence as possessing the characteristics of the traditional God of many Western religions such as all-knowing, all-powerful, and so on. Their transcendental reality may only be a relay station underpinned by another supra transcendental reality, who knows? [[129]](#footnote-129) Tarnas’ and Grof’s god may also not be a high god, nor a creator god, but a local god within our solar system. [[130]](#footnote-130) That we have so many questions regarding what is supposedly central to their astrology shows the whole idea is deeply problematic and likely unintelligible.

The appeal to a global a-causal ‘mirroring’ here does **not** function as an explanation but a word string used in an *ad hoc* way to put a surface plausibility on an already suspect set of beliefs and practices.[[131]](#footnote-131) We have no idea of the basic stuff the transcendental reality is made out of (indeed, for all we know, it may exist outside of space and time and be completely unknowable to creatures such as us), and its postulation seems to be making a mystery out of another mystery---what this mirroring is in the first place! We might also wonder if the divine intelligence allegedly behind the mirroring is just passive and merely somehow reflects events below or takes a more active role, by guiding, in advance what happens below in the world. Perhaps a guiding intelligence, underlying both above and below, has its own agenda.

It is also difficult to make sense of talk of a ‘universal code’ with the number of differences in what is considered important both within and between astrologies. An acceptable explanation would provide useful **guidance** regarding which astronomical configurations to include and what to exclude (should asteroids be included, and which ones, and why?) and their weights (are some astronomical occurrences more important than others at a particular time than others and why?) [[132]](#footnote-132) [[133]](#footnote-133) How far does this mirroring extend? To the boundaries (wherever they are) of our solar system? Keep in mind, the outer planet Neptune, is 4.4 billion km away from the Earth**.** As mentioned earlier, some astrologers include black holes or are considering adding exoplanets in their astrology, which extends the boundaries much further (e.g https://www.wellandgood.com/black-holes-astrology/ accessed Oct 24, 2021).

"[Black holes] represent total abandon, **inescapable conditions**, intense focus and personal magnetism or ability to attract; the startling, stunning turn of events in the twinkling of an eye, where old conditions disappear and a new reality is birthed," astrologer Alex Miller, author of [The Black Hole Book](https://www.amazon.com/Black-Hole-Book-Alex-Miller/dp/1941408435), writes in [Sasstrology.com](https://sasstrology.com/2011/03/black-hole-mars-scary-sexy.html). (Cited in <https://www.wellandgood.com/black-holes-astrology/>).

Further, presumably this ‘creative astral intelligence’ is responsible for ultimately tying all the disparate astrological symbolisms (from all the cacophony of astrologies across the world!) [[134]](#footnote-134), and planetary motions somehow together. [[135]](#footnote-135) How might this be done? Was this mirroring set up from the beginning of the creation of our solar system (4.5 billion years ago), or only after cognitively capable creatures arrived on the earthly scene (perhaps one million years ago)? [[136]](#footnote-136) Was it set up this way across the inhabited star systems across the universe, all with their unique mirroring setups? [[137]](#footnote-137) Is there any reason to think so, or not so? [[138]](#footnote-138) [[139]](#footnote-139)

While postulating an astrologically-inclined intelligence may have had purchase in centuries past, contemporary thinking would raise new issues: What is its nature? (a creative intelligence could take many different forms). How does it relate to religious conceptions of God or gods? What are its capabilities and desires? (See Brogaard, 2019; Firestone, 2014; Shapiro (2016) for philosophical and empirical critiques of supernatural and transcendent views, and Craffert, Baker, and Winkelman (2019), Winkelman (2021) for cognitive/neurological accounts of belief in the supernatural). **Tarnas must believe he has some understanding of the nature of his astral-intelligence or how does he know what value it has for our lives and our purpose (s)?** How did he arrive at this alleged understanding?More specifically, it seems to Tarnas that this astral intelligence is looking out for us, but Tarnas needs to show that his postulated ‘intelligence’ resembles, in some relevant and central way, the human mind. It is not clear that such intelligence would have transcendental purposes that are agreeable to us. Further, the supposed kindly attitude this supposed ‘creative astral intelligence’ has for us would need to be reconciled with the life imperfections and the suffering of human beings and animals. [[140]](#footnote-140) Given the, largely hostile, present-day incongruence between the critical beliefs of scientists/philosophers with astrologers regarding astrology’s value, one might surmise that a creative intelligence gave us astrology to foment discord and polarize human beings rather than help. [[141]](#footnote-141)

Even if the ‘creative intelligence’ organized astrology to help human beings understand themselves and their place in the universe, unpleasant answers we do not like may be possible (after all, we don’t have access to the ‘astral intelligence’ mind.) Alas, there seems no good evidence that believers in astrology understand themselves or other people better than non-believers, and, nor than those with religious belief systems. It also seems puzzling (to say the least)--- why the reflecting mirroring of our solar system only started to be useful billions of years after the solar system originated and during this time could not have served a purpose that could only be fathomed by terrestrial astrologers! [[142]](#footnote-142) The universe we find ourselves in does not seem to be one we would expect if astrology in any form was true----a universe consisting of billions of galaxies, expanding, about 14 billion years old with large spaces between galaxy clusters.

Centered on human beings

What we also find in such (astrological) unwarranted transcendental speculations is the underlying assumption that such a reality is not only **centered on human beings** (providing meanings, guidance, and purpose to our lives) but seems **flawless.**[[143]](#footnote-143) Why would any transcendent reality necessarily encompass what we **human beings** would want it to be like? Why would it necessarily re-enchant us? Even if a transcendental reality exists, it doesn’t follow it would be enchanting or even meaningful to us humans. The transcendental reality postulated by Tarnas and others is presumably considered a more perfect domain (according to us humans) than the earthly events reflected---this does seem to be consistent with most other religious or spiritual views on the same topic. How do they know this? [[144]](#footnote-144) [[145]](#footnote-145) The reflection or mirroring is considered perfect and never makes mistakes? To state an analogy, mirrors can sometimes distort, could a-causally oriented astrologers find out that, under some conditions, the astrological mirroring is distorted? Even if the mirroring originates in our minds with co-existing interaction with the transcendental reality (according to Grof, 2009), our minds can suffer biases and distortions due to illness, and our minds can distort perceptions over time. Can our archetypes suffer distortions through cultural misconceptions or incompleteness due to our biological and cognitive limitations? [[146]](#footnote-146) Could some of these effects have long-term consequences for archetypes and astrology for some people? How could we find out?

To sum up, to support the notion of a pre-established non-causal harmony between celestial events and earthy events, astrologers need to postulate some extra, transcendental reality (and likely some kind of astral intelligence) that lies beyond our understanding that sustains this correlation, and this opens up a host of serious philosophical problems.

Psychological astrology

**Astrology furnishes a splendid proof of the contemptible subjectivity of men. It refers the course of celestial bodies to the miserable ego: it establishes a connection between the comets in heaven and squabbles and rascalities on earth.**

**Arthur Schopenhauer (1851/1974)** Parerga and Paralipomena: Short Philosophical Essays(ed. Oxford University Press)**[[147]](#footnote-147)**

Psychological astrology can be differentiated from other approaches to astrology in that:

Rather than being about divinations or predictions, psychological astrology looks at the birth chart as a map of who we are, our life journey, our complexes and can help us get a clearer picture of who we really are. It can help us work out our problems and clarify our goals (https://www.psychologicalastrology.com/accessed April 26, 2021).

Psychological astrology is usually tied in with the theories of psychoanalyst Carl Jung (1875-1961) [[148]](#footnote-148) who expressed a lifelong interest in the occult, and with Western astrology in particular.[[149]](#footnote-149) A readable outline of Jung’s long-time interests in astrology can be found in Buck (2018), and his writings on astrology are usefully gathered together by Rossi and Grice (2017).[[150]](#footnote-150) The central aspects of Jung’s views relevant to psychological astrology are the notions of the collective unconscious, archetypes (especially his notion of a global archetypical patterning underlying the universe), and synchronicity. To their credit, some analytical (Jungian) psychologists, while very sympathetic to many of Jung’s theoretical claims, do not accept them at face value, and are working towards explanations of his theoretical posits that fit within contemporary science (see for example, Goodwyn, 2023). Such debates and reconsiderations of basic underlying concepts with new information, reflecting advances in the sciences, are indicative of a healthy discipline. A recent, well-organized review of the concept of synchronicity can be found in Butzer (2021; see also, Jackson 2021, and Sawyer, 2018 for a more non-exotic social science view of coincidence and synchronicity in terms of people’s experiences and preoccupations). Butzer suggests that synchronicity is consistent with the philosophical standpoint of panpsychism, the view that consciousness is a fundamental aspect of ultimate reality, and that synchronicity may be one way that consciousness reveals itself to us in everyday life (p. 31).[[151]](#footnote-151) However, there is no universally agreed-upon definition of synchronicity (Butzer, pp. 35-41), and Butzer suggests more empirical research into the concept may provide fruitful advances in an understanding of both consciousness and a more nuanced synchronicity and their inter-relationships.[[152]](#footnote-152) Hogenson (2019; also Roesler, 2019, pp. 660-667; also Buffardi, 2021; Goodwyn, 2023) provides a useful overview of the notion of archetypes and says “even after more than 20 years of discussion in journals regarding the theory of archetypes, no fully satisfactory theoretical conceptualization is at hand” (p. 682). Hogenson (and Roesler and Buffardi, along with Jones, 2023) provide a useful overview of contemporary debates on archetypes along with various considerations of Jung’s views on the idea.

The situation in psychological **astrology** is far different than in analytical psychology. Indeed, much of the **astrological** appeals to Jungian concepts involve unquestioned, looser, and often opaque notions than those debated by scholars in the analytic psychology community (see, for example, the article by Grasse, 2018 involving such loose talk). A variety of overlapping astrologies adopt a synchronicity-based, mirroring approach, along with concepts such as ‘the collective unconscious’, ‘archetype’, and ‘synchronicity’ thrown around in a vague, uncritical fashion. The notion of synchronicity, for example, is usually just defined as ‘meaningful coincidence’ and then entered into the astrological theory without further consideration (check astrology books in your local library or astrological internet sites). Notions of the ’collective unconscious’ and talk of ‘archetypes’ **in astrology** are generally murky, to say the least.[[153]](#footnote-153) [[154]](#footnote-154) For example, Grof (2009), claims, archetypes are

timeless primordial principles underlying and informing the fabric of the material world—it recognizes a dimension of reality that cannot be detected using techniques of modern science….An important characteristic of the archetypes is that they are **not** confined to, and do not originate from, the human brain, but **operate from transcendental realms** and exert a synchronistic influence on **both** individual psyches and events in the physical world.’ (Grof, 2009, p. 51, 54).[[155]](#footnote-155) [[156]](#footnote-156) Italics ours.

On this view, archetypes do not exist only in the mind, contrary to the claims of many analytical psychologists. Are such archetypes ‘timeless’ and how do they ‘underlie and inform’ the material world, and if they occupy a dimension of reality beyond science, how do we know they exist? These archetypes supposedly reflect the characteristics of all sorts of different gods from different cultures across the world, even though you would not know this from the planetary labels alone. Presumably different cultures interpreted the same archetypes in terms of their cultural mythic symbols. This is how Tarnas tries to get around the problem of diverse astrologies fighting over who is right: they all are, in their own way. Are they all equally right? It seems that while many Western astrologers abstractly and unclearly acknowledge the validity of other astrologies across the world, they seem to believe their own proffered astrology is in some sense better than the others.

How do these archetypes get into (or relate to) our dopamine-driven minds in the first place, and how did they get their connections to cosmic events and their myriad interactions between planets which are not even directly observable? (Remember Pluto was only discovered in 1930 and Chiron in 1977). Did the archetypes arrive in our minds only when the planets or other astronomical entities were first named, as some astrologers have suggested, or were they latent in our minds all along? How would we know? What parts of the brain are related to this correlation or interaction with a transcendental realm----does this mean our brain is not completely physical, unlike other parts of our body? How do transcendental archetypes and physical bodies form a **single unit**? Just asserting archetypes ‘originate from transcendental realms’ and ‘they exert synchronistic influences’, and ‘[are] a dimension of reality undetectable by science’ will not get us very far. This is again just describing what requires explanation.

Is consciousness (or sentience) in a creature required for archetypal astrology to work effectively? Did archetypes come suddenly only in human minds or relate only to human minds? Do some animals have rudimentary archetypes? (If so, is there a difference in **kind or degree** regarding archetypes among different animals?) Neanderthal archetypes? (Are archetypes exceptional in that they are not subject to evolution?) Is there a bottom level of consciousness that is required for the heavens to reflect aspects of any life experiences on earth? [[157]](#footnote-157) But what about companies and nations which don’t have consciousness or archetypes? Presumably, this was not an issue before human beings arrived on the scene, but how was the symbolic connection later made with such non-physical, cultural/social institutions that are continually changing in complexity and form? Did these institutions themselves have to reach a certain level of complexity or form before they could be encompassed within the astrological symbolism? Further, what about future changes in human makeup where we possibly merge with artificial intelligence or achieve radical longevity and super-intelligence along with possible changes in personhood? [[158]](#footnote-158) How would astrologers find out if their techniques become outmoded or new ones are required in dealing with such cases? [[159]](#footnote-159)

The Archetypical astrology of Richard Tarnas

The Jungian-influenced **Archetypical astrology** of Richard Tarnas (2006, 1987/2013) is a noteworthy example of psychological astrology. On this view, our lives are lived within an archetypical framework synchronously related to planetary movements. Historical events are related to specific relationships between the outer planets (JU-PL), while the lives of individual people are viewed in terms of the factors in our birth charts. Here, Tarnas astrology tends to differ somewhat from much traditional and contemporary astrology in that it often relates life events to isolated or selected multifactors, which ignore other factors in a birth chart and further ignores the problem of the existence of sorting out which among many ‘similar and potentially sufficient factors’ best describe the life events (McRitchie, 2022, pp. 707-709).

It is important to note that the notion of archetypes is ambiguous in astrology: some contend archetypes are found only in the human mind while others like Tarnas and Grof contend they are some kind of pillars of the universe. Archetypes are considered by Tarnas as central underlying features of his astrological metaphysical theory. The planets, with this view, represent archetypes that typify the characteristics of many different mythic gods across worldwide traditions. For example, Tarnas (2009a, p. 47; 2009b, p. 29) says of Pluto,

In mythic and religious terms, it [Pluto] is associated with all myths of descent and transformation, and with all deities of destruction and regeneration, death and rebirth: Dionysus, Hades, and Persephone, Pan, Medusa, Lilith, Innana, Isis and Osiris, the volcano goddess Pele, Quetzalcoatl, the Serpent power, Kundalini, Shiva, Kali, Shakti.

The mythic gods mentioned by Tarnas are associated with a great variety of characteristics, why select only characteristics that focus on one aspect? For example, the Greek god Pan is also associated with fertility and woods, and the Hawaiian god Pele is tied in largely with volcanoes. The overlap among the gods and goddesses mentioned is rather superficial and Tarnas tries to give an impression that they are more alike than they are. It would be difficult to claim they all are in some sense examples of one particular archetype.

One might further question the claim regarding the role archetypes play across the symbolism in astrology. How much regarding astrology falls under archetypes: all of it? or the most important parts? [[160]](#footnote-160) (who determines what is most important?) [[161]](#footnote-161) If much symbolism does not represent archetypes, how do the other symbolisms astrologically **tie in with** the archetypes? (What allows them to fit together?) All people across the world supposedly have the same basic archetypes, but express them in different ways when using their local astrologies. This claim underlies a fundamental debate in psychology, does the diversity we find in human beings across the world lie in a common underlying psychology that is ‘triggered’ by differing environments, or are there different underlying psychologies? (see Schulz, 2023 for an outline of this debate). The debate is complicated and even a positive answer to the question would not straightforwardly support the same underlying archetypes contention. While it seems likely that astrology is regionally and culturally determined (Steinmetz, 2022), on the latter view different groups of human beings may have different archetypes, rather than having the same underlying archetypes that are expressed in different ways (after all, Jung was a Western psychologist and focused on Western individuals). Why should everybody have the same archetypes, and even if they did, it is a large jump to having them connected with complex celestial configurations.

Does archetypical astrology work better for some people than others, and how would we know? (perhaps they lack some of the relevant archetypes, or have less defined archetypes?) [[162]](#footnote-162)

Assuming humans all have the same archetypes, does the transcendental reality somehow **update the contents** of the archetypes over time to include new discoveries in astronomy (after all, asteroids were only discovered in the nineteenth century)? Tarnas suggests some planetary archetypes emerged when planets were first **named**. Why should this necessarily result in the same archetypes in all people? Tarnas and others include Pluto (discovered in 1930) in their astrological analyses. Tarnas (2009) proposes that the **historical period in which the planet was discovered** is relevant to its archetypal meaning and “in some sense represented an emergence of the planet’s corresponding archetype into the conscious awareness of the collective psyche” (p. 43) and therefore

In retrospect, the discoveries of Uranus, Neptune, and Pluto appear to have coincided with the emergence of three fundamental archetypes into collective human experience in a newly constellated form, visible in major historical events and cultural trends of the eighteenth century (Uranus), the nineteenth (Neptune), and the twentieth (Pluto) (p.48).

The ‘in some sense’ is left up in the air. It is also controversial to claim that ‘historical periods’ can be viewed as contributing to archetypal emergence----a lot of very different and contrary historical events and trends are going on in the world at any given time or place. Does what is happening in some parts of the world count more than what is going on in other parts of the world regarding archetypal emergence? It seems Tarnas is assuming we have unblemished recourse to ‘what really happened’. It would seem that present-day interpretation and theory plays a role in what we highlight in history (see Fulbrook, 2002 for more on this topic). Future historians might highlight historical periods differently than Tarnas. It would further remain unclear just **how** such earthly events would give rise to archetypes. Further, such newly developed archetypes seem to differ from the ‘primordial principle’ archetypes postulated by Grof. What is the relationship between these different types of archetypes? On Tarnas’s psychological astrology our pattern recognizing abilities go into overdrive (for more on apophenia see Love, 2023).

Also, many astrologers include hypothetical planets, named asteroids (but not others), and other recent astronomical discoveries into their symbolism (e.g black holes, and possibly exoplanets), so either an archetype of these is somehow involved, or non-archetype symbolism is also somehow proper to include in astrology. It would help if such considerations were clarified in the archetypal astrological literature. [[163]](#footnote-163)

Why would there be a meaningful **symbolic** relationship between the planets and terrestrial happenings in the first place? Tarnas (1987/2013) answers as follows:

But why should the cosmos have established a systematic correspondence between planetary patterns and archetypally patterned phenomena in human lives? There are many possible answers to this question, not the least of which might point toward a kind of intrinsic **aesthetic splendor** in the universe, an overflow of **cosmic intelligence and delight** that reveals itself in this continuous marriage of mathematical astronomy and mythic poetry. But in more pragmatic, human terms, my sense of astrology is that the constant coincidence between planetary positions and human lives exists as a kind of **universal code for the human mind to unravel, so that we can better understand ourselves and our world,** rediscover our deep connection to the cosmos, and be more complete human beings (italics ours).

The ‘astral intelligence’ supposedly wants to make the universe and ourselves more user-friendly. These are claims of personal belief greatly in need of explication and justification.

There seem almost as many ways of filling in an astrological picture of reality, as there are astrologers. For another thing, how do we know the astral intelligence shares our **human** notions of ‘aesthetic splendor’ and ‘delight’ along with our pain and pleasure? (Tarnas’ description moves very close to a person-like God). From what Tarnas says, his astral intelligence seems to ‘believe’ it is good that human life exists and it desires we understand the world and ourselves better. Hence, the astral intelligence is supposedly related to moral norms we humans can understand.

The underlying assumption in the **psychological astrological literature** seems to be that we all have the same universally held (transcultural) collective unconscious and the same archetypes (Tarnas, 2009). However, according to psychological astrologers, archetypes are also malleable (they are not fixed and not pre-determined) and can express themselves in an almost unlimited number of ways: hence, the same archetypes can manifest themselves in different ways in different cultures and periods. This would seem to make such concepts far different from anything else we know about our psychological and biological makeup, which exhibit variability across groups and individuals. We would expect, given our knowledge of genetics, biology, and psychology that people might vary in their number and types of archetypes, their strength, and their collective unconsciousness (given that their physical and cultural ancestral histories differ) along with their psychologies (Steinmetz, 2022). The collective unconscious is often described as if it is transcendent to the rest of our mental structure, and little attempt is made to hypothesize the differing contributions and interactions of nature and nurture to it in the astrological literature. [[164]](#footnote-164)

Tarnas’s view is made within his background rejection of the dominant Naturalistic view in science and philosophy as disenchanting (but, of course, even if Naturalism is false, nothing follows about astrology, see Law (2020)). [[165]](#footnote-165)A large part of the psychological appeal of Tarnas’ approach would seem, in some circles, to be his positive transcendental worldview compared with the scientific one. As Grof (2009) says, providing a prudential objection to Western naturalistic approaches:

Western science portrays the universe as an impersonal and largely inanimate mechanical system, a super-machine that created itself and is governed by mechanical natural laws.[[166]](#footnote-166) In this context, life, consciousness, and intelligence are seen as more or less accidental products of matter. By contrast, the basic assumptions of astrology are that the cosmos is a creation of superior intelligence, that it is based on an inconceivably intricate deeper order, and that this order reflects a higher purpose.

The “inconceivably intricate deeper order” and “this order reflects a higher purpose” are very abstract metaphysical claims that require some serious elaboration to render them understandable. As they stand they hardly provide an intelligible ‘basic assumption’ for astrology. Tarnas claims that transcendental reality provides a cosmic meaning to our lives lacking in naturalistic worldviews. However, worldviews and philosophies are not bifurcated into just views that are mechanistic (reductionistic) [[167]](#footnote-167) or astrological. On the view it seems is held by many astrologers, the source of meaning and value in human life is transcendent, external to, and independent of human reality. Why should this cosmic meaning be largely focused on human beings, very late arrivals on the cosmic scene? [[168]](#footnote-168) However, there is also a spectrum of possibilities here. Many views don’t necessarily fit either horn such as Stoicism, Daoism, Humanism, Buddhism, and, Unitarian Universalism, etc (see McGhee, 2021 on this topic). And there are a variety of religious views that accept the notions that ‘the cosmos is a creation of superior intelligence’, there is ‘an inconceivably intricate deeper order’, and ‘that this order reflects a higher purpose’ that don’t endorse astrology. Further, many contemporary scholars would contend that our need for meaning in our lives does not require a ‘higher purpose’ or ‘cosmic meaning’ (which can take a large number of different forms, in most of which astrology does not enter the picture). Issues of meaning and purpose in people’s lives are not necessarily tied to transcendental realms (see Metz, 2022, Lyons, 2022). There are a large number of writings that show meaning in our lives does not need to be tied to imaginary transcendental realms and ideas: professionals in psychology and the mental health field will find Stein’s (2021, also see Landrum, *et al*, 2022) book on problems of living from an interdisciplinary approach to issues of meaning in life, happiness, and truth a useful adjunct to their work and research. Thoughtful readers might also enjoy the down-to-earth writings available at the *School-of-Life* (<https://www.theschooloflife.com/>). Bloom (2021) points out that some suffering and struggles are essential to have some kind of a meaningful life, contrary to the claims of those who view meaning as tied to pleasure and constant positivity and optimism. Baggini (2005, also 2021, Ch 4) for example, points out that we find enough meaning in all sorts of ways in our day-to-day life through helping others, being happy, being loved and loving others, and enjoying the small things in life. May (2015; see also Hagglund, 2020, Vaughn, 2022; Wielenberg, 2022) describes a variety of values that human beings share that add quality to our everyday lives such as curiosity, intensity, perseverance, love, flow, etc. Steinhart (2020; see also Crosby, 2022) advocates a spiritual naturalism that many people would find comforting that would eschew the problematic transcendental vision of Tarnas. Johnson (2023) ties Dewey’s philosophy in with contemporary biology, cognitive science and neuroscience to support a Naturalistic philosophy for living. [Metz (2021) provides an overview of past and contemporary philosophical thought on the topic of meaning in life]. [[169]](#footnote-169) [[170]](#footnote-170)

One might also challenge Tarnas’s (and Grof’s) background claim that unlike naturalistic philosophies that allegedly result in disenchantment, his view permeates the universe with meaning.[[171]](#footnote-171) Other theological and spiritual positions can deliver the same or similar benefits, so why chose his view over the others even if one feels the need for a transcendental meaning? Tarnas would presumably contend that his view is supported by the evidence of ‘massive correlations’ of planetary configurations with terrestrial movements and events/changes.[[172]](#footnote-172) But, as pointed out above, the way his theory is structured easily allows **‘success’** in finding such support.[[173]](#footnote-173) Other astrologies would likely find similar support for their disparate tenets. Psychological astrologers of different persuasions have no problem in *post hoc* fitting significant points in their own lives, or the lives of clients, to planetary movements as do believers in other occult practices.

Making astrology fit, the psychological astrology way.

The way that Tarnas describes his astrology, it is not surprising that clients of analytical astrology are satisfied, it is set up from the start to not ever be seen as wrong.

First of all, contrary to the claims of some other contemporary Western astrologers (and contrary to most Eastern astrologers), Tarnas holds that specific predictions of events are not possible, rather, planetary configurations are only ‘archetypically predictive’ ----that is, archetypes symbolize a variety of potential events that can play out in a variety of ways, not clear until afterward (Tarnas, 2006; see also Perry 2017, for all the ways psychological astrology can manifest itself and avoid refutation or examination). [[174]](#footnote-174)

The main thing to understand here is that astrology is not concretely predictive, but archetypally predictive. That is, the birth chart and transits indicate which universal principles are emphasized, in what combination, and when. They do not give information such as “You will get an offer of a job as editor-in-chief for a large publishing firm on April 26, 2004,” or “You will meet your soul mate on the beach at Waikiki at sunset on New Year's Day in 2005.” It may not be impossible for a gifted clairvoyant to do something like this, but astrology has a different character….(Tarnas, 1987/2013)

One might note the specific examples given by Tarnas misrepresent what many contemporary astrologers claim to be able to do, they would suggest their astrology provides guidelines or possible outcomes rather than such detailed specifics. Be that as it may, given the wide variety of often very different ways people supposedly behave consistently with archetypes, a fit can easily be found with Tarnas’ approach (see Kelly 1997/2005 for more on this topic). Part of the problem is failing to acknowledge the distinction between making one’s view **consistent** with the evidence and being **confirmed** by that same evidence. It is relatively easy for **any** approach to be **made to fit** the evidence, but it is something else to be confirmed by that same evidence. One way to be confirmed by evidence is to have successful risky predictions (see Law, 2011, chapter two), but this possibility is ruled out, in advance, by Tarnas.

Second, to make it even easier (!) to make some kind of a fit, the archetype could play out in even wider ways than exhibited in people’s varied behaviors----it can be expressed by **other people** around the client (native), or even in external circumstances! The net can’t get much wider than that!

some archetypal dynamics symbolized in our birth chart we recognize as true, but not so much of our own character as of the kinds of experiences we have drawn towards us, the character of events and relationships that are in our life. This is because the archetypal patterns in our birth chart describe the quality of our life experience*. One cannot know for sure whether the particular archetypal energies will be something one is conscious of in oneself, or whether they express themselves in the larger sphere of one’s life in the events, relationships, and circumstances that are to some degree* ***external*** *to one,* yet ultimately reflect one’s own consciousness. Particularly if we have not psychologically “owned” those qualities in our chart, we will tend to project them onto others--and thus draw towards us others who will fulfill those energies in our life (Tarnas, 1987/2013; also, Perry 2017) Italics ours. [[175]](#footnote-175)

Given that Tarnas’s astrological archetypes can be manifested in a potentially huge number of different ways across individuals, cultures, and time periods, along with its tie-in to a metaphysical transcendent reality make his version of astrology a noteworthy example of a system that is watertight and consists of unfalsifiable dodges [see Arp, *et al*, (2019), 403-406; Sfetcu, 2019, see also Courtland and Blocks (2020) article which describes the importance of both falsifiability and respect for disconfirming evidence which are rarely found in astrological literature].

Third, Tarnas (1987/2013) suggests that people should consider consulting astrologers with different approaches:

I recommend seeking out interpretations or readings from every good astrologer who crosses your path, for astrology is so complex, and your chart has so many facets and levels of meaning, that each astrologer can illuminate it in new ways and give you important new insights.

While this sounds open-minded, a closer look indicates he hasn’t thought it through. The expressions ‘astrology is so complex’ and ‘your chart has so many facets and levels of meaning’ seems a bulwark against the critical examination of astrology rather than a way of increasing its plausibility. The problem isn’t made easier to deal with when we consider that different worldwide astrologers symbolize the astrological relationships differently, and different astrologies consider different celestial entities in different ways (or even ignore some planets), and weight their ‘effects’ differently. If strongly divergent advice and interpretations can be given by such diverse astrologers, why consult astrologers in the first place? One would still have to pick and choose amongst the available opinions given.

Tarnas seems to embrace the notion that all astrologies are somehow tapping into the same archetypal transcendent reality and can therefore provide varying useful kinds of information to clients and astrologers themselves (analogous to the parable of the blind men and the elephant). This needs further clarification and defence. Not only do epistemically fundamental views persistently differ among astrologies, but there seem no agreed-upon procedures that disagreement on fundamental issues can be resolved (many outside the astrological community would contend the appropriate response to this kind of intractable disagreement is skepticism).[[176]](#footnote-176)

Astrologers that contend astrology is consistent with a future science, seem to hold beliefs **incompatible** with those astrologers advocating astrology as ‘beyond science’ and metaphysical (not the least on a causal vs non-causal framework). Vedic astrology emphasizes the very kind of predictions that Tarnas eschews, along with its talk of destiny. One might note that even the basic skills of astrologers perceived to be relevant would differ: a knowledge of quantitative and qualitative research methods would be relevant for those in the former group but seen as irrelevant within the latter group. Further, those advocating a divinatory approach would seem to differ in fundamental beliefs from both the aforementioned groups in essential ways. Further, not all astrologers support notions such as hypothetical planets, nor the use of tiny asteroids, and partisan differences run as deep in astrology as they do in other areas of human interest (e.g religion, metaphysics, politics, etc). At the same time, astrologers of incompatible positions seem to have no difficulty persuading their clients (‘natives’) that their own particular brand of astrology ‘works’, and that their brand of astrology is a Rosetta stone for understanding the life experiences of their clients[[177]](#footnote-177)

How to make people **believe** astrology is a science

….if you want to make a pseudoscience, it is a relatively straightforward matter to adopt the outward trappings of real science: you establish your own peer-reviewed journals[[178]](#footnote-178), you organize conferences with attendant bells and whistles, you throw in impressive-sounding jargon [[179]](#footnote-179) or, better still, some mathematical equations….[one also has to create the impression it is based on good evidence] … How do pseudo-sciences create an impression of epistemic warrant then? By doing either of two things, and often both at once: evading refutations and critical scrutiny, and inviting spurious confirmations (Boudry, 2019, 2022; also Martini & Andreoletti, 2021: Blancke & Boudry, 2022).

