

More on the Transmission of the Babylonian Zodiac to Greece: the case of the Nativity Omens and their Modern Legacy

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Abstract. This paper will consider evidence for the transmission of the Babylonian zodiac to Greece. The so-called 'Nativity Omens', dating to the early fifth century, describe a zodiac which, represented through zodiacal relationships with the planets, possesses personality and meaning in much the same manner as the Greek zodiac portrayed in texts such as Claudius Ptolemy's *Tetrabiblos* in the 2nd c CE, and the visual concept of the zodiac as a living image. This paper will argue that what is normally considered a feature of Greek cosmology should now be seen as Babylonian, and is significant for our understanding of the late Babylonian conception of the zodiac. Continuity between Babylonian and modern astrology is also discussed.

This paper concerns the relationship between Babylonian and Greek astrology, one which, for modern scholars, has often been controversial: for most of the nineteenth and twentieth centuries, classical scholars emphasised the differences between the two cultures, while students of cuneiform have increasingly emphasised the similarities. The issue can be seen as one of discontinuity versus continuity. I also extend the discussion to modern astrology, raising the possibility of continuity between Babylonian astrology and the schemes taught in the astrological schools of the twentieth century. The ancient material I consider in this paper is fragmentary and my discussion therefore necessarily speculative, but I hope not excessively so.

The arguments concerning the specific details of the transmission of astrology from the former culture to the latter can be understood within the wider problem of scholarship as a whole. As G.E.R. Lloyd wrote,

The issue of the debt of Greek science to Egypt and Babylonia has been, since antiquity, an emotive topic; all too often it has been argued, by ancient and modern writers alike, either that the Greeks owed everything, or that they owed nothing, to Eastern wisdom, while fundamental questions relating to the processes of transmission, and the interpretation of what was transmitted, have been ignored.¹

¹ Lloyd, G.E.R., *Magic, Reason and Experience: Studies in the origins and Development of Greek Science*, Cambridge, New York, Melbourne: Cambridge University Press 1979, p. 226,

The emotive nature of the debate concerning the relationship between Greek and Babylonian learning has tended to overshadow the real, recent advances in scholarly understanding of the ancient world. As Peter Kingsley, who is heavily critical of orthodox western Hellenophilia - love of all things Greek - put it, 'myths on the subject of a single self-enclosed Greek world still abound in the scholarly imagination'.² And as Walter Burkert has argued, we should abandon the view that the Greeks marched the whole way from mythos to logos, from superstition to reason, in isolation from their eastern neighbours.³ The nature of the transition of Babylonian astrology and astronomy to Greece, especially after the fifth century BCE, is now well understood within the field, especially amongst cuneiform scholars.⁴ Nevertheless, in the wider historical world, the notion of a sharp break in character between Greek and Babylonian scholarship persists. For example, in one recent book, the Greeks' supposed 'craving' for novelty is contrasted with the 'monolithic, eternal, empires of Babylon and Egypt'.⁵ Such caricatures can be compounded by sins of omission. For example Jim Tester began his own history of western astrology, a standard work published in 1987, with only a bare mention of the Babylonian contribution.⁶ The error is further compounded by the notion, shared by many historians, that the astrological tradition in the western world effectively died out in the seventeenth century.⁷

2 Kingsley, Peter, *Ancient Philosophy, Mystery and Magic: Empedocles and Pythagorean Tradition*, Oxford: Clarendon Press 1995, p. 9. See also Pingree, David, 'Hellenophilia versus the History of Science', *ISIS* 1991, Vol. 83, pp. 554-563, Tester, Jim, *A History of Western Astrology*, Woodbridge, Suffolk: Boydell Press 1987, pp. 17-18 and For discussion see Finkelstein, J, 'The Ox That Gored', *Transactions of the American Philosophical Society*, Vol. 71, part 2, 1981, Philadelphia 1981.

3 Burkert, Walter, *Babylon Memphis Persepolis: Eastern Contexts of Greek Culture*, Cambridge, MA: Harvard University Press, 2004, p. 66.

