

Zodiac and Personality: An Empirical Study

*50,000 character traits
systematically collected from the
biographies of 2,000 successful
subjects give negative results.*

Michel Gauquelin

According to astrology, the twelve signs of the zodiac exercise different influences on people at the time of birth. When crossing any of the signs, the sun, the moon, the planets, and the "ascendant" (the rising sign at the time of birth) play distinct roles. Each sign is related to a type of character or destiny. Is that true? The aim of the present study is to answer the question with some empirical evidence.

Introduction

In 1978, we conducted statistical experiments testing the possible influence of the zodiac on professional success. Results were entirely negative (Gauquelin 1978). These studies were based upon a sample of 15,560 births of successful Europeans divided into ten professional activities. The names of the persons were compiled from directories or similar publications, and the birth data (date, time, place) were obtained from official records. All the data were published by our laboratory in six volumes (Gauquelin 1970).

As one can imagine, these observations were criticized by astrologers, who felt that they lacked substance and failed to get to the heart of the problem. Astrologers claimed that professional success is far too crude a criterion to reveal the astral subtlety of zodiacal influences, which are much more effective on personality than on success. They said they would not accept our negative verdict unless we could prove, case by case, collecting

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character traits from biographies if necessary, that zodiacal influences do not exist. We decided to test the affirmation on a large scale, using an objective methodology.

Methodology

The character-traits material. We proceeded like this. We used the same set of people as before. This time, we collected their biographies. In 1968, we devised a way of using biographies objectively. We based our method on the idea that there are permanent traits of character such as defined by J.P. Chaplin in his *Dictionary of Psychology*: "a relatively persistent and consistent behavior pattern manifested in a wide range of circumstances." For each trait we opened a file, carrying on one side the subject's name and on the other the position of the horoscopic factors of his birth. What we did for one subject, we repeated for other celebrities, using published accounts of their personality. This gives us files on 52,188 personality traits taken systematically from biographies of 2,000 subjects—sports champions, actors, men of science, and writers. Let us note that the use of biographies and personality descriptions in ordinary language is a classical approach employed or praised by the leading specialists in the field of the psychology of personality (Allport and Odbert 1936; Bromley 1977; Cattell 1965; Eysenck 1970). To ensure the objectivity of the study we achieved a certain unity in all the biographical material. We never eliminated a biography and we considered every trait mentioned in every biography. It took several years to conduct this study. Data were published by our laboratory in four *Psychological Monographs* (Gauquelin 1973, 1974, 1977). Each monograph gives a description of the method used, the full catalogue of the personality traits, and all the biographical references from which these were culled. Astrologers can easily verify the value of our material.

Zodiacal positions at the births of our subjects were computed, and a sophisticated computer program allowed us to analyze the data collected as objectively and minutely as possible. We thank Neil F. Michelsen, president of *Astro Computing Services*, San Diego, California, and his research director, Thomas Shanks, for their invaluable help in this matter.

Having at our disposal a large catalogue of character traits, together with the horoscopic data, we were ready to test a possible correlation between zodiac and personality.

The astrological key words. From among the numerous astrological textbooks in our library, we selected eight. The criteria of selection of the books were: (a) the renown of the textbook and (b) a reasonable amount of psychologically oriented key words. Several well-known books could not be included in our study because they do not give clear, short key words in their description of the psychological influence of the signs. This explains why, for instance, Dane Rudhyar's *The Astrology of Personality* was not

retained. Ancient authors could not be analyzed because their old-fashioned terminology does not contain enough of the key words found in our traits catalogue, which was compiled from modern biographers. The eight books chosen were:

- The Principles of Astrology*, by Charles Carter (1925)
- The Modern Textbook of Astrology*, by Margaret Hone (1951)
- Défense et Illustration de l'Astrologie*, by André Barbault (1955)
- Astrological Keywords*, by Manly Palmer Hall (1958)
- Teach Yourself Astrology*, by Jeff Mayo (1964)
- Dictionary of Astrology*, by Dal Lee (1968)
- Keywords*, by Paul Grell (1970)
- The Round Art*, by A.T. Mann (1978)

Based on our experience, we did not think it necessary to add any more books, since astrological tradition is consistent and all "serious" authors give more or less similar descriptions of the alleged astral influences.

