

**THE EFFECT OF ASTROLOGICAL OPINIONS ON SOCIETY:
A PRELIMINARY VIEW**

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Abstract. This paper is based on the assumption that the ‘egocentric perspective’ of the human mind acted as an efficient psychological factor for evolving the astrological doctrines. We adopt a psychological approach to studying the relation between historical-social events and the astrological doctrines in the medieval period. In its focus, this study deals with the two celestial phenomena observed in the Middle East from the beginning of the 14th century to that of the 15th one, where astrological interpretations or the prognostications had political, social and historical effects. The examples have been selected from the primary historical sources. They are Comet 1402 D1 and the unordinary conjunctions between Mars and Saturn. Considering them in various contexts, it is shown how those phenomena were ‘the cause of anthropocentric historical events’ such as wars, or identified as ‘the justifier of social or natural accidents’ like epidemics. The explanation of the role astrology played in such events, in particular, and its impact upon societies, in general, must be sought in the psychical effect caused by the astrological ideas on the human mind and its relation with the physical world. We conclude that as the human egocentric mind was a main cause of the formation of astrology, astrology itself penetrated into the consciousness of the human mind and objectively appeared in the physical world, and therefore conducted history in a specific direction. It is shown that this effect was so extended to give birth to the astrological history. In addition, having classified the four ways of interpreting the celestial phenomena in the ancient – medieval period (meteorological/weather prognostication, natural philosophical, meteorological/atmospheric, astrological), we briefly noticed the situation of the astrological dogma in Islam and the methodological distinction between astrology and astronomy by Avicenna in that period.

Keywords: astrology, egocentrism, history of astronomy, sociology of astronomy, Comet 1402 D1, Maragha Observatory

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“It is incredible how useful belief in astrology has been to humanity. If Kepler and Tycho Brahe made a living, it was because they sold to naïve kings predictions founded on the conjunctions of the stars. If these princes had not been so credulous, we should perhaps still believe that nature obeys caprice, and we should still wallow in ignorance.”

Henry Poincaré (1913:296–297)

1. Introduction

To begin with, the Aristotelian background of the ancient–medieval intellectual system provided a stable, unchangeable and harmonic cosmos wherein any phenomenon had been known as *a priori*. Yet, a more ancient idea was the direct effect of the celestial phenomena on the terrestrial accidents, which echoes the ‘egocentric’ perspective that appears to be a principal characteristic of a human being’s mental activities throughout his own every-day activities (see: Richardson et. al. 2010: esp. 309–311). The same perspective, as a striking example, was also responsible for the opposite motive of man to resist every idea rejecting the ‘geocentric’ cosmos for ages. One can simply perceive that the primary simple notions like the influence of heavens on the earth emerged from the egocentric viewpoint of the human mind. Finally, they evolved through time and embedded in astrological doctrines. Similar psychological considerations focusing on the interrelation of the human mind and the physical world may be adopted as a criterion to explain the continuous survival of the astrological dogmas. In addition, they can also be employed for the sake of interpreting their practical usage in any social context. Looking at the issue from such a perspective, the purpose of this study was to investigate two important cases in which the astrological interpretation or prediction of some celestial phenomena played a considerable role in the stream of history. We believe that these examples are appropriate for showing how and to what extent the astrological doctrines (as the matters rising from the intrinsic part of the human mentality) could efficiently be engaged in the social and historical mechanisms. Moreover, we are also motivated by the reason that they belong to the late Islamic period (AD 13th–15th centuries) when not only the astrological opinions were treated as heresies, but also a methodological distinction between astronomy and astrology had already been crystallized in its philosophical system as well (we will see in the following). This paper tries to highlight several main issues:

First, a short classification of the quasi and astrological ideas is introduced. Second, a passing allusion to the situation of astrology with regard to the orthodox religious opinion in the period in question follows. Third, the rest of the paper is devoted to two case studies, which constitute the bulk of the present study. Finally, we discuss the case studies in the shadow of a psychological interpretation of the impact of astrological doctrines upon history.

It is worth noting that in carrying out research on a historical topic in its own context, especially when it accompanies a psycho-sociological approach, we are somewhat influenced by anachronistic prejudicing. For this reason, we avoid the science/pseudo-science boundary, which was prevalent in the modern astronomical history studies, in this work.