4 See example, Neugebauer, Otto, 'The Survival of Babylonian Methods in the Exact Sciences of Antiquity and Middle Ages', in *Proceedings of the American Philosophical Society*, Vol. 107, no 6, December 1963, p. 531; Rochberg-Halton, Francesca, 'Elements of the Babylonian Contribution to Hellenistic Astrology', *Journal of the American Oriental Society*, Vol. 108, no 1, January-March 1988, p. 52; Jones, Alexander, 'Babylonian Astronomy and its Legacy', *Bulletin of the Canadian Society for Mesopotamian Studies*, Quebec, 32, 1977, pp. 11-17; Jones, Alexander, 'Evidence for Babylonian Arithmetical Schemes in Greek Astronomy', in *Die Rolle der Astronomie in den Kulturen Mesopotamiens*, Grazer Morganländische Studien, 3. pp. 77-94, ed. Hannes D. Galter, Graz: : RM-Druck-& Verlagsgesellschaft m.b.H 1993.

5 Chapman, Allan, *Gods in the Sky: Astronomy, Religion and Culture from the Ancients to the Renaissance*, London: Channel 4 Books 2001, p. 77.

6 Tester, Jim, *A History of Western Astrology*, Woodbridge, Suffolk: Boydell Press 1987.

7 Tester, Jim, *A History of Western Astrology*, Woodbridge, Suffolk: Boydell Press, 1987, p 243.

One significant feature of astrology in the late Babylonian period, for which the extant evidence dates to the fifth century BCE, is the apparent imposition of an abstract, mathematical order on to the heavens. The iconic exemplar of this new order was the zodiac of twelve equal-sized signs, a division of the sky into neat sections which disregarded the uneven dimensions of the constellations, and which is first attested in a tablet dated to 475 BCE.⁸ The invention of the twelve-sign zodiac was complemented by the first known application of genethliology, the use of the birth chart, the application of astronomical positions at birth in order to make predictions about the future and quality of life, the earliest extant examples of which date to January and April 410 BCE, respectively.⁹ This practice was influentially associated by August Bouché-Leclercq with Greek cosmology, specifically with Stoic fatalism.¹⁰

Bouché-Leclercq's notion that horoscopic astrology was fundamentally Greek in character is as persistent as is the idea that Greek learning was fundamentally different in character to Babylonian. Jim Tester assumed that this was the case, drawing for support on Otto Neugebauer's statement that 'the main structure of astrological theory is undoubtedly Hellenistic.'¹¹ Bouché-Leclercq, however, did not take into account the publication of the text of the birth chart of 410 BCE, a cuneiform horoscope, in A.J. Sachs' terminology, in 1888-9, ten years before his own work was appeared in print.¹² The evidence therefore indicates that the earliest known Babylonian birth-charts were cast at least a century before the Greek world's wholesale exposure to Babylonian astrology, following Alexander's conquests in the late fourth century BCE.

The Zodiac: the Greek Context

The fragmentary nature of surviving classical astronomical works makes it impossible to establish the first discussion of the zodiac in Greek. The earliest known use of the word *zōidion* was by the historian Herodotus, around 500 BCE, and clearly meant a carved image. In a religious context, carved images of deities

8 Bartel van der Waerden, 'History of the Zodiac', in *Bulletin fur Orientforschung*, 1952 – 3, Vol. 16, pp. 216-30.

9 Francesca Rochberg, *Babylonian Horoscopes*, Philadelphia: American Philosophical Society, 1998, pp. 51-6.

10 August Bouché Leclercq, *L'Astrologie Grecque*, Paris: Ernest Leroux, 1899, ch 13.

11 Neugebauer, Otto, *The Exact Sciences in Antiquity*, 2nd edition, New York: Dover Publications, 1969. p. 80, Tester, *Western Astrology*, p. 12.

12 Sachs, A.J., 'Babylonian Horoscopes', *Journal of Cuneiform Studies*, 1952, Vol. 6, pp. 49 - 75.

contained the divine essence that was represented. It was the second known instance, by Aristotle, that conformed to the modern meaning of zodiac as a band of constellations. For example, we have no definite indication whether Plato, Aristotle's teacher, knew of it in the fourth century BCE. He certainly regarded the most perfect solid after the sphere, representing the heavens, as the twelve faced dodecahedron, though whether the faces are months, constellations or zodiac signs, he gives us no idea.¹³ Whatever Plato's intention, the prior appearance of the zodiac in Babylon is currently not a matter of debate.