Phrenology is a good example here:

In the US and the UK between 1840 and 1940, generations of popular phrenologists spread their ideas by publishing journals, organizing lectures, and examining people’s heads, in public as well as in private sessions. Phrenologists believed that specific areas in the brain, called organs, were responsible for specific mental characteristics. As the brain pushed the skull outwards, they thought that the size of these areas could be examined by analysing the shape of the skull’s surface, its bumps and its indentations (Sysling, 2021; for more on phrenology, see Stea, Black, & Domenico 2023, for comments on phrenology and astrology, see Dean *et al,* 2022, pp. 350-353).

Astrology does all of these superficial trappings very well. The astrologer Mc Ritchie (2016) tells us “Astrology is a discipline with notable authorities, courses of study, and diplomas”. It has its peer-reviewed journals (e.g Correlation [[180]](#footnote-180)), well-attended national and international conferences, study groups, and is full of arcane jargon [e.g Saturn square Pluto, planets in trine, sextile (as in retrograde Mercury sextiles Venus), opposition, midpoints, nodes, quincunx, and so on], along with pretentious empty slogans such as ‘as above, so below’. McRitchie (2022, 2023) sprinkles his articles describing astrologer’s activities with symbolism juggling using grand expressions and terms such as ‘decision trees’, ‘semantic complexity blending’, ‘mental combinatorial processing’, etc to create a scientific aura. Further, while astrologers give **lip service** to being ‘open-minded’ [[181]](#footnote-181) their behavior regarding any negative studies or criticism shows the opposite [see Kelly, 1997/2005, 1998, Blancke & Boudry, 2022, and, for the views of a concerned astrologer, who became the recipient of mobbing by other astrologers for his criticism of an important astrological tenet, see Perry (2018)]. While the reliability of science itself is underpinned by a large variety of scientific products that work together across a large variety of domains from its theories and computers, drugs, and techniques for investigating the past (Cartwright*, et al*, 2023), astrology consists of a large variety of claims that are connected only by symbolism of various kinds that seem to have have no underlying unity.

It is likely that science in the future, especially alongside advances in artificial intelligence (AI), and brain scaffolding (Boudry, Vlerick, & Edis, 2020), will in some areas at least, be very different from what we can even imagine today. However, there is **no good reason** to think future science **must, or likely will**, support the views expressed by **present-day** Western astrologers (read Edis & Boudry 2014 for more on this topic).[[182]](#footnote-182) Those who think otherwise are under the spell of an astrological picture (astrologism) comparable to the attitude of scientism they often accuse critics of (see Kelly, 2000). [[183]](#footnote-183)Astrologism fits with what the philosopher Francis Bacon called “wishful thinking”, based on “fancies, opinions and the exclusion of contrary evidence” (Young, 2017).[[184]](#footnote-184) [[185]](#footnote-185) [[186]](#footnote-186)

Astrology and the occult

“Mystical explanations are thought to be deep; the truth is that they are not even shallow.”

— Friedrich Nietzsche, *The Gay Science*

An occult belief system is one which involves “matters regarded as involving the action or influence of supernatural or supernormal powers or some secret knowledge of them” (Merriam-Webster dictionary). Occult sources of information have not shown themselves to be reliable sources of information not available to other sources, such as science or everyday experience, hence their being largely ignored by the scientific community. That astrology can be classified as an occult system of belief is shown by the symbolism of Western astrology’s extraordinary claims (far beyond what any scientific discipline can claim or deliver); that Western mythology and various word associations are tied to unique powers when tethered to the planets and celestial relationships. The supernatural/paranormal elements of astrology are represented in the same celestial configurations which are somehow simultaneously able to provide **minutely detailed information** regarding eight million individual human lives (for some astrologers, this includes all aspects of our behaviors and thoughts) and animal lives across the earth based on birth-date (information unavailable even on our best scientific theories). Indeed, many of the main influencers of twentieth century astrology (Dane Rudhyar, Alan Leo) were strongly tied in their astrology with occult ideas (see also, https://spiritualmoonrise.com/the-influence-of-astrology-in-the-occult/).

Further, celestial configurations (for most astrologers) constitute a special extensive correlational, pre-established celestial harmony with terrestrial events tied to its **symbolism,** along with its purported ability to provide detailed information regarding not only physical events but even abstract socially constructed entities such as nations, corporations , wars, and ideas. If such beliefs do not qualify as being occult, the word lacks all meaning. Such talk is not representative of what we would expect from **any** human–based theory. Astrology goes so far beyond what any science can claim to deliver appeals to transcendent realities and gods are required to underlie its claims. Further, according to McRitchie (2022, p. 714), astrology pervades our entire universe, all thirty or more billion light years in every direction:

The Hermetic maxim from antiquity, “As above, so below,” presumes a sort of conservation principle between macrocosms and microcosms aligned relative to a fixed center, which in natal astrology is the microcosmic environment of each native’s birth and life. The macrocosmic environment used in astrology is the Solar System centered on the native [individual person], which, by the same principle of cosmic symmetry, is itself a microcosm of increasingly larger macrocosms that ultimately entail the whole universe with the native [person] at its center. The Solar System is the nearest shared cosmic environment or correlative world that is easily predictable, yet it is the macrocosmic environment of the whole universe that suggests astrology’s universal explanatory power (McRitchie, 2004, 2006).

In a universe consisting of galaxies and bodies of different ages and sizes with suns coming and going, and contemporary astrology contributing next to nothing astronomical and any symbolic talk being unclear to say the least in this regard, suggests talk of ‘astrology’s universal explanatory power’ to be uninformative at best.

The mystical-based claims of astrology do not play a part in contemporary academic disciplines. Other paranormal or supernatural areas (Tarot, Numerology) also claim the same extraordinary claims regarding their own associated symbolism when tied in with special cards or with numbers. The same all-encompassing information about people’s lives is made by all of astrology, Tarot, and numerology. Indeed, if one was given an outline of what either of them could provide regarding one’s life, they would be indistinguishable. For example, consider the following:

Numerology is an ancient study that draws meaning from different numbers, number combinations, letters, and symbols in your life. This art can help us tap into the underlying patterns of the universe and reveal new truths about who we are [sound familiar?]. Your Life-Path number is probably the most influential numerological aspect to be considered. This number is determined by your birth date and represents who you are at this time. It indicates specific traits that are present and will likely be active and influential throughout your lifetime. <https://www.horoscope.com/us/numerology/index>. (accessed Nov 15, 2023)

[Tarot cards can provide insights into your past, present, and future, and give you an understanding of your life, challenges, and relationships](https://www.bing.com/ck/a?!&&p=67abfdbd34bee79dJmltdHM9MTcwMDAwNjQwMCZpZ3VpZD0wNzBjNTM5YS02YTI1LTZkM2UtMDJiZi00MDBkNmI5NjZjNmYmaW5zaWQ9NTc2NQ&ptn=3&ver=2&hsh=3&fclid=070c539a-6a25-6d3e-02bf-400d6b966c6f&psq=What+can+Tarot+tell+us&u=a1aHR0cHM6Ly90YXJvdGluc3RpdHV0ZS5jb20vd2hhdC10YXJvdC1jYXJkLXJlYWRpbmctdGVsbC15b3Uv&ntb=1). [**They can reveal your ambitions, desires, goals, ideals, accomplishments, and even your true path in life**](https://www.bing.com/ck/a?!&&p=564f59456f3da674JmltdHM9MTcwMDAwNjQwMCZpZ3VpZD0wNzBjNTM5YS02YTI1LTZkM2UtMDJiZi00MDBkNmI5NjZjNmYmaW5zaWQ9NTc2OA&ptn=3&ver=2&hsh=3&fclid=070c539a-6a25-6d3e-02bf-400d6b966c6f&psq=What+can+Tarot+tell+us&u=a1aHR0cHM6Ly93d3cudGFuYWhveS5jb20vYS10YXJvdC1jYXJkLXJlYWRpbmctY2FuLXNob3cteW91LXRoZXNlLTUtbWluZC1ibG93aW5nLXRoaW5ncy8&ntb=1)**.**

[https://tarotinstitute.com/what-tarot-card-reading-tell-you/ (accessed Nov 15, 2023)]( https://tarotinstitute.com/what-tarot-card-reading-tell-you/ (accessed Nov 15, 2023) )

Compare this to what astrologers say in their books and internet sites (pp. 21-22).[[187]](#footnote-187) This tie-in among astrology, Tarot and Numerology has been recognized by many astrologers and is often featured in their internet sites and books (search ‘Astrology and the Tarot’ and ‘Astrology and numerology’ in your search engine). Indeed, some astrologers advocate a combined Tarot-astrology:

**Tarot astrology** is a fascinating blend of two ancient divination arts that can provide deep insights into our lives and the cosmos. Tarot, a deck of cards with symbolic imagery, and astrology, the study of the celestial bodies' influence on human behavior, come together to create a powerful tool for self-reflection and guidance (shunspirit.com/article/what-is-a-Tarot-astrology. )

Given that all main (largely) agreed upon parts of contemporary Western astrology (symbolism regarding planets, signs, houses, Ascendant, transits, rulerships, etc) are based on the same or overlapping **symbolic** processes (that is, connection with mythologies, and a variety of word and image associations), seriously questioning one part of astrology threatens to bring the whole structure into question. No wonder it is difficult to throw anything out in astrology, and why astrologers are so defensive and dismissive about any criticism (and the same holds for Tarot and numerology advocates). If Leos are not passionate and generous more than those with other birth signs, then by parity, the rest of the zodiac signs are in question since all signs are based on the same underlying basis of symbolism (mythological associations). This also means any well-designed study of astrology that does not support all expected popular astrological tenets (zodiac signs, houses, transits, conjunctions, etc) is as bad news as one that is negative (hence, the astrological rush to make sure the results of any study are consistent with astrology either by re-analysis,[[188]](#footnote-188) re-interpretation, or finding some missing asteroid, aspect, or technique that explains the divergence). **After all, whether astrologers are talking about causal or non-causal (correlational) relationships with terrestrial happenings, there is supposedly no known way to avoid the symbolic astrological relationships, according to the majority of astrologers.**[[189]](#footnote-189)The negative finding of any particular, expected symbolic connection in a study with mixed results (with a sufficiently large sample, although would it ever be possible to generate a sample size sufficient to cover all popular tenets?) again creates difficulties and points at problems---why was this particular **symbolic** connection not supported while others are? [[190]](#footnote-190)

McRitchie’s scientific approach is contrary to how most astrologers view astrology.[[191]](#footnote-191) The majority of astrologers have no, or very little interest in testing their claims by scientific research [Campion (2006, p. 6) on surveys of astrologers finds only about a quarter of UK astrologers and 1/3 of American astrologers contended astrology was a science and quantitative methods were considered appropriate in astrological investigations].

Of course, at their origins, many scientific disciplines based their claims on occult and various magical-influenced symbolisms, but present-day academic disciplines have gone **far beyond those early symbolisms**. In contrast, the origin of many Western astrological symbolic claims reside in Greek mythology (check astrology books), **and has never gone beyond it**. Boudry, Vlerick & Edis, 2022 describe the role the role of metaphors and symbolism in present-day science, for example, but it has no counterpart in astrology.

However, testable claims can be derived from astrological (and Tarot and numerological) symbolic claims as McRitchie says, “Current disciplines have used [their symbolism] to generate hypotheses, which are then subject to testing” (2023b, p 577). McRitchie views astrology and science on a par when it comes to testing its claims. For example, the claim that an asteroid in your birth chart that has your name has implications for your life can result in testable implications. McRitchie (2022, 2023b) goes beyond this alone and tells us there are now “formidable, experimentally replicated results” supportive of Western astrology. The history of such sensational, paranormal claims is a sorry one. One might also note the typical absence of such strong talk in scientific disciplines. The only area where one might come across such an expression would be quantum mechanics where a **very large number** of successful predictions have been made across the world by many *independent scholars at multiple sites.* At the same time, there are **publically acknowledged** issues unresolved in quantum mechanics such as how gravity fits in quantum field theory (Myrvoid, 2023). In addition, problems and claims in quantum mechanics are **continually re-examined and debated**, something we rarely find in astrology. Fields in the social sciences are likewise subject to continuous debate along with an acknowledgement of unresolved issues and philosophical concerns (for example, check out Philosophy of the Social Sciences and Philosophical Psychology). McRitchie nowhere mentions any qualms about any of the symbolism of Western astrology and seems to accept all of it, most of it subject to no conducted studies.

McRitchie is correct to say

“ the meaningful connections and truth values at the basis of astrology will have important consequences for science and philosophy” (2023 b, p 578).

However, we have heard this kind of talk all before, many times. See Dean, *et al*, 2022, pp. 72-74, 889-890 (and the same extravagant consequences go for Tarot and numerology and other supernatural claimants as well.) This would also be true **if** **any** of the diverse worldwide astrologies could be shown to deliver consistent scientific results, and such exorbitant talk provides a good reason for the scientific community to be vigilant and require straightforwardly replicable results along with a careful in-depth examination of its assumptions.

Why **privilege** Western astrology? Given that McRitchie’s Western astrology is only one of several competing astrologies that **all** make their own immoderate claims about how insightful they are regarding terrestrial events, the most promising approach would be to tests worldwide competing claims to determine which best survive such comparisons. The isolated testing of only Western astrology tenets against the null hypothesis is not useful in such a situation (after all, if Western astrology could survive severe testing, what would this say about competing astrological frameworks?) (what Lougheed 2022 says about the benefits of diversifying religion apply equally to astrology). We don’t have European biology and physics, and a different Eastern set of theories in those disciplines, why should it be different for astrology? It is important to add that talk of ‘different astrological traditions are all pointing to the same moon’, or ‘they are all valid in their own way’ do more to obfuscate than clarify. The consideration of alternative hypotheses is essential in all scientific research and in the context of research into astrology is constituted by other competing, developed astrologies around the world: Vedic, Chinese and Jewish astrologies (and perhaps comparative studies with the Tarot and numerology).

It would therefore be more informative and useful in practice if studies mainly focussed on **directly comparing** alternative worldwide astrologies such as Vedic, Chinese and Jewish, and perhaps updating or revising, or abandoning any traditional Western astrological factors that may be found to be more informative using these contrary approaches. As astrologers from very different traditions all over the world claim personal experiences of outstanding insight into their own lives and the lives of others, such claims alone do not provide any rationale for thinking their own tradition provides any insight beyond any other tradition or that they all reveals any important aspects of our lives or the changes in socially constructed institutions across the world. In the sciences, studies are conducted to rule out alternative explanations, which, in astrology, are largely constituted by other astrological traditions. While science is a world-wide phenomenon with global contributors (Poskett, 2022, Smith, 2022) astrology is still culturally and regionally rooted, hence statements based on research, and Western practice are not necessarily universally valid. Other disciplines such as philosophy (Van Norden, 2017, Adamson, 2018, Emmanuel 2021, Baggini, 2023) and the social sciences (Machery, Knobe, & Stich 2023., Henrich, Blasi, Curtin, Davis, Hong, Kelly, & Kroupin, 2023) are becoming increasingly aware that we live in a **global world**, and that ideas from other countries can provide new perspectives, and may provide views underdeveloped in Western traditions, or perhaps introduce better factors for use in practice. There are important differences among the astrologies across the world (see Dean, et al, 2022, pp. 61-63), and therefore positive studies on any one of those astrologies would seem to be problematic for the other ones (for example, even at a basic level, the zodiacs of Western and Vedic astrologies are different, as are the planets and chart factors used for interpretation.[[192]](#footnote-192). In this regard, Munevar 2023, p. 6 reminds us of Feyerabend’s important insight “that often we cannot even uncover significant evidence against our favored theories unless we seriously consider alternative ones that make sense of such evidence, as was the case with the Copernican theory and the composite motion of bodies”.

If such a scientific orientation is adopted, there are many useful studies that could be conducted testing contrary astrological claims against each other. This suggestion would provide more valuable information than testing each insular astrology in isolation, as is now largely done. This would also involve a worldwide collaboration of astrologers with the injection of different ideas for debate, from which all astrologers could learn. There are some signs that such a productive approach could happen. For example, an eastern astrologer critically contrasts Western astrology with Hindu astrology at <https://www.swatijrjyotish.com/2016-calendars--articles/why-western-astrology-is-inaccurate>, and also https://www.lateet.com/vedic-vs-Western-astrology-which-is-more-accutate/. And Vedic astrology is critically considered in Koch (2012/3). Perry’s (2018) critical examination of the divide between Western and Vedic zodiacs is also worthwhile as the start of a productive debate between astrological traditions. McRitchie (2022, p. 709) mentions

Having some reliably significant although modest results in multifactor tests makes it possible to intervene in the same tests by substituting various claimed astrological theories, techniques, and settings to determine whether they fare better or worse against the best evidence so far. A descriptive summary of such substitution tests done by various researchers (Tarvainen, 2021a) includes comparisons of tropical versus sidereal zodiacs (where the tropical zodiac, which is based on the solstices and equinoxes is compared to the Lahiri ayanamsha sidereal zodiac that is traditionally used in Indian/Jyotisha astrology).

Such tests have not supported the Vedic sidereal zodiacs examined but are to be encouraged. Feedback from Vedic astrologers would be relevant. Given that the number of practising Vedic astrologers outnumber those practising Western astrology and there are more believers in Vedic astrology than Western astrology, one might expect such studies to be a priority.

Astrologer’s responses to critics

How do astrologers respond to criticism in their books and on-line sites? Some astrologers, such as Buck (2018, p. 221) just contend (without accompanying argument) that astrology operates from a metaphysical, transcendent realm: “how astrology works and why it is effective is not known. Ungoverned by material laws, astrology is not scientifically explainable or provable….”.[[193]](#footnote-193) Others adopt astrology as a provider of spiritual insight or a proto-science.

Recently, McRitchie (2022, pp. 708, 711) describes astrological effects as “emergent effects”, where emergent properties and effects are those what complex systems can possess, while absent in individual parts. Emergent effects emerge from individual parts. Indeed, “Astrology presumes emergent effects from the ...combinations of [symbolisms associated with celestial configurations] (McRitchie, 2022, p. 707). The emergent explanation seems an alternative to the popular view that astrological symbolic correlations with planetary configurations were set up by an astral intelligence.

McRitchie doubts the physical causal model of astrology and accepts that the ‘as above, so below’ is correlational: “astrology research does not depend on traditionally understood physical causes and mechanisms for its effects” (McRitchie, 2023, p 576) and these “effects can[not] be empirically perceived but are rather inferred from the models and the evidence”(McRitchie, 2022, p.713). However, he does not see this as an impediment to astrology involving emergent effects: “the rationale [for considering astrological claims as emergent] is not different [from those in other fields]. Emergent effects models, such as the decision trees currently used in whole-chart modeling, are directly applicable to astrology as they simulate the mental combinatorial processing that astrologers use in their consultations” (576). Alas, it is very different from emergent effects in other fields. Think about what we are being asked to believe here: somehow the **symbolism** attached to the planets (existing bodies, including hypothetical planets , comets, black holes and exo-planets) and their interactions have become somehow **correlationally** associated with the detailed lives of people on earth, along with socially constructed institutions (such as nations and ideas) and this is all largely associated with a particular moment of time (the birth date of people or socially constructed institutions). Why would emergent properties of any kind be tied in any way to our human or socially-constructed institutions birth-date? Hence, asteroid Ceres conjunct Pluto in a birth chart is associated in human lives with the emergent effect of “power struggles, control issues, and profound transformations in relationships, particularly with maternal figures” *sasstrology.com/ceres-conjunct-Pluto-natal*. Accessed Oct 31, 2023. And Saturn’s largest moon Titan, named after the early pre-Olympian mythological gods of Greece, before they were forced to live underground, in astrology, therefore represents the following emergent effects:

Titan accentuates the past, and whatever environment the past has produced that we're forced to live and work within during the present. Therefore, Titan can represent the national, racial, and economic situations and issues we were born among, whether privileged or disadvantaged. Titan can also represent "karma" and its resolution, and even physical matter and its inherent qualities. The past can hold us back, or it can be a source of advice and assets, and act as "shoulders for us to stand upon", but either way it's present and it greatly conditions our existence <https://www.astrolog/astrolog/astmoon.htm>, accessed Nov 9/2023.

Further much of this mystical emergence has come about only recently (Pluto was only discovered in 1930) with newly found asteroids and their alleged relationships with our lives. This astrological emergence is also not related to physical causal qualities of the celestial bodies, such as their size, and in many cases this emergence arises only after the celestial body in **named** and some only play a role in those people who share their name with the asteroid!

Sui generis emergent effects are commonly acknowledged in **physical systems**, such as the properties of water, which are not found in its component parts, hydrogen and oxygen. They are also found in biological systems where cells result in tissues and tissues in organs, and so on. In such cases, the foundations are physical. In the case of astrological (symbolic) properties, such a claim would assume a radical emergence from the **symbolic names** of the planets and other bodies. There is no precedent for emergence about detailed worldly events coming from only **symbolic** expressions and correlated descriptions, which this view of astrology is asking us to believe.

It would be also be difficult to describe all the contrary astrological claims and supposed redundancies across the world as **all emerging**. What would be the entities that emerge? The emerged symbolic properties would also have to be somehow **continually connected** over time to these planetary cycles.[[194]](#footnote-194) This would require a compelling theoretical rationale of emergence quite different from those that are found in contemporary science and philosophy (as found in Lobo, 2008, and O’Connor, 2021). Until this is provided, it is unclear what sense can even be given to talk of “emergent (**symbolic**) astrological effects”. This claim seems entirely *ad hoc*. Indeed, when we note astrologers describing interactions between two or more symbolic astrological objects (planets, tiny asteroids, hypothetical planets, etc) the outcomes of the symbolic blendings contain nothing further than what is found in the original astrological symbolisms. There is no new property emerging as is found when hydrogen and oxygen combine to form water. Finally, we might note that similar symbolisms are used with Tarot readers, many kinds of graphology, oracle readings along with practices such as entrail readings. They would also have to be regarded as emergent properties as well since they are tied in with the same types of symbolism as astrology.

We might point out that there is an ‘elephant’ in the room’ that Western astrologers adopting **scientific methodology** need to confront (divinatory astrology and non-scientific approaches to astrology would not be subject to this issue). *The ‘elephant’ is that doing science is* ***a risky game*** *for those strongly committed to* ***any*** *particular theory or set of theories*.

As Gillen (2023) points out,

The march of progress in science belies an awkward feature of scientific development. When combing through the history of science, we find that it is scattered with previous highly successful, yet ultimately disproven, scientific theories. For example, Bohr’s atomic model, with the electron physically circling the nucleus in fixed orbitals, was able to explain and even predict the emission spectrum of hydrogen to astonishing accuracy. Such was the success of Bohr’s model that Einstein himself proclaimed: “this is a tremendous result. The theory of Bohr must then be right”. Fast forward a hundred years to our fuzzy quantum atomic model and… sorry Einstein, you were wrong!

While astrology has changed over the centuries, it is not because of the claims being defeated by new empirical studies. There is no guarantee astrology would remain seriously unscathed, and much to the contrary to think that using scientific approaches to seriously examine astrological claims would, even over the short term, have consequences that may not be palatable to many astrologers. Why would we expect the present-day beliefs of Western astrologers regarding planets, signs, houses and aspects to remain as they are, and not either overthrown or in need of serious revision, when the history of science itself is a history of the graveyards of many seriously held theories through both conceptual and scientific revolutions? [[195]](#footnote-195)

How do most astrologers respond to scientific concerns?

What Mukerji and Ernst (2022) say of homeopathy also applies to astrology:

when homoeopaths are confronted with the ...central problems of their doctrine, namely, its scientific implausibility and its lack of sufficient acceptable evidence, they produce bullshit in response. They make bizarre ontological claims or resort to quantum woo woo. They also illegitimately shift the burden of proof, mischaracterise, cherry-pick, and misreport the evidence, reject important parts of the scientific method, and seek to immunise their doctrine against recalcitrant evidence.

While some astrologers contend that astrology is a science or, at least, that many of its claims can be scientifically investigated (e.g McRitchie, 2022, 2023), and while they seemingly agree that replication is important (**doesn’t everybody**, whatever their beliefs, agree that replication is important?), the actual behavior of most astrologers has not been consistent with a scientific **attitude**. None of the central claims of Western astrology has ever been seriously questioned on scientific grounds in astrological communities (check The Mountain Astrologer and the Astrological Journal) and no present-day claims have been changed in regard to any scientific research or criticism. Such criticism would indeed be irrelevant if astrology was not viewed scientifically, but is foreign to what most scientists would consider a **scientific attitude**. Overall, at the present time, most astrologers who claim scientific support shield their own particular quasi-scientific astrological beliefs or experiences from any skeptical studies or arguments (see Van Leeuwen, 2017 on this topic, his remarks are directed at religious belief, but apply as well to astrology, and Boudry, 2019 for how these immunization strategies are used by advocates of suspect beliefs). [[196]](#footnote-196) One might search in vain the writings of contemporary advocates of empirical research into astrology for any doubts about the tenets of Western astrology.

However, some common themes are discernible in astrologers responses to scientific critics: one is a tie-in with overly-simplistic notions of post-modernism, post-positivism, and pluralism with slogans such as ‘science is just another belief system/paradigm, like astrology’ or they adopt some form of relativism (see Stump 2022 on the importance of distinguishing pluralism from relativism) [[197]](#footnote-197) and then, once again, **continue to practice their particular brand of astrology without any reservations** [[198]](#footnote-198) [[199]](#footnote-199) . It is interesting to note that advocates of the ‘astrology is a post-modernist or post-positivist view’ seem to be under the self-indulgent impression that saying this alone imbues the status quo of astrology with some kind of credibility and makes it impervious to criticism (Allen, 2021). A perusal of astrology sites advocating post-modernism indicates their belief that their own brand of astrology will be supported in its contemporary forms by adopting this approach (check this out by typing into your internet browser ‘astrology and postmodernism’). Talk of signs, transits, Ascendants, and symbolisms of all types associated with the planets will all supposedly remain intact under the post-modern umbrella for most astrologers. Hence, for many astrologers, appeals to postmodernism function as a marketing tool under which talk of ‘pluralism’ and ‘astrology on its own terms’ can be uncritically assumed under the impression that postmodernism allows ‘anything goes’. [[200]](#footnote-200)

Post-modern responses hardly justify the credibility of astrology since people often consult astrologers because they believe that it indicates some grand design that will somehow provide relevant **knowledge unavailable from other sources (such as intimate aspects of our lives---our love lives and career trajectories--- that are foreshadowed for the near future in the stars)**, they don’t just regard astrology as another belief-system.[[201]](#footnote-201) And most astrologers themselves don’t act as if astrology is just another belief system (consult any astrology book in your local bookstore, or any astrology internet site). **While postmodernism is associated with a scepticism towards all ideas, this self-scepticism is absent in astrologers advocating a postmodern approach.** Further, astrology would be a prime example of a **meta-narrative**—or what Derrida calls a ‘totalizing gesture’---a highly abstract idea that supposedly provides a comprehensive overall reflection or explanation of human history and behavior. Any such view is ironical, since it would be opposed by post-modernism! *(*Lyotard*,* 1979*).*  A typical astrology site on the internet or at your local bookstore or library will say something like “The most important thing about astrology is that it affects all the aspects of our life…” (<http://horoscobe.com/impact-of-astrology-on-our-lives>. Underlining ours. Accessed Nov 29/2021).

Astrologers are considered to be fallible, but astrology itself is considered infallible by most in the astrological community [check your local astrology books or internet sites, see also: Serge Bret-Morel "Facing forecast failure" (thus cognitive dissonance) <https://youtube/6pHU9GKFYyk>. Astrologers always find excuses ("Mea Culpa") and astrology is never seriously questioned.][[202]](#footnote-202) This is consistent with the observation that if any study is produced that supports a **specific** astrological claim, the study is typically described, by astrologers, in **general** terms as ‘supportive of astrology’ rather than referencing the specific claim.[[203]](#footnote-203) Another version of this ploy operates by advocates of astrology revising or increasing the complex appearance, or increasing the difficulty of testing astrological claims (to avoid refutation) while **simultaneously proclaiming** that astrology is obvious and based on centuries of observation and critical discussion, or a gift from a god/gods.[[204]](#footnote-204) For example, on one well-known astrology site we read,

You can experience, observe and know how [astrology] applies first hand. …[However] There are sound reasons why it has proved so difficult to test the **real practice** of astrology under scientific conditions [[205]](#footnote-205)….Problems testing astrological practice under strict scientific methods [include]: Lack of fresh accurate objective data. Isolating the huge number of variables is difficult [and]… Unique conditions are impossible to replicate, etc (http://www.astrology.co.uk/tests/basisofastrology.htm#flawedtests; accessed May 14, 2021) [[206]](#footnote-206)

Summary: the entire field of present-day astrology is a quagmire

Western astrologers owe us some good reasons why in the 21st century we should believe that the positions of distant celestial bodies represent signs that needs to be decoded, **and, in the Western world,** this coding is largely based on ancient names taken from **European** mythology or other symbolic associations that allegedly have the power to describe our lives intimately (along with abstract political and social entities), whether we are aware of it or not. For astrologers, **from the perspective of the earth**, the celestial bodies seem to have particular symbolic relationships with each other and these relationships reflect meaning for our lives which is determined not by the physical aspects of the celestial bodies or physics but by appeals to the individual symbolic meanings of the bodies blended together in various ways. Astrology itself never seems to get beyond the symbolic meanings of the celestial bodies. Since there is not the slighted reason to believe the particles and forces of science could possibly explain the **mixed bag** of the supposedly lifelong related **symbolisms** assigned to the celestial bodies, many astrologers have preferred to advocate a pre-established harmony (perhaps setup somehow by a non-embodied divine intelligence) between the ‘above and below’. Indeed, we are in the dark how all the disparate types of symbolism come together to form the greater whole (a whole chart)? Also, what is it **about us** that allegedly allows us to be related to (usually unobservable) celestial configurations going on in the (often distant) solar system, and perhaps beyond? What about our human minds would allow us to be supposedly influenced by such symbolism related to myths and other associations continuously throughout our lives, often unknowably, and somehow also follow the motions of a huge number of celestial events in all their manifestations? Astrologers do not plausibly answer these physical questions and, too often, do not even attempt to answer them.[[207]](#footnote-207) Pre-established harmony has all the *ad-hoc* formal posture which evacuates the question while failing, for example, to explain how natural disasters, illnesses, or strokes of bad luck can belong to this harmony"?