In each of these eight books, we looked for the chapter devoted to the description of the zodiacal influences of the 12 signs. Then we established a list of the key words describing these influences and checked to see if they were present in the traits catalogues of our *Psychological Monographs*. A majority of them were present and were used for testing zodiacal effects.

Let us give an example. In Margaret Hone's *The Modern Textbook of Astrology*, Chapter 4 is called "The Zodiacal Signs." Pages 49 and 50 describe "The Predominantly Aries Person" using character traits or behaviorial expressions. Here is the first paragraph of what Margaret Hone says about the Aries person: "He is very much of a firebrand or battering-ram. He will forge his way through life with courage, daring, energy and initiative and enterprise. He is the true pioneer. His one-pointedness of aim makes him direct and unable to use subtlety. He is incisive and often satirical in speech, cutting in invective."

Among the character traits listed in this paragraph, we looked for those that are also present in the catalogue of traits describing the subjects of our experimental sample. Eleven of them were found: courageous, daring, energetic, initiative, enterprising, pioneer, direct, subtle (not), incisive, satirical, cutting. Each of these traits is associated, in our catalogue, with the names of notable subjects to whom their biographers had attributed the trait. Thus "courageous" describes the personality of sports champions, actors, scientists, or writers in our sample 378 times. At the birth of these subjects, we noted the positions of the horoscopic factors in the 12 signs of the zodiac. Since "courageous" is a key word describing the Aries personality, special attention was paid to the position of the celestial factors in Aries.

This procedure was applied to all the key words of Aries according to Margaret Hone; the same analysis was carried out for the other eleven signs, Taurus, Gemini, Cancer, etc., also described by M. Hone; and we