2. What was ‘astrological’?

To take into account the historical matters, not all celestial phenomena that were assumed to impose some effect on the terrestrial domain were interpreted or treated solely ‘astrologically’ up to the late Hellenistic period. To clarify this point, some main variants are classified briefly as follows:

1. Some celestial ‘arrangements’ were being applied for the weather prognostication (e.g. predicting the direction of winds or storms). Examples of such arrangements can be mentioned as the inclination of the line passing over centers of the moon and the sun from the ecliptic during an eclipse, the direction marked on a horizon by the lunar latitude-line, by the moon’s sickle or by the comets’ tails. Therefore, they belonged to the ‘Meteorological’ (in the modern sense of the word) theory, not to the astrological doctrines (Neugebauer 1975:141–142).

2. Sometimes the belief in the effect of the celestial phenomena on the terrestrial domain was rooted in the Aristotelian ‘Natural Philosophy’. In this light, the importance of the solar and lunar eclipses became apparent. Consequently, a great deal of research has been done in this realm to exactly predict the eclipses. The attempts and insights of such astronomer/astrologers resulted in establishing the observational programs, geometrically modeling the luminaries’ motions and finally developing astronomy. Hipparchus (BC second century) and Ptolemy (AC second century) are the best known examples. The first claimed that he had attained the accuracy of about ± 2 digits (one digit = one-twelfth part of the luminaries’ apparent diameter) in the prediction of the eclipse’s magnitude (Neugebauer 1975: 667). The main motive for acting so can be regarded as the high-ranked role devoted to the sun and the moon in the Aristotelian philosophy for their effects on the continual stream of the ‘generation and corruption’ in the sublunary domain. For instance, the motion of the sun in its declination was known as the ‘principal cause’ of the generation and corruption (Aristotle 1971, 336a35:141), or the sun was a ‘moving cause’ for generating humankind (Aristotle 1969, 194b13:29/209). Accordingly, the parameters of every eclipse (e.g. duration, magnitude, phases, etc.) must precisely being calculated for the sake of confidently predicting its physical effects on human beings.

3. Another important point is the sublunary (atmospheric or ‘Meteorological’, in the historical sense) phenomena such as comets, shooting stars, and so on. Again, according to the Aristotelian philosophical tradition the heavens were incorruptible. Hence, all the instantaneous appearances such as comets must have being attributed to the terrestrial world. The comets, having the inauspicious

outcomes, were the symbol of the widespread changes in the normal course of the life. The comet 1402 D1 may be an appropriate instance to show the important political effect of a comet as a celestial phenomenon on human life (see Case 1).

4. The last group consists of ‘astrologically’ important aspects between the planets, i.e. conjunctions, oppositions, and so on, where our main concern lies (see Cases 2 and 3).

A quick glimpse at the above four sorts of celestial-terrestrial interactions revealed noticeable differences among them. However, they manifested together and were mostly treated as an integrated body of astrology up to the late medieval period. It is essential to add that the two latter sorts were more in focus of attention. Also the second and the fourth used the astronomical tools for determining the ecliptic coordinates of the planets (e.g. used in horoscopes) and caused the mathematical procedures to be important for providing solutions for their problems. The first case lost its importance in the medieval period.

3. Astrology and Islam

Astrology was soon spreading all over the communities and the nations having the various and different ‘Ideologies’ (in the anthropological sense). Since her doctrines gave rise to the serious challenge to the fundamental opinions of every monotheistic religion, there was a deep conflict over accepting the astrological prognostications in both Islam and Christianity (For Islam, see Saliba 1995:53ff). On the one hand, the controversies between Islam and astrology began very soon. The orthodoxy constitutes a main part of the core of the ideology of every community based on a specific religion. On the other hand, Islam, becoming a ‘knowledge’-based intellectual system (see Rosenthal 2007), at least for the sake of itself, had to put astronomy in its own service. This made the Muslim jurists to draw a virtual distinction between astronomy and astrology. For similar reasons, also very soon the same controversies arose amongst philosophers who assumed themselves as the polar point of the intellectual sphere of the day. Accordingly, the jurists and the philosophers began to write a good number of the extensively critical treatises against astrology.