And what is so special about these chunks of rock and gases being **in the sky**, and the importance of their heterogeneous appearances and relationships taken from an earthly perspective? [[208]](#footnote-208) [[209]](#footnote-209) Given what we know, **in the 21st century**, about celestial objects, physics, our biology, our psychology (and our tendency toward bias, and irrationality in reasoning), etc nothing would prepare us to believe the extraordinary claims of astrologers (and Tarot readers and numerologists). Given this background knowledge, it would be **more likely** that any evidence brought forward by astrologers is either fabricated (common enough in mainline science) or misinterpreted or will be subsequently found to be unreplicable than any genuine discovery has been made. What is more likely?

Wrong predictions are seemingly not a problem to astrologers since specific predictions of events are considered by most Western astrologers as not possible, after all, planetary configurations symbolize relationships that can show themselves in a variety of ways, not typically clear until afterward. Those astrologers who embrace astrological predictions are therefore not fazed by failed predictions and carry on as before. No wonder beginning astrology students think astrology has opened up a new, all encompassing way of looking at the world, and why practising astrologers are so convinced of the unassailability of their beliefs, ( however much their own system differs from that of other astrologers who feel the same way about their own astrological approach), and however much astrology is criticised by nefarious outsiders. The contemporary practice of **exploring** the birth chart together with the client/native further reduces the likelihood of the astrologer being culpable for saying something wrong (Dean, Saklofske, & Kelly, 2021, p. 31) and appeals to free will allows the client (native) to act widely within the astrological symbolism further detaches any close ties with reality. Understandably this all makes astrologers and their clients believe their view can cover everything that happens. The psychological effect of claiming to possess such a watertight system has:

the effect of an intellectual conversion or revelation, opening your eyes to a new truth hidden from those not yet initiated. Once your eyes were thus opened you saw confirming instances everywhere: the world was full of verifications of the theory. Whatever happened always confirmed it. Thus its truth appeared manifest; and unbelievers were clearly people who did not want to see the manifest truth; who refused to see it,. ..(Popper, cited by Magee, 1975, p. 45; see also Kelly, 1998).

A check of books on astrology or internet sites will quickly show this is exactly how believers view astrology. As Williams (2023) points out, such poorly held beliefs “typically result ...from a response to incentives in which the personal costs of error are low and the practical benefits of bias are high”. Astrology is precisely in such a situation. Astrological theory and practice is problematic to say the least, consider the following: it is conducted in the absence of any plausible mechanisms for astrological claims; the belief that the motions of the celestial bodies are set-up in such a way that they deliver (once one has the ‘right interpretations’) information regarding the myriad events on earth (including those of socially-constructed entities such as cities, states, countries and corporations which also have horoscopes (see https://astrologynewsservice.com/articles/rhode-islands-horoscope/) is problematic; a lack of any credible overall theory that ties its disparate symbolic elements together (word associations and different mythologies); the focus on positive studies (often poorly conducted, see Dean *et al*, 2022 and Smith, 2023) and the resultant explaining-away or ignoring of negative studies (negative studies are ignored, or their data reanalyzed until positive results are obtained); a lack of interest and imagination considering possible non-astrological alternative explanations; a lack of fit with contemporary science; the present-day existence of well-developed competing non-astrological theories (in the social sciences, genetics, neurology, etc) that cover much of the same ground as astrology and are advancing at an accelerating rate while astrology is stuck with outdated approaches and claims; appeals to deeply problematic metaphysical claims (‘as above so below’, ‘quality of the moment’, etc); largely tiny effect sizes in positive one-off studies (despite spectacular claims in the astrological literature); its endlessly unresolved philosophical issues and problems (requiring appeals to transcendent realities and intelligent designers); its reliance on sky myths and magic for connections with terrestrial happenings; including a serious lack of a large number of independent follow-ups and replications by independent scholars at diverse sites, along with, in the astrological community, largely a lack of awareness of the present-day background of the replication crisis in social science and medicine and its relevance for **their research** (Piper, 2020, Albert 2021, Strickland & Cruz, 2021; Van Noorden, 2023), and the emergence of ‘debunking arguments’ attacking the epistemic status of astrological beliefs by providing a persuasive account of factors that have led to the formation or maintenance of astrological beliefs.

Astrological weightings are another concern. In natal charts, the celestial entities are not all given equal weights. So how are weightings provided? McRitchie (2022, pp. 708-9) gives examples such as

“the Sun and Moon are given more weight and the outer planets are given less weight. Planets with astrological properties [taken largely from mythology] that suggest dominance in an effect [would be given more weight]”.

What rationale could be given to such suggestions? In the case of the Sun and Moon would it be because they are physically closer to earth than the outer planets? Because the outer planets were discovered later? Or because the Sun and Moon look bigger to us on earth than the outer planets? In the case of ‘suggested property dominance’, this would depend on the mythology or other associations with the celestial labels, which are based on tradition (for problems with appeals to tradition see Michaud, 2019).[[210]](#footnote-210)

Further, astrology (when considered a kind of science or scientifically testable ) exists completely independently of the fields of knowledge in the social, physical, and biological sciences. Discoveries in areas such as epigenetics, plasticity, the microbiome, along with changes in theories in astronomy and physics have no impact on astrology, except where it looks like it might somehow explain astrology (but the specifics are always lacking). In contrast, consider our increasing knowledge of the brain and mind, which involves the collaboration of all of psychology, neurology, genetics, evolutionary biology, computer science and findings in the natural sciences (see Churchland, 2023 for more on this point). A**strology itself** never seems to change in response to such empirical discoveries, astrologers just, at most, add new symbolism or techniques to accommodate some new astronomical discoveries. Criticism of astrology is generally mentioned by astrologers only to deny it is relevant to their own ‘true astrology’ (check out astrology books and internet sites). Indeed, negative studies are of no concern, since astrologer Gillett points out, all disciplines have lots of negative results:

In every academic discipline, failed research findings are much more prevalent than successful ones. Selecting notable failures could easily seem to show that the very study of physics is pointless, even the possibility of NASA travelling to the Moon impossible (2023, p.29).

So, even if scientific studies on astrology tend to be negative, who cares? The astrologer can go on unfazed.

While there is agreement across the world on examples of what constitute **scientific knowledge** (e.g genes, relativity, plate tectonics, quantum mechanics, etc), there is little or no worldwide astrological convergence on which symbolic claims or entities best explain terrestrial observations (hence the perennial gap between Western and Eastern astrologies). For most Western astrologers, their symbolism regarding the sun, moon, and Ascendant float untethered above the ongoing scientific research in a variety of fields, and to which contemporary Western astrology has made no contribution (how could it be otherwise when the physical characteristics of the very celestial bodies that play a central role in science re dismissed as irrelevant.[[211]](#footnote-211) Keeping in mind **tiny asteroids** ---*especially when they share your name*---can purportedly play a central role in one’s life).[[212]](#footnote-212)

The field of astrology has also failed to converge towards any **stable empirically confirmed belief networks** over time, even in the West. In contrast, consider contemporary science:

Now, it is true that we may not have a way of knowing whether Einstein’s general theory of relativity will be overturned when or if physicists discover a way of reconciling it with quantum mechanics. But short of discovering that we’re dreaming or living in the Matrix, we can be sure that, in fact, stars generate energy by turning hydrogen into helium, and that the Earth is billions, rather than thousands, of years old. We’re not going to discover that in fact there is no atomic nucleus with protons and neutrons. No doubt we’ll discover new things about them, and we might get a whole new theory of particle physics. But these new theoretical developments aren’t going to undermine the claim that we’re made up of cells, and that DNA exists inside of cells, short of discovering that it is all a dream (Stephens, 2022, p. 142).

Further, while science is a **world-wide enterprise** with contributions made by individuals across the world, astrology consists of largely independent groups of echo-chambers such as Western astrology, Vedic astrology, Chinese astrology, and so on. [[213]](#footnote-213) [[214]](#footnote-214)

[[215]](#footnote-215) [[216]](#footnote-216)

We might also note that there is an increasing literature describing likely mechanisms that underlie **belief** in astrology, along with other mis-beliefs (Blanche, *et al*, 2022). For example, Mermelstein and German (2021; also Dean *et al*, 2022, pp. 867-888) suggest that counterintuitive beliefs (like astrology) may result from a variety of ways in which the human mind exploits our communicative mechanisms such as perceiving patterns in noise (see Love, 2023 for more on apophenia, also Myers, 2023), our teleological tendencies (intuiting purpose behind complicated natural phenomena), stereotyping others, adopting the appearance of science, and reducing stress in conditions of uncertainty.[[217]](#footnote-217) Cull and Mehdi (2023) provide mechanisms from a more sociological perspective to account for the social identities that believers in astrology adopt. They contend,

The stars don’t play much of a role in our explanation of the [astrological predictions about the behavior of people] after all. Rather, the predictions **make themselves true** via a social ontological mechanism in that we claim that astrology not merely reproduces and maintains old social categories, but also produces and regulates new social categories and ways of being a member of those categories. (p. 9)

Cull and Mehdi also tie astrology in with ideological and economic concerns. They contend that astrology serves to reinforce the worldview of **Capitalist ideology** by packaging it for consumption. Indeed “[astrology] is the latest form of social control and surveillance [by] encouraging an orderly workforce, rather than an unruly one” (p. 13)

If future research approaches, utilizing participants from the variety of different astrologies across the world, continue to uncover mechanisms underlying belief in astrology and how their belief continues despite its surface implausibility, then there will be a far more plausible account of the mechanisms underlying belief in astrology than what astrologers provide and the stronger will be the claim that the mechanisms giving rise to belief advocated by astrologers are unreliable (for more on artefacts and astrology see Dean, *et al*, 2022, pp. 867-888).

A more productive approach for academics interested in astrology may be to follow the example of the cognitive science of religion (Barrett & Burdett, 2011; Bendixen, *et al*, (forthcoming)., van Eyghen, Peels, & van den Brink, 2018; Boudry, Blancke, & Pigliucci, 2015; Irwin, Dagnall, & Drinkwater, 2022; Labrot, Johnson, & Maxime, 2023) and anthropologically consider how beliefs in astrology arise and are maintained in the population, whether people consider it a science, a religion or art, and why, along with why so many different (often contrary) forms and techniques are encompassed. A cognitive science of astrology (in conjunction with the empirical evidence and arguments found in Dean, Mather, Nias & Smit, 2022) would show that supposed facts used in support of astrology can be better explained by non-astrological factors, on both individual bases of belief and cultural ones. Bendixen (forthcoming) asked: “How does the content of beliefs about and appeals to gods vary across groups, and what accounts for this variation?” A large variety of cognitive dispositions are likely involved in astrological belief, and because these dispositions are underdetermined, astrological diversity becomes unavoidable. The role of normative expectations in securing cooperative opportunities in people’s social environments (Blancke, 2023) and the role of appealing intuitions in forming problematic beliefs (Blancke, 2015) need exploration in the context of astrology. Similar questions can be raised about the mythology of the gods underlying the different astrologies across the world (Jackson, *et al*, 2021). Another productive avenue would sociologically examine belief in the different forms of astrology across the world as it relates to belief in animism, the sciences, religion, and sympathetic magic (e.g Obreja, 2021, [De Smedt](https://philarchive.org/s/Johan%20De%20Smedt), & [De Cruz](https://philarchive.org/s/Helen%20De%20Cruz), 2022, Hong, forthcoming).

Astrologers of all persuasions might also consider adopting a ‘fictionist’ approach. Crane (2017; also Goff, 2019) suggests that religion should be considered in terms of its encapsulating our often unarticulated sense of being part of something larger than ourselves, along with the importance of being a member of a specific social group and participating in its practices (also, Eshelman, 2005, Van Leeuwen, 2016, Palmqvist, 2023). Astrologers might view their beliefs in the same way.

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1. We would like to thank philosopher Karl Pfeifer and **ex**-astrologers Serge Bret-Morel, Arthur Mather and Geoffrey Dean for their comments on this manuscript. Special thanks go to Serge Bret-Morel for his careful readings and suggestions on earlier drafts. He was once a fervent astrologer and active member on the board of the Federation of Francophone Astrologers. Dean was a full time astrologer, both practising and teaching astrology, and was the founding president of the Federation of Australian Astrologers in Western Australia. Mather was Research Coordinator of the UK’s Astrology Association from 1971-1978 and an editor of their 1970’s research journal. Dean and Mather working under the encouragement of the UK’s Astrological Association published the world’s first extensive review of studies of astrology in 1977, Recent Advances in Natal Astrology: A Critical Review 1900-1976. [↑](#footnote-ref-1)
2. The astrologies of other countries (non-Western) are not considered in any depth in this paper. These other astrologies evolved in different cultures with different metaphysical backgrounds of deities, and varying socio-ecological contexts (see Bendixen, **et al,** 2021). But positive studies supporting divergent astrologies will create problems for Western astrology see Dean 2022, pp. 61-64., 747-8, for a start). [↑](#footnote-ref-2)
3. The fact that astrologers don’t discuss such topics collectively and critically makes the methodological question all the more important in considering the validity of astrology. Because there are many other examples such as : the Sun is masculine in French but feminine in German (same problem for the Moon in the other direction) and the fact that astrologers do not discuss the underlying reasons for these divergences shows how poor their methodology is. The astrological system is not a tool for exploring the world and producing knowledge that should be corrected to improve the results, but only an inspirational support for the imagination and common sense advice [↑](#footnote-ref-3)
4. A useful reference for early Western astrology can be found in Lawrence (undated). Lawrence describes some of the early criticisms and defenses of astrology, including the criticisms of Sextus Empiricus, whose views are still worth reading.. See B. Koene (1996/7) Sextus Empiricus: an ancient philosopher’s criticism of astrology. Correlation, 15/2, 26-34. Available at <https://www.astrology-and-science.com/> . The tie-in of astrology with magic in the Renaissance era can be found in Agrippa’s influential occult philosophy described in Grafton (2023). [↑](#footnote-ref-4)
5. Astrologers typically respond to criticism of the great variety of different astrologies by responding that all fields have a variety of different theories/approaches. For a typical example, astrologer Marks says, “there are disagreements in every field” ([Astrology for Skeptics (bobmarksastrologer.com)](https://www.bobmarksastrologer.com/skeptics.htm).The big difference is that disagreement over fundamentals **is central** in other fields in order for them to progress, while serious disagreement over fundamentals (e.g houses, signs, rulerships, Ascendents, transits, etc) is discouraged in astrology (see Perry, 2018). The history of **science** illustrates the idea that disagreement can help us get to better theories. A check of the journals and textbooks in scientific fields will illustrate this, while a check of astrology books in your local library and bookstore will show the opposite. Further, to modify slightly a philosophy paragraph “Unlike in the sciences, where there is increasing consensus on the truth of various theories and facts (for example, about facts of chemistry, biology, and basic physical forces), *dissensus* prevails in [astrology]: there are lasting disagreements among [astrologers] on virtually every major [astrological] issue” (Arvan, 2022). (Aryan is suggesting that we start from science in philosophy rather than common-sense). Again, research journals on astrology in the Western world (e.g Correlation) seem to be premised on only finding supporting **evidence for the astrological *status quo***, not to challenge astrology. **The opposite is the case in the best science, where new challenges are made to dominant theories continuously, as anyone who reads newspapers or scientific periodicals can attest.** Some astrologers compare the disagreement among astrologies with that of religious disagreement. But the comparison with religion is a poor one. While many astrologers may tie-in astrology with a transcendental reality, others will not (for example, those whom consider astrology a science allegedly based on long-time empirical observations will not). Further most astrologers do not identify astrology with religion (Campion, 2004, Ch 9). [↑](#footnote-ref-5)
6. McRitchie (2016, P. 157) mentions several prominent individuals who have used astrology in their counselling/consulting practice. The American Counseling Association website mentions there are several dozens of different scientific counselling approaches and no one approach has been shown to be overall superior to any of the others (although we need to keep in mind that many questionable psychotherapy/counselling methods exist that make claims at variance with what we scientifically know, see Lilienfeld, Lynn and Lohr 2015, the special issue of The Behavior Therapist 2028, 41/1, edited by R.T. Codd 111; Thomason, 2022, Hupp, & Maria, 2023. In the latter publication Hupp provides criteria for distinguishing plausible psychotherapies from bogus ones such as astrology). However, the success of most counselling does not support any particular approach over the others. This means other factors play a fundamental role in the success of counselling, not the theory behind the specific approaches. Indeed, Mulhauser (undated) mentions that **personal characteristics of a counsellor** may be more important than the specific approach used (see also, Dean, *et al*, 2022, pp. 892-899 for more on counselling and astrology). This was acknowledged by well-known astrologer Ashmun (1984) more than three decades ago:

   Any good I’ve done as a consultant, and I have done some good, had less to do with my being a good astrologer than with my being a good person.

   In a contemporary astrological consultation, exploring aspects of life that we all share can be insightful, but that alone does not distinguish among better or worse contending approaches. In contemporary Western astrology

   the consultation is most commonly a **dialogue** where the astrologer is making statements about the chart and what predispositions and things they would expect in terms of the range of archetypal dynamics that would manifest or possibilities. And then they’re getting feedback from the client so that it becomes like this loop where it gets stronger and stronger and more specific and you’re able to do more and more and say more and more and go deeper based on the feedback you’re getting from the client and like statement feedback that helps you to specify things once you understand the context more. And it seems like somehow that’s what’s coming through the most …..is the importance of context in providing [what] the astrological chart does not give you. [Ep. 167 Transcript: The Problem of Twins in Natal Astrology - The Astrology Podcast](https://theastrologypodcast.com/transcripts/ep-167-transcript-the-problem-of-twins-in-natal-astrology/)

   An issue that arises is that **every** astrologer of every persuasion (along with psychics, Tarot readers, numerologists, palm readers, etc) can engage in this type of dialogue with clients and come away with the view that their own particular astrology ‘works’, whatever very different (non-mainline) elements are part of their astrology (see also, Dean, Saklofske & Kelly, 2021). Understanding the context of the individual’s life is of importance, but the more information acquired by such means, the less the need for astrology. This is supported by the observation that all astrologies, including those very incompatible work equally well in such sessions. A related complication for astrologers is that individuals using **any** theory, astrological or not, using a dialogue approach (with variations, any psychotherapy or clinical approach), can come away with clients feeling their time with the client has supported their approach. On the positive side, the dialogue approach mentioned can lead the client to a better understanding of themselves. This is no bad thing, but it does not lead one to single out astrology as providing unique insight, unavailable to those who proceed in a different manner according to their own theoretical approach. Understandably, this will matter little to the client. For example, Hunt (2021) mentions how Tarot can be used as a set of metaphors that can encourage self-understanding and help envisage other ways of dealing with issues and problems. This reads very close to what many divinatory astrologers have proposed for astrology (e.g Cornelius,2011, 2016). The **empirical** approach to astrology (advocated by Currey, McRitchie and others) and prediction is rejected by such individuals. [↑](#footnote-ref-6)
7. An attempt to get around the seemingly unarbitrable diversity issue would be to contend that different astrologies are different attempts to understand and interact with the same astrological reality. On this view, different astrologies may provide different sets of information about this one astrological reality. This approach is often made understandable by the parable of the elephant and the blind people. Different blind individuals feel different parts of the elephant and each understands a different part of the whole elephant. Alas, this story clarifies little. Disputes don’t arise over the existence of elephants as they do over the cogency of any fundamental astrological reality. Further, we suspect that while many astrologers are prepared **to tolerate** other astrological approaches, they are not prepared to say their own astrological approach only holds part of the truth about astrology. Indeed, given that ‘astrological reality’ is largely unknowable on this view, it doesn’t follow that all the different astrologies have different information on this underlying reality, perhaps they do differ in how informative they are, or perhaps none of them make contact with this reality (how would we know either way?) After all, unless one somehow knows what the ‘real’ astrological/transcendent reality **really is**, it is not clear how one could know that different present-day astrologies have some part or even any part of the truth. [↑](#footnote-ref-7)
8. For those not familiar with the expression ‘personal validation’, see David Kyle Johnson’s entry on the topic in Arp, Barbone, & Bruce (2019), pp. 392-395. See also, Johnson (2020). The latter article is on conspiracy theories but the reasons for belief, including motivated reasoning and argumentative fallacies is relevant to belief in astrology. [↑](#footnote-ref-8)
9. For example, the archetype astrologer Richard Tarnas (1987/2013) advocates “the combinations of planetary archetypes, the major aspects (including midpoints), and transits. I regard these, after many years of research, as the **most essential factors** in astrology, possessing great precision and richness of meaning.” (italics ours). What is the relative weighting given to the various factors drawn from sources as disparate as mythology, word and visual associations, and personal experience? It depends largely on the individual astrologer. [↑](#footnote-ref-9)
10. However, if support is not forthcoming, Cochrane already has his ‘out’:

    “Some astrologers feel that the very strict rules and requirements for scientific research are too limiting and restrictive for the language of astrology. However, many of us are also becoming increasingly aware that there are many research designs, and very restrictive quantitative research designs are not our only option.” ([ISAR Astrological Research – ISAR (isarastrology.org, accessed May 29, 2022. )](https://isarastrology.org/astro-research/)

    Hence, **if** the results are not supportive, the quantitative approach itself must be too restrictive, or the study designs are wrong. On the other hand, if the results are supportive, all is appropriate, until problems emerge (see Kelly, 1997/2005). [↑](#footnote-ref-10)
11. Fortune tellers of all kinds say the same things as astrologers: consider the certainty about their beliefs held by a Tarot reader and astrologer:

    “When I first began reading Tarot cards…I never thought I could get the truth from a single card. I was 22 years old, and was reading Tarot books with big, complicated spreads. Today I use only one card---for anything. Within one card you can see the past, present, and potential future’. http:www.Jessicaadams.com (accessed, June 25, 2022). When I first began readingcards, using **Pamela Colman Smi**see the past, present and potential future [↑](#footnote-ref-11)
12. One response to the diversity of different astrological approaches is that different people may respond to some approaches better than other approaches, or that “sometimes one (astrological) system performs better than the other depending on what we are looking at” ([https://astrology-jay.com/why-use-complementary-approaches-in-astrology. Accessed Oct 18](https://astrology-jay.com/why-use-complementary-approaches-in-astrology.%20Accessed%20Oct%2018), 2022]. Apart from assuming the truth of all these divergent techniques or approaches from the start, it is far from clear that such a view would be endorsed by most astrologers, after all, a check of astrology books and internet sites shows that most astrologers assume their own approach is good enough to cover all their client inquiries. One might also ask, how did they arrive at this view, what evidence led them to this position. Would other astrologers agree with **their choices** of compatibility, incompatibility of approaches? [↑](#footnote-ref-12)
13. Astronomers have discovered over 5,000 exoplanets. An excellent scientific introduction to the topic of exoplanets, the methods used to find them, and the evolution of historical interest in their possibilities can be found in Deacon (2020). On an astrological site we read, “exoplanets will likely become **a major part** of astrology in the decades and centuries to come.” [www.astrology.org/astrology/astmoon.htm](http://www.astrology.org/astrology/astmoon.htm), accessed July 24, 2022. Someastrologers already include them in birth charts already. For example, one astrologer tells us “[the Trappid] exoplanets, over 39 light years away] ‘that you probably don’t know exist are wreaking havoc on your life” https//www.pointsincase.com/articles/your-horoscope-for-when-the-trappist-exoplanets-are-in-retrograde. Accessed, July 25, 2022. Given that there are likely untold millions of exoplanets, one might expect that contemporary astrology has almost no explanatory power if one adopts the position that exoplanets have an influence on our lives. After all, the components in the universe part of present-day astrology are minuscule compared to what exists in the universe. Unless one adopts the *ad hoc* view that they have to be perceived or named by earthlings to be potent in our lives! [↑](#footnote-ref-13)
14. This attitude carries over to many astrologers rejection of any research studies that do not find positive evidence for astrological claims. McRitchie (2016) denies that studies with negative results provide evidence against astrology: “there is no reliable evidence against astrological theory and practice (p.176).” Similarly, on a popular astrology internet site we read, “In fact, there is not one valid scientific test where astrology has not shown positive results.” (https://www.astrology.co.uk/news/News.htm, accessed Sept 23, 2021). The same astrologer (Currey) mentions in passing, **one** negative study that seems acceptable, then immediately takes it back, by claiming that astrologers could explain it away anyhow, and then he statistically reanalyzes it to make it confirm astrology as he does with other negative findings (Currey, 2021). He tells us,

    Nona Press and two other astrologers gathered 311 records of birth data of subjects who committed suicide in New York between 1969-73 who were also born in the five boroughs of New York City. Despite statistical comparison with a multitude of astrological conventional and unconventional techniques such as asteroids and minor aspects, they were unable to find significant results that related to suicide. However, their results [(Press 1977)](https://www.astrology.co.uk/tests/basisofastrology.htm#press) were duly published in an Astrological Journal . [Even so] Some astrologers have argued that there may not be an astrological signature for suicide (since this is not part of normal astrological practice) or that astrology is divination and cannot be objectively demonstrated by empirical studies. https:www.astrology.co.uk/tests/basisofastrology.htm, accessed July, 22, 2022. [↑](#footnote-ref-14)
15. An interesting article on the psychology behind why we perceive constellations rather than individual stars can be found in Cropper, Hamacher, Little and Kemp (2022). [↑](#footnote-ref-15)
16. Cull and Mehdi (2023) contend two social mechanisms lead to this **reification** of zodiac sign as innate and immutable categories that allow believers to be influenced by the characteristics attributed to each sign. The first is ‘a looping effect’ whereby people frame their own behaviors and those of others to understand themselves and others. A second social influence is the notion of a ‘proleptic mechanism’ where one’s behavior is consciously fitted to fit the zodiac sign. As an example of the ‘looping effect’

    Suppose you are a Pisces. At the moment you don’t tend to do some action that we’ll call ‘X’. However you see a meme on the internet that suggests that Pisces tend to X. So, you start to X, because that’s what Pisces do---it’s an important part of your self-conception that you are a Pisces, so you follow the description of behavior given by the meme as if it were a prescription. So, as a result of being labeled a Pisces, where that label has a rich description of what Pisces are like, your behavior is consciously modified to fit the label. ...Now suppose that one is not a fervent believer in astrology---we can still get a labelling effect here. It is enough that one thinks that astrological claims ...have some weight in the accurate prediction of behavior and character. If one has the belief (after reading a number of Instagram influencers suggest as much) that Virgos generally tend to be critical of others, and one is a Virgo, all we need in order for a labelling effect is for that belief about Virgos to tend to be more critical. We can easily imagine a case in which one has the opportunity to be critical of another person, but in which one is unsure whether to openly criticise that person. We might think that a thought of the form ‘Well, I’m a Virgo, so they can’t complain if I’m critical’ or ‘It’s excusable for me to be critical---I can’t help being a Virgo!’ might cross one’s mind and persuade one to be open with one’s criticism. In such a case, the labelling effect occurs (p. 8-9)

    In the case of the proleptic mechanism,

    Suppose that a member of your friends, or perhaps just an influencer that you admire, starts to share claims about how Tauruses generally act. They suggest, for instance, that Tauruses tend to be incredibly stubburn, or that they are big fans of indulgence dressed up as self-care. Further, suppose you were born in the Taurus part of the year (April 20th to May 21st).Wanting the respect of your friends, or perhaps this influencer, and being treated by them as if you had reason to act as Tauruses act, you come to have reason to act in the ways Tauruses act. When it comes to the question of whether one should have a luxurious bath after work, claims of the form ‘Well, I would have a bath, I am a Taurus’ begin to make sense to you as a justification for having such a bath. Queried about why one had a lie-in, the excuse ‘Tauruses like me love self-care like lie-ins’ will make sense to you. Note that in these cases, you don’t need to believe in astrology at all---you just need to want the respect of your friends, or your wider (internet) social milieu. (p.9) [↑](#footnote-ref-16)
17. While many **astrologers consider a person’s zodiac sign to be a significant (strong) contributor to our understanding of a person**, the results of scientific studies have resulted in confusion rather than clarification. While many astrologers would agree that isolated studies (of signs) **should** uncover the expected strong relationship with human behavior, empirical studies and replications do not support this claim. Such results are difficult to square with the practice of many astrologers. Dean *et al* (2022, pp. 197-267; 761-771 ) and even those very supportive of astrological claims admit such studies require large sample sizes to find significant results (and such studies ignore other factors in a chart) (McRitchie, 2022, p 708)---a clear contrast with what we read in astrology books and internet sites, and astrology as we find it in the marketplace. The uneven, wayward results produced in studies of astrology would suggest that empirical studies are not a productive way of either finding support for astrology or a way of fleshing out its claims, in agreement with those astrologers who find empirical studies irrelevant. After all, if we cannot find replicable results for such isolated factors, how do we know which factors should be part of the **package** of astrology in the first place? [↑](#footnote-ref-17)
18. Keep in mind that astrologers use many of the same terms and expressions as those in the sciences and philosophy, but, in astrology, they are used in a very loose fashion that does not correspond to their academic uses. Consider the word ‘theory’: McRitchie (2011) says, of recent astronomical discoveries: “If new asteroids or planetoids are discovered, astrologers will proliferate theories and the theories are developed among the community”. What seems to pass for ‘theories’ in astrology are appeals to mythology and new associations of various kinds. Some examples of such theories are ‘an asteroid with your name has implications for your life’ and tying in any mythology associated with the name of the asteroid . For example, consider what astrologer Blake (2022) tells us

    **Which of the celestials can take on Pluto–planet of abuse, terrorism and tyranny? Step forward Ceres, dwarf planet of pleb consciousness that challenges patrician power – and is Pluto’s mother-in-law!**

    Ceres is a large asteroid. If these astrological ‘theories’ are ‘developed’, it is by adding new superfluous jargon and word or visual associations (see, for example, <https://www.twowander.com/blog/what-is-chiron-astrology-how-to-use-for-healing>). Retrieved from <https://bienveillantes.wordpress.com/2011/02/14/astrology-and-its-problems-popper-kuhn-and-feyerabend/>Oct 21, 2021. [↑](#footnote-ref-18)
19. It is also noteworthy, that the most influential philosophers of science in the 20th century reject astrology (Thomas Kuhn and Karl Popper). For Popper (1969), astrology overly focuses on confirmatory findings and ignores or ‘explains away’ negative studies, and through continuous *ad hoc* excuses, renders itself unfalsifiable. Kuhn (1974), on the other hand, rejects astrology because it does not have the theoretical resources to solve any scientific puzzles that could conceivably arise in practice. These critiques are aimed at astrology when considered a science, proto-science, or occult science, as is, largely, Kelly (1997/2005; 1998) and this article. For those interested in Kuhn, some recent themes emerging from Kuhn’s philosophy, including its stance toward contemporary pluralism can be found in Wray (2021). While Kuhn in his post-Revolution writings continues to deny the progressive, accumulated view of scientific development over time (a view unfortunately held by many contemporary astrologers), he denies that his views reject the cognitive authority of science and contends other notions of scientific progress hold. He further backs off from talk of ‘paradigms’ and ‘revolutions’ and replaces this talk with the development of science over time in terms of ontological reconceptualizations and lexical redesigns. Feyerabend has also mentioned astrology in his writings and been misread by astrologers. As Phillipson ( 2021, pp. 78-79) points out,

    Paul Feyerabend ....has sometimes been cited as a defender of astrology against scientific attack. The reason for this is to be found in five pages of his Science in a Free Society in which he criticised the attack on astrologers contained in the ‘Statement of 186 Leading Scientists’ in the Sept/Oct 1975 Humanist. Feyerabend cited [physical] evidence for the influence of solar flares upon life on Earth, and mentioned the sensitivity of oysters and potatoes to lunar rhythms. Aside from such phenomena, however, he made it clear that his remarks ‘should not be interpreted as an attempt to defend…Modern astrology [which] inherited interesting and profound ideas, but it distorted them, and replaced them by caricatures more adapted to the limited understanding of its practitioners.’ And, later, he found it necessary to reiterate his lack of sympathy for astrology as currently practised, writing: ‘My use of examples from astrology should not be misunderstood. Astrology bores me to tears. However it was attacked by scientists, Nobel Prize winners among them, simply by a show of authority and in this respect deserved a defence.’ The extent of Feyerabend’s interest in astrology should not therefore be overstated. His discussion of astrology is best characterised as a means to the end of attacking authoritarian and objectivist tendencies in modern society, particularly from the scientific establishment – as seen in his assertion: ‘Science is one Ideology among many and should be separated from the State just as Religion is now separated from the State.’

