



## avantgarde

### How astrology might really work ?

Nowadays scientists and astrologers live in almost completely separated worlds. I am a physicist and versed in both. From where I am standing, the following would seem to be the most plausible, as I will expose step-by-step afterwards:

- All people, even those who consciously do not believe in astrology, would be noticeably influenced in their behavior by astrology. Nowadays, it should also be possible to experimentally confirm this.
- The effect of astrology, at least the way it is used today, would in an immediate sense have practically nothing to do with the planets and stars in the sky. Astrology would rather be a collective effect, unconsciously created by practically all people on earth.
- This would imminently be difficult to conceive for many astrologers and scientists, since each party would in the end have to give up a basic assumption in order to return to a jointly accepted world view. Conversely, it would, of course, also be a chance.
- On the path to the above view of astrology, I can also make other concepts a bit more amenable to science again: Love, religion and deities, telepathy, world soul, collective unconscious, etc. In a way, the path is even more significant than the goal in this text.
- In the end, fortunately a lot remains fundamentally open, also whether there might maybe still be direct correlations between “heaven and earth”, as basically presumed in astrology.

I will first sketch how the human brain mirrors the world inside itself, resp. in the network of its neurons. Building on that, I will describe what happens when two people love each other, and then expand this to more people, and many different concepts which have emerged over millennia, until I get to astrology. Finally, I will briefly explore further possibilities a bit more freely.

### Mirrors

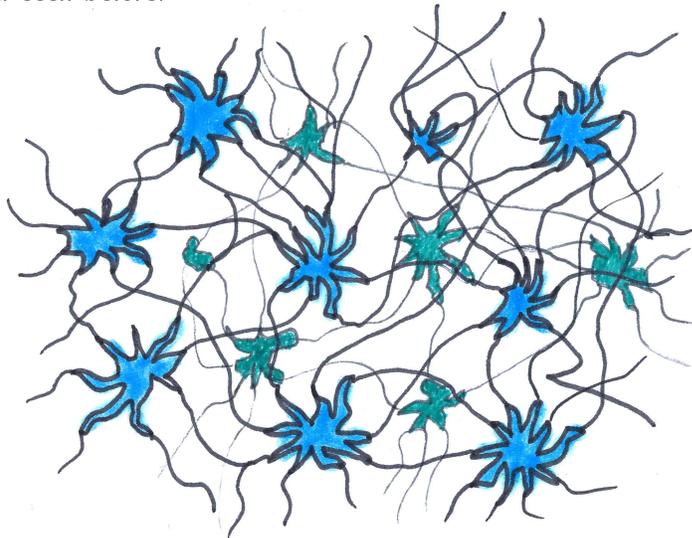
In the head of every human being there is a copy of the world, or at least of part of the world. It contains fellow humans, other living beings and many things, plus how they behave, also in interaction with oneself. Everyone can imagine, say, an acquaintance inside, even if that person is currently not in view, and often also how that person would behave in certain situations.

This mirroring of the world to the inside, into the human brain, is what essentially allows people (and animals) to live, to deal with the world, without e.g. quickly falling down somewhere.



A key point regarding this mirroring is now that it is often essentially only mirroring, but not consciously understanding how that which is mirrored exactly ticks—let me explain this sentence more thoroughly in the following.

In the brain, billions of nerve cells (neurons) are connected to each other. Today, such neural networks can be replicated also on computers, to a certain degree. For example, such a virtual neural network can be “fed” with millions of digital photos and drawings of the digits from 0 to 9. That way you can train the network, until becomes able to often correctly name the digit on an image it had never seen before.



Does that now mean that the network has understood what it is doing and how it is doing it? Or that it would even be able to explain that? This seems rather unlikely to be the case, it is probably rather as colloquially with riding a bicycle. You can learn it, but afterwards you do not really know what you do.