Nevertheless, for the first time, the Iranian philosopher Avicenna (AD 980–1037), in his influential work *Treatise on the classification of the rational science*, highlighted the ‘methodological’ difference between ‘astronomy’ and ‘astrology’: ‘the first is ‘verifiable’, but the second purely ‘conjectural’ (Avicenna 1986:88, Gutas 2003:148). As a result, Astrology, which was not known to be so differentiated from astronomy throughout the Greek and Hellenistic periods, now distinguished from astronomy, needed to be redefined. Such a rigid religious-philosophical distinction, however, did not change anything in the very realm of astronomy. Thus, Astrology received a new definition and that methodological difference gives it a new title. It was no longer the *‘Ilm*, ‘Knowledge/Science’, but *‘Sinā‘a* ‘Art’ (Our account here makes a considerable difference from Saliba 1995:

66f). In the Islamic medieval astronomy, the astronomers who were working on the ‘observational astronomy’ were called *’Aṣḥāb al-’irṣād* (lit. Possessors of the observations); those who was interested in making the geometrical planetary models (‘Physical astronomy’) were called *’Aṣḥāb al-hay’a* (lit. Possessors of the configuration [of the planetary spheres]); those who were working on the ‘mathematical astronomy’ were called *’Aṣḥāb al-zījāt* (lit. Possessors of the astronomical tables), and so on. The astrologers were now called *’Aṣḥāb al-Ṣinā’a*. (These terms are distributed throughout the Islamic treatises; see *Ṣinā’a* in the title of many Islamic treatises, e.g. Abū Muḥāmid’s, in Bibliography; *’Aṣḥāb al-’irṣād* in Shīrāzī 1, fol. 50r and Shīrāzī 2, fol. 38v; *’Aṣḥāb al-zījāt* in Wābkanawī’s *Zīj*, III, 5.4, or *’Aṣḥāb al-Ṣinā’a* in III, 7.1.) *Ṣinā’a* even sometimes was applied for naming the whole ‘astronomy’ (e.g. Wābkanawī, III, 1.2.1 and III, 13.14).

That methodological difference was also transferred to the west and became so prevalent in Europe that the extensive references to the Latin synonyms for *Ṣinā’a/Art* may be found in the treatises written during the late medieval period. As a result, in Christianity of the late medieval period, there is a ready solution for the problem. However, Gregory Chionides (*ca.*1240–*ca.*1320 AD) may yet be an amazing instance: he spent some years in Tabriz, Iran, for studying the texts of astronomy and translated some of them into Greek (see Pingree 1985). After returning to Byzantium, he had to write a treatise entitled *Profession in Faith*, apparently in the defense of himself (see Westerink 1980).

4. Astrology in the service of society

Our aim is to show how belief in the effect of celestial phenomena to the ‘anthropocentric historical events’ like wars, political decisions, etc., can have the various and specific kinds of functional applications or how they took the role in ‘justifying’ the happenings out of the humankind’s power, e.g. floods, epidemics, and so on.

In what follows, we present two historical cases related to the Iranian history to show how some astronomical phenomena (astrologically interpreted) may have the considerable political or social implications. These historical cases are the comet 1402 D1 and the unordinary extensive conjunctions of Saturn with Mars during the turn of the 14th century AD. It is interesting that those phenomena, either directly or indirectly, are in relation with the two periods of scientific activities at the Maragha Observatory (AD 1259–1283, 1283–*ca.*1320, respectively), which had been founded by the Ilkhanid dynasty of Iran (AD 1265–1344). The first is an excellent example illustrating the effect of the astrological doctrines on the course of history.

CASE 1: THE COMET 1402 D1

In general, the two Persian sources refer to the observation of the comet 1402 D1. The one is Khāndmīr’s *Ḥabīb al-Sīyar* (1954, written *c.* AD 1523–4) and the