    Others who have looked carefully at Feyerabend’s writings support the view expressed by Phillipson that Feyerabend’s interest in astrology was largely in combating attacks on astrology by those making dogmatic uninformed statements on the topic [see Kidd (2016), Pigliucci, M (2016)]. He wasn’t defending the practice of contemporary astrologers. [↑](#footnote-ref-19)
20. Astrologers of every age have tried to tie their astrological beliefs to the science of the time. Geoffrey Cornelius, a prominent British divinatory astrologer, in his presentation at the United Astrology Congress (1998) pointed out:

    **Intelligent critics of astrology maintain that astrologers have always managed to use the prevailing culture and ethos of the times in which they live (science and philosophy of the period) to disguise themselves and cunningly continue with their practices. This is absolutely true. That is how our extraordinary form of symbolic consciousness has survived. We disguised ourselves as Aristotelian science for the better part of two millennia. Then we tacked ourselves onto modern science in the revival of two centuries ago when astrology disguised itself as magnetism and electricity, and later as radio waves. Depth psychology [i.e. Jung] is just the latest disguise. Perhaps we can do nothing else, for how can this form of symbolism survive without being in the corrupt position of lying about itself in some way in order to get by?**

    Cornelius contends astrologers have to re-think many of their basic assumptions and public deceptions. See also, Kelly (1979, p. 1328) and Kelly (1997/2005, p.35, footnote 18). The round peg of astrology never seems to come close to fitting the square pegs of scientific theories, a reasonable implication would be astrology is not a science in any sense (as Cornelius points out). [↑](#footnote-ref-20)
21. Many astrologers prefer to describe astrology more broadly as “*the study of the correlation between the positions and movements of celestial bodies and life and physical processes on Earth*.“ (http://www.astrology.co.uk/tests/basisofastrology.htm). This expansive definition allows astrologers to include ANY relationships discovered by scientists as indirect ‘evidence’ for **astrology**, even though such relationships are **irrelevant** to the **symbolic** claims made by astrologers, and how astrologers actually practice their craft (see Kelly & Dean, 2000a). Studies documenting effects of sunspots or solar winds or biological clocks or geomagnetic or lunar effects on human terrestrial activities, or season of year effects on human behaviour (see Holloway, 2015 for a popular overview on such relationships, and Cypryjański, 2019 for how they might change over time), comprise a **heterogeneous variety** of effects and are fully in the purview of science—they are consistent with present-day natural science or social science and do not require paranormal or occult explanations such as do most forms of astrology. Nor do most of the general public consider the Aurora Borealis or solar sunspot relationships with short-radio propagation, nor solar storm*s* and power cuts and blackouts on earth, as evidence of astrology, and neither do the researchers on these topics consider themselves astrologers. **Indeed, such influences could be non-existent and astrology would go on as usual.** Further, as we shall see from the rest of this article, there will remain a huge gap between any scientific findings regarding physical correlations and terrestrial events and the **symbolic astrological connections** with astronomical bodies (e.g Taurus’s tend to be stubborn, and the lucky numbers for Taurus people (https://www.oroscopodioggiedomani.it/numeri-fortunati\_english/what-are-the-lucky-numbers-for-each-zodiac-sign.php) and favourite zodiac colors, see https://www.tarot.com/astrology/zodiac-sign-colors). See also, https://wisehoroscope.org/most-luckiest-zodiac-signs-in-2020/. Any physical forces would have to be **completely different** from those known to be capable of underpinning such a variety of symbolic associations (Plait, 2011). [↑](#footnote-ref-21)
22. A number of astrologers make a distinction between **traditional** and **modern** astrology. Modern (as in contemporary) astrology is a product largely of the early 20th century and is focused more on psychology than earlier traditional astrology. Traditional astrology is pre-20th century astrology and the main focus is outward rather than inward. See Brennan’s (2008) discussion of how traditional astrology differs from contemporary astrology. For a critique of modern astrology by a traditional astrologer see https://qz.com/1170481/horoscopes-2018-astrology-isnt-fake-its-just-been-ruined-by-modern-psychology/; accessed Jan 14, 2021). Our focus, in this paper is contemporary (20th century and beyond) astrology and largely those who advocate astrology as a physical or esoteric science. [↑](#footnote-ref-22)
23. Venus from the perspective of the natural sciences and astronomy differs:

    Venus has a thick, toxic atmosphere filled with carbon dioxide and it’s perpetually shrouded in thick, yellowish clouds of sulfuric acid that trap heat, causing a runaway greenhouse effect. It’s the hottest planet in our solar system, even though Mercury is closer to the Sun. Surface temperatures on Venus are about 900 degrees Fahrenheit (475 degrees Celsius) – hot enough to melt lead. The surface is a rusty color and it’s peppered with intensely crunched mountains and thousands of large volcanoes. Scientists think it’s possible some volcanoes are still active. Venus has crushing air pressure at its surface – more than 90 times that of Earth – similar to the pressure you'd encounter a mile below the ocean on Earth. ( <https://solarsystem.nasa.gov/planets/venus/overview/>, accessed Feb 4, 2022).

    Astronomers do not view Venus as a love planet. Astrologer Grasse (2019) summarizes the point well, that symbolism in astrology is quite distinct from science:

    As seen by astronomers, for example, Jupiter is simply a large gaseous planet with certain measurable properties, traveling at a particular speed, in a particular orbital path. For astrologers, however, Jupiter **symbolize**s a particular set of qualities: expansiveness, joviality, excess, exploration, spiritual learning….Importantly, this symbolic dimension can't be grasped through strictly scientific or quantitative means. If one traveled to that distant planet and took samples of its gasses, or tried using instruments to measure its energy fields, one still wouldn't be able to isolate the **symbolic meaning** associated with the planet by astrologers.

    Furthermore, the planet’s actual distances from the sun, or each other, or their physical characteristics (e.g composition---mostly gaseous or rock), and sizes, play very little, or no significant role, in astrological semantics and interpretations. [↑](#footnote-ref-23)
24. Ganymede is a beautiful youth in Greek mythology and consequently

    “in astrology Ganymede symbolizes the idealized “**beautiful youth**,” and its placement in the birth chart indicates the part of ourselves that keeps us feeling young at heart. The energy of asteroid Ganymed is youthful, vigorous, and energizing, which acts as an energic boost to the planet which it comes to contact with.”

    (This is the astrological symbolism or ‘astrological semantic taxonomy” tied to that moon of Jupiter). <https://mysticalprophet.com/ganymed-meaning-astrology> and ‘https://neptunesastrology.wordpress.com/2014/08/25/ganymed-1036/ Accessed June 7, 2023 [↑](#footnote-ref-24)
25. As ex-astrologer Bret-Morel points out, (2016, chapter 16 : “Contemporary science has taken the measure of the complexity of natural phenomena but also the complexity of the conditions necessary for their observation, which is why the methodological question has taken such an important place. The technical and symbolic complexities of astrology are known but astrologers are not aware of the pitfalls which are generated. They continue to see in it the proof of an infinite wealth of their discipline, oblivious to the fact that their gaze is often biased. By not organizing their "observations" they behave like "super-experimenters" who would jointly conduct hundreds of observations (on different astrological configurations). The lack of individual rigor and the total disorganization of the environment can only perpetuate this well-established state. The silence of astrologers on these matters is simply deafening!” Bret-Morel (2016, chapter 12) : “The astrologer does not organize his “observation results” other than in his memory; he neglects the fact that it is necessarily selective. He does not think, either, that if he had met his clients in a different order, his memories could have been different and his experience completely changed.” Further, a check of symbolic planetary associations with newly discovered planets shows contemporary astrologers do not follow any worldwide or extensive discussions or debate regarding the astrological significance of newly discovered bodies. For example, Pluto was only discovered in the 20th century yet astrologers confidently talk of the effects of Pluto’s associations with other planets that have only occurred a few times since Pluto’s discovery. For example, the Saturn-Pluto mundane conjunction occurs only every 30 or so years, meaning only about three such conjunctions have occurred since Pluto’s discovery in 1930, hardly time and a secure basis to have any serious discussion and observation on attendant events. But we still read

    As everyone knows, Saturn means time and responsibility, i.e. becoming aware that things are finite and that life on earth has its own limits. As for Pluto, he symbolizes deep transformations, inner and secret energy. Thus, the alliance of the two planets may herald societal changes marked by the statement that resources are scarce and by the necessity to carry out radical changes of behaviour (https://www.astrotheme.com/the-2020-Saturn-Pluto-conjunction.php; accessed Feb 28, 2021). Similarly, we are told, “The Uranus–Pluto square instigated social change on a worldwide scale – notably the Arab Spring, the Black Life Matters movement and LGBTQ right movement. The intensity of these influences has kept us in a continual transitional state, without the luxury of holding onto security.” (https://mauricefernandez.com/the-saturn-pluto-conjunction-and-the-transits-for-the-year-2020/: accessed Fe 28, 2021).

    No deep astrological consultations and debate available here either. [↑](#footnote-ref-25)
26. This talk seems difficult to take seriously given that (1) different elements in the horoscope interact with one another (a typical birth chart includes zodiac sign and moon signs, rising sign and planets; further, each planet rules a particular area of life and should be taken into consideration), (2) the complexity of the celestial observations and (3) that most astrologers claim that astrological configurations can manifest in many different ways. As McRitchie (2018) says, “Astrology uses fuzzy, not crisp, logic. As can be seen in any astrology text, each astrological indicator, or combination of indicators, has a range of related meanings that could include both probable and improbable outcomes.” McRitchie (2018) adds further, “Unless science advances to provide some better means of quantification, astrological research should use one-to-many tests. This means that one astrological hypothesis should be tested against a suitably-defined sample of many accurately-timed astrological charts to allow the possibility of finding astrological correlations” Given that such methods were not available to astrologers until recently casts doubt on claims that astrology is based on observation and dialogue among astrologers over the ages. One might also point out that the way astrologers stretch their symbolism, the ‘one-to-many tests’ would likely never be enough. It would also be a problem in what to include in studies, as astrologers continuously claim new factors have a large impact on our lives (e.g exoplanets, asteroids, etc). [↑](#footnote-ref-26)
27. What observations is Tarnas talking about? Here we need to keep in mind that Tarnas contends that astrology is multivalent, that is, each planet’s relationships with terrestrial events is ambiguous and can be manifested in differing ways that cannot be known in advance. It is only **after-the-fact** that astrologers can find out what the astrological configuration really meant. And, of course, once we know what to look for in such a wide general way, it is relatively easy to find confirmation. For example, Pluto is

    “...is associated with the principle of elemental power, depth, and intensity; with that which compels, Pluto is associated with the principle of elemental power, depth, and intensity; with that which compels, empowers, and intensifies whatever it touches, sometimes to overwhelming and catastrophic extremes; with the primordial instincts, libidinal and aggressive, destructive and regenerative, volcanic and cathartic, eliminative, transformative, ever-evolving; with the biological processes of birth, sex, and death, the cycle of death and rebirth; with upheaval, breakdown, decay, and fertilization; violent purgatorial discharge of pent-up energies, purifying fire; situations of life-and-death extremes, power struggles, all that is titanic, potent, and massive. Pluto represents the underworld and underground in all senses: elemental, geological, instinctual, political, social, sexual, urban, criminal, mythological, demonic (Tarnas, 2009, p. 47).

    This wide description allows one to relatively easy fit a very diverse variety of events under Pluto (discovered in 1930), such as;

    the synchronistic phenomena in the decades immediately surrounding 1930, and more generally in the twentieth century, include the splitting of the atom and the unleashing of nuclear power; the titanic technological empowerment of modern industrial civilization and military force; the rise of fascism and other mass movements; the widespread cultural influence of evolutionary theory and psychoanalysis with their focus on the biological instincts; increased sexual and erotic expression in social mores and the arts; intensified activity and public awareness of the criminal underworld; and a tangible intensification of instinctually driven mass violence and catastrophic historical developments, evident in the world wars, the holocaust, and the threat of nuclear annihilation and ecological devastation. Here also can be mentioned the intensified politicization and power struggles characteristic of twentieth-century life, the development of powerful forms of depth-psychological transformation and catharsis, and the scientific recognition of the entire cosmos as a vast evolutionary phenomenon from the primordial fireball to the still-evolving present (Tarnas, 2009, pp. 47-8).

    One could match such a similar variety of disparate events to any time period in human history. The only difference is that in the 20th century, events of all kinds are easier to find because of the extensive advances in mass media reporting along with new technologies. For more on the problems with such *ad hoc*, after-the-fact fitting see Bouldry, 2013, Fosl & Baggini 2020, p. 130, and Manninen, 2018. Tarnas seems to suggest the discovery of Pluto was associated with a number of disastrous 20th century events across the world. It is not clear that events from other times in history, given the lack of resources and knowledge available at those earlier times, were incomparable in design to the disasters of the 20th century. [↑](#footnote-ref-27)
28. It is important to keep in mind that “we cannot assume the reasons one might reject astrology today are the same ones astrology was rejected in the past” (Pfeffer, 2021). As Pfeffer points out, “For many of astrology’s early modern opponents, the religious status of astrology was more significant than its ‘scientific’ status.” Today, its scientific or philosophical status is the main focus of criticism.A question that arises is what accounted for the decline of the central role of astrology in the pre-modern era. Pfeffer (2023) contends “astrology’s diminishing reputation across the early modern period now appears to be the result of a complicated set of overlapping social, political, religious, institutional, and intellectual factors.” https://ora.ox.ac.uk/objects/uuid:538d6328-a33b-464b-ae9d-e805038d8bdf/download\_file?file\_format=application%2Fpdf&safe\_filename=Pfeffer\_2023\_Reassessing\_the\_marginalization.pdf&type\_of\_work=Journal+article [↑](#footnote-ref-28)
29. The popularity of sun signs (star signs) is also a recent phenomenon, dating from the early 20th century. Princess Margaret, sister of the future Queen Elizabeth II, had the bad idea to be born on August 21, 1930. This was reported along with an astrological reading in a British newspaper in 1930 and was an indication of sun-sign columns to come (Bret-Morel, 2016). Indeed, as Campion notes, “the concept of the sun sign would have been meaningless to any astrologer prior to the early twentieth century” (Campion, 2004, p. 133. all of Ch 7 in Campion 2004 is worth reading). Sun signs represent the zodiac sign the sun was in at the time of one’s birth (note that the signs in Western astrology do not have any connection with the constellations that have the same names).While the constellation Ophiuchus may be included in the **astronomical** zodiac based on the positions of the constellations, this is irrelevant to the Western astrological **(tropical) zodiac** which consists of 12 , thirty degree signs that are named after earlier constellations, but because of precession (which astrologers are aware of), the tropical zodiac and the astronomical zodiac no longer coincide. Sun sign astrology became popular from 1930. They are nowadays popular columns in newspapers. While in the 1950’s only about 6% of newspapers carried sun sign columns, this rose to over two-thirds of papers in the 1970’s (Campion, 2012, Ch. 10). The problem with linking the **astronomica**l constellations with astrology is a simple one: the [constellations themselves aren’t real](https://www.constellation-guide.com/what-is-a-constellation/). They are groups of stars that appear to be close to each other, arbitrarily named after different objects, animals, or figures from mythology by human observers at some point in history. Constellations allow a two-dimensional map of the sky used for orientation, to make it easier for astronomers to find objects and explain their location and for navigators to use stars to determine their position. The universe itself, on the other hand, isn’t flat and doesn’t revolve around our planet, which is what makes these groupings of stars arbitrary. (https://www.constellation-guide.com/constellation-map/zodiac-constellations/). Further, the **astrological** zodiac, as previously mentioned, has signs of equal divisions over the year, and the reality of the astronomical zodiac constellations is far different. There is a complete disconnect between astrology and astronomy in regard to zodiac signs and constellations in the contemporary **Western** tradition. Note a very good critical examination of zodiac signs as a cultural phenomenon can be found in Natale*, et al* (2022). [↑](#footnote-ref-29)
30. This would seem to suggest that appeals to justify astrology on the basis of its over two millennium history, or appeals to the historical ‘astrological corpus’, or appeals to ancient observations as supportive of **contemporary** astrology are themselves deeply problematic. [↑](#footnote-ref-30)
31. The ‘potential’ or self-understanding usually assumes a deep, generally, positive self underlying all the outward trappings. One might consider the possibility that some of us are natural psychopaths, or have little potential, or possess an evil nature (read https://www.thephilosopher1923.org/smith-bregman). I’ll leave it to the reader to determine whether or not we all have such a potentially largely positive essence within ourselves. Maybe if only Stalin, Hitler, or Atilla the Hun had seen an astrologer?….It is also important to point out that talk of an underlying self (deep or true or real self) is itself problematic and difficult [see Steinberg (undated); Sparby, Edelhauser, & Weger, 2019; Stern, 2021; Seth, 2021]. Recent neuroscience suggests that the self is constructed and fragmented (Lehrer, 2012., Borgoni, Kindermann, D., & Onofri, A 2021); It is additionally problematic that astrology (for many) claims to be able to describe the ‘real self ‘ (whatever ‘it’ is). Also, see Garfield (2019, chapter 3) for Hume’s early relevant views on the self, which are still worth considering. It is also interesting to consider (for philosophers anyway) notions of personal identity in astrology. Astrology considers life paths of people over time, but what does astrology say about puzzle cases---does it adopt a bodily or psychological approach to personal identity? The former would be problematic in cases of physical enhancement or biological implants or uploading, and the latter in cases of severe psychological damage and cases of psychological and/or moral attribute changes or dementia. One suspects astrologers would take the easy way out and just move to a status quo/default position of changing birthdates to identify when the changes were made (although problems would seem to remain if changes were made on a continuous basis). For an excellent discussion on the topic of personal identity, see Kind (2015), and Earp.,Lewis, Skorburg,, Hannikainen, & Everett, (2022). [↑](#footnote-ref-31)
32. The word ‘energy’ is popular in many astrological writings. Its use by astrologers (and we might add, its use by others such as ‘psychics’, Tarot readers, etc) has little relationship to how the term is used in scientific discourse. The expressions ‘unique energy pattern’, ‘vibrations of attraction’ and ‘vibrations matching our own uniqueness’ would all require a lot of explication to make sense. See Reudell, (2019) for critical comments on astrologers use of the term ‘energy’. Also, see McLean & Miller, (2023). [↑](#footnote-ref-32)
33. Astrologers tend to view astrology as being able to accurately describe client personality and behaviors and provide insights independent of other approaches, or provide information more accessibly with astrology. However, similar claims are made by hand-writing advocates, Tarot readers, graphologists, palm readers, psychics, rumpologists (‘bum readers’,see Nickell, 2020), phrenologists, and so on. And all groups can find amazed clients and intelligent advocates. For example, the co-discover of natural selection (with Charles Darwin), Alfred Russel Wallace said "The phrenologist has shown that he is able to read character like an open book, and to lay bare the hidden springs of conduct with an accuracy that the most intimate friends cannot approach" (cited in JM Severn, 1913 Popular Phrenology, London, Rider and Son, p. 6)). [↑](#footnote-ref-33)
34. This view would reduce astrology to just another set of factors that operates and interacts within and alongside the physical and social factors found in the sciences. This would require being able to identify astrological influences independently of physical ones and a plausible theory of how astrological factors interact with those of the physical and social science. It would also suggest (contrary to astrological writings in bookstores and astrology sites) that in some cases, astrological factors could be overruled by factors known in the physical and social sciences. Here theory would be centrally important. [↑](#footnote-ref-34)
35. On the view (consult astrology books or internet sites) that astrology (in its contemporary forms) can tell us about the most **detailed aspects** of our lives would require the celestial bodies ‘reflecting knowledge’ (or being set up by gods who have such knowledge) of the most detailed aspects of our bodies and brains at every point in our own history and that of all the other eight billion people on the planet along with their continuously changing immediate environments over their lifetime. This would seem to be the case for ideas, thoughts (as when first thought of a new idea or a song, etc) that have a discernable moment when first considered. Given that we have not been around very long in the universe (maybe 300, 000 years), this level of knowledge seems unlikely. [↑](#footnote-ref-35)
36. Or newspaper headlines, the New York Post tells readers on January 23, 2022, ‘[Mars in Capricorn will make your sex life extra horny’ (nypost.com)](https://nypost.com/2022/01/23/mars-in-capricorn-will-make-your-sex-life-extra-horny/). One might wonder how astrology will deal with sex robots and our relationships with them in the near future. Likely for the robots themselves astrologers will default to some kind of birth-date centered on the date of manufacturing the robot started, or the date they were finished, or when they first engaged with a human, etc. Whatever date is selected, the astrologers will be able to retro-fit it to subsequent events. For interesting thoughts on sex robots consult Karaian (2022). The same is likely with how astrologers will deal with digital humans (see Green, 2022 on this topic). [↑](#footnote-ref-36)
37. This same point was also made by philosopher Derek Parfit (1984): “The earth will remain habitable for at least another billion years. Civilization began only a few thousand years ago. If we do not destroy mankind, these few thousand years may be only a tiny fraction of the whole of civilized human history”. [↑](#footnote-ref-37)
38. The expression ‘as above, so below’ is usually tied-in by astrologers with the term ‘holism’. However, the use of ‘holism’ in astrological contexts fails in several informative ways: there is no way of knowing which elements are necessary or strongest in astrology---different astrologies contain different elements and claims with no agreed upon way to separate out working elements from non-working elements), and the uses of holism is associated with extreme dogmatism in that its elements such as zodiac signs and planetary rulerships, transits, etc are unresponsive to negative evidence and new theoretical insights in the sciences. The use of ‘holism’ in astrology differs from more legitimate notions of holism (see Hansson, 2022 for more on this topic). [↑](#footnote-ref-38)
39. Astrologers often view the ‘as above, so below’ claim, as well as the intrinsic meanings of astrological symbolism and its connections with earthy events of all kinds, as being beyond the need for justification. How is this done? One approach is to claim the symbolism as used by astrology (as in ‘as above, so below’), along with that of Tarot and Numerology is a fundamental property of reality, autonomous from physical properties. As it stands, this would be an empirically empty claim, and nothing would follow from acceptance of the basic claim for particular approaches to astrology. While one can understand such appeals in regard to consciousness, no one denies the existence of consciousness as many do in regard to astrology and other occult practices. Why the connection only to the symbolism associated with occult practices? Such appeals are *ad hoc* and by proclamation*.*  [↑](#footnote-ref-39)
40. Satellites are *not* included in astrology, but why not? After all, socially constructed entities such as buildings, nations, ships, and marriages are supposedly described in astrology. Further, tiny asteroids are included by many astrologers. See Smith (2023) One of the ten brightest objects in the sky is now a satellite—and more are coming. <https://www.inverse.com/science/10-brightest-objects-sky-satellite-more-coming>? They are also named, for example, Odin, Kepler and Swift. [↑](#footnote-ref-40)
41. See, for example, https:www.pointsincase.com/your-horoscope-for-when-the-trappist-exoplanets-are-in-retrograde (accessed March, 2022). Do only ‘nearby’ exo-planets (several light-years away) matter to those astrologers who take exo-planets seriously? After all, given there may be as many as two trillion galaxies in our universe (Siegel, 2022), each with a huge number of suns and planets, astrologers might have a problem. [↑](#footnote-ref-41)
42. See for example, <http://astrologycritics.com/fixed-stars-in-astrology/>, and ‘[Astrology on the Web: Fixed Stars (astrologycom.com)](https://astrologycom.com/fixedstars.html)’ (both accessed March 30, 2022). [↑](#footnote-ref-42)
43. For those astrologers who contend an asteroid with your name on it plays a significant role in your life, **the moment of the naming** signifies when the asteroid **starts** to play a role in your birth chart (even if you are fifty, or seventy, or 100 years old) . Even the date a song is initially thought of, has been considered significant by some astrologers. (see https://mountainastrologer.com/tma/the-astrology-of-the-thong-song/). Regarding recorded music, astrologers could also use the date when it was first released, or when it became a hit, and easily fit all these different dates to subsequent events. [↑](#footnote-ref-43)
44. Divinatory astrology has more in common with religion than science. A thoughtful, humanistic case for **divinatory** astrology is made by Brockbank (2011). He contends that “a scientific approach cannot elucidate astrological practice….” (p.11, Ch 1,5), astrological procedures do not rely on natural laws (scientific laws)  and proposes, and defends (pp. 133-136, Ch 5, 6), an occult divinatory approach based on the notion of a benevolent, non-capricious, ‘responsive cosmos’ which does not rely on any necessary connection between particular planetary configurations and astrological effects on earth. Planetary configurations are viewed as just one way the non-human agency can respond to human enquiries and does not always provide expected results. This approach does allow astrologers to get around most typical criticisms. Works by Broadbank are important because they thoughtfully engage with both astrologers and critics of astrology. Brockbank (2016) contends it is important that astrologers note that divinatory astrology is quite distinct from other forms of astrology. A concern is that many astrologers might just call themselves ‘divinatory astrologers’ and go on as usual, without any understanding of divinatory practice. Phillipson (2019) provides a philosophically informed extension of divinatory astrology as described by Brockbank, by focusing on James notion of pragmatic truth. He rejects the scientific view of astrology as an reliable information, rationalistic system and contends astrology in its divinatory forms is true and useful if it is considered as providing a subjectively useful reading for the clinet. In reaching this conclusion Phillipson engages in a discussion of the major theories of truth and their weaknesses. While Brockbank (2011) and Phillipson (2019) provide more theoretical defences of **divinatory** astrology, Cornelius ( 2002, 2011 ) works are more practice oriented. We highly recommend that **informed** skeptics, or those curious about what thoughtful astrologers think, read both Brockbank (2011) and Phillipson (2019). [↑](#footnote-ref-44)
45. The topic of divination is a large one. Useful overviews of divination can be found in Fernandez-Beanato,( 2020), Boyer (2020), Mercier & Boyer (2020), Hong and Henrich (2021), and Hong, Slingerland, & Henrich, 2021. A readable view of divination in actual practice can be found in Zenophon’s Anabasis (Ed. Brennan, Thomas & Strassler, 2021....divination is described throughout the text and in more detail on pp. 319-326). A useful examination of divinatory dream interpretation can be found in Hong (2022), and sex prognostication in Hong and Zinin (forthcoming). For some criticisms of the divinatory approach to astrology, see Dean, et al, 2022, pp. 353-354, 381-382, 467-468, 835-851. [↑](#footnote-ref-45)
46. Indeed, people are introduced to astrology early in their lives. For example, Teen Vogue has the article ‘How the fall Equinox will impact your zodiac sign’ in its fall 2021 issue. https://www.teenvogue.com/story/how-the-fall-equinox-will-impact-your-zodiac-sign. Further, the vast majority of newspapers and many popular magazines contain daily horoscopes. For a critique of the accuracy and belief in such horoscopes see Natale, *et al*, 2022. A useful, little somewhat critical, book for pre-teens and teens on astrology can be found in Blaker (2018). [↑](#footnote-ref-46)
47. The vague appeal to ‘there is something to X’ is considered in Baggini (2022). [↑](#footnote-ref-47)
48. Thought experiments (also called ‘intuition pumps’ by philosophers) are hypothetical situations where ideas can be explored and examined. They play a large role in philosophy, the sciences, and the arts. For more on thought experiments see Baggini, (2006); Frappier, Meynell, & Brown (2013), Gavaler and Goldberg (2019) and De Cruz (2022). [↑](#footnote-ref-48)
49. We might also note that while astrology is stuck in the past in its simple claims about topics of human concern, on the other hand, as science advances, many interesting developments across disciplines are being explored. Check out <https://www.sciencedaily.com/> and **compare** to what you find in astrology books and internet sites. [↑](#footnote-ref-49)
50. Astrologers work with all sorts of different birth times for the same abstract entities without any regard for consistency. There are no rules accepted by the astrological community here. This is especially a problem regarding the ‘birth times’ of abstract entities such as ideas, businesses, or nations. For example, there are many proposed times, contending dates, and even years for the founding of the United States of America. Different astrologers will choose different ‘birth times’ and have no problem fitting subsequent events to their chosen birth time. Each will provide their own reasons for their choice. Consider the following possible birth times for the birth of the United States (from https://www.astrology.co.uk/news/USA.htm; accessed March 6/2021):

    * 2nd July 1776. Congress passed the resolution declaring independence from Great Britain, Philadelphia, PA.
    * 4th July 1776. Declaration of Independence drawn up, agreed and (acc. some historians) signed by some or all parties. Philadelphia, PA
    * 2nd August 1776. Declaration of Independence signed by 56 delegates to Congress.
    * 3rd September 1783. Treaty of Paris signed. Formal ending of the Revolutionary War.
    * 14th January 1784. American Congress of the Confederation ratifies Treaty of Paris. Annapolis.
    * 9th April 1784. King George III ratifies Treaty of Paris https://www.astrology.co.uk/news/USA.htm#years.
    * 30th April 1789. First President Washington took the oath of office. New York, NY