A concrete example: Ride quickly on a bicycle and then—very carefully and gently (!)—pull a little bit on the left side on the handlebar, but really pull only *horizontally*. This is what one would naively think what one does when one wants to take a left turn. But this is not what happens experimentally, instead rather a force results that wants to tilt the bicycle to the right (!)—hence please take caution if you try!

What you have to do instead to take a left turn, is to also press somewhat onto left side of the handlebar *vertically from the top*, which has physically to do with the fact that the rolling wheels are also a spinning top. But what is

essential in this example, is that a trained neural network does not imply that the laws of the outer world are somehow analytically accessibly stored in the head. In the head there is thus rather an often just as incomprehensible *copy* of the world, not an analytical model of it.

More psychologically speaking, unconscious content in the brain would often not be present in analytically resolved form. A trauma would have rather simply “burnt” itself into the structure of the brain than that the brain would have understood its structure. In this sense, it is probably often not correct to speak about bringing up unconscious content into consciousness. I would rather be so that hypotheses about the inner structure would lead to an inner reaction whenever they mirror the inner structure well. That would thus not be much different from how a scientist postulates hypotheses about the outer world and then compares them experimentally with it.

I hope this was now not too complicated to understand. Brief, the brain often rather mirrors the world, creates a copy, than it really understands it. That way also structures get into the brain which the person cannot consciously understand. This could, by the way, even go so far that laws of nature of which no scientist is yet aware would be mirrored inside, too.

But isn't one person alone and abstractly “the world” rather boring? Let's look at two lovers instead, and what maybe goes on in their heads.

## Love

Is love a real connection between two people?

Of course, it often appears to be so, for example, when the loved one calls you exactly when you think about him or her. Only, scientifically no connection is possible when, for example, the two lovers work at different places in the city during the day, and they do not use technical devices (e.g. cell phones) in order to communicate with each other.



It could of course be that today's science is wrong in that respect, resp. that such connections really exist but could not be confirmed, yet. But I will totally exclude this for the moment, since how brains work alone can already explain a lot. But I will come back to such possibilities towards the end of this text.

In any case, the two lovers of the example above will usually still feel clearly in love and connected when physically separated during the day. Is their love thus only purely an illusion, which only exists inside the respective head of each lover? Would love maybe even only be an individual illusion, in each of them separately, when they are physically together?

Well, when you love somebody, you usually like to fill your brain with any available impressions from that person. That way inside a mirror image of the person emerges, which probably even also encompasses a lot which oneself does

not consciously understand, and also the loved person not necessarily consciously knows or understands, but which will be stored in the structures in the brain in a rather unconsciously mirrored way. That way one could thus, for example, possibly sometimes also instinctively predict in total isolation when the loved one will call.

In network technology there is the notion of a “store and forward” network, a network in which information cannot flow all the time, but only at certain times, and is stored locally in between, just like when the two lovers meet again in the evening after work and talk to each other, and so on. But it remains a network, as long as the two keep exchanging information again and again.

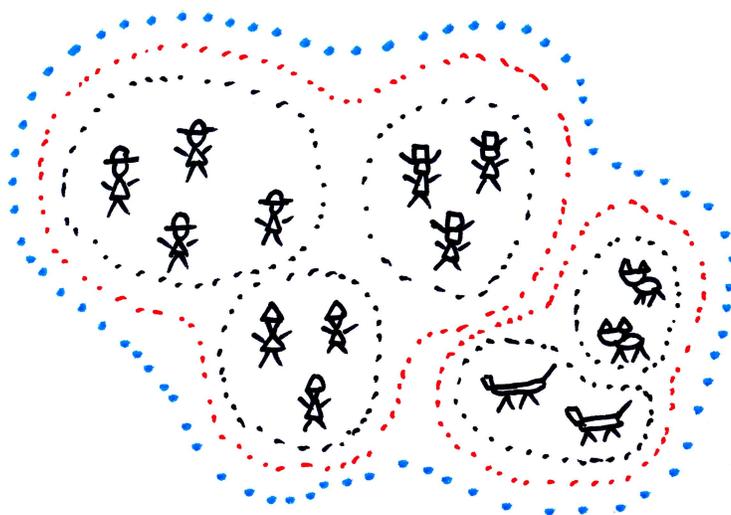
But so far this does maybe not fully mirror what happens with lovers, yet—or also in families, and less intensively with friends and acquaintances. In principle, the two brains of the two lovers connect and form a single brain. Hence almost certainly also superordinate structures emerge, which overlap between the physical vessels in the two heads, thus forming a larger neural network than could exist in a single brain.