other is an astrological work named *Latā'if al-Kalām fī Ahkām al-'A'wām* by a Siyyid Muammad the Astrologer (written after March 1421 AD in Lāhīdjān, northern Iran). Muḥyī al-Dīn Al-Maghribī (d. June 1283 AD) was a prominent astronomer of the first period of Maragha Observatory. (He wrote at least 26 astronomical treatises of which 10 are on astrology. For further reading, see Sarton 1953, 2, part 2: 1015–16, Sezgin 1978, 6:292, Suter 1902:154–155, Tekeli 1980, Dorcé 2002/3). Khāndmīr says about him that he ‘had preference over the modern and ancient astronomers in the field of astrology. Some works of his are famous among astronomers and some of his own astrological commandments, *ahkām*, which in reality have happened are rumored’ (Khāndmīr 1954, 3:108). Of those, he points out the military expedition of Tamerlane (AD 1336–1415) to Minor Asia, *Rūm* that governed under the reign of Īldrum Bāyazīd (known as Bayezid I, AD 1354–1403), the first Ottoman supporter. The anecdote is that it happened in H 804/AD 1402, when Tamerlane was sensing danger from *Rūm* and consulted with his own courtier’s astronomers and astrologers about starting a war against Ottomans. They firmly prohibited him to do so. Only Shams al-Dīn al-Mālighī encouraged him, and after confronted with his question ‘how do you explain the astronomers’ remark?’ Shams al-Dīn asks help from Shahāb al-Dīn ‘Abd-Allāh al-Lisān who, Khāndmīr says, was so wise that other learned men imitated him in his own era. This time was contemporary with the appearance of the comet 1402 D1 which was observed for the first time on 8 February 1402. Khāndmīr says, ‘appeared from the west at the end of the day when setting of twilight, and after some days rose from the east when morning.’ In mid-March, it entered solar conjunction and there were reports that it was a daylight object for 8 days. The comet was totally visible during 70 days. It reached its maximum brightness on March 12 (Yeomans 2007, see also Seargent 2009:99–102). Shahāb al-Dīn ‘Abd-Allāh got to Tamerlane’s court with one of Muḥyī al-Dīn’s works based on which he announced that ‘the appearance of comet in the [sign] Aries is a symbol meaning that an army will come from the east and will dominate on *Rūm* and will imprison the *Rūm*’s patron.’ Based on this astrological prognostication, Tamerlane determined to continue and on 12 March, namely when the comet had reached its maximum brightness, and decided to start a fight that ended in his final victory (Khāndmīr 1954, 3:505). In contrast, Siyyid Muḥammad the Astrologer says: ‘any great man who has seen them [the comets] has said that they are the symbol of the inauspiciousness [...]. At H 803 [AD 1401] I have seen a comet which appeared on the zenith of *Rūm*. Emir Tiymūr [Tamerlane] made a military expedition with that clan [Ottoman Turks] and imprisoned Īldrum Bāyazīd and held him in disrespect’ (Siyyid Muḥammad, 214. Indeed, the date is one year out).

Tamerlane holds the wretched Īldrum Bāyazīd in a cage of iron until he died there on 8 March 1403. This war was allegedly the most important political event in the Middle East of the 15th century, especially for its negative effect on the establishment of the Ottoman Empire. However, it had already been neglected that some preliminary astrological considerations created an appropriate atmosphere and provided the needed social energy in doing so.

CASE 2: THE INAUSPICIOUS CONJUNCTIONS

Our second case concerns Ghāzān's government when the amount of water in the great rivers of the Middle East such as the Nile, Amudarya and Tigris, decreased. As a result, diseases like cholera and typhoid became epidemic in Iran's prominent cities, for instance, in Shiraz only, 50 000 people died (Mīrkhānd 2002, 5:4231–2; Khāndmīr 1954, 3:153). All historians had attributed this tragedy to the sequence of the conjunctions between two inauspicious planets, Saturn and Mars (especially the one occurring on 18 April 1299/15 Rajab 698 H/5 Urdībihisht 678 of Iranian calendar). The conjunctions between Saturn and Mars usually occur biennially. The numerous conjunctions of 1302–1303 were the result of Saturn's retrograde motion. (It is worth mentioning that in the conjunction of 1301 the angular separation of two planets was so small that one completely overshadowed the other.) This failed to happen until two subsequent centuries while seven conjunctions occurred within only five years, 1502–1506. (A hint to the various conjunctions of the planets during H 909 = 26 June 1503–13 Jun 1504, including three conjunctions of Saturn with Mars, may be found in Yaḥyā al-Dīn, fol. 115v.)

5. Conclusions

In spite of religious controversies, it was shown how simple celestial events, such as planetary conjunctions or comets becoming visible can have a marked effect on the course of history with remarkable political and social results. Political and sociological events in the medieval and early renaissance periods seen from this perspective should be regarded to some extent as a matter of astrological causation, rather than human beings' value-based intentional efforts and activities or other peripheral circumstances.