Continuity Between Babylonian and Greek Astrology

Francesca Rochberg has drawn attention to a number of features of technical Babylonian astrology which were previously regarded as characteristic of the Greek art. These features concern a refinement of the zodiac in which it was allocated specific relationships with the planets, providing a medium through which they moved. The operation of the zodiac and, indeed, the zodiac as a phenomenon, therefore becomes inseparable from the movements of the planets. The planets themselves then behaved in different ways as they moved, and their significance for the astrologers changed as they passed from from zodiac sign into the next. For example, Rochberg draws attention to the *nisirti*, or secret places, zodiac signs, or constellations, in which the planets are strong.¹⁴ She argued that these were adopted in Greek astrology as the exaltations, seven zodiac signs in each of which one of the planets was considered to be strong.¹⁵ She also drew attention to evidence for the division of planets into distinct qualities, either inherently benevolent or essentially malevolent; Jupiter, Venus and Mercury appear to be benevolent, while Saturn and Mars were maleficent.¹⁶ The system is attested in the Greek literature in which, as reported by the Alexandrian astronomer Claudius Ptolemy in the second century CE, the planets were divided into two

13 Plato, Plato, *Timaeus*, trans. R.G.Bury, Cambridge Mass., London: Harvard University Press, 1931, 55C.

14 Rochberg-Halton, Francesca, 'Elements of the Babylonian Contribution to Hellenistic Astrology', *Journal of the American Oriental Society*, Vol. 108, no 1, January-March 1988a, pp 51-62. For a response see Chris Brennan <http://horoscopicastronomyblog.com/2008/11/16/the-questionable-origins-of-the-exaltations-in-astrology/>, accessed 4 June 2010.

15 Ptolemy, Claudius, *Tetrabiblos*, trans. F.E.Robbins, Cambridge Mass., London: Harvard University Press, 1940, I.19.

16 Rochberg-Halton, Francesca, 'Benefics and Malefics in Babylonian Astrology', in E. Leichty *et al.*, eds., *A Scientific Humanist: Studies in Memory of Abraham Sachs* (Occasional Publications of the Samuel Noah Kramer Fund 9, Philadelphia, Pa, 1988), pp. 323-328.

groups, ‘beneficent’, ‘maleficent’, with a third, neutral, category. In a slight variation with the Babylonian scheme, Jupiter and Venus, together with the moon, were beneficent, Saturn and Mars were maleficent. The sun and Mercury constituted a third pair, outside the dualistic framework, and were neutral.¹⁷

It is tempting to see the appearance of, first, nativity omens and then birth charts, under Persian rule in the fifth-century BCE, as evidence of a heightened Zoroastrian concern with individual destiny in the context of a cosmos which was dominated by the polarisation between dark-evil and good-light. This, at any rate was the argument proposed by Bartel van der Waerden in the 1970s.¹⁸ The theory is not favoured by any cuneiform scholars on the grounds that there is no direct textual evidence of by Zoroastrian priests on the Babylonian astrologers, and Rochberg identifies an ancestry for the system in the star catalogue, *Mul Apin*, dated possibly to the late second millennium BCE and therefore predating Persian occupation.¹⁹ The apparent coincidence of a dualistic shift in religion with one in astrology, though, remains provocative.

Malefic and Benefic Planets in Babylonian Horoscopes

Rochberg commented that ‘Unfortunately, the connection between the order of the planets’, referring to the sequence in which they are commonly listed in cuneiform texts, ‘and their identity as benefic or malefic cannot be shown in horoscopes’.²⁰ This may be the case if we match planetary order with planetary quality with the evidence from the horoscopes. However, leaving planetary order aside, it may be possible to link planetary quality to the horoscopes, and the evidence may be identified in the birth chart calculated for 29 April 410 BCE, the first to include an interpretation. The text provides the following planetary positions; moon ‘below the horn of the Scorpion (that is, Libra), Jupiter in Pisces, Venus in Taurus, Saturn in Cancer and Mars in Gemini. Mercury was invisible, being too close to the sun to be seen, and so was ignored. The sun itself was not mentioned. This is followed by the interpretation ‘(Things?) will(?) be good before you’, according to Sachs, or, in Rochberg’s version, ‘(Things?) will be propitious for you.’²¹ Apart from its status as

¹⁷ Ptolemy, *Tetrabiblos*, I.5

¹⁸ Bartel van der Waerden, *Science Awakening*, Vol. II: The Birth of Astronomy, Leyden and New York: Oxford University Press, 1974, chap. 5.

¹⁹ Rochberg-Halton, ‘Benefics and Malefics’, p. 326.

²⁰ Rochberg-Halton, ‘Benefics and Malefics’, p. 326.

²¹ Sachs, ‘Babylonian Horoscopes’, p. 54; Rochberg, *Babylonian Horoscopes*, p. 56.

the earliest known astrological prediction made on the basis of planetary positions at birth, the text presents us with the question as to whether we can reconstruct the premises on which astrologer reached his positive conclusion.