Such a larger compound of nerve cells could in principle be able to develop independent wishes, dreams, thoughts, etc., hence a relationship could go beyond what the two lovers would be able to fully capture individually. This mirrors maybe already often how it is in a relation: often beautiful, but analytically often not fully seizable. In a way, you can only decide whether you want to stay in a relation or not, but not fundamentally change its nature.

This has now, of course, been quite speculative in detail. The brains of the lovers would still be comparably more separated from each other than the nerve cells in the individual brains from each other. And yet, as a “store and forward” network, and by storing most shared information in parallel on both sides, the above possibility still seems, to a certain degree, most plausible to me.

If two lovers were separated a long time from each other, many things could develop separately into different directions, but not necessarily, if the two really hang on to it. Hence it would be difficult in practice to distinguish experimentally whether the two are really permanently connected or not, since both possibilities would manifest almost identically.

## Collective beings



If you now extrapolate such connections created from mutual mirroring, like between two lovers, to more people, like family, acquaintances, village, city, region, country, even the whole earth, including also many animals, different “collective brains” would emerge at nested scales. What would hold these compounds of brains together would be, depending on how you look at it, the power of love or mutual mirroring of each other, just like two lovers. There would thus be a collective brain for each family, then, building on that, one per community, and so on, up to country and earth, while, of course, these entities would overlap in many and diverse ways in practice.

The idea is now again that such collective brains would a priori be quite able to have independent thoughts and feelings, hence could feel joy, fear and anger, could have plans, dreams and a will, etc.—simply everything that also a single human being is able to think and feel. But it could also go beyond that, because more connected nerve cells with more stored information would potentially be, just like in a relation of two lovers, a “superbrain”, which would be able to have thoughts which a single human could never grasp, just like a single nerve cell in the human brain would hardly ever be able to really grasp the thoughts which it helps to process in the human brain.

This is maybe best conveyed as follows. Ants often form trails, which connect sources of food with their nest. Only, the individual ant does not really know that there is a trail, it simply follows the chemical scents, and, if you observe it, often not in a straight line, as one might think, but instead with a lot of going left and right, and sometimes also with shortly turning back. In the small brain of the ant there appears thus to be no concept of a “trail”, but only that following the chemical scents is good and not following them is bad, resp. probably that the ant typically feels more happy when it follows the scents than not, hence that the scents makes the ant happy.



Of course it is questionable whether such a compound of brains could really be more intelligent than individual humans, since the connections between the brains could overall only be much less intensive than inside a brain between nerve cells. But in any case such a collective brain would have a different perspective, thus something similar to an “ant trail” would be more easily accessible to the collective brain than to an individual brain, if only because the “ant trail” is a collective concept.

The analogy with the ants might also mirror how a collective superbrain might be able to “guide” individual people, namely with something equivalent to a “scent trail” for the ants. More about this fundamental idea later.

In the immediate sense, the scent trail is created and refreshed by the ants themselves, i.e. the physical environment is definitely also in play with regard to collective beings. Already in a single human brain chemistry plays an important role, and information is also stored outside the body, in books, photos, films, or also in everyday objects, clothing and architecture, simply in everything that

is created and changed by human beings. That way a single thing, or one replicated into many copies, can act on many people and help to form them. Thus collective brains would also be collective living beings with a “body”.