    Even if one selected time retro-fits events better than others, will that selection predict future US events better than others, and will it lead to increased understanding of other nations? [↑](#footnote-ref-50)
51. How the planets/moons in the solar system were named can be found in Case (2021). A scientific consideration of some of the theories around planet formation can be found in Raymond, Izidora & Dasgupta (2021). See also, Rowen (2019/2023) on star names. [↑](#footnote-ref-51)
52. Astrologers might respond that evolutionary theory faces similar issues pertaining to retrodiction: very few predictions and those that there are (e.g. the case of naked mole rats) not very specific, yet after-the-fact explanations are available for almost any evolutionary development whatsoever. What’s the difference? Actually, a lot. For starters, evolutionary theory provides empirically checkable fruitful mechanisms for change of species over time and explanations for the diversification of species. It also fits in with the rest of science (Park, 2019), including the abundant hominid fossil record, recent genetic and genomic analyses, and does not require supernatural, paranormal, or occult processes to explain the theory. Further, evolution does have supporting evidence branching from predictions (Coyne, 2009). A good theory in science helps us arbitrate among disagreements and disputes, there is no comparative public theory or standards in astrology. This doesn’t mean the tenets of evolutionary theory are scientifically settled. Indeed, they are continuously publically debated (see, for example, Buranyi, 2022). This is how science works. Contrast this with what you find in astrology books or internet sites. [↑](#footnote-ref-52)
53. Many astrologers seem to believe, or at least claim, that ancient observations of what happened during the times of particular celestial configurations **preceded** the symbolism attached to planets and their movements. Somewhat like people found dark clouds are associated with storms and rain, and then gave names to the various cloud formations. On this view, names and associated mythologies were allegedly added because they matched the observations. If this was the case, we would expect more agreement across cultures regarding what symbolism to attach to such celestial movements (see also, Kelly 1997/2005). We would also expect detailed historical records showing this. We would further expect modern studies to **easily** reveal such associations, given the far more sophisticated observational techniques, along with advances in research design available in the 20th and 21st centuries, but we do not (Dean, Mather, Nias & Smit, 2022). Further, whatever came first in the past---observations or associated mythologies and word associations---**contemporary astrologers** seem to go directly to mythology and other associations **first** to underscore their interpretations**.** When Pluto or Chiron or various asteroids are included in birth charts, the symbolic associations tied to these astronomical bodies were not based on careful observations of people with the positions of these bodies in their charts, rather the mythologies and other associations attached to the names immediately determined what roles they played in birth charts (Pluto, Chiron, etc). [↑](#footnote-ref-53)
54. Astrologers make much noise about people rejecting astrology without knowing much about it. Some concerns are indeed based on misunderstandings of astrology (see Phillipson, 2019 b). Modern adherents of alchemy, magic, and various religions could say the same thing (Gordin, 2021). In some ways this is an odd thing to say, given that astrology does not have a central place in our educational system, and is full of conceptual and scientific problems from beginning to end (Kelly, /1997/2005; Dean, Mather, Nias & Smit 2022). Further, many of the most cogent criticisms of astrology have been provided by very knowledgeable ex-astrologers such as Geoffrey Dean, Arthur Mather, Serge Bret-Morel, Rudolf Smit, and many others (see Dean*, et al*, 2022, 23-54). **The onus is on astrologers to persuade us to take astrology seriously,** it is not on the rest of us to disprove astrology. On the other hand, the philosopher Fantl (2018, Chapter 4, see also Stove, 1991) would contend that one is justified in ignoring astrology given its severe problems, lack of fit with other fields, and rejection by most experts in a variety of fields. Others may ignore astrology because its talk of planetary configurations relating to human life doesn’t make any sense to them (see Blackburn 2021. Blackburn is talking about religion but his points apply equally to astrology). Further, astrologers themselves reject all sorts of beliefs on insufficient examination, like most of us. They may reject other religions, contrary political beliefs, and various scientific beliefs without any adequate understanding of them. Further, very few astrologers seem to be aware of informed critical arguments **against** astrology. Some of the most naïve writings by astrologers are under the topic of ‘I used to be a skeptic…’, it is clear from the reasons for their conversions to astrology, that little thought must have been given for this astrological rebirth. If they were truly interested in determining more about astrology they would be conversant with the serious critical literature (e.g Kelly 1997/2005, 1998; Trachet & Martins, 1998; Bret-Morel, 2016, 2020; Dean, Mather, Nias & Smit, 2022). This should especially be the case for those astrologers who consider astrology as a scientific hypothesis where **all** the relevant evidence should be considered. [↑](#footnote-ref-54)
55. Neither Kampanes, nor Tarnas say much about our pre-birth souls, but surely this is important. Such talk assumes that soul-talk is plausible, which is not likely the case (see Berger, 2018., Johnson, 2013; 2022c; Augustine, 2015; Olson, 2021; Cottingham, 2023). De Cruz and De Smedt , 2017 provide a useful overview of the psychological dispositions that underlie afterlife beliefs. On the other hand, Rickabaugh and Moreland (2023) have provided a strong set of arguments in favor of the substance dualist view that is worth considering. For critiques of the notions of Karma and Rebirth along with Reincarnation research, see Ransom, 2015; Angel, 2015; and Smythe, 2015). Do we retain our personal identity throughout this supposed transition or are we distinct entities? Are souls propagated through sex? [see Sidzińska (2023) for discussion on pregnancy and the soul view].Some defended answers to such questions would influence our views on the desirability and plausibility of such claims. See Ribeiro (2011) for some interesting thoughts that could be applied to such woolly speculations. Moberger (2020) would call such speculations by astrologers “obscurantist pseudo-philosophy” p.599). The question of animals comes up here: many astrologers contend astrology can tell us a lot about our pets. Do our pets have souls/immaterial minds? If animals are given a material mentality, what distinguishes human minds from animal minds? Is there an ontological difference between animals and human beings in astrology? [↑](#footnote-ref-55)
56. For example, Bassham, G (undated) The law of karma; what is it? Does it make sense? https://www.academia.edu/9889697/The\_Law\_of\_Karma\_What\_is\_It\_Does\_it\_Make\_Sense. This view also assumes a dualistic view of the human being, which has difficulties that need to be confronted (see Robinson, 2020). Also, Grace (2017). Indeed, most philosophers of science contend that our best science should inform our metaphysical speculations. [↑](#footnote-ref-56)
57. What about rapes, all unwanted pregnancies, and miscarriages? [↑](#footnote-ref-57)
58. This differs from Tarnas’ (1987/2013) claim that people themselves, on the basis of their ‘spiritual and karma’ background before birth, choose when they will be born. [↑](#footnote-ref-58)
59. A question of interest is how do astrologers view premature or late delivered births. This question is of some appropriateness since the French investigator Gauquelin, who found little evidence for many traditional astrological claims (this point is rarely mentioned when Gauquelin’s name is brought up in astrological publications) but found interesting, but weak, relationships between some planets and the births of eminent individuals, observed the effect diminished or disappeared with induced births. However, most astrologers disagree with Gauquelin and claim the moment of birth is always astrologically appropriate, induced or not. One would need a plausible theory to make sense of such a claim. Typing in ‘astrology and premature births’ in your search engine will show the variety of opinions on this topic with no agreed-upon way of adjudicating among them. Gauquelin also claimed that the astrological effects he found disappeared with post-1950 births. The debate is astrologically important since at least 10% of births are induced in most countries (Cypryjański1 , Hozer-Koćmiel, & Gracz, 2021 ). This is a serious break with astrological tradition, as in the past when most births were natural. While astrologers are quick to cite his positive findings when astrology is challenged, their practice remains unchanged. These are large discrepancies between contemporary astrology and Gauquelin’s neo-astrology that are an added, serious problem for astrologers accepting the Gauquelin results. Another issue on the horizon is the biological sciences being able to manipulate genes and enhance characteristics of future offspring (cognitive, moral, aesthetic, physical, health) and perhaps even create new kinds of synthetic creatures (Anomaly, 2020). The new procedures with fertility clinics and sperm banks should also influence and change astrological practice. But probably not. One suspects most astrologers will try to take the easy way out here and just **stipulate** that the moment of birth is all that is needed to describe such individuals, but this would just be a desperate *ad hoc* attempt to save astrology from re-examination, and change as little as possible in their practice. [↑](#footnote-ref-59)
60. Jukic, Baird, Weinberg, McConnaughey,& Wilcox (2013) pinpoint the precise point at which a woman ovulates and a fertilised embryo implants in the womb during a naturally conceived pregnancies, and found that the average time from ovulation to birth was 268 days -- 38 weeks and two days. However, even after excluding six pre-term births, they found that the length of the pregnancies varied by as much as 37 days. There was five weeks of variability. The authors concluded: "The length of human gestation varies considerably among healthy pregnancies, even when ovulation is accurately measured. This variability is greater than suggested by the clinical assignment of a single 'due date'. According to many astrologers, somehow the mother or the pre-birth spirit chooses the ‘correct time’ for the birth. Given the horrible lives some people experience, the ‘choices’ seem uninformed. [↑](#footnote-ref-60)
61. Given that our behavior and personality is also related to bidirectional relationships with hormones and other internal biological events, do the heavens influence or mirror these internal events in all their complexity, or just their outcomes? [↑](#footnote-ref-61)
62. Astrologers could nonetheless claim that heavenly configurations (via cosmic rays, gravitational waves, or whatnot) might induce the random but constrained mutations from which evolution selects. However, to take such speculation seriously, one needs more information on how such physical effects affect individuals so differently in accord with **astrological** tenets. Further, such physical effects act continuously from the genesis of sperm and egg, through conception and the rest of an individuals life, and do not have the characteristics required of any astrological influence (Carter, 1927, pp. 13-14). In this regard, it is interesting to note that research is increasingly showing even our moral stances may have strong genetic bases. See for instance, Karinen et al (2021). [↑](#footnote-ref-62)
63. A readable description of how this occurs can be found in Kennedy (2020). [↑](#footnote-ref-63)
64. For the sake of argument, let’s assume that astrology really works as astrologers claim (although perhaps only Vedic astrology works, but we’ll ignore this for the sake of argument), but it suddenly no longer worked (for whatever reason) since the year 2000. How could astrologers ever find out? **They already have a built-in set of *post hoc* excuses to explain away any failure (**see Kelly, 1998, also Bouldry, 2013; Boudry, & Braeckman. (2012))**.** They would just carry on, as usual, with their confirmatory biases and personal validation, and with satisfied clients, oblivious to its no longer working. A true astrology and a false one are indistinguishable because of the game-playing machinations of astrologers. [↑](#footnote-ref-64)
65. The perspective of astrology is that of the heavens **from the viewpoint of those living on the earth.** There is little reason to believe we are trapped in this perspective. Not only are we cognizant of different perspectives of people living in completely different geographical and life circumstances on our own planet (in a large variety of climate condition, both under and on the earth), our imaginations along with science fiction can introduce us to possible perspectives on other planets, and indeed, outside our solar system. [↑](#footnote-ref-65)
66. Think of the immensely huge divergent number of things going on at **any one particular moment of time** across the world and especially in particular locations: animals and people are being born and dying, mating, eating, talking at the pub, watching TV, wars are occurring, peaceful processes are occurring, people are sleeping, waking, working, rivers are being rechanneled, storms are occurring, the sun is shining, etc etc. What would it mean to summarize all such massive divergencies and there futures into one ‘quality of the moment’? What criteria would one use? How could events in the heavens capture all this diversity? Consider this response by an astrologer to a skeptical party guest:

    *[astrology] uses the stars and the other celestial bodies as points of reference to measure time, not just its quantity, but its “quality” above all.* *If you are born on October 18th, it says the quantity of time, but the fact that the Sun was in Libra sign, will tell you* ***the quality of the time when you are born****, and that can tell you even the quality of who you are, and that’s just to begin… –*That guy looked at me surprised and speechless. He started to realize he knows nothing about Astrology, and the only thing he said was: *– Oh… interesting… –*So, from that point, I opened a brand new world to him ([The 4 most frequent criticisms that skeptics do about Astrology: Your 4 smart and classy answers to them (iordanus.com)](https://iordanus.com/crit1/?msclkid=c1656c50cf0211ec9127842540a001e4), accessed May 8, 2022). .

    Astrology supposedly describes time’s ‘quantity’ and ‘quality’! Never mind, one has little idea of what such talk means. It sounds profound. The cited astrologer goes on to ‘clarify’ astrology by telling us that astrological heavenly configurations don’t cause but only reflect human activities on earth:

    “**the celestial macro-cycles reflect themselves on the earthly micro-cycles, and so on man’s cycles.....** As ancient masters said, man is micro-cosmos, a small reproduction of the whole Cosmos, in body and mind, so he responds to the same laws. Astrology studies those laws and all the analogical correspondences between macro-cosmos (Universe) and micro-cosmos (Man); that’s why the fundamental precept of ancient philosophers, and consequently the first law of Astrology, is: ***“As above, so below”’,* and that time is not linear.**

    **These question begging extravagant claims are stated as brute facts (absolute truths).** This is typical of astrology books and internet sites. [↑](#footnote-ref-66)
67. Given this, astrologers should also consider the possibility that a myriad of other factors throughout life might mute astrological manifestations over time in the same way. And these may not be under the conscious ‘free-will’ control of the native. In this case, astrology would play a diminishing role in our lives as we get older. [↑](#footnote-ref-67)
68. Astrologers have a large variety of variables they can appeal to, to maintain their belief in astrology, **whatever** the found difference (s) between twins. Listen to <https://theastrologypodcast.com/2018/08/10/the-problem-of-twins-in-natal-astrology/> or read the transcript at [Ep. 167 Transcript: The Problem of Twins in Natal Astrology - The Astrology Podcast](https://theastrologypodcast.com/transcripts/ep-167-transcript-the-problem-of-twins-in-natal-astrology/). The discussion is at the level of trading astrological logical possibilities and intuitions all around, similar to what you would find at a bar discussion among drinking buddies. As one astrologer says in the discussion,

    “there are literally like innumerable or just like millions of variables that astrologers could take into account. And oftentimes the astrologers don’t take those into account and just physically can’t. Like we lack the ability to take into account all of the major variables that could be taken into account. But that doesn’t mean that they’re not necessarily there or they’re not necessarily operative on some level, and they become relevant in instances.... where we’re talking about minute differences and whether two charts really are identically the same or whether there are significant differences that are actually there if you really wanted to push the point”.

    Astrology in each of its different forms are closed or self-sealing systems for believers. Further, given that contemporary astrologers only take into account a microscopic number of possibilities compared to what is possible, one might expect the claims of astrologers to be similarity limited (a check of astrology books and internet sites suggest otherwise). And how do astrologers know what other variables are providing ‘minute differences’ when tiny asteroids are considered very significant by some astrologers. How does one determine whether something excluded might have a major impact or not (given that the physical characteristics of celestial bodies or distances from earth are irrelevant for most astrologers)? [↑](#footnote-ref-68)
69. McRitchie claims it is not easy to find close time twins but gives no numbers to support this. For birth rates typical of Western populations, about 20% of those living in a city of a million people will have a time twin born within ten minutes, and a tenth of those will have two. The numbers increase very rapidly as the city population increases, so time twins can be surprisingly common. Presumably not a point he wants us to know. [↑](#footnote-ref-69)
70. Astrologers do provide responses to wrong charts, but such responses would be especially problematic for those astrologers that take a scientific or empirical view of astrology. Some typical responses would be: (1) the wrong chart may have been miscalculated because the astrologer was in a bad mental state, (2) it doesn’t matter if it is wrong, as long as the astrologer (and client) believe it is the right chart, (3) the cosmos will guarantee it will always be the ‘right’ chart, whether its wrongly dated or not, (4) the wrong chart will be accurate until the moment you discover it was wrong, and then it collapses (Phillipson, 2019, pp. 286-288). These responses qualify as mere verbiage (see Dean *et al*, 2022, pp. 858-859).. On the other hand, McRitchie (2023 b, p. 577) tells us “Dean and Kelly claim that “accurate birth charts are not needed” because clients sometimes accept consultations based on accidental use of the wrong chart. But this is merely anecdotal evidence. Presently, I do not know of any well-designed studies of acceptance of wrong chart consultations ....but the burden of proof is on those who make the claim.” This is an odd thing to say, given that the personal experiences of astrologers (a paradigm case of anecdotal evidence) are the basis of their claims in the first place (se pp. 6-8). The plethora of **published** cases of astrologers fitting birth charts to wrong birth dates provide independent evidence for birth-date inaccuracy. So the burden of proof is on **astrologers** to show that more accurate information can be obtained by correct birth-date charts than those based on other (incorrect) birth dates (see Piggiucci & Boudry, 2014 for a useful discussion on this topic). The wrong-chart experience is evidently widespread enough across **all astrological approaches** to make it a genuine threat to astrology. While it would be difficult to design a study where astrologers knowing use wrong charts, the published charts by astrologers using the wrong birth data and still find exemplary fits to an individuals life is strong support for our negative claims (see Dean *et al*, 2022, pp. 856-858). [↑](#footnote-ref-70)
71. McRitchie (2023, p. 577) dismisses wrong chart effects as merely anecdotal without empirical support when Dean’s reversed chart study provided exactly that, as do the many tests that fail to show how astrologers cannot correctly match chart s to owners. Dean *et al* (2022, pp. 873-877) study involved paying astrology clients divided into two groups , where one group received a birth chart based on correct interplanetary aspects, while the control group was given reversed aspect to those in their chart. Both groups believed that their charts provided true descriptions of themselves. Adjusting birth charts to give interpretations that were exactly opposite to those of the authentic charts made no difference to their acceptance by paying clients. [↑](#footnote-ref-71)
72. Books by astrologers **of all persuasions** and their internet sites are full of *post-hoc* matches of birth chart analyses of historical figures and those of celebrities, and they are all essentially worthless. Check any astrology book or astrology magazine. [↑](#footnote-ref-72)
73. Of course, we would need to keep in mind whether or not the astrologer (or client) was aware of the likelihood that the planets were randomly allocated. If they were, they would likely reject the results in advance. [↑](#footnote-ref-73)
74. Talk of free will is ambiguous in such astrological contexts. First, it is generally unclear which notion of free will is being advocated (uncaused action, compatibilist, agent–caused, etc) and how much sway our actions have within the constraints of **astrological** symbolism. Talk of free-will is usually tied in with the view that astrological combinations can manifest in a variety of different ways, allowing an escape for any wrong statements made in astrological sessions. [↑](#footnote-ref-74)
75. We have a similar problem arising when we consider the role prenatal genetic engineering will likely play in future pregnancies (designer babies). Do the heavens automatically adjust to cover the future changes in life that providing different biological make-ups that emerge or will astrology become redundant for such individuals. How would they know? Or would they retreat to the default position of using the date of the procedures rather than birth time? For an interesting article on genetic enhancement and post-humanity see Rueda (2021). [↑](#footnote-ref-75)
76. McRitchie (2023) dismisses the effect of self-attribution on astrological outcomes because if true ”it would make not only astrology testing----but all tests of personality---unreliable”. Except that psychologists are well aware of this, and that is only relevant if the effect size of self-attribution is similar to that of the variable being tested, which is generally true in astrology but not in personality testing (if only because the experimenter is aware of the problems and takes precautions). [↑](#footnote-ref-76)
77. Harding (2019) points out that astrological symbolism permeates our everyday language (e.g days of the week and in the writings of Shakespeare). So what? Nothing about the veracity of astrology can be inferred from this. The meanings of expressions change over time---we still talk of the sun rising which is associated with a geocentric (earth centered) solar system**. Of course,** language will contain traces and terminology from past beliefs, it doesn’t continuously start anew from nowhere. Religion has also an influence on much of our language and secular beliefs (Zhang, 2014; Gray,2018) Indeed, Henrich (2020) contends that much of our Western society and its institutions were largely influenced by Christianity. But again, nothing follows about the validity of religious beliefs. [↑](#footnote-ref-77)
78. For readers rusty on the Greek gods, very readable outlines can be found in Lefkowitz (2003) or Johnston (2023). Both authors describes the origin of the myths, the role of the gods in The Oddysey and the Illiad, their role in Greek tragedy, along with their role in Hellenistic poetry and the Aeneid.

    [↑](#footnote-ref-78)
79. Bendixen *et al*, (forthcoming) suggest that appeals to gods and spirits reflect threats to coordination and cooperation in the local socio-ecological landscape. Greek gods fit the **Greek** socio-ecological situation, but in astrology their characteristics have been expanded to fit everybody in the Western world. This would appear to be a topic worth exploring when it comes to gods associated with diverse astrologies around the world. [↑](#footnote-ref-79)
80. The symbolism becomes more complicated when other planets or other relationships are included. For example, consider the blending between mythologies that typically occurs when planets are considered together: “When [romantic and sensual Venus](https://www.bustle.com/life/venus-sign-astrology-meaning-love) aligns with [bold and passionate Mars](https://www.bustle.com/life/how-mars-in-aries-2020-will-affect-your-love-life-based-on-your-zodiac-sign), you can bet that there will be sparks….[Kahn (2020)] is typical. [↑](#footnote-ref-80)
81. For the past twenty years astronomers have discovered large bodies beyond Pluto, like Eris, and NONE has the parameters of the hypothetical planets of Uranian astrology. These hypothetical planets do not exist, and just like Vulcan, they are no longer hypothetical and... practitioners who use them claim their astrology still somehow works! (Bret-Morel, 2016, chapter 7). [↑](#footnote-ref-81)
82. The Black Moon history (YouTube, Bret-Morel SITP Bruxelles + book Bret-Morel 2016 + french astrologer Richard Pellard which is Bret-Morel’s source https://www.astroariana.com/Lune-Noire-et-Noeuds-lunaires.html) is interesting because it starts when astronomers imagined a second moon around the Earth but it took time to invalidate this hypothesis. But the Black Moon had entered astrology and its symbolism was too good to die. So French astrologer Don Neroman changed its definition! The Black Moon would now be one of the two focal points of the lunar orbit around the Earth! Black Moon is... below the geostationary satellites! A magic trick ! And… “it works” in readings for astrologers as well..

    [↑](#footnote-ref-82)
83. McRitchie (2016) says, “When an astrologer says that in their ‘experience ’astrology works, they only mean that it is useful as a tool and not that the reliability of astrology is based on their experience of use in it.” Actually, a perusal of astrology books (check your local bookstore) shows astrologers consider their own experiences with clients (and perhaps themselves) to provide a self-authentication of the reliability of their astrological beliefs. When they further engage in echo-chambers with other astrologers, they consider shared experiences which further authenticate the experiences which happen within their own astrological tradition. We might also point out that a very wide variety of types of experience can be considered under the label ‘astrological experience’, making the expression vague. No wonder nothing in astrology can be thrown out. A useful critical article on such lived experience is by Hsiao (2021). [↑](#footnote-ref-83)
84. A serious problem with many astrologers is their emphasis only on supporting cases in their writings---providing only examples that confirm their claims. To evaluate the claim that asteroid Apophis is associated with mass shootings, etc. requires input from **all of**: cases where mass shooters have the asteroid in their charts, mass shooters who don’t have Apophis in their charts, non-mass shooters who have Apophis in their charts, and non-mass shooters who don’t have Apophis in their charts. For more on this, see Kelly & Ryan (1983), and the interview with philosopher Douglas Stalker (2021). Astrological internet sites are pervasive with such deficits in elementary critical reasoning. [↑](#footnote-ref-84)
85. ## The red color on Mars, however, seems to be largely surface. Siegel, E (2021) ‘The red color of Mars is only inches deep’ Big Think, Dec 27, <https://bigthink.com/starts-with-a-bang/mars-red-inches/?utm_source=mailchimp&utm_medium=email&utm_campaign=weeklynewsletter>.

    ## Readers might note the red sand dunes in the southern Namib Desert in Namibia are also red for the same reason. It may be of interest to note that Mars would not look red if we lived on Mars. See https://www.livescience.com/space/planets/what-would-colors-look-like-on-other-planets

    [↑](#footnote-ref-85)
86. [↑](#footnote-ref-86)
87. While i-phones and radios were not known until the later 19th century and 20th century, **just placing them** under the increasing wider notion of ‘communication’ is enough for astrologers to talk about it in terms of the astrology they already have. Astrologers did not check out in any way whether the alleged celestial associations with older methods of communication also held with the very different newer methods of communications, they just encompassed them within the already existing astrological symbolism and went on as usual. End of story. Similar questions would arise regarding synthetic creatures, animal hybrids, genetically-altered hybrids and chimeras. It is likely that astrologers would *a priori* take the easy way out here and just deal with them the same way they deal with humans, animals, and non-physical entities like ideas, companies and nations----just go on as usual from the birth date of the entity with the same symbolism. Future possibilities such as clones, androids, robots, spaceships, etc would presumably also be tied to arbitrary birth dates (the date when first thought of, manufacturing started, or date completed?) Indeed, how could they find out that maybe revising astrology is required in any area when all can **already be made to fit whatever is the case?**  [↑](#footnote-ref-87)
88. In fact, identifying a causal mechanism for astrology would be problematic for astrologers. Indeed, **without** an identified causal mechanism, the positive and negative astrological configurations coexist without harming each other and it is very practical! Each positive or negative detail of a situation has its support configuration, so it is ideal for the creative astrologer but also to explain any failure by another configuration. [↑](#footnote-ref-88)
89. In the world of science, quarks and leptons are hypothesized (Standard Model) to hold parts of the **physical** universe together. See https://www.exploratorium.edu/origins/cern/ideas/standard4.html. See also, Wilezek (2021). What is the comparative explanation regarding what holds the **symboli**c universe of astrology together? What are the specifics? The popular answer seems to be an ‘intelligence’ in the cosmos takes a special interest in human beings and the earth. Here the debates in theology become relevant. [↑](#footnote-ref-89)
90. By ‘proper or real astrology’ one presumably means the framework of astrology whose claims are largely true or best supported by the evidence, or perhaps based on the best techniques or practices, or perhaps the most consistent with tradition (but which tradition and which elements are included and excluded and why?). An important question, typically ignored by astrologers of all persuasions, is what do you do with positive studies that support alternative approaches to astrology to your own? Negative studies are only part of the problem for astrologers. The typical response by astrologers is to change the topic by talking about astrology ‘in general’ and ignore the specific approaches. [↑](#footnote-ref-90)
91. Hone (195/ 1971, pp 181-185) provides a comprehensive description and interpretation of aspects in astrology such as conjunctions, opposition, trine, square, sextile, etc. Hone was the Principal of the Faculty of Astrological Studies 1954-1969, then the UK's leading teaching and examining body, and her text-book (now a classic) was the first serious and successful attempt to produce a text-book aimed at all teaching levels with bespoke guidance through the various astrological calculations and interpretations. [↑](#footnote-ref-91)
92. The Astrologer Grasse has somewhat misunderstood the retrogradation explanation : it would be fine to present external planets retrogradations viewed from Earth, but it’s different with Mercury and Venus. His explanation tries to explain why EARTH seems to retrograde if seen from Mercury or Venus, not the opposite! Mercury and Venus are both IN Earth’s orbit, so when Mercury or Venus retrograde, they are really going in the other sense than Earth on their orbit. To see that, imagine you are looking to your child in a carousel : you are immobile and when he passes near your, he goes to the left ; when he passes away from you, he really goes to the right. Mercure and Venus retrogradations are explained like that. Mars, Jupiter and other planets retrogradations are explained like Grass does but only because they are extern from Earth point of view. [↑](#footnote-ref-92)
93. The planets do not align in a straight line because the planetary orbits planes are variable, and the axis tilts of the planets vary. Such ‘alignments’ usually only last a few hours or days. For more on this topic see Cessna (2009) at [Planetary Alignment - Universe Today](https://www.universetoday.com/34076/planetary-alignment/). [↑](#footnote-ref-93)
94. And crystals, see https://meanings.crystalsandjewelry.com/crystals-and-astrology/