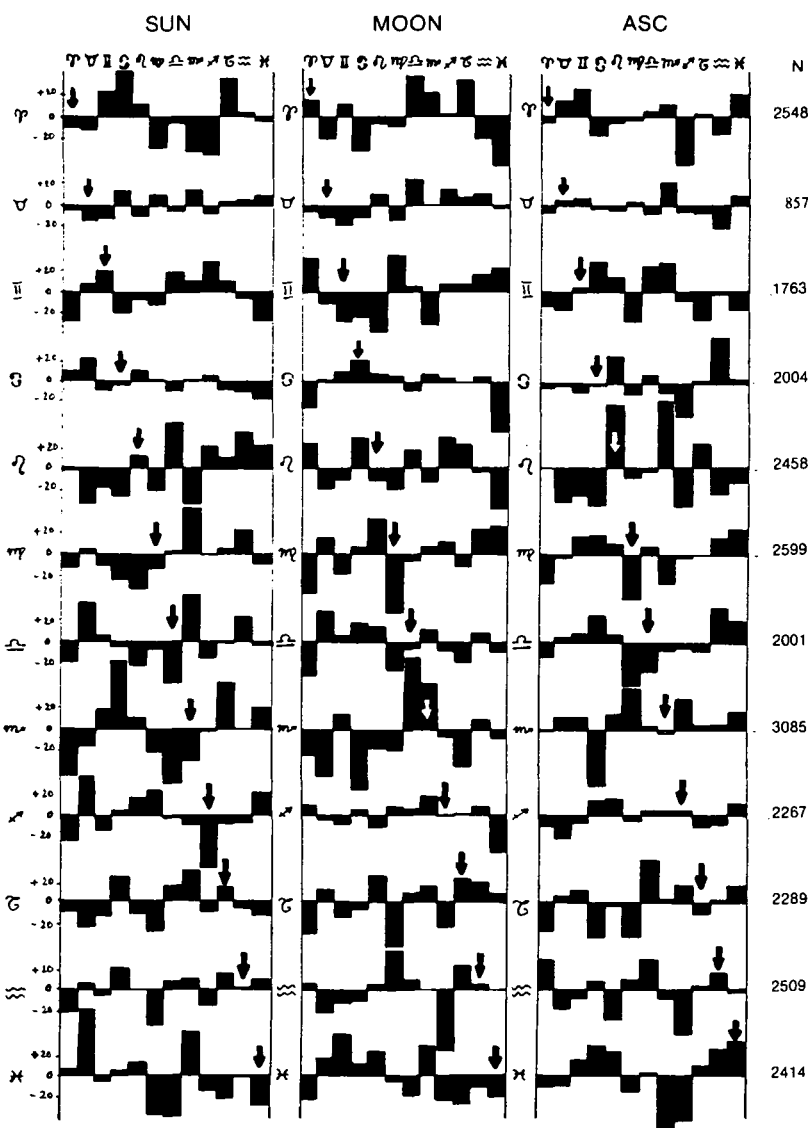


FIGURE 1. Zodiacal signs (keywords from Mayo) tested by the character traits analysis.

followed the same process with the seven other astrologers under investigation.*

Astrologers say that the traits of a sign are often found in the

*The complete list of the astrological key words for each sign, according to each of the eight astrologers' textbooks, is published by our laboratory in a special report devoted to this study (Gauquelin 1981).

personality of the subject when this sign is "strong" in the subject's horoscope. Margaret Hone, for instance, speaks about "the predominant Aries personality." What does "predominant" mean? There is general agreement on this question among astrologers. A sign is "predominant" if one or several prominent horoscopic factors were in that sign at the moment of birth. The sign occupied by the sun, the moon, or the ascendant is said to be of paramount importance in imprinting its character on those "born under" it. Accordingly, we paid special attention to these three astrological factors in our statistical analysis of the results.

Results

Analysis by sign and by astrologers. The adjectives actually used by the eight astrologers to describe the characteristics of the signs were noted and the question was asked: In what sign do the people to whom these adjectives are applied by the biographers have the sun, the moon, and the ascendant? "If astrologers are right, one might expect that signs would show a good correlation and that those who had the sun, the moon, or the ascendant in a sign would in fact be described by the words applied to that sign. One would even expect that the correlation between the two would often be the best of the twelve possible correlations in each case" (Addey 1980).

An analysis of the data for each sign given in the eight textbooks is shown in Table 1. How many times are actual horoscopic frequencies greater than (+) or less than (-) expected for each sign at the birth of people who are described by the key words applied to that sign? Since we have 96 trials (12 signs for 8 astrologers), chance predicts 48 positive results and 48 negative results. For the sun, 40 positive results were found against 56 negative ones; for the moon, 41 positive and 55 negative results; for the ascendant, 50 positive and 46 negative. The total turns out to be sharply against the influence of the signs, with 131 positive scores and 157 negative scores (average 144).

Table 1 also gives the results of the study for each sign and for each astrologer taken separately (data for sun, moon, and ascendant added). Here again the results are discouraging for the true believer. No sign scores significantly higher than expected by chance. The "bad" value of Libra has no more significance than the relatively "good" value of Aquarius. We can make the same comments looking at the results for each astrologer.

The total disarray of the interpretation of astrologers is more visible in the diagrammatic form of Figure 1, which shows the results in relation to the adjectives given by Mayo, taken as an example. It gives the sun, moon, ascendant 12-sign distributions at the birth of the subjects described by the words applied to Aries, Taurus, Gemini, etc. (the total "word count" for each sign being given on the extreme right of the figure). The values are published in terms of differences between the actual and expected frequen-

TABLE I

Zodiacal Key Words According to Eight Astrologers

How many times actual frequencies are greater than (+) or less than (-) expected frequencies at the birth of people described by the words applied to that sign.

Sign	Sun		Moon		Ascendant		Total for each sign		Total for each Astrologer		
	+	-	+	-	+	-	+	-		+	-
Aries	1	7	7	1	5	3	13	11	Carter	17	19
Taurus	1	7	2	6	5	3	8	16	Hone	16	20
Gemini	6	2	1	7	7	1	14	10	Barbault	13	23
Cancer	4	4	6	2	2	6	12	12	Hall	18	18
Leo	6	2	1	7	6	2	13	11	Mayo	14	22
Virgo	5	3	0	8	2	6	7	17	Lee	17	19
Libra	3	5	2	6	0	8	5	19	Grell	18	18
Scorpio	2	6	5	3	4	4	11	13	Mann	18	18
Sagittarius	3	5	2	6	2	6	7	17			
Capricorn	7	1	6	2	2	6	15	9			
Aquarius	2	6	7	1	7	1	16	8			
Pisces	0	8	2	6	8	0	10	14			
Total	40	56	41	55	50	46	131	157		131	157
Average	48		48		48		144			144	
Probability	n.s.		n.s.		n.s.		n.s.			n.s.	