Now to various cultural concepts that emerged over millenia and which strongly resemble ideas of a collective being.

## Religion

The idea of or the belief in higher beings, which are often immortal and invisible, hence in goddesses and gods, probably exists in humanity already since primeval times. A collective being formed by all believers would probably also live much longer than individual people, as long as believers keep having faithful offspring. Quite similarly in human brains nerve cells are replaced with new ones during life, but personality is still roughly maintained during life. And such a collective being would also not be directly visible in the world, resp. it would reflect in almost anything, which would also often fit with deities.

If previous argumentations were accurate, would there now really be gods, if in a certain way “only” created by the respective believers? The answer would essentially have to be yes. Because, if you admit that individual persons exist, even if they “only” come to be from single, interconnected neurons, then there would also have to be goddesses and gods, which would “only” come to be from individual, interconnected brains, resp. the neurons in them.

Religions can be very helpful, can help believers to experience life as deeper, more beautiful, richer, more meaningful than it is to non-believers, not dissimilar to how lovers experience love; and religions can also be quite generally useful for society and living together. Conversely, of course, also many wars and crimes have come from religious backgrounds.

Would deities maybe all in all rather be more like the ones in Greek mythology: Not always without fail, but also with human traits, plus maybe even some, which might even surreally surpass humans, in good and in bad ?

## Earth soul

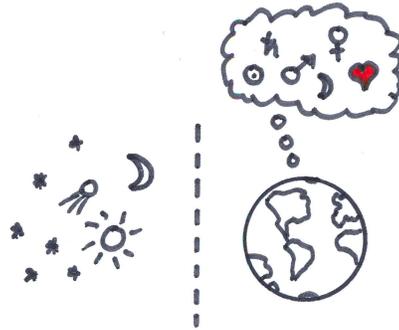
Greek philosopher Plato coined the concept of a world soul (lat. *anima mundi*, gr. *psyché tou pantós*), and there are similar concepts in different cultures. Behind that concept lies also the fundamental question of whether the cosmos is overall alive or not. According to today's science there are animals and plants, plus some other lifeforms, but a rock would be inanimate, and also by far the largest part of the cosmos.

It could, of course, still be so that more things would be alive than assumed today. As already mentioned, there are interactions between living beings and inanimate matter. Living beings consist apparently of exactly the same building materials (atoms, etc.) as inanimate matter.

But all in all, such a world soul in the larger sense would require assumptions that would go beyond the ones made so far, so let me also come back to this toward the end of this text. A world soul in the sense of a compound of all living beings on this earth would, however, most likely exist under the assumptions made so far. I will simply call it “earth soul” in the following.

For this earth soul, the self would be earth and the environment would be the “sky” resp. the cosmos around the earth, with sun, moon, planets and stars.

Would this earth soul now simply admire what it sees outside of itself, and like to mirror itself in it, like in a lover, or like in a mother or father, as creator?



In any case, in such a rather lonely situation, without any other inhabited planet in sight, would there not be a very big wish that what happens outside in heaven would also mirror on earth, if only to feel more connected, less lonely?

This reminds, of course, already strongly of the astrological mantra “as above so below”. But first to another concept, which is likely quite significant around astrology, to Jung’s “collective unconscious”.

### **Collective unconscious**

Carl Gustav Jung went beyond Sigmund Freud by postulating that unconscious processes in the psyche could also be of a collective nature, probably based on the observation that certain “archetypical” themes keep surfacing very similarly again and again even to mutual strangers, in dreams as well as more seldomly in real-life experiences.

Under the assumption of collective brains, the collective unconscious would simply be that part of collective thoughts and feelings, which is (at least most of the time) hidden from individual people, hence is not conscious to them, or even not directly stored in individual brains, but would only indirectly come to be in the collective compound, like the ant trail, which probably also does not exist in individual ants.