    And bitcoin, see [https://www.washingtonpost.com/technology/2021/06/13/maren-altman-tiktok-astrology-bitcoin/ Given](https://www.washingtonpost.com/technology/2021/06/13/maren-altman-tiktok-astrology-bitcoin/%20Given) that astrology supposedly can supply information on abstract entities of all kinds (e.g money, nations, ideas, etc) could it also include speed bumps, books, watches, cookies, and individual nails? Is it just because astrologers aren’t interested in an astrology of pens and nails that we don’t have them? [↑](#footnote-ref-94)
95. One might **expect** astrologies to differ quite a lot regarding very disparate entities such as human beings, many animals, and non-physical things such as ideas, companies and nations, but it seems not. Applying the same or very similar astrological tenets to all of pets, institutions, and human beings smacks of strong anthropomorphism, where **human** characteristics are attributed to non-human animals and inanimate objects (see for more on this topic, Airinti, 2018, and Arp, Barbone & Bruce, 2019, pp. 305-7). Animals and inanimate objects are quite different from each other, so why are they all considered under the same astrological factors? The free-will defence is often used to allow people to manifest behaviors in a large variety of different ways under the same astrological planetary configurations, do animals have free will? [↑](#footnote-ref-95)
96. Western astrologers in the 21st century are using many of the same techniques as those in the 20th century and earlier, yet our lives are much longer and different in many ways, and the planetary cycles have not lengthened or changed over time. Further, it is likely that in the near future, either genetically or through other interventions, we will be able to slow the aging process. Again, the length of the planetary cycles will remain unchanged. [↑](#footnote-ref-96)
97. [↑](#footnote-ref-97)
98. While astrologers make rough predictions about possibilities in clients lives by the use of personal transits, Tarnas is more interested **in world transits** to uncover trends and social movements. The movements of the outer planets are more important in this context, for example, planetary alignments of Uranus-Pluto and Jupiter-Uranus-Pluto. However, as mentioned, before, Tarnas does **not** believe the archetypes associated with such planetary ‘interactions’ allow for specific predictions, we can only know the effects during or afterwards. While Tarnas is focused on the stars, science is moving forward is studying those individuals who do make accurate predictions (Shanteau, 1992; Tetloc & Gardner, 2025; Wilbin & Harris, 2019). Shanteau (1992) found that only a few experts can deliver (but they do deliver). Successful experts have qualities that set them apart from unsuccessful ones. Such as seeking feedback from associates, learning from past mistakes, using aids such as written records to minimise hidden persuaders (cognitive biases), knowing which problems to avoid, and solving large problems by dividing into parts and reassembling the partial solutions. Tetlock and Gardner (2015; see also, Kahneman, Sibony, & Sunstein, 2021) provide suggestions regarding ‘’super-forecasters’ that overlaps with Shanteau, but emphasizes working in teams, being able and willing to admit error, and gathering information from many sources. The advent of powerful computers and ‘big data’ are contributing to all sorts of unavailable possibilities in the past. Read Manovich (2020) for how ‘big data’ is being used to analyze trends in human activities. [↑](#footnote-ref-98)
99. Boudry, and Braeckman. J (2012) call this the ‘multiple end points’ approach to avoiding disconfirmation. [↑](#footnote-ref-99)
100. One might ask, what is the point of astrological predictions? Are they immutable/unchangeable? If astrologers could predict accurately and reliably, **what would we do with such predictions that suggest disaster?** Would preparation be our only resort? Could our pre-knowledge actions prevent the prediction from coming true, making the prediction moot? [↑](#footnote-ref-100)
101. Due to the enormous number of possible factors and interpretations, a perfect correspondence can always be found between any chart, any person, and any event, **after it has occurred, especially in the hands of an imaginative astrologer**. Nothing could be easier than picking the relevant symbols to fit the circumstances, or fit the personal beliefs and expectations of the particular astrologer. Astrology books (check your local bookstore and astrologer’s internet sites) are full of such ‘fits’. Successful predictions **before** the event occurs, however, are something else. As an example of the latter, ten prominent astrologers were asked to provide their predictions as to who would be in the White House after the year 2000 American presidential election; examining the birth charts of Gore and Bush, each astrologer found multiple indicators for their preferred candidate. Four predicted Gore would win, four predicted Bush would win, and two avoided predicting a winner (Stariq 2000). In 2016 the **vast majority** of astrologers wrongly predicted Hillary Clinton would win the American presidency (Trump won). Astrologer Egan laments (2017) “There were very few astrologers making noise from the watchtowers when World War II began, or in 2007–08 during the worst financial meltdown since the Great Depression.” More recently, there was no mention of the forthcoming world-wide pandemic crisis in 2020 at the most needed time to warn the world what was about to happen in The Mountain Astrologer, Dec. 2019 / Jan. 2020, issue 208. (see also, The Canadian Press, 2020). An earlier issue of The Mountain Astrologer (Dec/Jan, 2018/19) dedicated several articles by leading astrologers on what to expect in 2020. There was no mention of the Covid-19 pandemic, one of the most significant events of the last one-hundred years that devastated nations of the world, politically, economically, along with its uncovering of mass inequalities, and countless people were psychologically and emotionally devasted. Similarly, with predictions of 2020 in late 2019 on the site of ISAR—the International Society for Astrological Research. https://isarastrology.org/en-ca/. However, in March of 2020, astrologers had no problem **after** the pandemic occurred, attributing it to a Saturn-Pluto conjunction (Grasse, 2020). A birth chart generally provides planetary configurations allowing any number of conflicting predictions and **after-the-fact explanations** of events, so no wonder astrologers still claim to see it "working" everywhere. The problem for astrology is that those predictions missed or overlooked are often of major historically significant events with world-wide implications. See also, https://theprint.in/opinion/pov/why-online-astrologers-are-secretly-thanking-their-stars-covid-and-science-averse-indians/413008/ Many of the excuses that astrologers make for wrong predictions are the same as those made by social scientists when they make failed predictions. For example, the common excuses given by astrologers and secular pundits are variations along the lines of something outside the model used was missed . As the astrologer Egan (2017) lamented when the majority of astrologers wrongly chose Hillary Clinton as the 2016 American president, “What was missing from the [astrological] algorithms? What asteroid or aspect did we fail to take into account?”; other excuses are: my advice was not followed; I was almost right, my prediction hasn’t happened yet, give it time (Tetlock, 2005, Chapter 4). However, one might argue that mistakes in astrology should be more serious than failed predictions from other areas since only astrologers claim heavenly or paranormal support for their predictions. Astrology is supposed to provide more insight into personal or world affairs than other methods, or why consult an astrologer in the first place? (see also, Kelly, 1997/2005, footnote 2, p.30). [↑](#footnote-ref-101)
102. The problem is, for a number of astrologers, the Saturn-Jupiter conjunction of spring 2020 was expected by astrologers and that they were predicting **specific** catastrophes. What is interesting is that they did not particularly foresee a pandemic but **any** possible catastrophe: from a terrible stock market crash (not so terrible, finally according to the curves) to the fall of an asteroid, through a 3rd world war or the arrival of aliens! If astrology is supposed to give a minimum of information on an event, this was not the case. Another example would perhaps be that of the 2004 Christmas tsunami in Thailand for which, there was not or very little predicted. [↑](#footnote-ref-102)
103. Of course, out of the tens of thousands of Western astrologers, a few will claim to have successfully predicted such an event (as did some numerologists, Tarot readers, psychics, etc), but specifics are always lacking. Why was it missed by most astrologers? **Alas, astrology is supposed to be able to provide detailed information unavailable from other sources** (e.g the media and the social sciences and other forecasters). It doesn’t speak well for astrology when most astrologers are unable to perform as expected. Further, those individual astrologers who can be considered successful in making a **particular** successful prediction do not have an overall admirable batting average of predicting such rare but significant events over time. Finally, it is important to check over carefully what they actually **say** they predicted, and what they **actually did** predict (see Ford, 2023). [↑](#footnote-ref-103)
104. It is an assumption held by many astrologers from the start, that all (or most, it depends on the astrologer) events on earth of note are prefigured in the heavens. So, if a prediction goes wrong, a search possibly relevant of astrological connections (there are a huge number to choose from) afterwards **will always** find something to explain away the miss (see Kelly, 1998; Boudry, 2013). Of course, other news media were also wrong, but these news sources do not claim extra insight into events beyond information obtained from polls and trends, reasonable guesses, and interviews with people. [↑](#footnote-ref-104)
105. Afterwards, we saw the great attempt by some astrologers to **rewrite** astrological history. Astrologers, after finding fitting planetary configurations **after-the-fact**, started claiming they **knew something** was up all along (as did many non-astrologers). For example, Currey says on Twitter (Dec 31, 2020) “Astrologers predicted the pandemic based on the line-up of Jupiter, Saturn, and Pluto” (https://twitter.com/RobertCurrey). Alas, Currey himself wasn’t one of them. However, other astrologers thought pandemics are too complex to be predicted. See https://fr-fr.facebook.com/astrology/posts/why-didnt-astrologers-predict-the-covid-pandemic-we-knew-major-events-affecting-/10161776163963682/ It is useful to also point out that Pluto-Saturn conjunctions only occur every few decades and Pluto was only discovered in 1930, not much time to base **any empirical** observations on supposed astrological effects. Hence the appeal to symbolism associated with the planets. [↑](#footnote-ref-105)
106. Astrology King (2014) points out, “There are three possible dates for the Ukraine horoscope listed in the Book of World Horoscopes by Nicholas Campion (2004). The first date is for independence, set for 22 January 1918, but that independence was short-lived. The second date is for the Proclamation of Independence from Russia, on 24 August 1991. Astro Databank uses this date: [Astrology: Nation: Ukraine](http://www.astro.com/astro-databank/Nation:_Ukraine). The final chart that Campion gives is for a referendum confirming independence on 1 December 1991. There is another chart for Kiev, of 8 May 882, which astrotheme uses: [Astrology: Kiev (Ukraine)](http://www.astrotheme.com/astrology/Kiev_(Ukraine))”. Under the section ‘the future of Ukraine’ there was no hint of the forthcoming huge upheaval in 2022. [https://astrologyking.com/ukraine-horoscope/#:~:text=](https://astrologyking.com/ukraine-horoscope/#:~:text=The%20other%20point%20of%20interest%20in%20the%20Ukraine,one%20of%20uncertainty%2C%20unexpected%20events%2C%20rioting%20and%20revolution) (accessed March, 2022). [↑](#footnote-ref-106)
107. An amusing consequence of thousands of predictions is that the astrologers are often themselves surprised by the event which they will then list as predicted. In science we foresee little and we wait for the result, in astrology, astrologers foresee a lot and since they cannot watch for everything and the predictions are vague, they wait for events to see if they correspond to **something** they have foreseen. But this SURPRISE is characteristic of the soothsayers: the 2004 tsunami, for example, should have been preceded by warnings by the forecasters, even if they did not know exactly what was going to happen, this was obviously not the case. [↑](#footnote-ref-107)
108. When astrologers claim to have predicted a pandemic, they typically make their predictions at the end of another pandemic year (MERS, SARS)! They therefore only “formalised” a fear that was already shared by everyone at the time. Worse: without setting a date (nor a period), they somehow requisition the events to come without difficulty. [↑](#footnote-ref-108)
109. In one of ex-astrologer Bret-Morel’s videos on the prediction of the coronavirus, he compared the content of the pandemic predictions by seers and by scientists: the latter were obviously much more precise on everything. For example by the WHO here: https://youtu.be/n4zCoSR6S1E?t=887 and by the clairvoyant Sylvia Browne a little further on <https://youtu.be/n4zCoSR6S1E?t=1151>. [↑](#footnote-ref-109)
110. See also, C. Sweeney-Baird (2021) ‘My novel now feels unnerving’: authors who predicted the pandemic. The Guardian, April 21, <https://www.theguardian.com/books/2021/apr/23/my-novel-now-feels-unnerving-authors-who-predicted-the-pandemic>. Also, ‘[The Guardian view on prescience in novels: reading the future’ | Editorial | The Guardian](https://www.theguardian.com/commentisfree/2022/jan/30/the-guardian-view-on-prescience-in-novels-reading-the-future) (Jan 30, 2022). [↑](#footnote-ref-110)
111. Successful predictions are made by **non-astrologers** all the time, but we are not continually reminded of this, as we are by the astrological community. For example, the Economist, and <https://www.cnsnews.com/blog/ilona-schumicky/economist-who-predicted-2008-economic-crisis-warns-2020-recession-risk>. Of course, we need to keep in mind their overall batting average is typically no better than astrologers, and we need to examine what they exactly say carefully. [↑](#footnote-ref-111)
112. It is of note that speaking to clients of astrologers one often hears anecdotes of how insightful the astrologer was. And astrologers themselves talk about how their life events are such a good fit with their astrology (e.g “Neptune conjunct Saturn symbolism made sense of my experience during a period of formlessness”, etc).Such talk is isolated. **We live in a large world**, where clients of astrologers of **very different** views and techniques will make the same claims, as will clients of psychoanalysts, numerologists, psychics, as well as friends one considers intuitive, or from religious sources (see Goertzel, 2021) or spiritual advisors. One of us has even had students tell them that at a conference they met a psychologist presenter that was so knowledgeable that he could tell them the color of the socks they would wear the nest day! Astrologers are hardly in a unique category here. **All belief systems**, religious, paranormal and secular have intelligent advocates, stories of spectacular success, claims of ‘great accuracy’, ‘life-changing events’ and assert they have large quantities of positive evidence for their claims, along with unique claimed insights into personal and world affairs. This is a point that astrologers and those sympathetic to astrologers often forget, or ignore. Further, critical thinking is more domain specific than is often recognized, and even very intelligent people can have weird beliefs (see Ch 2 on Nobel Prize winners in Sternberg & Halpen, 2020, Scheiber, 2023, also Williams, 2023 for some thoughts on that topic). [↑](#footnote-ref-112)
113. In regards to possible physical explanations for astrological claims, there are no scientific forces that can account for the **symbolic** astrological claims. As astronomer Christopher Baird (2013) says,

     Fundamentally, there are four forces of nature: gravity, electromagnetism, the strong nuclear force, and the weak nuclear force. If an object affects a person, it must do so by interacting through one of these fundamental forces. For instance, strong acid burns your skin because the electromagnetic fields in the acid pull strongly enough on your skin molecules that they rip apart. A falling rock crushes you because gravity pulls it onto you. A nuclear bomb will vaporize you because of nuclear forces. Each of the fundamental forces can be very strong. The problem is that they all die off with distance. The nuclear forces die off so quickly that they are essentially zero beyond a few nanometers. Electromagnetic forces typically extend from nanometers to kilometers. Sensitive equipment can detect electromagnetic waves (light) from the edge of the observable universe, but that light is exceptionally weak. The gravity of a star technically extends throughout the universe, but its individual effect on the universe does not extend much beyond its solar system. Because of the effect of distance, the gravitational pull of Polaris on an earth-bound human is weaker than the gravitational pull of a gnat flitting about his/her head. Similarly, the electromagnetic waves (light) reaching the eye of an earth-bound human from Sirius is dimmer than the light from a firefly flitting by. If the stars and planets really had an effect on humans, then gnats and fireflies would have even more of an effect. Even if the gravity of the planets was strong enough to affect you, an alignment of the planets would not lead you to win the lottery for the simple reason that [a **literal alignment** of the planets never happens in the real world](https://wtamu.edu/~cbaird/sq/2013/08/28/when-do-the-planets-in-our-solar-system-all-line-up/). <https://wtamu.edu/~cbaird/sq/2013/03/23/how-does-astrology-work/>

     Other proposed explanations for astrological claims (e.g geomagnetic fluctuations,etc ) are critically examined in Dean, *et a*l 2022. The response by astrologers is that many present-day accepted scientific views, lacked explanations when proposed. For example, McRitchie (2023b) says, “From history, there is the example of Ignaz Semmelweis, who understood the significant results of hand washing on the rate of childbirth mortality before discoveries by Louis Pasteur and Joseph Lister developed germ theory as the cause of infections. Also, Alfred Wegener described the origins of continents and oceans, which he called “continental drift,” because there was significant evidence of it even though plate tectonics had not been discovered as the cause” (p.577). The difference is that later research confirmed these findings and there soon emerged plausible theories that accounted for the phenomena which into mainstream science. After supposedly several millennia astrology is still deeply theoretically problematic. [↑](#footnote-ref-113)
114. Carter’s own view (1927, pp. 15-18) was that the astrological forces are **not** physical, but rather a phantom force---some occult or psychic forces set up by a ‘prime mover’ (a god of some sort). How could such non-physical forces affect physical things? For a discussion of such non-physical causes in the context of mental causation see Robb, David and John Heil, "Mental Causation", The Stanford Encyclopedia of Philosophy (Summer 2019 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/sum2019/entries/mental-causation/>. The issues discussed in Robb and Heil also apply to non-physical causes in general. For a useful discussion of values in science and the occult, and problems with the latter see Grim (1990). [↑](#footnote-ref-114)
115. This would also be unacceptable to many theists (e.g Craig, 2003) who would contend that, **after** God’s creation of the universe, the universe is a self-contained causal network. [↑](#footnote-ref-115)
116. Much of what astrologers say on this topic shows a lack of understanding about the sciences, for example, Mello (undated) gives a common, but misleading analogy:

     We may wonder, how can the planets that are so far away possibly have an effect on me? It seems a bit far-fetched, until we consider the powerful effect that the moon has on our ocean tides. If the moon can make Earth’s huge bodies of water rise and fall, what effect might it have on us human beings (who are made of 60% water?!) (see also, [The Physics of Astrology Explained - Astrology News Service](https://astrologynewsservice.com/opinion/the-physics-of-astrology-explained/?msclkid=25aa76b9cfde11ecbf6c657e73bdd754), Sept 19, 2017).

     Very little! The author should learn some astronomy and physics (see Culver, Rotton & Kelly, 1988). Within astrology, lunar influence depends on which house the moon is passing. These houses are related to the daily motion of the earth. For example, Abraham Avenarius says, "The moon in the 8th house will give misfortune -- that is to say, heavy headaches -- mostly with a tragic end" (cited in Moberg 1969:3). But concerning the astrological houses, the moon will pass ALL houses during 24 hours. [For birth charts, astrological theory says that if someone is born with the Moon in 8, then the psychological and practical consequences going with this position apply all the native's life. Another factor of astrological significance may be the passage of the moon within the zodiac signs. As Moberg (1969, p.38) says "moon within Gemini implies a deformed, disfigured, ill dressed person", however, typically this takes more than two days. A few classical works on astrology emphasize a bad influence when the moon is "burned", that is, too close to the sun., a new moon: "Moon burned ....means the native will get a short life..." (Moberg 1969:31). Strictly speaking, the total duration of ‘burned out’ ranges from -6 Deg to -16' -- and again -- from +16' to +6 Deg. However, these intervals affect **all together** slightly less than half of the last day, and less that half of the first day within the lunar month. So, in general, the notion of lunar day should not be of much interest to astrologers. Many astrologers are quite inconsistent when it comes to science and astrology. If any study seems even remotely to provide evidence that might peripherally be made to support astrology it is cited. So seasonal effects on human behavior, sunspot cycles and radio transmissions, internal clocks and rhythms, lunar relationships with human beings and animals, etc and so on are all cited. At the same time, such studies play no role in astrology and birth charts. Astrologers do not consult Wolf numbers or geomagnetic indices as part of a chart reading. And for a good reason -- such topics are simply irrelevant to what astrologers actually do. **One might also note if all the claims about extraterrestrial influences on the earth such as seasonal birth effects or lunar effects on behavior were found to be unfounded, it would have no effect on astrological practice or astrological theory**. (Kelly & Dean, 2000). There are no physical explanations (gravity, magnetism, radiation, quantum effects) that could explain why Saturn conjunct the moon is associated with personal and health problems, or any other symbolic claim of astrology. Nor are there are serious advanced, defendable non-physical explanations available (and synchronicity, as used by astrologers is a label, not an explanation)..McRitchie doesn’t see this as a problem since he bypasses this requirement by appealing to talk of information: “astrology research does not depend on traditionally understood physical causes and mechanisms for its effects. As I explain in the [earlier 2022] essay, it is the effective information that emerges according to the [astrological] theory that is significant. When models of effective information are applied to the data, it is hard to argue with the facts” (McRitchie, 2023, p. 576). He adopts the second correlational approach. [↑](#footnote-ref-116)
117. A common argument made by astrologers is that theory isn’t that important, after all, many views in science were adopted before there was an adequate theoretical explanation. Of course, this is itself a theoretical position. An example usually given is that of continental drift. However, the comparison is not apt. Unlike astrology, continental drift did not require a supernatural element (a god-like creative intelligence) to tie things together [see Oreskes (2019) for an extended discussion of this topic.]. One might note that the examples used by astrologers of continental drift, aspirin, etc as examples of adopted views before a theoretical understanding was achieved have changed dramatically in our knowledge about them since their acceptance (including finding mechanisms to explain how they work), and not so with astrology. Along related lines, the astrologer Harding (undated) says, “I need no theory of the birth chart in order to interpret it, merely an awareness that people with Mars in X and Venus in Y tend to present in similar ways”. However, our observations are somewhat permeated by our theories. A Vedic astrologer, in India, will have different astrological awareness. Our experiences or awarenesses are not self-interpreting, nor necessarily common. Are such awarenesses those which others can accept as being correct? Accurate?  Many others don’t seem to have the same awarenesses as Harding. Just as many people do not have direct awareness of God or a paranormal entity. One already has to accept astrology to have such an ‘awareness’. Such talk therefore isn’t very enlightening. Brockbent (2015) similarly also emphasizes the primacy of astrologers lived experience. See Hsiao’s (2021) critical comments on this view. [↑](#footnote-ref-117)
118. Given that there are a large number of divergent changes going on at any one time in the life of the human race, planet, solar system, and the universe, it seems to lack sense to talk about ‘the quality of the moment’ as if some uniform paranormal discernable underlying pattern was available. It also seems somewhat puzzling (to say the least) that “the quality of the moment” tells us about individual people when, at the same time, a planet will form a positive configuration for someone, a negative for another and none for a third person. [↑](#footnote-ref-118)
119. Some astrologers appeal to the notion that some microscopic random events are causeless, and that somehow this applies to astrology. That involves one large jump which is made worse when astrologers around the world appeal, on the same grounds, to their very different local astrological beliefs. A number of essential supporting steps are missing. [↑](#footnote-ref-119)
120. See Shackelford , T.K (2021) The Sage Handbook of Evolutionary Psychology: Integration of Evolutionary Psychology with Other Disciplines. Sage, for the productive nature of evolution in other areas. [↑](#footnote-ref-120)
121. This point supports the view of Tarnas and others that any direct **physica**l mechanism for astrology is absurd. [↑](#footnote-ref-121)
122. Those interested in Aristotle’s notion of the Prime Mover can consult J.G. Defilippo (1994) Aristotle’s identification of the Prime Mover as God. The Classical Quarterly, 44/2, 393-409. [↑](#footnote-ref-122)
123. How do we **know** that all of these ‘patterns of meaning’ are all interconnected? On what basis can Tarnas say that they extend through every level of the same transcendent reality? Are they independent of each other? Dependent on each other? How does he know this? [↑](#footnote-ref-123)
124. One might compare what astrologers say, with such confidence, on such topics with the far more measured and reasoned debates on ‘levels of reality’ talk in philosophy and science (see, for example, Hemmo, *et al*, 2022, also the entire April issue of The Monist, 105/2.). [↑](#footnote-ref-124)
125. Presumably, this means there is an underlying overall pattern of direction or purpose in history. This topic opens a large can of worms about whether history has an overall linear pattern of progress, is cyclical, or has no overall pattern or laws governing history. This alone is a large topic with diverging views ranging from the view history has no governing laws (e.g Popper, 1957). Popper contends history is unique with no laws that allow future predictions, at most, we can perceive trends. Gray, on the other hand, contends history is cyclical (see Erickson, 2011 for Gray’s view of history) and exhibits no signs of overall progress. Religious views, on the other hand, claim an underlying overall direction, but claim astrology plays no role in this (see Langord, 2019 for a review of this topic). In his earlier book, The Passion of the Western Mind (1993) Tarnas suggests there is an inner goal in the Western mind that has resulted in an evolutionary journey based on archetypal influences of nature revealing themselves through the human mind. For some comments (somewhat critical) on Passion, see ‘[Philosophy, Richard Tarnas, and Postmodernism (citizeninitiative.com)](https://citizeninitiative.com/philosophy.htm#Tarnas)’. This earlier book sets the stage for his later Cosmos and Psyche (2006). [↑](#footnote-ref-125)
126. What is considered a ‘complete human being’ varies across history with shifts in moral attitudes and beliefs. We would get very different answers from ancient Homeric individuals than medieval Christians, and different again by people living today in the West. Also, why should Tarnas and his devotees think they have the same idea of ‘complete human being’ as the astral intelligence does? [↑](#footnote-ref-126)
127. Notions of transcendence have a long history and there are many different beliefs in transcendent realities. A good start on this topic can be found in Goris and Aertsen (2019, also, Evans, 2015). An extensive discussion of the large number of such ‘ultimate’ models about what is ‘most fundamental, real, valuable, or fulfilling’ can be found in Diller (2021). Unfortunately, individuals such as Grof and Tarnas seem to believe their views on the topic are somehow more plausible (without argument) than other possibilities. [↑](#footnote-ref-127)
128. For an informative discussion of various notions of transcendence see Kutter, Schnitker, & Gilbertson (2020). [↑](#footnote-ref-128)
129. Appealing to a ‘creative intelligence ‘ or an ‘astral-intelligence’ is a central plank in the psychological astrology of many adherents. It is therefore surprising to find little acquaintance of such astrologers with the field of contemporary theology and the literature on the topic. For starters, one might consult Oppy (2006), Johnson (2022). [↑](#footnote-ref-129)
130. Or perhaps the divergent astrologies across cultures were imposed by different culturally local gods. Indeed, perhaps the solar systems across the universe each have their own different demiurge (local creator). [↑](#footnote-ref-130)
131. Readers with even a rudimentary background in philosophy will recognize similarities to Occasionalism (Malebranche) and parallelism (Leibniz). [↑](#footnote-ref-131)
132. McRitchie (2022, p. 708) tells us, astrologicall ‘weights’ are often determined “where, for example, the Sun and Moon are given more weight and the outer planets are given less weight. Further, planets with astrological properties that suggest dominance in an effect [are given more weight]”. The ideas of astrological symbolism are evident here. In the first sentence, distance from the earth, while usually irrelevant in astrology, suddenly becomes relevant in weighting effects. In the second sentence, the mythology and semantic symbolism is used to determine factors weights. [↑](#footnote-ref-132)
133. This would hopefully avoid the personal validations of individual astrologers, which result in a never-ending lack of consensus on many issues after supposedly 3000 years. This lack of consensus is most evident in the divergent astrologies across the world. It is interesting to note the huge variety of techniques used by different astrologers in their discussions of the Russian –Ukrainian crisis of 2022, without any interest in consistency. Some even focused primarily on named asteroids (see <https://alexasteroidastrology.com/astrology-of-the-russia-ukraine-crisis/> accessed March 8, 2022). All found what they wanted to find *post hoc* or qualified their claims, which seems to defeat the purpose of consulting astrology in the first place. Any useful information they provided on their sites was available to non-astrologers in the daily news. [↑](#footnote-ref-133)
134. While Mars in the West is associated with war,

     **The Maya …went to war by the sky …triggered by the planet Venus. Venus war regalia is seen on stelae and other carvings, and raids and captures were timed by appearances of Venus, particularly as an evening "star".** [**Warfare**](http://www.btinternet.com/~alan.catherine/wargames/mayawar.htm) **related to the movements of Venus was, in fact, well established throughout Mesoamerica (Canadian museum of History)** [↑](#footnote-ref-134)
135. Grof (2009, p.63) provides an astrological version of the design argument for an astral divine mind:

     “The connections revealed by astrology are so complex, intricate, creative, and highly imaginative that, in my opinion, they strongly point to a divine origin. They provide convincing evidence for a deep meaningful order underlying creation and for a superior cosmic intelligence that engendered it”.

     Grof is defending the Western astrological tradition of Tarnas here. The selected astrological design seems weak when we consider the larger picture of the universe:

     The vast majority of the universe is completely hostile to life, and where it does exist, it only exists briefly. Less than 5 per cent of the universe is normal (atomic) matter (the rest is dark energy and dark matter). Of that 5 per cent, most of it is free hydrogen and helium; and the rest is mostly stars. In the end, only 0.03 per cent of the universe comprises heavy elements (of which planets are composed), and only a tiny fraction of planets (perhaps only one!) house life. (Johnson, 2022, p. 11)

     Another problem arises when we consider all the diverse, non-complementary astrologies across time and geography. How does this diversity result from astrological design? This ‘argument’ does not even get off the ground. The astrological designer would itself be a complex mind that needs explanation. The ‘connections revealed’ are also *post-hoc* fittings that guarantee a fit. The field of theology enters at this point. The argument seems susceptible to critical responses to the teleological argument found in any philosophy textbook. All questions regarding the nature of this intelligence and its relation to evil and creation also arise (see Schellenberg, 2019, Chapters 7 and 8, and Johnson 2022a, pp. 14-17, Johnson 2022b and Loftus 2021 on the horrors and violence found on our terrestrial planet, along with the suffering of non-human animals, Crummett, 2017, and perhaps even plants (see Strickland, 2021; Calvo, 2023)). Aiken & Ribeiro (2013) critically examine, and undermine several theological responses to this evil. Frances (forthcoming) considers suffering in a wider universe form. These articles are just as relevant to talk of an astrological intelligence. After all, the astral god supposedly has the capacity to give us the basis for discovering details of our lives and provide meaning yet has made us incapable of finding the world morally intelligible in its inscrutable suffering. [↑](#footnote-ref-135)
136. The latter would be more consistent with the archetype model (advocated by Jungian-influenced astrological writers). This topic is broached next in this paper. [↑](#footnote-ref-136)
137. According to astrologer Grasse (2021) the answer is Yes! Determining horoscopes for those born on other planets will require initially finding out the ‘archetypal meaning of the body they were born on’, and this will require knowing a lot about the planet itself and its place in the surrounding celestial systems to determine the relevant symbolisms. Why would extraterrestrial beings necessarily have archetypes? Their psychology could be quite different from ours (and perhaps AI based). Given the likely large number of planets in the universe that might contain intelligent beings, this means there could be untold billions of very different astrologies throughout the universe. Further, if we humans go to live on, or spend time on different planets, would we still be under the influence of where we were born, or bouncing back and forth among astrologeies as we travelled interplanetary or lived for long times on different planets? [↑](#footnote-ref-137)
138. A question about **time** comes up here----if (non-extrapolated) future events can be predicted (however roughly), the future must exist now in some way. It is somewhat pre-loaded. Does this make sense? We are not talking here about mundane events like the sun rising next week, or that car accidents will kill people next year, which are extrapolations from past experience. The astrologer Currey on his astrology site prefers the term ‘forecast’ rather than prediction but the forecast will “identify how the powerful long-range planetary cycles unfold in your life….in addition to the detailed annual projections, it provides a review of major influences over period of up to thirty months.” https://www.equinoxastrology.com/forecast.htm (accessed Feb 18, 2021). However, does this astrological foreknowledge (however broad) limit to some extent our free will? Contemporary Western astrologers tend to avoid deterministic talk and so speak of the celestial configurations as offering opportunities and potentials within which people can exercise their free will. Fatalism is avoided, astrologers contend, by avoiding the claim that our behavior occurs by **necessity**. This is a complex topic and I would refer the reader to Fischer and Todd (2015), or read Boudry’s review of Dennett & Caruso (2021) Just Desserts in Metascience, (2021) 30, 365-369. [↑](#footnote-ref-138)
139. These are excessive claims, greatly in need of further explanation. What kind of ‘whole universe’ astrological symbolism would be appropriate here? How would any kind of astrological symbolism relate to the whole universe with all its divergent kinds of galaxies, astronomical entities and (likely) life forms ? It is not clear that this kind of talk even makes sense, we would suggest that the extension to the whole universe the symbolic talk by ‘the same principle of cosmic symmetry’ itself creates a [*reductio ad absurdum*](https://www.bing.com/ck/a?!&&p=a87abdda8276de8eJmltdHM9MTY5OTQ4ODAwMCZpZ3VpZD0wNzBjNTM5YS02YTI1LTZkM2UtMDJiZi00MDBkNmI5NjZjNmYmaW5zaWQ9NTc2NQ&ptn=3&hsh=3&fclid=070c539a-6a25-6d3e-02bf-400d6b966c6f&psq=reductio+ad+absurdum+examples&u=a1aHR0cHM6Ly9lbmdsaXNoZ3JhbW1hcm5vdGVzLmNvbS9yZWR1Y3Rpby1hZC1hYnN1cmR1bS1mYWxsYWN5LWV4YW1wbGVzLw&ntb=1)of the initial claim regarding natal astrology. [↑](#footnote-ref-139)
140. A ‘creative intelligence’ could be indifferent to us, or immoral (from our human perspective). It could be an impersonal entity, or a non-divine, or divine personal entity. Creativity is not confined to good deeds [see Law (2010)]. It could even be a kind of trickster. After all, sometimes, according to some astrologers, things seem unexpected in unwelcome ways. As astrologer Egan (2017) says

     The secrets of the universe really are encoded within our beloved discipline [astrology]….The secrets seem to be right there, and yet the closer we approach and the more we try to pin them down, the more irritatingly they appear to slip away at times. An invisible cosmic jokester seems to be pulling the strings. We “knew” that our Saturn return was going to do this or that, and yet … pfft. On the other hand, in regard to perhaps another transit: Wow, we certainly didn’t see that one coming! So, that’s what that aspect meant!