A specific phenomenon could sometimes be presumed to be 'the cause of a historical or political event' (our first case) or was sometimes employed for 'justifying a social or natural happening' (our second case). In the first group, the astrological ideas appear to be determining a way through which the river of history must be flow. Although the physical cause-effect relationship between the celestial phenomena and the particular historical-social events makes no sense, no one can ignore the psychological effect caused by such a belief on human mind. This is the reason why astrology could change the natural course of events and, hence, the whole history. As we saw in Case 1, a simple prognostication of an Arietis comet based upon the astrological doctrine of al-Maghribī changed Tamerlane's mind, and, consequently, led to a weighty political event in spite of its contradiction with the general idea of the astrologers of his court.

It should be emphasized that nothing like adopting a psychological point of view seems to be practical in analyzing the impact of astrology on history. 'In psychology the identity and form of the percept that actually enters into a stream of consciousness depends strongly on the intention of the probing mind: a person

tends to experience what he or she is looking for, provided the potentiality for that experience is present' (Stapp 2007:8). Broadly speaking, the impact of astrology upon history reflects the relations between the human mind and the physical world, and thus constitutes a striking example of it. As mentioned earlier, the egocentric view of the human mind was the main cause of the formation of the everlasting dogmas in his cosmic viewpoints. They were not only astronomical (e.g. geocentrism) or astrological, but the Aristotelian natural philosophy itself reflects an egocentric mind as well. The belief in the interaction of celestial events on terrestrial ones (probably emerging from the experiments similar to the two historical cases described before) formed the initial astral omens in the first days of history, which was developed as the astrological doctrines. They in a reverse direction conquered a part of the consciousness of the human mind. As a result, since the events have two aspects, physical and psychological, their astonishingly effective action on the mind streams created, in a psychological perspective, external outcome in the physical world.

The role they played in this way is revealed in the social matrix in which they had been embedded. They penetrated into the heart of social events, and maybe nothing like them became as troublesome for societies for hundreds years. Therefore, it should now be taken for granted that astrology to a large extent coordinated the psychological aspects of man's intuitions and creeds in the medieval period.

The inter-dependence of history and astrology also had more complex bases in both social and intellectual contexts than individual and implicitly indicated ones. The astrologically important celestial phenomena were those that rarely occurred. It is widely believed that the conjunction between Jupiter and Saturn (the Great conjunction) was the most important, indicating major political or religious events. From this perspective, an 'astrological theory of history' in Sasanian Persia (AD 224–652) had already evolved (Kennedy and Pingree 1971:vi) where 'astrologers were famous as practitioners of the art of using the celestial science to reconstruct the political and religious history of the world' (Pingree 1997:44). The theory was distributed and widely accepted by the astrologers of other faiths or nations. Then the important events in the history of humankind (e.g. Deluge, the birth of prophets, the rise of dynasties or nations, etc.) were attributed to the great conjunction at the beginning of Aries (so-called *conjunctio maxima* (Kepler 1621, VI:5) or 'Prime Conjunction' (Abū Muḥāmid, fol. 204v)). As a result, astrologers, each one dependent on their own historical, religious or social context, engaged in preparing the long-term prognostications for the forthcoming great conjunctions (e.g. see Pingree 1985:241–243, Goldstein 2004, 2007). Therefore, the astrological doctrines had also an established social base to directly affect the human consciousness and so his mind streams. However, they opposed the religious or humanistic norms such as free will. They were thus the potential factors to change man's manner of selection of the possibilities he encountered and had to select from them. (Our case 2 illustrates this well.) They could, therefore, conduct history in a specific direction. The psychical force of it is certain, and the two

cases introduced earlier illustrate to what extent the story of nations and their vital and decisive choices were subjected to them.

Since our examples belong to the Islamic culture, other specific results may be determined. Astrology never resisted the foundation of a moral system of values in Islam despite its tremendous survival in that domain. Also, it did not form a barrier against the astronomical affairs within it, but was a main motive for the observational activities. For example, due to the importance of the great conjunction, the observational astronomers (who were interested in astrology) expected a precise agreement between the calculated data and the observed ones. For this reason, Wābkanawī (Maragha Observatory, 1254–c. 1320) observed all four great conjunctions that occurred in his 40-year career: 1286 and the triple conjunctions of 1305–6 (Mozaffari 2009:146, Zotti and Mozaffari 2010). Above all, astrology by her doctrines seems to have offered her best service to Astronomy as a science. This, as quoted from H. Poincaré at the beginning of the current paper must be known as another aspect of her service to the society as well.

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