

# ASTROLOGICAL HARMONIC PATTERNS AS POSSIBLE INDICATORS OF EXTRAVERSION/INTROVERSION

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## Abstract

A strong relationship was found between the measurement of extraversion/introversion using the E-scale of the Eysenck Personality Inventory and a measure of expected tendencies towards extraversion or introversion based on 7-based harmonic patterns between Sun and Saturn. The relationship is especially strong when planetary measurements are in right ascension rather than zodiac longitude. This particular harmonic pattern was hypothesized to be important based on earlier anecdotal evidence. The value of exploratory research using visual tools in this area of research is discussed. The potential social benefits of astrological research are also discussed, regardless of the outcome of the research and regardless of whether one is a believer or non-believer in astrology.

Keywords: Astrology — Extraversion/Introversion — Harmonic Astrology

## Introduction

Commonly used astrological theories like planets in zodiac signs, houses, and in aspect have, in general, failed to be supported by research (Dean et al, 1977, Cornelius, 2003). A less popular approach to astrology introduced by British astrologer John Addey is "harmonic astrology". Addey proposed that geocentric angular distances between planets can be viewed as fractions of a circle so that, for example, an angle of 72 degrees or 144 degrees, comprise fifths of a circle, and thus have a "fifth harmonic" astrological effect. In other words, a fundamental concept of harmonics as applied to astrology is that angular distances that are a fraction of a circle with the same denominator have a similar effect. For example,  $1/7$  (51  $3/7$  degrees),  $2/7$  (102  $6/7$  degrees) and  $3/7$  (154  $2/7$ ) of a circle according to harmonic theory have a similar astrological significance. (Addey, 1976).

Addey conducted research based on his theory and the research indicates positive results but his work was criticized by others (Dean, 1977). Cochrane associates harmonics that are multiples of seven with self-control and personality characteristics that might be regarded as introverted (Cochrane, 2002) and he suggests that when Mercury, the planet of communication and the conscious mind, combines with Saturn, the planet that confers focus, in seven-based harmonics, the mental discipline and capacity for scientific work is increased (Cochrane, 2005). The "seven-based" harmonics are harmonics that when factored include the number 7, such as 7, 14, 21, 28, etc. Harmonics that are based on doubling are especially closely related according to the harmonic theory of Addey, such as 7, 14, 28, 56. (Cochrane, 2002). Given these suggestions that the planet Saturn in seven-based harmonics inclines towards discipline, self-control, and a more inner-directed attention, one can expect that individuals with these kinds of astrological indicators at the time of birth would be more introverted than an average person. The Sun is regarded as being very important in astrology so therefore one might expect according to

these astrological theories that that Sun and Saturn in seven-based harmonics at the time of birth correlates with greater introversion.

Because there is no solid body of evidence to support any astrological concepts and a firm theoretical foundation for astrology has not been established, graphs of relevant information were analyzed to explore the data rather than conduct a quantitative hypothesis test.

A useful tool for analyzing harmonics is the harmonic chart, and harmonic charts are used for the exploratory research we conducted. A harmonic chart is constructed by multiplying planetary positions by the harmonic number and performing a modulus 360 function so that all positions are between 0 and 360. If the resulting harmonic positions of two planets are within a specified orb, then the two planets are aspected to each other in that harmonic. Doubling a harmonic results in angular distances that are half as large and just as sound waves with half the wave length are an octave higher and have a similar musical quality, the harmonics 7, 14, 28, and 56, for example, are hypothesized to be similar in their astrological significance.

Another issue in astrological research is the system of measurement used to determine the positions of planets and angular distances between them. In astrology measurement in zodiac longitude is most often used, and astronomers more often measure planetary positions in right ascension. We conducted the research using both measurement systems.

## Exploratory Research

The Eysenck Personality Inventory (EPI) was administered to 982 college students. The data was used in an earlier study and more details of the data are described in that study (Cochrane and Fink, 2010). The EPI contains an E-scale score which measures the extraversion-introversion personality trait. There is also an L-scale score which detects feigned or deceptive responses, and after removing subjects who scored 6 (out of 9) or higher on the L-scale score, a total of 944 subjects remained and used in this study.