In Greek astrology the system of planetary beneficence and malevolence was complemented by a system in which each planet ruled one or two zodiac signs.²² If located in a sign it ruled, the planet's power was strengthened.²³ If the Babylonian *nisirti*, or Greek exaltations, Babylonian planetary beneficence and malevolence, and Greek planetary rulerships, are applied to the propitious forecast of the April 410 BCE birth chart, then of the two great 'benefic' planets, Jupiter was in Pisces which, in the Greek system it ruled, while Venus was in Taurus, its rulership. Saturn, the most destructive planet, was in Cancer, opposite its rulership in Capricorn. This latter is a conundrum. Evidence from modern astrology suggests that Saturn's malefic power might be weakened in such a position, although such an interpretation is not supported in the Greek texts.²⁴ The Sun, not mentioned in the text, though, was in its exaltation and therefore strong, adding to a possibly benevolent reading. The argument may be tenuous, given the currently available texts, but does provide at least some evidence for the use of the codified planetary profiles which were being formulated from the mid-first-millennium BCE. We would have to accept, though, that the rulerships, like the *nisirti* and the benefic and malefic qualities, was of Babylonian origin.

The Nativity Omens

The principal evidence for a dualistic system of planetary quality is found in the so-called nativity omens. We do not know how far back the nativity omen tradition dates, so we have to work with the assumption that it dates, as the extant texts indicate, from the early fifth century BCE, part of the same series of innovations that included the twelve-equal-sign zodiac. The omens themselves consisted of standardised statements, clearly designed to assess a child's prospects at birth. These were composed in a standard form, reading, for example, 'If a child is born and Jupiter comes forth...'.²⁵

22 Ptolemy, *Tetrabiblos*, I.17.

23 Ptolemy, *Tetrabiblos*, I.17.

24 Margaret Hone, *The Modern Textbook of Astrology*, London: L.N. Fowler, fourth edition reprinted 1973, [1951], p. 144.

25 Sachs, A.J., 'Babylonian Horoscopes', *Journal of Cuneiform Studies*, 1952, Vol. 6, p. 68. See also Rochberg, *The Heavenly Writing*, pp. 202-8.

The crucial readings are these:²⁶

the child born under Jupiter will have a 'regular (life)...will become rich (and) will grow old.

the child born 'when Venus has come forth', will be have a life which is 'exceptionally calm (and) favourable' and marked by longevity.

the child born with Mars may have a hot temper.

the child born when Saturn has come forth will live a life which is 'dark, obscure, sick and constrained'.

The tone of these descriptions is fascinating. They deal partly with external circumstances, such as wealth and poverty, but are also internal and psychological, as we see especially in the readings for Mars and Venus. This is really quite remarkable: in the fifth century BCE we see the emergence of a psychological system which is dependent on a relative understanding of the relationship between space and time. A child's psychological disposition is dependent on the time of birth, and the disposition of the planets in space at that time. The significant feature of these passages in terms of the historical development of astrological meaning, is that the personalities of the planets appears to have become standardized into the forms in which they are portrayed in Greek literature: Venus is benevolent, Jupiter confers wealth, Mars brings a hot temper and Saturn signifies restrictions.

In his psychological system, seven hundred years later, Claudius Ptolemy allowed for each planet to both have a benign and difficult function, dependent on its location in the zodiac and relationship to other planets. Thus, he argued, Mars may render people kingly, noble and strong when honourably placed but, when difficult, it is 'rash, unruly, indifferent, stubborn, keen, headstrong contemptuous, tyrannical (and) easily angered'.²⁷ This is somewhat similar to the Nativity Omen's statement that, in Rochberg-Halton's's translation, '(he will be) quick to anger'.²⁸

Ptolemy continued, 'If Venus alone takes dominion of the soul in an honourable position, she makes her subjects pleasant, good, eloquent, neat, cheerful, fond of

26 Sachs, A.J., 'Babylonian Horoscopes', p. 68. See also Rochberg, Francesca, *The Heavenly Writing: Divination and Horoscopy, and Astronomy in Mesopotamian Culture*, Cambridge: Cambridge University Press, 2004; Rochberg-Halton, 'Benefics and Malefics', p. 325.