All people, and also many animals, dream at night in their sleep. Could it now maybe even be so that dreams would reflect collective thoughts more than individual ones? Or could it maybe even be that a collective brain would sort of lay out its plans like a “scent trail” for dreamers, such that the affected person, after waking up, would more likely occupy him- or herself with certain themes, or would do things, which would rather fit the plans of the collective brain? And similarly with particularly impressive real-life experiences?

In any case, such a collective unconscious, or also generally a collective brain, would often have the character of “fate” or “destiny”, roughly in the sense in which Liz Greene cites Jung in her book “The Astrology of Fate” with “Free will is the ability to do gladly that which I must do.”.

In other words, if you behave according to the wishes of the collective brains at different scales, thus family, country, religion, beekeeper club, etc., this would be honored by the surroundings with a feeling of happiness in exchange. You would thus be fundamentally free as an individual to do whatever you want, but, as a social being, you would also respect your surroundings, and there especially *not* only what is *conscious* to individual people in your surroundings, but also respect *unconscious collective wishes*, which could very well be diametrically

opposite to immediate conscious surroundings, for example, as the “black sheep” of a family or a village.

The collective unconscious would thus also have a “fated”, guiding side, resp. collective beings would quite generally have a guiding influence on individuals and also on smaller collective beings. And, of course, collective thoughts which reflect in dreams could appear as precognition of the future or of remote events to individuals.

All in all, it is difficult to distinguish between collective “brains”, “beings”, “souls” and “unconsciouses” without more precise assumptions.

## **Astrology**

My ansatz how astrology would work is the following:

*Unconsciously all people “believe” in astrology, resp. are part of a collective brain that believes in astrology, resp. at least considers it useful and precious.*

Astrology, resp. its different forms in different cultures, would thus be a view that the earth soul, resp. its smaller collectives, would have of the world, and which they would let influence individuals. Immediately the strongest influence would thus come from the astrology of one’s own culture, from other astrologies rather less, while, of course, nowadays cultures often also mix.

Many modern people will now probably ask: Why would such an archaic belief have persisted also in all the many people who consciously think so little of astrology and often know almost nothing about it in detail? What exactly would be useful or meaningful in that?

Maybe primarily this: Thanks to astrology it would be achieved that also in small groups of people there would be different characters, with different ways of approaching the tasks that life poses every day. Since then different approaches would be tried, on average presumably a solution would be found more quickly than if people would be considerably more similar to each other. Astrology would thus have an evolutionary advantage in the sense of Darwin; this is why it would also even have survived Enlightenment almost unperturbedly, as far as it concerns the collective, unconscious part.

In addition, during the normal course of a year, for each month the assigned star sign and its attitude towards life would fit well with activities in a primarily traditional agricultural environment, which dominated e.g. in Europe during centuries. For example, towards the end of summer (Virgo) people would like to work carefully and precisely, and sort things, as in the past often useful for bringing in the harvest, and then, at the beginning of autumn (Libra), they would rather like to exchange parts of the harvest with others in trade, in order to obtain balanced stocks of goods for the winter. Until recently, this would thus have been an additional evolutionary advantage, at least compared to other collective views that would mirror nature less directly. Of course, this is only true on the northern hemisphere and with Western Astrology, not e.g. with sidereal Indian astrology.

With fate it would be more or less like quoted from Jung above: People would be fundamentally free as individuals, but, as social beings, they would be driven by often unconscious collective thoughts and wishes, so that, wanting to

feel happy and fulfilled, they would still most often find their way in life on the paths laid out by astrology, almost like the ants on their ant trail, with often as much back and forth, and sometimes even going the opposite way.

But where would the stars be in that? Well, in this picture they would in the immediate sense actually have no influence, instead “only” collective views about them, which do not always mirror the sky accurately. From a collective perspective, the earth soul, or parts of it, would very well have its views about cosmos and reflecting it, but it could also be wrong at times.