     Or maybe, this astral intelligence is some kind of ultimate ironist, as the novelist Julain Barnes (2009, p. 191) proposes---one who plants all sorts of longings and illusions of control (such as astrology suggests) in undeserving creatures such as us, and then observes the consequences. For other possibilities, see Jenkins (2023) and Tokhadze (2021). [↑](#footnote-ref-140)
141. Would it matter if we are living in a simulated universe? Perhaps the ‘astral intelligence’ is an alien mind, a future oddball or teenager. (see Chalmers, 2022, chapter 7). Tarnas’ astral intelligence seems less likely than Chalmers’ simulator god. [↑](#footnote-ref-141)
142. Astrologers may consider such questions unanswerable and not worth bothering with. But why? Theology faces such questions (and deals with them) and the entire field of traditional metaphysics is concerned with such questions. [↑](#footnote-ref-142)
143. A philosophical critique of notions of purpose common among psychological astrologers can be found in King (2021). [↑](#footnote-ref-143)
144. It is interesting to note that while many of the archetypes reflect characteristics of the gods of Greece and Rome, the transcendental reality that includes the archetypes is supposedly not the bawdy, human-like reality that such gods populated. It has been cleaned up. [↑](#footnote-ref-144)
145. Notions of transcendent realities are typically connected with **positive** afterlife beliefs (after all, who wants to survive in an unpleasant afterlife?). Tarnas *et al* seem to rule out such unpleasant possibilities without argument. For relevant philosophical debates on the meaning of life and the afterlife see Metz (2021) and Hasker &Taliaferro (2019). [↑](#footnote-ref-145)
146. For those astrologers who reject scientific evaluations of astrology and adopt a ‘metaphysical’, ‘philosophical’, or ‘spiritual’ astrology (we suspect that the adoption of such views are made to make their standpoints more resistant to reasoned opposition), there are a **huge number** of possible astrologies. These are usually based on acceptance of authority and supernatural sources of claimed knowledge. As such, while scientific evidence may not be relevant, philosophical and theological critiques of the sources and notions of the transcendent and supernatural will be relevant (e.g Firestone 2014; Johnson, 2022c). Western astrology is already only one of a number of astrological systems across the world, but there are many, many, other such possibilities, once we reject scientific evidence as relevant for evaluating such astrologies. These possibilities may vary in the strength of the perceived relationship between ‘as above, so below’, or in what falls under the relationship, what is included in the above, and so on and on. Those astrologers who favor such a ‘philosophical’ astrology are faced with how to defend their favored approach over the limitless number of possible alternatives. Simply saying astrology is a ‘philosophical’ or ‘spiritual’ position won’t cut it. [↑](#footnote-ref-146)
147. Narcissism seems to be related to belief in astrology (Andersson, Persson & Kajonius, 2022). [↑](#footnote-ref-147)
148. Transpersonal theories and other psychoanalytic theories (Freud, Klein, etc) are also sometimes tied in with psychological astrology, although Jung is the most popular theorist among psychological astrologers. Other psychoanalysts (e.g Freud) did not share Jung’s positive views on astrology. Indeed, Freud’s views on religion can be re-cast as a critique of astrology [see Smythe (2011) for Freud’s views on religion]. [↑](#footnote-ref-148)
149. Other astrologers adopt a wide psychological view but place less emphasis on Jung. For example, McRitchie (2017, 2006), believes faithfully in all the calcified beliefs that other astrologers do (zodiacs, Ascendant, rulerships, conjunctions, etc. see McRitchie, 2006)) but prefers to express these beliefs in a different psychological way, and tells us

     …what are referred to as planetary influences do not come directly from the planets but rather are experienced through **projective interactions** with host individuals. In cases where the native is a non-living or non-material thing, the projections may be made on behalf of the native by interested parties. This projective view is an important clarification because the astrological concept of planetary influence is counterintuitive unless some sort of model of psychological projection is understood. In astrology, it is individuals who influence one another…The Hermetic maxim, which is widely accepted in astrology, suggests that symmetrical processes mathematically associate microcosmic and macrocosmic features and **take precedence over causal mechanisms**. The astrological literature suggests that influences should be interpreted as interactions within these cosmological symmetries between individuals rather than between planets and individuals….(bolding ours)

     Consequently, McRitchie adopts the view that the planets correlate (not cause) the multitude of events on earth. Unfortunately, typically, specifics are lacking. We need more information on the mechanisms underlying astrological ‘projective interactions’ (his 2006 article doesn’t help much) and why we should take the ‘as above, so below’ maxim seriously? Just because the ancients did is no reason we should. Also, why should we take the vague suggestion that “symmetrical processes mathematically associate microcosmic and macrocosmic features and take precedence over causal mechanisms” as more than just an astrological principle believed by astrologers? How do we get from talk of ‘symmetrical processes’ to the specific symbolism of astrology? McRitchie suggests it seems to be inferred from astrological practice over the ages!.Where are the historical records showing this? McRitchie seems to base his astrological beliefs on traditional ‘suggestions’ rather than providing independent reasons for his beliefs. McRitchie starts with a certain set of answers portrayed as authoritative, and never wavers. [↑](#footnote-ref-149)
150. A readable view of how many contemporary psychologists view Jung can be found in Jones (2013). For some critical comments on Jung’s views on astrology by an astrologer, consult Harding (1992, 2020). In an interview with Garry Phillipson (undated), Harding says,

     The truth, of course, is that Jung didn't even understand the precession of the equinoxes, or how that movement was built into the calculation of every birth chart, and thus made quite ridiculous remarks with regard to astrology. Everything was a 'projection' of the unconscious. Yet in his *Dream Seminars* he claims that nothing is ever projected and - most remarkably - that we don't have an unconscious. Jung's work is complex and often contradictory, and I don't have a sense that astrologers on the whole have really taken this on board. http://skyscript.co.uk/harding.html [↑](#footnote-ref-150)
151. Panpsychism has its critics, see Frankish (2021), Blaesi (forthcoming).. [↑](#footnote-ref-151)
152. Many astrologers seem to believe that the a-causal correlations are beyond our conscious control. However, the parapsychologist Mislove (2021) suggests that we do have a measure of conscious control over synchronous events, which would mean that such events are not entirely a-causal. This would have serious implications for psychological astrology. [↑](#footnote-ref-152)
153. For some criticisms of synchronicity and archetypes see Percival (1993), Nether (1996), Dean (2007) http://www.astrology-and-science.com/b-cosm2.htm, Winther (2012), S. Saurav (2018) and Sawyer, 2018.. A critique on modern applications of Jungian archetypes framework. https://medium.com/@smtsrv/a-critique-on-modern-applications-of-jungian-archetypes-frameworks-3b6f479ea419. Buffardi (2021) contends the notion of archetypes is overly deterministic and phenomenologically inaccurate. A critique of Jung’s notion of the collective unconscious can be found in Mills (2019). For an astrologer’s critical take on psychological astrology and Jung, see Revilla (2008). Also, Dean *et al*, 2022, pp. 528-530 and 443-475. [↑](#footnote-ref-153)
154. It is also important to consider the racial and colonial underpinnings of much of Jung’s thought when considering archetypes and the collective unconscious as universal to all human beings (see Johnson, 2020). [↑](#footnote-ref-154)
155. Many contemporary Jungians would **not** contend that archetypes originate from ‘transcendental realms’. Debate by Jungians often centers on more down-to-earth debates over the relation of archetypes to the genome and other biological substrates. See, for example, Goodwyn (2020), Merchant (2021) and Goodwyn (2021). [↑](#footnote-ref-155)
156. The word ‘transcendent’ typically means beyond typical human experience. However, Laches (1997) defends notions of transcendence **within** human experience. [↑](#footnote-ref-156)
157. The notion of ‘consciousness’ expressed here is one where consciousness is associated with organic (or perhaps inorganic minds) of sufficient complexity, and supervenes on the brain (Vogelstein, Vogelstein, & Priebe, 2011; Johnson, 2018). Panpsychists would disagree and consider consciousness a fundamental constituent aspect throughout the universe. It is unclear what talking about archetypes as partly tied to a transcendent realm adds to the view that they are entirely contained in the brain. For those interested, a useful overview on the nature of consciousness can be found in Kind and Stoljar (2023). [↑](#footnote-ref-157)
158. What if a client (or ‘Native’ as the astrologers like to say) at age 35 gets radical personality, intellectual, or emotional enhancements that result in a **different person**? (Psychological astrologers seem to adhere to the psychological continuity view of personal identity). Does the date of birth continue to match the life of the new person, or is a new date of birth required (perhaps the date the operations were made)? Such considerations may be ignored today, but in 50 years? [↑](#footnote-ref-158)
159. It is again likely that astrologers would appeal to some arbitrary ‘date-of-birth’ and go from there using traditional celestial configurations and techniques. It is likely that the astrological myth about centuries (or even decades) of astrological observations and discussion would lead the way. After all, **what** observations would be made and how would the discussions progress? See Turner and Schneider (2020) for a pertinent discussion of possible merging of human beings with AI and personhood concerns. [↑](#footnote-ref-159)
160. A check of astrology sites shows that psychological astrologers seem to tie-in archetypes with pretty well all of astrology, including astronomical illusions such as retrograde planetary motions (https://schoolofevolutionaryastrology.com/articles/evolutionary-meaning-retrograde-planets/, accessed April 2, 2021), asteroids (https://ursalasimia.tumblr.com/post/181462272733/asteroids-and-their-female-archetypeshow-to?is\_related\_post=1, accessed April 2, 2021), zodiac signs (https://kathrynhocking.com/the-12-archetypes-of-the-zodiac/), etc. [↑](#footnote-ref-160)
161. When Tarnas says, “The main thing to understand here is that astrology is not concretely predictive, **but archetypally** predictive” and there is “a systematic correspondence between planetary patterns and **archetypally** patterned phenomena in human lives” (1987/2013), he seems to be suggesting **real astrology** is only what can be connected with archetypes.

     . [↑](#footnote-ref-161)
162. The 14th century philosopher Thomas Aquinas suggests **wise people** are affected by celestial relationships far less than ordinary people, and that women are more susceptible to such influences than men (Leone, 2022). In the 20th century, “Alan Leo thought you could make definite astrological predictions, but only for people whose lives are dominated by fate. As soon as people develop any self-awareness, there’s no point in making predictions for them because the predictions wouldn’t come true because people are directing their lives.” Brennan with Nick Campion, 2017. Are these views wrong? [↑](#footnote-ref-162)
163. In the old days a chart averaged 40 or so combinations of planets/signs/houses/aspects. But today just for starters astrologers can choose from:at least double the number of aspects, plus declination midpoints, East Point, Co-Ascendant, Co-Vertex, nonagesimal, perigees, perihelia, interfaces, eclipses, lunations, comets, meteors, a dozen satellites, more asteroids, more hypothetical planets, a hundred more parts, radio sources, galactic elements, a few hundred fixed stars, plus a locality chart, sidereal charts for various ayanamsas, a mundoscope, a horizon chart, charts in various orbital planes, a heliocentric chart, 16 pre-natal charts, and several dozen harmonic charts, each interpreted via a dozen different house systems. (Since each factor has been seriously proposed, none can be seriously omitted.) Which of these are associated with archetypes, and which not? (Patrick, 2020, p. 134). [↑](#footnote-ref-163)
164. A critique of Tarnas can also be found in Broadbank (2011), Ch 11, pp. 256-276. For a very lengthy critique of Tarnas see Heron (2008), also Dean *et al*, 2022, pp. 372-375. [↑](#footnote-ref-164)
165. The discussions in astrology about the failures of materialistic science are often quite naïve. See, Oppy (2018) on naturalism on issues that overlap with astrology. [↑](#footnote-ref-165)
166. This could be just be an unpalatable truth about the universe (see Furnham 2023 for some interesting reflections on this topic). Perhaps that’s the way the world is, and we have to live with it (Weinberg, 2021). Just because Tarnas and Grof don’t like it is not a good reason to conclude otherwise. People might also prefer a universe in which they get terminal diseases by chance or because of physically identifiable reasons than a universe in which a god exists but deliberately looks the other way when one faces serious problems. People respond to such disenchantment talk in different ways. John Gray (2020) would accept what Tarnas says on disenchantment, but he would welcome it; he would consider disenchantment as being both a realistic and more acceptable view by diverging ourselves of problematic illusions. Kahane (2022) takes a different view and contends that the indifference of the universe toward us is a condition of our existence, and that we would still lose even if the universe was non-indifferent toward us. De Sousa (2019) contends that temperament plays a role in how one considers meaning in one’s life. The reader should also consider the ways **modern mechanism** in philosophy of science differs from the earlier versions that Grof (2009) describes (see Craver & Tabery, 2019), and a defence of the view that science, contrary to Tarnas and Grof, provides our best knowledge of the world, see Mizrahi (2023). . [↑](#footnote-ref-166)
167. Astrologers use ‘reductionism’ as a boogyman and show little understanding themselves of the view. For a recent defence of metaphysical reductionism, see Rosenberg (2020). [↑](#footnote-ref-167)
168. Some would consider the focus on human beings in their views of cosmic meaning a form of speciesism which only makes sense in some religious contexts [see Ruse (2021, Chapter 1] for more on this and Bruers (2022) for a critique of speciescism.. [↑](#footnote-ref-168)
169. We also need to keep in mind **cultural differences** in what people consider important in life. Metz (2020) considers African theories of meaning in life which rely less on transcendent concerns and more on promoting community among people or increasing one’s own and others vitality. [↑](#footnote-ref-169)
170. Talk of meaning-in-life overlaps considerably with notions of well-being---what is generally good for individuals. This is a central concern of positive psychology. A useful down-to-earth discussion of five models of well-being and their overlaps can be found in Margolis, *et al*, (2021). Astrology has nothing of substance to contribute to such discussions. [↑](#footnote-ref-170)
171. While strictly naturalistic views will not be compatible with enchantment, this is not the case with other varieties of naturalism such as liberal naturalism (or soft or non-reductive naturalism) which allow norms and values to be genuine parts of nature (see Spiegel, 2022 for more on this topic.) [↑](#footnote-ref-171)
172. The psychological astrologer Bye (2022) in a *post-hoc* analysis ties in outer-planet astrological cycles with the evolution of Virtual Reality technology, and Butler (2022) ties cycles in the cosmos to the formation of the solar system and life on earth. Of course, astrologers of all persuasions can (and do) engage in the same *post hoc* analyses and find the correspondences they want to find. Check any astrology book or internet site. [↑](#footnote-ref-172)
173. Rossi and Le Grice (2017) admit that psychological, archetypical

     astrology is at odds with a number of foundational assumptions of the modern [Western, scientific] worldview, such as the belief in rational self-determination and causality….If our lives can be understood through the study of prior causes (such as genetics, early conditioning, and the environment), how can astrology also influence our experience, especially given that there is no significant demonstrable causal connection between the planets and human beings? Moreover, how can the signs of the zodiac, arbitrarily derived from a physically non-existent frame of reference, and no longer in alignment with the constellations of stars after which they were named, have any bearing on events and experiences on Earth? (Introduction)

     However, all such criticisms are rejected, in advance, by Rossi and Le Grice as embedded in the materialistic/naturalistic world-view, supposedly underpinning much contemporary science. [↑](#footnote-ref-173)
174. The psychological astrologer Paiva (2021) contends,

     “empirical research looks for repetition and universal meaning while astrology is grounded in the individual case. A Saturn transit to someone’s natal Moon can play out in so many different ways depending on age, background, life story, etc that we can never say for sure unless we have a conversation with the person having that transit.”

     This would create severe problems (and we suppose Paiva would agree) for those astrologers who contend astrology is based on empirical observations that have been refined over the centuries. The **source** of astrological terminology in its present form would still need to be clarified and defended, and the existence of contrary astrologies addressed. It would also contront the issue that, as described, how could astrologers find out some of the tenets are wrong, or in need of improvement? Further, at any given age, background, life story, etc the behavior of each individual may be expressed in multiple ways. It would seem to be impossible to come up with any astrological planetary configuration relationships in the first place such as ‘a Saturn transit to someone’s natal Moon...’. Similarly, Perry (2017) tells us:

     “It is axiomatic that an archetype can take many and varied forms and still remain true to its **essential meaning.** Likewise in astrology, an astrological configuration can express itself in innumerable ways that are equally consistent with the meaning of the relevant variables. A planetary archetype is multidimensional in that it manifests through phenomena that exist at different dimensional levels, e.g., as a need, feeling, attitude, belief, behavior, thing, role, person, place, quality, or event—all of which can be implicit in a single experience... Not only do planetary archetypes (and their sign and house counterparts) display a bewildering multidimensionality, they are **also** multivalent in that there are varying expressions of the same archetype within a given dimension. Again, Saturn can be an impulse for order, but also a need for control, authority, perfection, success, or mastery. As an emotion, it can be a feeling of heaviness but also of despair, inferiority, failure, anxiety, determination, seriousness, or disciplined focus. As a thing it might be a calendar, but also a watch, bones, handcuffs, a scaffold, gavel, speed limit, and so on.... In addition to the multidimensionality and multivalence of astrological archetypes, they are also polyvalent, i.e., capable of combining in virtually limitless ways by virtue of their sign, house, and aspects. The resultant archetypal compounds yield emergent properties that are not inherent at the level of the variables that comprise them.... Of course, this same configuration...could manifest in hundreds of other ways, too. Possibilities are only limited by one’s imagination and capacity for constructing plausible scenarios.”

     Talk about a water-tight system (for more on this, see Kelly, (1998)! In the case of psychological astrology, the system itself is set up to be unfalsifiable, while in other cases, the behaviour of astrologers using *ad hoc* excuses avoids falsifiability. [↑](#footnote-ref-174)
175. Note that the views of Tarnas, *et al* regarding the difficulty of planetary configurations being able to result in specific outcomes, and can be only be known how they are expressed **after the fact** (sometimes a long time after the fact), creates serious problems for those who contend ‘as above, so below’ connections are based on observation and discussion. Such seeming time-independent after-the-fact ‘explanations’ are common in astrology to avoid disconfirmation: Rosenthal (2018) provides a specific example of such common astrological *after-the-fact* symbolic manipulation:

     ….one astrologer found that of the first 43 US presidents, the most common astrological sign was Cancer. (No, not Aries, which those astrological websites had claimed was the sign best suited to politicians). They then ‘explained’ their finding as follows; *‘It turns out that the United States of America has a Cancer sun sign, with a small stellium in Cancer (U.S.A was officially born on July 4, 1776, Philadelphia, PA.). Given this information, its not surprising that America loves presidents with a strong Cancer influence.*’ (p. 234)

     This would also create problems for those who tie archetypes into a collective unconscious based on common human experiences. [↑](#footnote-ref-175)
176. As many contend the appropriate response is to religious disagreement is skepticism or agnosticism (e.g Hume 1777, Part 10, section 24; Ballantyne, 2019, especially chapters 5 & 6). [↑](#footnote-ref-176)
177. Psychological astrology fits into the category of pop psychology, along with all its shortcomings, but adds more problems by tying itself to transcendental realms and claiming it is beyond science. A useful overview of some contemporary pop psychology fads and their shortcomings can be found in Singal (2021) and Hupp and Wiseman, (2023). A useful overview of the field of psychology can be found in Bloom (2023). All three books would be a useful in one’s critical thinking library, and a useful antidote to the claims made by astrology in its scientific and philosophical impostures. [↑](#footnote-ref-177)
178. The astrologer Egan (2017) tells us, “Astrology does work. We wouldn’t be reading this magazine (The Mountain Astrologer) if it didn’t.” No comment is necessary. [↑](#footnote-ref-178)
179. The importance of having a specific jargon cannot be overestimated in fringe areas, such as astrology (see Montell, 2021) for more on this topic.) [↑](#footnote-ref-179)
180. The present editor of Correlation (astrology’s main research journal), Robert Currey, is an avid, practicing astrologer. His site is **Equinox Astrology** at <https://www.equinoxastrology.com/> The journal Correlation has been in circulation for over 40 years and there is no indication in the journal that there is **any** serious problem with astrology as it stands. The lack of a mechanism is the only expressed obstacle, and this is dismissed as not important. Indeed, the journal is ideological and entirely confirmatory and wishful thinking based. Negative studies are ignored or re-analyzed to produce pro-astrology results. The reader might consider the likelihood of any of the central planks of contemporary Western astrology (zodiac signs, planetary rulerships, Ascendant, houses, transits, etc) ever being seriously questioned or overturned in this journal. We would consider that likelihood close to zero. [↑](#footnote-ref-180)
181. Again, McRitchie (2016) tells us, “I agree that astrology needs expert criticism and that astrological research demands continual improvement.” Expert criticism can be constructive but also insightfully negative. It would help if McRitchie informed us which astrological claims he believes are supported and which are not---to emphasize where academics should focus their research energies---but he remains mute on the status all of zodiac signs, rulerships, houses, transits, and so on. Criticism and research are irrelevant if one only takes findings one likes seriously. The only acknowledgement he makes is that critics emphasized the importance of effect sizes in research (2022), which had already long been a part of scientific research for many decades. [↑](#footnote-ref-181)
182. Things will get more complicated if we live on Mars in the future (thanks to Elon Musk?). Is Earth astrology really exportable to Mars? Consider:  Mars' has two moons : Phobos and Deimos ("panic and terror" !) but.... their orbital periods are not 29 days (like our moon) but... 7,5 and 30,3 hours ! Panic and terror are good symbolisms for future astrologers because what can they do with Phobos which returns 3 times a day and with risings at west and settings at east ? And Deimos stays up for 2 consecutive days and 16 hours during which it will even present all its phases at once ! For astrology, does the fact that Mars is no longer in the sky announce a peaceful nation? This would be without counting the symbolisms (panic fear & terror) of the small moons of Mars...In addition, the Earth becomes mobile in the Marsian sky (with beautiful conjunctions Mercury / Venus / will happen. All is counterintuitive on Mars. For on this topic, see Bret-Morel (2021) The great deviations of Marsian astrology. (in French) Ciel & Espace, 560. [↑](#footnote-ref-182)
183. Scientism can take different forms. For a defense of a weak version of scientism, see Mizrahi (2023), also, Hietanen, ., [Turunen.](https://researchportal.helsinki.fi/en/persons/petri-niklas-turunen), [Hirvonen.](https://researchportal.helsinki.fi/en/persons/ilmari-hirvonen), Karisto ., Pättiniemi, & Saarinen (2020); [Turunen.](https://researchportal.helsinki.fi/en/persons/petri-niklas-turunen), Pättiniemi, ., [Hirvonen.](https://researchportal.helsinki.fi/en/persons/ilmari-hirvonen), Hietanen, & Saarinen, (2022). [↑](#footnote-ref-183)
184. A number of astrologers are fond of claiming that astrology needs a **post-materialist science** to make it more plausible. Unless they are claiming pre-cognitive abilities, it seems problematic to make such a claim. After all, why should **contemporary** astrology be supported by a future science in any form? McRitchie (2018) cites astrologer Robert Hand “We should not be trying to explain astrology by means of science as it is, but there is no problem with trying to explain astrology by a science that has not yet come to be.” Really? This assumes both the truth of their own position, **and** that it will be supported by a future science. The possibility that future science might undermine their views is not considered. Such talk involves failing to keep in mind the distinction between logical possibilities and probabilities (see Pigliucci, 2020). It seems, at times, those advocating **any** occult position believe that such a post-materialist science will automatically and overwhelmingly support their own contemporary position! This seems overly optimistic, as Brockbank (2011, p. 30; also Kelly 1997/2005) points out,

     Many astrologers ....argue that the current age might produce a new paradigm within which astrological research could be conducted which would lead to results supporting astrological procedures. One problem with this argument is that it is **never ending** because if the research produces no evidence supporting astrology then astrologers can say that the wrong paradigm is being used. The search for the 'correct' paradigm only ends when the evidence supporting astrology is found. However, the hope of finding this new paradigm within which astrological research would flourish might seem optimistic, even absurd, to anyone who considers what astrological techniques consist of. There are twelve houses, 11 twelve signs, 12 a minimum of seven planets and no limit to the number of other points, real, constructed or hypothetical, that astrologers might use in their practice. Each of these have hundreds of different meanings, making millions of combinations... It is inconceivable that all of these techniques, rules and procedures could be grounded in the empirical.

     For some criticisms of ‘post-materialist’ science, see Hassani (2015), see also Astley (2015). We also have good reason to pay attention to current science. As Oppy (2018) points out:

     …current established science is by far the most reliable source of information that we have concerning the topics covered by current science. Consequently, when we are engaged in philosophical speculation and the subject matters treated by current established natural science are relevant, our best bet, by far, is to build on the foundations of current established natural science. Sure, some parts of current established natural science will be reconfigured by theories that are not currently available to us; but almost all current established natural science will survive in some form. Moreover, choosing other foundations for philosophical speculation, based on less reliable sources of information currently in our possession, would clearly be an inferior option (p. 95) [↑](#footnote-ref-184)
185. Readers with even a minimal background in philosophy or logic will be amused by the widespread appeal to **logical possibilities** and ‘whataboutisms’ in astrological writings. Such ‘logical possibilities’ are taken seriously as real (likely) possibilities. Criticisms of astrology are often dealt with by appeals to these rhetorical strategies. Logical possibilities are not disprovable. The expression applies to any claims that can be imagined that do not entail an explicit contradiction. Examples of logical possibilities are ‘It is possible that dragons exist in other solar systems’, ‘There exists somewhere a person with twelve noses and sixteen pairs of eyes’, ‘Astrology in the future will regain its position as Queen of the sciences’, ‘It is possible that future science will find an explanation for symbolic astrological tenets’, etc. On the other hand, ‘whataboutisms’ refer to attempts to distract from the issue under discussion by changing the subject. For example, “Ok, present day forces don’t support astrological claims, but **what about** science itself and the lack of explanation for combining Quantum Mechanics and Relativity?’’ (a useful article on misunderstandings of Quantum Mechanics by fringe advocates can be found in McBrayer and Own, 2016).. A problem with these defensive rhetorical strategies is that they try to keep astrology afloat, and at the same time without contributing to any understanding of the issues. Further, they can be used to ‘defend’ any position taken, including positions the speaker would not accept. When they are used in this fashion, they are just appeals to ignorance. However, they are exceedingly common in astrology. On one astrological site we read,

     I believe it is premature to set limits on the effect of gravity and orbital resonance on Earth as there is much we don't understand. For example, gravity is the one known force that does not yet fit into a Unified Field Theory. Also, the effects of gravity can be amplified by circumstances such as tidal resonance resulting in 16m tides in the Bay of Fundy (Canada). https://www.astrology.co.uk/tests/mechanism.htm, accessed Sept 23, 2021.

     Here a **logical possibility** is used to keep the astrological chin up. Our understanding of the issue is not advanced one iota. What is said is actually compatible with all sorts of possible, very different present and future astrological claims.

     In an interview with an astrologer who points out that Kepler thought there was a core of truth to astrology, surrounded by superstition, tells us:

     We know there is a common mathematical order linking the Earth to the rest of the universe; that’s the laws of physics and nobody disputes it. What arouses disagreement is how far that affects human society. There is very little evidence to suggest that it does, but at the same time it seems **perfectly logical** to suggest that there should be links. If human rhythms and cycles are linked to annual cycles, they are linked to the Sun and the Moon, and solar and lunar motions are part of the rest of the mathematical order in the solar system, then I **see no theoretical reason** why one day we shouldn’t be able to substantiate the existence of planetary connections with human affairs to the satisfaction of society as a whole, not just astrologers. That would seem to me to the basis of a perfectly workable Natural astrology – especially mundane astrology. (Campion interview with Phillipson, 2020, underlining ours).