Harmonic charts were calculated for the 944 subjects and mean E-scale scores were plotted (on the Y axis) against the orb of Sun and Saturn in the harmonic. The orb of a harmonic varies from 0 to 180 and a value of less than about 16 or 20 indicates that the two planets (according to harmonic astrologers) are close enough to be regarded as connected to each other in that harmonic. Graphs were produced in both right ascension and in longitude but only results in right ascension are shown because they more consistently support the hypothesis, as described below, than measurement in zodiac longitude.

Figure 1 shows mean E-scale scores in relationship to Sun and Saturn in harmonics 7, 14, 28, and 56 measured in right ascension. The mean E-scale scores are calculated for 60 groups of charts, as follows: the mean E-scale score for all data with on orb of 0 to 3 degrees is plotted, followed by data with an orb of 3 to 6 degrees, and so on up the data with an orb of 177 to 180 degrees. We shall refer to these 60 groups as 60 sectors.

Sun and Saturn in harmonic 7 in Right Asc: Sun and Saturn in harmonic 14 in Right Asc:



Sun and Saturn in harmonic 28 in Right Asc: Sun and Saturn in harmonic 56 in Right Asc:

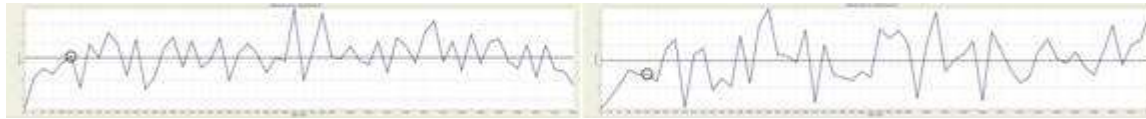


Fig. 1: Mean E-Scale Scores in Harmonics 7, 14, 28, and 56 in Right Ascension.

The X axis is the orb in the harmonic, ranging from 0 to 180 in 60 groups of 3 degrees.

The circled score is the mean e-scale score with an orb of 15 to 18 degrees.

With 944 subjects divided into 60 sectors, there is an average of fewer than 16 subjects per sector. This relatively small sample size would be expected to have high variability in scores. However, of the first six scores in each of the four graphs in Figure 1, only one of these 24 scores is above the mean score! The sixth of the 60 scores in each of the four graphs in Figure 9 is circled. The only score above the mean up to and including the circled score is in the 7th harmonic graph in Figure 1. The first six scores in each graph represent planets that are aspected to each other in that harmonic within an orb of 18 degrees because in the 60-sector graph there are three degrees per score. In a harmonic chart orbs are automatically adjusted to the harmonic so consequently all harmonics are assigned the same orb. An orb of about 16 degrees is often used by astrologers who employ harmonic methods as a limit for aspects regarded as being important (Cochrane, 2002).

The three graphs in Figure 1 exhibit extraordinary consistency! All four graphs indicate that Sun-Saturn in the harmonic inclines towards introversion. Notice also that the lowest point in all four graphs is at the beginning of the graph, which represents an orb of zero and the introversion score goes up fairly gradually, just as we would expect according to astrological theory. Note that two harmonics separated by an octave share 25% of the same degree areas, so that, for example, the 7th and 14th harmonics share 25% of the same degree areas. Harmonics separated by two octaves share about 6% of the same degree areas so the consistency of results for these four harmonics is not an artifact of the relationship of the harmonics to each other. Also, two planets occupying the same position are in a relationship in many harmonics. For example, two planets separated by one degree in the sky are separated by 7 degrees in the 7th harmonic and 14 degrees in the 14th harmonic. However, the mean score for Sun and Saturn in the first harmonic up to a three degree orb was slightly above the mean e-scale score. The first harmonic mean for the first sector of the 60-sector division is 13.58, slightly above the mean E-scale score of 13.28 (note: the first harmonic results are not shown in Figure 1). Therefore, the association of low e-scale scores with the 7th, 14th, 28th, and 56th harmonic aspects of Sun and Saturn is not an artifact of a first harmonic relationship.