The prime example for this is planet Pluto, which had only been considered a planet during a certain time, from 1930 until 2006, when it has been, scientifically consistently, reclassified, to a so-called “dwarf planet”.

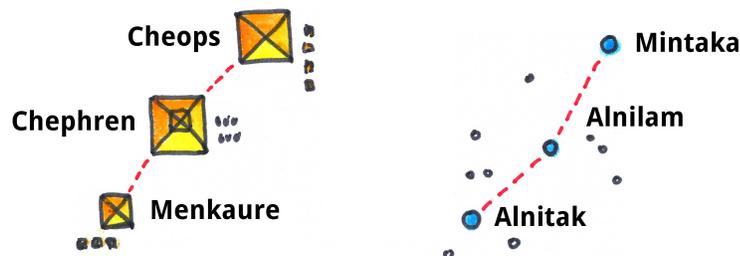
Now, in the view of astrology, Pluto would have a strong influence on human fates, and also on many collective events, including world politics, and so on. In my view that was also actually the case in the 20th century, thus these forces were effectively acting on people, and probably still continue to do so now, to a somewhat reduced degree.

Pluto was also the first planet discovered in the USA. Uranus and Neptune were still discovered in the old world, in Europe. Hence behind Pluto there is also a lot of the collective that the USA forms consciously and unconsciously, which, of course, also includes many people world-wide beyond the USA. Hence it is not astonishing that exactly scientists from the USA and other English speaking regions initially objected most to the idea that Pluto would now suddenly no longer be a planet.

But I do not want to talk about politics here; instead I just wanted to illustrate that astrology really has an effect in daily life, at large and small scale, but also certainly deviates far enough from the reality in cosmos outside of the earth that an immediate symmetry can rather be excluded.

Birds of pray can, by the way, see planet Uranus in the sky with the naked eye, and possibly also Neptune or the asteroid Ceres. Had the earth soul maybe already been conscious of these celestial bodies, only Pluto came as a surprise? But even then, for Pluto there would still have been the freedom to steer, which name the new planet gets, and thus a meaning that could still fit with some events that happened *before* its discovery?

And would the three pyramids at Giza maybe, as suspected by Robert Bauval, intentionally mirror the three stars of the Belt of Orion (Osiris), only that this had not been conscious to the ancient Egyptians, but “only” unconsciously collectively to all Egyptians, and hence the sky is not perfectly mirrored?



There are more examples, where astrology does not truly mirror the sky, like that the moon is typically drawn geocentrically on horoscope charts, hence where it would be seen from the center of earth, not from the respective point on the surface of earth. And, of course, the division of the zodiac into 12 segments of equal size, by now completely separated from constellations due

to precession, is not something that mirrors directly in the sky, and a division into 12 segments seems also rather to reflect the somewhat more than 12 lunar months in a solar year, than that it would immediately have natural causes. In China there are quite different constellations, for example, a division into 28 “mansions” on the ecliptic, where the moon would be visiting a mansion each day of a lunar month.

Astrologers within a cultural circle usually share many methods and views, but besides that often also very often use further, quite diverse methods. Think only of the many different house systems, or orbs for aspects. How could such diversity ever mirror people?

In order that a client goes to a particular astrologer, he or she would probably have to somehow feel mirrored, maybe less in the astrologer, but rather that the astrologer would resemble a desired solution? A client might come from an environment where mainly the Koch house system would be used. Should an astrological counselor now rather keep using her or his favorite house system, or in this case rather use Koch houses? Or both?

Koch houses would probably better fit the environment of the client, would thus rather mirror where the collective brains around his or her environment would want to move the client to. Conversely, the individual has likely still also a free will, in order to at least be able to switch surroundings, sort of like changing the “tribe” into a cultural environment with a different house system, where then maybe different collective brains could make a rather more desired life possible. Hence also here client and astrologer would have fundamentally much room to move, to “gladly do that which they must do”.