     The phrases ‘perfectly logical’ and ‘no theoretical reason’ indicate logical possibilities are being referred to. Again, an astrology, totally different from that practiced by contemporary astrologers (or not at all), would be logically possible as well. We get nowhere with such empty speculation. **Astrologers need to construct explanations of that are likely, not merely possible.** [↑](#footnote-ref-185)
186. While all our institutions change over time, what about astrology? Will astrology remain unchanged? Why talk about future science and not future astrology? Astrology in the nineteenth century was different from later 20th century astrology, why are some astrologers talking about the future compatibility of **present-day astrology** with science, and not something very different under the banner of astrology two centuries from now? Why should future astrologers be stuck with talk of zodiac signs, Ascendants, transits, midpoints, nodes, or planetary rulerships? [↑](#footnote-ref-186)
187. We might also add palm reading to this list:

     Imagine if you held everything you ever wanted to know about your fate, love life, and personality in the palm of your hand. [Palm reading](https://www.wikihow.com/Do-a-Modern-Palm-Reading), also known as palmistry or chiromancy, is a mystical art practiced worldwide. It has its roots in Indian astrology and Roman fortune-telling—but you can hop into this ancient tradition today. <Https://wikihow.com/Read-Palms>

     As with astrology, numerology, and Tarot, the mystical **symbolism** associated with the palm is associated with aspects of people’s lives that can be determined by any of the sciences. All claim to be based on ancient observations. Like astrology, chiromancy has a long history with variations across the world, “it has been practiced in the cultures of Sumer, Babylonia, Arabia, Canaan, Persia, [India](https://en.wikipedia.org/wiki/India), Nepal, Tibet and China... Palmistry also progressed independently in [Greece](https://en.wikipedia.org/wiki/Greece) where [Anaxagoras](https://en.wikipedia.org/wiki/Anaxagoras) practiced it....” Similar to astrology, “During the [16th century](https://en.wikipedia.org/wiki/16th_century) the art of palmistry was actively suppressed by the [Catholic Church](https://en.wikipedia.org/wiki/Catholic_Church). Both [Pope Paul IV](https://en.wikipedia.org/wiki/Pope_Paul_IV) and [Pope Sixtus V](https://en.wikipedia.org/wiki/Pope_Sixtus_V) issued papal edicts against various forms of divination, including palmistry., [and] Palmistry experienced a revival in the modern era starting with Captain Casimir Stanislas D'Arpentigny's publication *La Chirognomie* in 1839....The Chirological Society of [Great Britain](https://en.wikipedia.org/wiki/Great_Britain) was founded in [London](https://en.wikipedia.org/wiki/London) by Katharine St. Hill in 1889 with the stated aim to advance and systematise the art of palmistry and to prevent charlatans from abusing the art. Edgar de Valcourt-Vermont (Comte C. de Saint-Germain) founded the American Chirological Society in 1897”. https://en.wikipedia.org/wiki/Palmistry. [↑](#footnote-ref-187)
188. One should be very suspicious of **re-analyses** of previously negative studies that produce positive results by strongly committed believers. Indeed, **replications** of the **re-analyses** (as well as replications of the original negative study) should be a priority before such re-analyses can be taken seriously. Re-analyses are not self-validating any more than the original study is. Many successful replications by independent scientists are needed. Further, the merit of any study, **in any area of science**, needs to be taken in combination within the larger context of its plausibility and whether the belief tested satisfies criteria such as simplicity, fit with the rest of science, fruitfulness, etc. [↑](#footnote-ref-188)
189. In scientific research, studies that test claims can fail because we know physical and social factors interact and can overrule each other or diminish the influence of other factors making them not show up in studies, under particular conditions. Hence the talk of statistical power, including relevant factors in a study, etc. With astrology we are in a very different ballgame when conducting studies. Astrological relations (according to most astrology books and internet sites) are omnipresent, and cannot be overruled by any psychological or physical relationships. The latter just supposedly express the former. There is no plausible theory describing the interactions between physical and social effects with astrological relationships (which would reduce astrological relationships to just another factor to consider in studies, which is at variance with most astrological writings). There are no claims that some people (perhaps with blood type A) are less susceptible to astrological relationships. So there should be nothing preventing prominent astrological relationships from showing up. They should always be present. [↑](#footnote-ref-189)
190. Unless the astrologer contends that the same astrological symbolism can be manifested in a great variety of different ways. In this case, it is extremely difficult to design a study that could cause astrologers to re-think their theory (see Kelly, 1998; 1997/2005 for more on this topic). After all, a negative result could just mean the clients happened to choose other ways of behaving. In addition, the astrological symbolism allows much more stretching than just a few outcomes, especially when astrologers consider other factors in the birth chart. This would multiply the number of possibilities. [↑](#footnote-ref-190)
191. McRitchies (2022, 2023b) main claim rests on ten cherry-picked studies (of which 8 were conducted by three individuals, 3 by the editor of the journal they were published in (during the years 2020-2021), and who owns a prominent astrology site selling horoscopes) . McRitchie states these studies have produced large effect sizes and very low p-values, without mentioning that even well-conducted studies with extremely low p-values have sometimes been found to be unreplicable in scientific fields, and successful replications tend to have much smaller effect sizes than the original studies (Editorial, Nature, 2021, <https://www.nature.com/articles/d41586-021-03736-4>). None of these ten studies would be considered “formidable, experimentally replicated results” in the scientific community, whatever the topic of the research. While McRitchie tells us he endorses “the need for independent replication of positive results” (2023, p.578), the behavior of the editor and the over-response to criticism of astrology in the journal suggests caution regarding what one might expect. At the same time, while conflicts of interest are involved, this does not result in rejection of the results, only that care should be taken in evaluation of the results (as would one carefully consider positive results of studies sponsored by tobacco studies, without rejecting the findings *a priori*).

     Of course, we could be wrong and the long-awaited astrological breakthroughs may have now arrived (as subsequent and frequent world-wide replications attempts would support), but if the history of research into astrology is anything to go by, along with the serious philosophical problems identified in this manuscript, such astrological exuberation will diminish within the next decade or so after careful examination by informed critics alongside replication attempts with disparate results, at least until the next spectacular astrological ‘breakthrough’ is announced to a new audience. [↑](#footnote-ref-191)
192. See Perry 2018 for a critical stance on the Vedic zodiac. This is exactly what you would encourage if astrologers were using scientific and critical approaches to their beliefs. [↑](#footnote-ref-192)
193. McRitchie (2016) tells us, “When an astrologer says that in their ‘experience’ astrology works, they only mean that it is a useful tool, and not that the reliability of astrology is based on their experience of using it”. Saying it is a ‘useful tool’ is not only vague, but does not fit what most astrologers (and clients) say when they claim ‘astrology works’ (check any internet site or book on astrology). They are claiming astrology can provide objective **information**, not easily available by other means.

     [↑](#footnote-ref-193)
194. McRitchie’s (2023b, p. 576) says “Emergent effects models, such as the decision trees currently used in whole-chart modeling, are directly applicable to astrology as they simulate the mental combinatorial processing that astrologers use in their consultations.” The expression ‘decision trees currently used in whole-chart modeling’ is a fancy way of referring to the notion of blending the symbolisms in astrology. Of course, this doesn’t answer the question of whether astrological meanings of word blending is viable as a form of emergence. We need more than just say-so. [↑](#footnote-ref-194)
195. McRitchie (2022, p.578) tells us “the meaningful connections and truth values at the basis of astrology will have important consequences for science and philosophy”. Apart from the emphasis on his own Western brand of astrology being capable of this, we have heard this kind of talk all before, many times. See also Dean, *et al*, 2022, pp. 72-74, 889-890. [↑](#footnote-ref-195)
196. There have been a number of well-written books critical of astrological beliefs available (e.g Culver & Inna, 1988., Bret-Morel, 2016 ) and several in-depth books reviewing all the empirical studies conducted on astrology ( e.g Dean, 2022) with **no discernible impact** on the astrological community **regarding their central tenets (signs**, Ascendant, planet symbolism, transits, etc) why should it be any different in the future? Indeed, there is hardly any notice of these books in the first place, and where they are mentioned, they are dismissed without little scholarly debate. Talk of zodiac signs, Ascendant, rulerships all remain intact. [↑](#footnote-ref-196)
197. The topic of relativism is a complex one, a useful resource is Baghramian and Coliva (2020). Relevant to the present topic of astrology would be Chapter 5 on Social Constructivism, Chapter 6 on relativism and science, and Chapters 7 and 8 on epistemic relativism. A short paper by Boudry (2021) provides a more readable critique of relativism. The early paper by Grim (1990; see also Hansson, 2020b, pp. 10-13) is also relevant. Grim and Hansson point out that while science has values (it is not a neutral set of disciples), there are essential values that science is committed to (e.g truth and demonstration) that differentiate it from other (non-scientific) disciplines.

     . [↑](#footnote-ref-197)
198. See Aylesworth (2015), Hendricks (2018), Watts (2019), and Stump (2021) for philosophical examinations of the term ‘postmodernism’. [↑](#footnote-ref-198)
199. Often allied to the post-modern position is the concern that academic fields are dominated by ‘dead,white ,Western males’, a view that is worth discussing (see Pett, 2015). Present-day Western astrology itself has been dominated and developed **almost entirely** by Western dead-white males (e.g Ptolemy, Bonatti, Berossus, Valens, Culpeper, Gadbury, Leo, Ring, Hand, Addey, Carter, Rudhyar, etc), a view often overlooked by the faithful who have post-modern sympathies. Henrich (2020, also Thalmayer, A. G., Toscanelli, C., & Arnett, J. J. 2021; Steinmetz, 2022) contend that people from different cultures think differently about many things, and that psychology has systematic biases when focusing on how we think about human nature, which also has serious consequences for astrology. Has Western astrology suffered from the same shortcoming? [↑](#footnote-ref-199)
200. An example of a post-modern/post-positivistic view of astrology can be found in Bogart (2019). Bogart, a spiritual astrologer, claims that modern science is inappropriate for examining astrology (perhaps news to McRitchie), rather, astrology needs a postmodern approach based on anti-determinism, Heisenberg’s uncertainty principle, rejection of certainty, acceptance of plurality, and aspects of continental philosophy. Hence,

     Rather than seeking absolute certainty, post-positivist thought seeks understanding, which is open to different interpretations by different interpreters.  We recognize that all knowledge is relative to one’s perspective, and that we’re always influenced by our beliefs and expectations. One never has pure access to an objective reality.  There’s a plurality of truths, not absolute certainty.

     We might need more information on what a ‘perspective’ is and whether or not one perspective can be better than another. Why should astrology’s perspective be taken seriously? Many astrologers contend their view provides ‘absolute certainity’ as a background theory (check astrology books and astrology sites). Further, anyone can play this game, whatever their views, on whatever topics. Many contemporary philosophers of science would have little disagreement on some of Bogart’s unqualified statements, but none of the beliefs of anti-determinism at the particle level, or belief effects on observations, nor methological pluralism, fallibism, etc imply we can’t rank methods and practices or that we should embrace astrology as a viable approach to gaining knowledge about the world (see Stump, 2022; Ludwig & Stephanie, 2021). Bogart has no doubt his own preferred version of astrology will be totally supported by a post-modern approach. On Bogart’s view, all we have is interpretations and ‘There is no one correct interpretation’. (One might note that the claims of physicists in support of his post-positivist science were a product of ‘positivist science’ and debated during its heyday.) Also, his ‘phyicists have shown’ seems to be taken as objective knowledge by Bogart and a central plank in his post-positivist science, despite his earlier claim that only interpretations exist. . On Bogarts view, all of astrology (sun, moon, and rising signs, etc) are all valid, based on astrologer’s personal experiences, and if modern science cannot support all its claims, so much for science.

     He says,

     “the astrological chart can be viewed as a roadmap provided by the Creator…this roadmap provides individualized guidance through life’s changes and challenges….[and] the planets [which are part of the roadmap are tied in with archetypes that] represent various facets of the personality….[For example] …by preparing in advance for a Pluto or Uranus transit our alignment with the planetary archetypes could affect the outcome. In other words, the planet doesn’t just act upon us; we also act upon the planet.

     Does the overall process of human (and animal?) life have an overall direction set by the Creator or does free will allow it to be undirected or undirected? Does astrology only work according to what has been set up by the Creator? One might note that Bogart’s view on science and perspective is at variance with much present-day scientific thinking on the role of taking a variety of perspectives into consideration supports a scientific anti-realist position, contrary to Bogart (see Massimi (2022). A contrary approach to the postmodern view of science can be found in Vickers (2022) where he points out that many claims that were once theoretical are now accepted as fact (such as that the earth turns on its axis, viruses exist and cause some diseases, dinosaurs once existed, etc) and that these claims will not be revised in the future and will last as long as science lasts. In other words, he contends that the realism-antirealism debate is not straightforward and sometimes artificial. Indeed, many claims might be overturned by future evidence, but we can still say some claims are far better supported than others (on the base of research and theory). [↑](#footnote-ref-200)
201. Or talk of another paradigm. Astrologers have misused Kuhn’s notion of paradigm to promote their own ends. Astrologers sometimes say that a new paradigm will someday encompass astrology, but why would Kuhnian revolutions adopt the old assumptions of astrology? Marcum (2015) rebuts many misleading criticisms of Kuhn’s ideas such as that he was an irrationalist (the claim that paradigm shifts are irrational) or a relativist. Kuhn always claimed a new theory could be better than another by being a better fit with nature than competitors. See also, Okasha (2016, Chapter 5, also, Kelly 1997/2005). An excellent discussion of how pseudo-scientists misuse talk of quantum mechanics, consciousness, and Kuhn in their writings can be found in Marshall’s (2021) conversation with philosopher Douglas Stalker. The conversation is also very relevant to the views of a number of contemporary astrologers who misleadingly appeal to quantum mechanics, and contemporary physics in their machinations against modern science and naturalist views (e.g Tarnas, Grof, etc). For those interested in Kuhn, some recent themes emerging from Kuhn’s philosophy, including its stance toward contemporary pluralism can be found in Wray (2021). [↑](#footnote-ref-201)
202. This is shown by a perusal of astrological magazines for the general astrological reader such as The Astrological Journal(https://www.astrologicalassociation.com/astrological-journal/**)** and The Mountain Astrologer(https://mountainastrologer.com/ **)** or the contents of astrological conferences (see, for example, <https://www.astrologicalassociation.com/conference-2021-itinerary/>). There is no hint of any serious issues with astrology itself or any of its claims in these publications. Contrast this with scientific journals where debate is made public and encouraged. Contrast the continual march of science with the staleness of what is found in astrological books and internet sites (online resources such as ‘Science News Daily’ provide information provided by new studies). See also, https://massimopigliucci.blog/ for the vast contributions of science to our lives, then compare this to astrology. [↑](#footnote-ref-202)
203. This view of astrology as **a package** by many astrologers is itself rather unique (although it is also found in various theologies). On this view, it appears that each astrological element in (whatever system is used by the astrologer) in held place by the rest of the system. Any particular criticism of any part of astrology (e.g transits) is viewed as an attack on their whole system of astrology. Other astrologers adhering to other approaches to astrology (e.g Vedic astrologers or Chinese astrologers) can similarly hold their own beliefs equally supportable by the rest of their systems, whatever the size of the system, or how much it diverges from other systems of astrology.The contrast with scientific theories is evident, scientific knowledge is considered fallible by scientists, the main tenets of astrology are considered by the particular astrological community as infallible. The result is the typical focus by (scientifically oriented) astrologers on hopes of future science providing explanations for existing astrology, or the appeal to transcendental realms, that both try to sidestep a focus on individual parts of astrology. [↑](#footnote-ref-203)
204. A good example of this can be found in McRitchie (2022) where he rejects much of the past research on astrology (which is alas, largely not supportive). McRitchie (2022) tells us one and two factor studies (common in astrological studies) are problematic; One factor studies (e.g tests of zodiac signs) ignore the influence of other astrological factors that may provide very different results for the client than a single factor alone, and require large samples to uncover them:

     It seems to me that single-factor testing is susceptible to underdetermination, meaning that a single factor is not necessarily sufficient to evaluate an astrologically significant effect. The listings in the cookbooks suggest that a multiplicity of factors in any natal chart are assumed to converge, intersect, or otherwise blend together to produce emergent results (MicRitchie, 2022, p. 708).

     And multifactor (studies considering two or more factors) are better than one-factor studies, but have their own potential issues:

     By relating, blending together, and modelling some of the factors in a natal chart into what we might call astrological signatures, multifactor experiments overcome the problem of underdeterminism. This approach tries to identify tell-tale combinations of natal chart factors that have either similar or antagonistic tendencies that we would presume to amplify, diminish, or otherwise moderate a theme of given characteristics in a native. To give a simple two-factor example observed by the Gauquelins, keysector Mars positively correlates to athletic eminence and yet the Moon in a keysector is antagonistic and negatively correlates to the athletic effect (Gauquelin, 1988, p. 144). The Moon appears to moderate the Mars effect, which is consistent with the astrological properties of the Moon. Many suggestions as to how some factors moderate other factors and impose contingencies on interpretation as to what may manifest are scattered throughout the cookbooks. The problem with multifactor testing is that it can easily suffer from nomological overdetermination, which is the opposite problem of single-factor testing. This is where there are too many similar and potentially sufficient factors according to the documented rules in the literature to easily sort out exactly which astrological features are responsible for which experienced effects….[the astrologer is faced with] the semantic complexity of blending the many potential factors in a chart.(McRitchie, 2022, p. 708).

     What does this do to help the practising Western astrologer? The reader might consider what sophisticated scientific and technological tools would be required to uncover and come up with or allow the postulation such factors in the first place, and how modern astrologers can insert their own favourite **single** new factors such as asteroids, exoplanets and so on with such confidence. New individual factors are easily placed within their brand of astrology, and such astrologers have no problem immediately integrating their new factors in with two-factor and larger interactions within their symbolic systems. Further, one hears in both astrological consultations with clients widespread usage of single and multifactor factors ( “Jupiter in my birth chart**allowed me to gain an understanding of my religious life**….” <https://astrologyforaquarius.com/articles/12382/jupiter-in-your-birth-chart/>, accessed May 12, 2023) and two-factor combinations such as “When **Jupiter** and Saturn connect, matters affected are ideas, structures, beliefs, legal matters, and business. With Jupiter forming a conjunction to Saturn in the birth chart, your tendency to see both the potentials and limits of any given situation has its perks, making you a very reasonable person”), also check out astrology books and on-line sites as well as The Mountain Astrologer) to indicate their widespread usage dispite what McRitchie claims. It seems many practicing astrologers do not share McRitchie’s concerns. No wonder appeals to astral intelligences and gods are prevalent in many astrological writings. [↑](#footnote-ref-204)
205. We might need an answer to the question, what is the ‘**real** practice of astrology’. Who decides? No doubt what the Currey site offers is ‘real astrology’, even though a variety of different types of astrology readings are available on the same site. What constitutes **unreal** astrological practice? What criteria distinguish the two? How could clients (natives) find out? [↑](#footnote-ref-205)
206. Astrologers are keen to point out scientists (usually in the past) who supported astrology. Newton was often mentioned until a search of his writings showed no connection [see van Gent (undated)]. Einstein was also reported as saying nice things about astrology. Actually, the only statement found in Einstein’s writing on astrology is negative: in a 1943 letter he says: “I fully agree with you concerning the pseudo-science of astrology. The interesting point is that this kind of superstition is so tenacious that it could persist through so many centuries” (cited in Robinson, 2018, p. 30). Kepler, the 17th century astronomer, did practice astrology, but thought most of it was rubbish. It would be interesting to consider what he would think of the huge bloat that characterizes present day astrology. As a historian of astrology, Campion says,

     ” The doctrine of ‘the baby and the bathwater’ is, I think, crucial to understanding astrology’s nature. This notion is due to Kepler, the idea being that astrology contains a core of demonstrable truth, which is the “baby”, surrounded by an ocean of false superstition, which is the ‘bathwater’. **To Kepler, the superstitious bathwater included almost the entire weight of astrological tradition”** [Phillipson interview with Campion (2020), italics ours]. A well-written article on Kepler’s views on astrology can be found in Dilanian (2021).

     Alas, there is little effort by contemporary astrologers in separating this alleged ‘demonstrable’ core from the rubbish. Perhaps because there is no generally accepted **theory** regarding what constitutes the essential core. The Kepler example (“rubbish”) is a contradiction for the selecting tradition invoked above, it **al**l seems ok to them. While astrologers often cite this quote about ‘a kernel of truth in astrology’ they don’t believe it, they believe their whole package of zodiac signs, rising signs, planetary conjunctions, and so on are **all** true. No small ‘kernal of truth’ for them. [↑](#footnote-ref-206)
207. In regard to the claim that astrology would be made more plausible if plausible mechanisms were provided, McRitchie (2022, p. 577) avers,

     the forever imperishable (it seems) arguments are trotted out that there is “no known physical explanation” for the “observed small positive effect sizes.” Firstly, not only is it a mistake to disregard any experimentally replicated effect, but the effect sizes in the newer multifactor studies tend to be medium to large. Secondly, the “no known physical explanation” argument is specious scientism. Many scientific findings of effective information are usefully applied without knowing a physical cause. From history, there is the example of Ignaz Semmelweis, who understood the significant results of hand washing on the rate of childbirth mortality before discoveries by Louis Pasteur and Joseph Lister developed germ theory as the cause of infections. Also, Alfred Wegener described the origins of continents and oceans, which he called “continental drift,” because there was significant evidence of it even though plate tectonics had not been discovered as the cause.

     First of all, the ‘experimentally replicated effects’ mentioned by McRitchie have **not** been widely replicated by independent investigators (including skeptics) at different sites. Second, asking for a mechanism is not ‘specious scientism’. We should keep in mind that explanations were relatively **soon provided** for all the s\examples of no-explanation at the time (Semmelweis, aspirin, continental drift, etc), while we are still waiting for astrological explanations that do not involve appeals to the paranormal or supernatural. And explanations are important. As Johnson (2022c) points out,

     Recall that the germ theory of disease was initially inadequate; it introduced a new entity, did not articulate how germs cause disease, and conflicted with what we thought caused disease at the time. We could not even directly observe them because they were too small. The theory overcame all this, however, by eventually making other kinds of successful predictions, such as handwashing reducing death rates in maternity wards (see Loudon 2013). Later, it explained the previously unexplained, such as why exposure to cowpox could make one immune to smallpox (see Boylston 2013). Later, it predicted the success of vaccines and proposed mechanisms by which germs cause disease. Eventually, we realized that it did not conflict with anything that was actually well-established, and we even observed germs directly (thus negating any worries about the theory’s simplicity). And this all happened in ways that were not private but checkable and observable by others working in the field. Indeed, ....the evidence became more convincing and obvious over time. This story is oversimplified of course, but the point remains: even if a theory starts out as inadequate, it can overcome this disadvantage if the theory is true and the right interested parties perform enough of the right kind of work to prove it. [↑](#footnote-ref-207)
208. McGinn (2023) has some interesting thoughts on this. He asks,

     Why then is the sky a source of mysticism but not the earth? The answer is surely plain: it’s because of how the sky looks, especially at night. The moon alone is a remarkable visual object, but the stars add a new dimension of what can only be called visual splendor. It is the aesthetics of the night sky that prompts astronomical mysticism. The very idea of God (or the gods) might well be caused by the appearance of the night sky (also the appearance of the sun during the day). This must have struck our remote ancestors with great force and invited the mystical doctrines long associated with the study of astronomy. Add to that the enigmatic character of what we see and mysticism is only natural. Astronomy is thus the original site of mysticism; nothing else comes close to its mystical potential. Not physics, not chemistry, not biology, not psychology, not philosophy. <https://www.colinmcginn.net/astronomy-mysticism-and-mechanism/> [↑](#footnote-ref-208)
209. In response to astrology’s problems with symbolism, McRitchie (2023b, p 577) says

     “Symbolism is not a practice peculiar to astrological connections, relationships, and meanings, nor are they confined to the ancient past. At their origins, many scientific disciplines have based claims on symbolism, metaphor, and imagination. Current disciplines have used these to generate hypotheses, which are then subject to extensive testing. A famous example is August Kekulé’s reverie or wakeful-dream of the alchemical ouroboros symbol, which he said led him to propose that the atoms of the benzene molecule form a ring”.

     Of course, Kekule’s reverie was soon confirmed by research and was even at the time of proposing a plausible explanation. The situation is far different in astrology where the symbolism itself is considered sacrosanct. And there are a number of different symbolisms in astrology (mythological, and taken from a variety of word and image associations, including a celestial body having the same name as the client/native), are they all equally supportable? How could we find out? [↑](#footnote-ref-209)
210. Margaret Hone's classic (1950/2010) textbook (now over 70 years old) of Western astrology was always stressing the need for the careful synthesis and weighting of the factors (determined by symbolism) relevant to any particular reading, the weighting being largely determined by the traditional indications of strength such as being in a compatible sign, closeness to an angle, exactness of an aspect, and so on. But why accept these traditional weightings? It seems that appeals to authority and tradition are the main rationale. In any case, there is wide room for astrologer variation in interpretation (Dean, *et al,* 2022, pp. 322-324) [↑](#footnote-ref-210)
211. For scientific information on various celestial phenomena , check out <https://massimopigliucci.blog/2023/10/the-science-behind-the-rosy-hue-decoding-the-mystery-of-the-pink-moon/> [↑](#footnote-ref-211)
212. If the **physical characteristics** of the planets were indeed incorporated into astrology, this would require a complete rewrite of the symbolism of astrology along with a constant attention to new discoveries in astronomy and the continual re-evaluation of said symbolism. [↑](#footnote-ref-212)
213. Given there is a replication problem in scientific fields such as the social sciences and medicine, great suspicion should be aimed at studies in confirmatory-based areas such as astrology, whose advocates tend to not take seriously any negative findings in the first place. As Ambridge (2023) points out, “the idea that peer-reviewed and published equals true is exactly what caused the replication crisis in the first place” (see also, Ritchie, 2020). In this regard, we support the suggestions made by Baumeister (2022, also Fox & Honeycutt, 2022, Ventura, 2022; and Kahneman, 2004) that the best way to safeguard fields from a deluge of problematic claims, or claims that are under suspicion as being part of a ‘file drawer problem’ (where their is a suspicion that negative studies are not being published) or are the result of data-mining and p-hacking, or other forms of data manipulation, is having many replications. As Baumeister says, in mainstream science

     ....one is constantly startled by failures to replicate many basic and standard effects....I would think a well-replicated finding would be marked by plenty of significant published findings in support of it, and presumably few or none in the opposite direction. Ideally, these would be from multiple [institutions], so that different researchers independently get similar findings. Also, having multiple different methods is reduces the danger that it’s all just a quirk of how you measure something. It’s essential today to have preregistered successful replication, so that would be a second criterion. Third, I would value having some real-world data, even though these are inevitably a bit more confounded, to bolster [confidence](https://www.psychologytoday.com/intl/basics/confidence) that it’s not just a lab thing, and that it does apply real phenomena in normal life. Lastly, there is the new method: multi-site replication. Essentially, one signs up a dozen or so different labs to run the experiment, and results are combined. This has become popular in recent years.

     While we contend such suggestions should be applicable to **all scientific fields**, they would be especially important in fringe areas where isolated, one-off studies are largely conducted by committed believers, and replications are typically conducted by the person claiming a positive finding in the first place. The problem of replicability does not seem to have been taken seriously in astrology, **where single, positive studies are typically taken at face value**. We have learned the hard way that even the most sophisticated studies in all areas of science (including papers by leading scholars), based on apparently good theoretical grounds can result in non-replicable findings. Given the lack of any even remotely good theoretical grounds for astrology, we should be more than suspicious. Continuous replicability is required to take into account new advances in the same field and extend the results to expand our knowledge in the field in new directions (see Dean *et al*, 2022, pp. 638-640, also https://www.discovermagazine.com/the-sciences/science-sleuth-looks-to-expose-research-fraud). [↑](#footnote-ref-213)
214. The twentieth century has seen astrologers continually come up with studies and claims that astrology is finally supported by new evidence. We have been here before many times. Such talk has to be seen in the larger context. The **overall evidence** gathered by a thousand studies is far from encouraging (Dean, et al, 2022) and the large problematic nature of astrology itself provided in this article suggest a strong doubting attitude would be appropriate. Again and again we are told by astrologers that we are on the cusp of proof of astrology, only after a few years for the claims to be shown to be exaggerated and fail. Let the buyer beware. Some readers may remember the1978 study by astrologer Jeff Mayo, statistician Owen White, and psychologist Hans Eysenck entitled “An empirical study of the relation between astrological factors and personality”, published in the Journal of Social Psychology. The results, although weak (hardly congruent with the strong claims of astrologers, Eysenck & Nias, 1982, p. 215), were consistent with the astrological view that introverts tend to be born under even-numbered or negative sun signs. Even before the study was published, astrologers had heard about the positive results and trumpeted their ‘victory’ to the media. Sydney Omarr, boasted about the results in early 1977 in his daily horoscope column, which appeared in hundreds of newspapers across North America, before the study was even published. The Canadian magazine Maclean's also gave prominent coverage to the findings, and the Canadian astrological magazine Phenomena called the findings “possibly the most important development for astrology in this century” (Phenomena, 1, 1.). While subsequent studies were mixed in support regarding those findings, Eysenck himself later found **self-attribution** (previous knowledge of astrology) could account for his earlier positive findings in the 1978 study (Kelly & Saklofske, 1981). [↑](#footnote-ref-214)
215. **Readers should keep in mind that studies describing positive findings are reported with every kind of fringe area.** And every fringe area can provide lists of positive studies (negative studies are typically ignored or explained away). A good comparison for astrology, when considered empirically, can be made with homeopathy, which similarly lacks any theoretical basis, and believers and those sympathetic to homeopathy still produce positive studies, including meta-analyses (see ‘Is there good scientific evidence for homeopathy? By the Earl E. Bakker for spirituality and healing, https://www.takingcharge.csh.umn.edu/explore-healing-practices/homeopathy/-there-good-scientific-evidence-homeopathy. There is better scientific evidence for the efficacy of homeopathy than astrology (but see also, Blakemore, 2015). Stalker (2020; Ritchie, 2022) points out that “Some … hypotheses are logically incompatible with a well-established piece of basic science information, and this lowers their prior [likelihood of being true], sometimes so much so that the prior is virtually zero” (see also Mukerji & Ernst 2022). Both homeopathy and astrology are in this extreme unlikelihood position, and both groups of followers give little credibility to negative studies or criticism (which doesn’t change their astrological beliefs), and so any reported positive studies on these topics should be viewed with great suspicion. This also needs to be viewed in the context of the replication crisis in science (see Bird, 2018). Astrologers tend to overvalue single positive studies in astrology, devalue negative studies (if they even hear about them in the astrological literature), and ignore the extreme implausibility of astrology itself. [↑](#footnote-ref-215)
216. A response to mixed findings on astrological claims is that perhaps astrology is itself ‘an unwitting source of knowledge’ (Smithers, 1982). “Since people vary in their knowledge of astrology and of themselves, it is not surprising that the apparent sun sign correlations should not emerge in all studies.” (<http://www.astrology-research.net/2022/10/05/rejoinder-to-kelly-and-saklofske-to-explain-and-to-explain-away/>). That is, since people vary in their knowledge of astrology, we should expect different groups of people to vary in self-knowledge. This suggestion that previous knowledge of astrology (self attribution) and self-selection of personality characteristics has been proposed and examined elsewhere (van Rooij, 1994) but hardly supports astrology as conceived by astrologers. The Smithers' paper referred to is now 40 years old and its main focus (self-attribution) has long been settled. Presumably the person who posted it was unaware of this or was desperate for anything seemingly in support of astrology. At the time of the Smithers' original article (in the very first issue of the astrology journal Correlation in June 1981), the sun-sign zigzag had only just been discovered and its cause was under debate. The psychologist Hans Eysenck saw a possible link with knowledge of sun signs but Smithers saw a possible link with season of birth, so his study using readers of the Australian Women's Weekly was an attempt to see which link was correct (it was of course sun signs !). Subsequently further research by others slowly sorted out the remaining confusion (see Dean, et al, 2022). This suggestion views astrology belief as one among many other **social factors** contributing to views about oneself, as also might a large variety of other strongly held beliefs from other sources. The argument also assumes from the start that astrology will provide accurate information rather than false or misleading information or even a new way of looking at oneself. This even further seems to privilege Western astrology over other astrologies (e.g. Vedic), one would have to make creative *ad hoc* responses to explain this away. It would also create puzzles around how anyone who knows little or nothing about astrology could be persuaded that astrology can provide insightful information about them in the first place. For another, to make this claim plausible, one would expect astrology to be a coherent and tenable theory, itself a problematic claim. This claim could a priori be made by advocates of any view that claims to provide insight into human behaviour (e.g scientology). Ambridge (2023) provides a useful update on similar findings in psychology. [↑](#footnote-ref-216)
217. Of course, because a belief or theory is **counter-intuitive** does not imply that it is wrong. After all, both Relativity theory and Quantum Mechanics are counterintuitive in many ways. However, unlike astrology, the claims of QM and Relativity have strong empirical evidence in their favor and are continuously and rigorously tested. And scientists pay attention to negative findings in these areas. [↑](#footnote-ref-217)