Interestingly, the graph was in greater agreement with theory when planets were measured in right ascension (very often used by astronomers) rather than in zodiac longitude (very often used by astrologers). Measured in zodiac longitude, of the first five points in the 120-sector division, four 7th harmonic, five 14th harmonic, three 28th harmonic, and three 56th harmonic aspects were below the median e-scale score of 13.28. These results suggest that the 7th, 14th, 28th, and 56th harmonic aspects of Sun and Saturn in zodiac longitude incline towards low e-scale scores but not as decisively as when measurement is in right ascension.

Given the vast number of variables available to select from and the fact that astrological theory has yet to be clearly supported in earlier research, the results of exploratory research in astrology must be

regarded with great skepticism. Nevertheless, the exploratory research presented here builds upon existing astrological theories and the results do strongly support these astrological theories.

## Conclusions

Astrological theory that has not been thoroughly studied in a quantitative manner is worthy of further study. Exploratory research using graphs and other visual tools may suggest astrological factors that can become the basis for future hypothesis tests. For example, in this study an association of seven-based harmonics between Sun and Saturn with increased introversion can be tested in future studies. The results of this study also suggest that research in right ascension, often ignored in astrological studies, is worthwhile.

The vast number of possible astrological variables can foster a "wild goose chase" for potential astrological variables that correlate with a particular behavior or personality trait. The research study conducted in this case was guided by astrological theory, and the theory provided the means to identify a specific set of variables to explore. The decision to explore the possibility of an association of 7th harmonic and octaves of the 7th harmonic aspects between Sun and Saturn produced positive results without the endless searches for significant astrological variables that are likely to result from pure exploratory research that is not founded on existing theory.

## Importance of Astrological Research

Given the failure of any astrological theory to be unambiguously supported, a concern can be raised that exploratory research in astrology may needlessly prolong the seemingly endless debate regarding the validity of astrological research as a whole. Non-believers in astrology may be concerned that the research presented in this paper will foster the pointless pursuit of astrological research. One may be tempted to draw the conclusion that the complexity of variables that can be studied is so enormous that a great amount of time and effort can be expended on an obviously hopeless goal of validating ideas that are devoid of any solid theoretical premise and are based on ancient superstitions. Should resources be directed towards more realistic, viable, and useful hypotheses rather than squandered on a fool's errand of attempting to gain scientific support for ancient superstitions?

There are benefits to astrological research that may not at first be apparent. Non-believers of astrology may hope that increased education and development of critical thinking skills by the public will eventually make the practice of astrology extinct. However, surveys indicate that from 1990 to 2009 belief in astrology in the United States has remained fairly stable, and although belief in astrology decreases with increased education, it does not become extinct. Survey results indicate that belief in astrology ranges from 25% to 31% of the U.S. population, and belief among people with a high school education or less is around 33% and for people with a 4-year college degree around 20%. (Lyons, 2005; Newport and Strausberg, 2001; Hall, 2009). Higher education is associated with less likelihood to believe in astrology, but about 1 in 5 people with a college degree believes in astrology, and 20% of the USA a population of over 300,000,000 is 60,000,000 people.

Also, a few prominent and distinguished scientists who support astrology continue to fan the flames of astrological interest. For example, astrophysicist and leading expert in the study of black holes and other astronomical phenomena, Dr. Rudy Schild, is an outspoken proponent of astrology, psychic ability, and visitations by extraterrestrials to planet earth (Schild, 2009). Although such beliefs may cause many

scientists to roll their eyes and wish to dismiss Dr. Schild as well outside the mainstream, his technical expertise and important scientific contributions make dismissal of Dr. Schild's ideas difficult. Of course, Dr. Schild is not the sole example that can be given and there are many others, and one may wonder if other "closet mystics" would surface if there were not a stigma and potential negative results from overtly endorsing subjects like astrology. Among distinguished psychologists who have seriously entertained the possibility that astrology can provide valuable measurable diagnostic or assessment information regarding human personality are Jung (Jung, 1972), Ertel (Ertel and Irving, 1996), and Eysenck (Eysenck and Nias 1982).