Certain methods and views in astrology would be quite generally valid, other methods only in surroundings where they would have supporters. This would then often be quite similar to going to a general psychologist of a certain school of thought or to a priest of a certain religion. Also there a lot would often only help if it “fits” the client.

## **Summary**

This has thus far been quite a conservative approach to these things, resp. it was conservative concerning the physical assumptions, thus for example without natural communication channels between brains at large distance, short, entirely from the viewpoint of the current state of natural sciences.

This resulted roughly in the following picture, which seems to be qualitatively plausible, but, of course, so far quantitatively, and whether it is correct at all, remains formally unproven: There would be collectives of two and more brains with independent thoughts, wishes, dreams, feelings, etc., and these would influence the fates of people on earth. A direct influence of planets and stars would however not immediately exist; in particular, there are clear indications that the majority of causes of astrology would be purely located in views down on earth, but would often also be helpful in living together every day.

## **Tiny outlook**

Even if the earth soul, as defined further above, could sometimes be completely wrong, like with Pluto as a planet, it could still have mirrored certain laws of the cosmos, even some which are not known or conscious to anybody, similar to

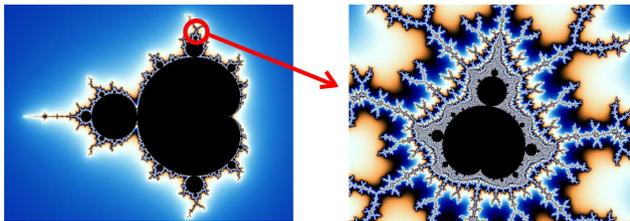
how a person who can ride a bicycle has unconsciously mirrored physical laws into her or his brain.

How it appears at the moment, the milky way is not buzzing with planets with intelligent life on them, which would emit radio signals, etc. Is thus the architecture of our own solar system so special that in it also part of the secret of life reflects? Without a relatively large moon for such a relatively small planet as earth, the earth's axis would not be stable and life would presumably never have emerged.

Quantum mechanics knows entanglement of quantum states even across great distances, as, for example, in the well-known thought experiment of Einstein, Podolski and Rosen (short EPR). Especially in the "New Age" movement there are many approaches in which the whole world would be interconnected that way, without, however, getting fully specific. Or Jung, who at the beginning of the 1950s, at that time often in close contact with physicist Wolfgang Pauli, postulated the concept of an "acausal synchronicity", was probably also substantially influenced by thoughts about such quantum effects.

This is a wide field, where I could add quite few more things. Let it suffice here, that you could then also explain oracles more easily, hence events where randomness appears to take part, as with Tarot cards or with the coins or yarrow stalks of the Chinese I Ching. Because otherwise collective brains would "only" have a possibility to influence things by focussing the people involved in the oracle after the random outcome on certain aspects of the oracle text, but there would then be now way to influence the result of the oracle itself.

There would be still another, very simple fundamental explanation for things which resemble each other in big and small sizes or at the same size at different places, namely that the same laws of nature could bring forth similar structures even without immediate connections. This concept is called self-similarity. For example in the "Mandelbrot set", a mathematical figure that results from a simple equation, you can find the same structure not only in the large whole (left image), but also many times in very similar, smaller form, if you zoom in at the border (example to the right).



A practical idea regarding how to deal scientifically with collective phenomena: Instead of trying to want to understand them analytically, maybe just try and see if they can maybe be mirrored in artificial neural networks? Hence, for example, feed a neural network with data that emerged at known times at known places, so that you can also derive astrological information. If such a neural network would then become able to derive the creation time of undated data, or at least limit times significantly, that would be a proof of astrology.

A key assumption in astrology, namely that the situation when something starts, like a human life, an organisation, a country, etc., would shape its fate, could apparently not be directly derived as a physical effect in any of the explanations proposed here. Could a key element maybe still be missing?