27 Ptolemy, *Tetrabiblos* III.13.

28 Rochberg-Halton, 'Benefics and Malefics', p. 325; Sachs 'Babylonian Horoscopes', p. 68.

dancing, eager of beauty' and so on.²⁹ He was clearly referring to the Nativity Omens' statement that 'If a child is born when Venus has come forth (then his life? will be exceptionally (?) calm; (his) days will be long'.³⁰ Even where injury was concerned, Ptolemy argued that wounds are concealed through the aid of wealth and honour when Jupiter is engaged, and when Venus is involved, blemishes (are) comely and attractive.³¹

In the case of Saturn, the Nativity Omen's psychological profile ('dark, obscure, sick and constrained') corresponded to that for a 'dishonourable' location in Ptolemy's model ('sordid, petty...malignant...solitary...gloomy (and) taking no care of the body').³² Jupiter's admirable psycho-physiological disposition in the Nativity Omens (regular, wealthy and long-lived) matched Ptolemy's honourable Jupiter ('magnanimous, generous...just').³³

These designations have proved remarkably enduring and have survived at the core of interpretative astrological language until the present day, via Medieval astrology. William Lilly's *Christian Astrology*, an indiscriminate but highly influential compendium of astrological rules accumulated since the Hellenistic period, including accretions from the Islamic and Medieval Christian worlds, and well-known for being the first astrological work composed in English, was typical. Published in London in 1657, it contained standard readings for the planets which appear to represent a direct lineage back to the Nativity Omens via Ptolemy's positive readings. Venus was the lesser Fortune (Jupiter being the greater), and signified a 'quiet man, not given to Quarrel or Wrangling', Jupiter, the greater Fortune, was magnanimous, faithful (and) a lover of faire dealing'.³⁴ Of the two malefics, Lilly's description of Saturn repeated Ptolemy's negative reading ('envious, covetous, jealous...sordid, malicious'), while Lilly's portrayal of Mars

29 Ptolemy, *Tetrabiblos* III.13.

30 Sachs 'Babylonian Horoscopes', p. 68.

31 Ptolemy, *Tetrabiblos*, III.12

32 Sachs 'Babylonian Horoscopes', p. 68, Ptolemy, *Tetrabiblos* III.13.

33 Sachs 'Babylonian Horoscopes', p. 68, Ptolemy, *Tetrabiblos* III.13.

34 William Lilly, *Christian Astrology*, London 1647, facsimile edition, London: Regulus Publishing, 1985, pp. 62, 73.

‘when ill’ was more obviously close to the Nativity Omen’s supposition of hot temper (‘a lover of... Murder...Rash, Furious Violent’).³⁵

These planetary personalities have survived largely unscathed down to modern times illustrating a remarkable consistency over two-and-a-half millennia. Margaret Hone’s *The Modern Text Book of Astrology*, which was published in 1951 and became the standard British and English-language textbook in the subject until the 1970s, like Ptolemy and Lilly influenced by the Nativity Omens, recorded Venus as ‘harmonious, peace-loving (and) placid’, Jupiter as ‘fortunate, generous and optimistic’, Mars in its negative form as ‘aggressive, angry (and) impatient’, and Saturn, also in its negative form as ‘depressive, dull, limited (and) mean’.³⁶ The continuity is striking. Hone’s book was the main teaching text of the Faculty of Astrological Studies, founded in London in 1948, and still one of the world’s leading private astrology schools. The Faculty, simply, has been, and is still, teaching the near-eastern astrology of the mid-first-millennium BCE.

Conclusion

The evidence suggests that the dominant view in classical scholarship that there is no essential difference between the astrology of mid-first-millennium BCE Babylon and the bear east, and that of classical and Hellenistic Greece cannot be sustained. My argument is that the development of the zodiac as a framework for planetary meaning, which is characteristic of Greek astrology, took place in Babylon. The position of Near Eastern scholars such as Francesca Rochberg and Alexander Jones, who argue for a strong reliance by Greek science on Babylonian origins, is therefore supported. In this respect we can therefore argue for cultural continuity between Near Eastern and Greek culture. In contrast to Rochberg, though, I hold open the possibility, however speculative, of Zoroastrian influence on the dualistic psychology evident in the Nativity Omens. Further, the argument for continuity can be extended to the present day, in the teaching by modern astrology schools of the planetary qualities which emerged in the fifth century BCE. We can therefore argue that modern western astrology is an extension of a form of Near Eastern cosmology previously thought to have died out and been replaced by a Greek model. Remarkably, ancient Near Eastern psychology has found a voice in modern popular culture.

35 William Lilly, *Christian Astrology*, pp. 58, 66.

36 Hone, *Modern Textbook* p. 27-31.