In 1975 186 scientists denounced astrology (Bok, Jerome, and Kurtz, 1975), and although this statement received considerable publicity, astrological services continue to thrive.

Since public interest in astrology does not seem to be diminishing, sincere attempts to investigate astrological assertions are vitally important in determining what demonstrable validity, if any, there is to any astrological theories. If astrological variables are not found to have any significant measurable association with human behavior or human personality, we might expect greater conservatism and caution about the promulgation of astrological activities and ideas. Even astrologers appear to have less faith that their craft is capable of providing objective information than they believed in the early 20th century (Cornelius, 2002, Brady, 2003) and the decrease in this confidence in the capabilities of astrology to provide objective information is clearly a direct result of the failure of research studies to support astrological theories. Ironically, a greater impediment to the growth of astrology than denouncements by non-believers may be the response of astrologers to astrological research. Therefore, astrological research may provide social benefits whether positive or negative results are found. With the public's large appetite for astrological products and services, a more realistic appraisal of the usefulness of astrology could have great benefit.

From the point of view of non-believers in astrology, exacerbating the impact of distinguished scientists and psychologists supporting astrology are seeming compatibilities of modern scientific theories with astrological theories. David Bohm's implicate order, Bell's theorem of non-locality, dark matter, dark energy, and other modern theories in physics that do not obviously conform to our common sense notions of reality and imply an integrated wholeness or other mechanism which may not be entirely antithetical to the premise of astrology. Whether these theories actually are potentially compatible with astrological theory is highly debated and controversial, and clearly the majority opinion of scientists at this time is to dismiss or avoid astrology as a serious study as is evidenced by the dearth of serious research articles published on astrological theory, and the near-extinction of astrology from academic curricula, other than as a subject for historians and sociologists. Nevertheless, with at least superficial kinship of astrology to some theories in physics and the support of some distinguished scientists and psychologists, and the tenacity with which the public supports astrology, we can expect that interest and support for astrology is not likely to be extinguished without addressing the issue of astrology's validity head-on with research that makes a sincere attempt to discover potential valid astrological variables by researchers who are at least open to the possibility that astrological variables may be supported by the research results.

In this regard one potential enormous benefit, if an astrological variable is determined to have measurable associations with human behavior or human personality, is the immense philosophical implications that a motivating imprint on our lives lies in celestial events and not only in our genetic

makeup, environmental influences, and also perhaps the exercise of free will. If there is a kind of genetic code that rather than being encoded in our biological heritage is encoded based on our relationship to celestial patterns, then we are in some way formed, molded, and motivated by something beyond the borders of our skin and beyond our immediate interaction with other people and the outside world.

Suppose, for example, that the 7-based harmonics of Sun and Saturn do, in fact, correlate with an introverted personality style. Then planetary patterns in the cosmos have relevance to our individual lives and we are, in a sense, a part of a much vaster system than we otherwise might imagine. If our individual nature and expression is at least partly understandable by a cosmic context of our lives, then our ability to function effectively and productively is not only a result of our genetic makeup and response to environmental stimuli, but also based on our attunement to our relationship to the cosmos. Those of us with these 7-based harmonic patterns in our "cosmic genetic makeup", for example may enjoy greater success in our lives to the extent that we accept, respond to, and effectively "channel" or express these cosmic patterns to which we are naturally attuned.

Visualizing a person as succeeding and developing in a healthy manner through successful attunement to cosmic forces is a radically different view of the necessary factors for healthy individual development than we are currently familiar with. This concept could help build a bridge between an instinctive sense that selflessness is a positive and natural part of the maturing process and the limited indications from the sciences that this is true. If we are driven only by biologically based drives and our experiences, there is very little scientific basis for humans to act in any way other than for self-preservation and self-accomplishment, and to cooperate only in so far as this cooperation ultimately provides benefit to oneself, i.e. cooperation is only a means for individual advantage. Recent research indicates that humans and other animals are to some extent genetically programmed to be compassionate and altruistic because these qualities are conducive to the success of our species (Keltner, 2009). Astrological variables may suggest that compassion and selflessness is even more fundamental and more important than these recent studies in the social and biological sciences suggest.

Astrological variables provide a measurable and observable basis for viewing humans as being inherently part of a larger whole, and our ability to succeed and thrive is partly dependent on our ability to be attuned to this larger context which we are a part of. In short, if astrological variables are ever found to have validity, then a scientific basis for a less selfish and more universal and systems-oriented orientation of the human being might be developed. This scientific basis would not be founded on the idea that selflessness serves a purpose of greater survival but rather that selflessness is a natural consequence of fulfilling our natural purpose of being attuned to a much grander system of energies or information streams than is defined by genetics and social behavior. This would be perhaps a small but important step for bridging religious or spiritual beliefs with scientific understanding. For example, studies on the measurement, development, and importance of wisdom through a more universal or selfless attitude towards the world suggest what might seem to be intuitively obvious to one who is trained more in religious and ethical subjects than in science: a wise person has a more selfless perspective on the world with consequent benefits that cannot be achieved merely by a self-centered desire to compete and excel (Ardelt, 2005).

Kurzweil suggests that patterns are the essential "stuff" of the universe, rather than energy or matter. (Kurzweil, 2008). Wolfram identifies simple iterative processes as the fundamental generating forces for important and complex life forms and other structures (Wolfram, 2002). Regardless of whether

distinguished physicists like Kurzweil and Wolfram are completely correct, the patterns that form the basic morphological characteristics of living things are of fundamental importance, and science is still in a very early stage of understanding the mechanisms through which forms are created and sustained. What has gone largely unnoticed by both astrologers and astronomers is that with a few simple elaborations on planetary orbits, the geometrically simple elliptical orbs of planets form exquisite patterns.

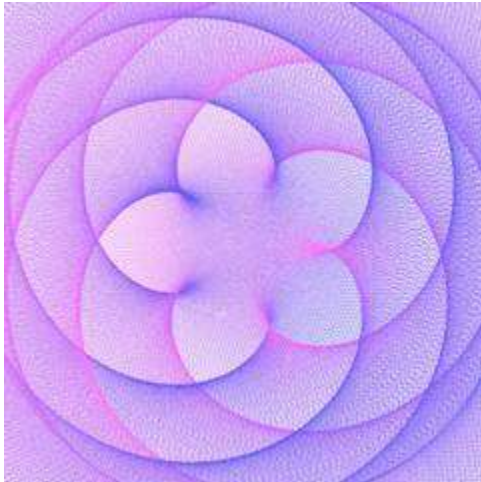


Fig. 2:  
Planet Mandala of Heliocentric Earth and Venus

In Figure 2 is shown an image that is formed by connecting the positions of Earth and Venus as viewed heliocentrically with a straight line on each day over many years. The colors indicate the z-coordinate of the planet positions in rectangular coordinates. The image is produced by the Sirius 1.2 software (Cosmic Patterns, 2009) and is referred to in the software as a "planet mandala". A huge number of patterns with a broad range of aesthetic characteristics can be produced by selecting different planets and adjusting some of the parameters or assumptions upon which the graph is based. Perhaps these beautiful images are simply a function of elliptical orbits with no practical significance or applications, or perhaps they represent part of the larger cosmic patterning which forms a context for our lives. Any support from research that suggest that astrological variables are valid and significant would provide a more detailed and specific understanding of how we participate in these cosmic patterns, and from the discussion given here it would seem that this understanding would foster an understanding of the human being that integrates insights from physicists like Kurzweil and Wolfram with traditional religious and spiritual philosophies with the development of insights by social scientists like Ardel. Such a grand possibility may be remote but these points are being presented here to underscore the point that research into astrological variables need not be focused on ideas that have repeatedly failed to be supported by previous research, nor foster belief systems which are antithetical to scientific understanding or sound psychological models for understanding human behavior and human personality. If, on the other hand, research into astrological variables indicates that astrological variables are not relevant to human behavior or human personality, then, as pointed out above, this finding can help stem the further spread of misinformation promulgated by astrologers. In either case, there is advancement of knowledge and a social benefit that is likely to be derived from the insights obtained from the research.

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