n.s. means: not significant at the .05 level.

cies. For each distribution, an arrow shows where the maximum of births should be to vindicate the reality of zodiacal influences. Obviously the results for Mayo are disastrous. In actual fact there are more cases where the appropriate correlation is the worst of the 12 signs (the sun in Libra and Sagittarius, and the moon and the ascendant in Virgo) than where it is the best (the moon in Cancer and the ascendant in Leo). Looking at the details, there are also striking psychological contradictions. For instance, the key words of the aggressive and passionate Aries and Scorpio correspond to a maximum of subjects born with the sun in Cancer, a sensitive and dreamy sign; and so forth.

We have not included diagrammatic figures for the other astrologers because their features are very similar to those of Mayo's and equally disastrous.

Most textbooks give very similar descriptions of the signs, and there is no reason to think that the eight textbooks chosen are in any way unrepresentative. The plain fact is that it is not Mayo, or Carter, or Barbault, or some other astrologer who is wrong. It is astrology itself.

The sidereal zodiac. In the United States and England, a school of astrologers decided relatively recently to take account of astronomers' objections concerning the role of the precession of the equinox, which has shifted back the constellations by more than three-quarters of a sign since antiquity. Consequently, these astrologers say, the real zodiac is the "sidereal" zodiac, which follows the precession of the equinox, and the "tropical" zodiac used by traditional astrologers is a false one based only on appearances. Example: A subject born on the first of April is generally said to be born with the sun in Aries, but the "siderealists" claim he is actually born with the sun in Pisces because it is now the constellation Pisces that is beyond the traveling sun at the beginning of April and no longer the Aries constellation. If you remember that "Aries" subjects are said to be full of energy and decision and "Pisces" subjects are said to be dreamy and dislike making decisions, you see how the two interpretations can be in striking contrast.

We do not intend to come into the tropical/sidereal controversy among astrologers. But we can bring some empirical arguments to the debate by carrying out the same analysis for the sidereal zodiac that we did for the traditional, tropical one. This new experiment was performed using the constant help of Astro Computing Services for the calculations. It can be summarized very briefly: The sidereal zodiac does not give better

How to Compute the Expected Frequencies in This Study

Example: expected frequency for the sun in Aries according to Mayo's key words.

Each trait for each person found in a biography constitutes a unit. The published "Psychological Monographs" contain a total of 52,188 such units. It is these data that constitute the raw material for our calculation.

Checking these 52,188 units we found the sun in Aries 4,151 times, the proportion being $4151/52188 = 0.07954$.

Of the total number of traits, 2,548 were selected as characteristic of an Aries personality according to Mayo's key words; thus, the theoretical frequency for the sun in Aries is $2,548 \times 0.07954 = 202.67$.

The actual number found is 194.

The difference between the actual and expected frequencies is - 8.67.

The same procedure was followed for calculating the expected frequency of each horoscopic factor in each sign according to the astrologers' key words.

results than the tropical zodiac. No positive correlation was found between the key words given by astrologers and the character traits of the subjects born with the sun, the moon, or the ascendant in sidereal signs. The sidereal zodiac for Mayo's words, for instance, gives the same results as the tropical one, 14 plus and 22 minus (average 18). Scores for the other astrologers are no better.

Discussion

The results of our study are clear-cut and need few comments. There is no correlation between character traits of the subjects and the signs under which they were born. In our previous studies, we had already found that there was no correlation between professional success and zodiac and no zodiacal-sign "heredity" between parent's and child's horoscopes (Gauquelin 1978, 1979). All this presents a large body of experimental evidence against the alleged influences of the twelve signs.

Our observations are consistent with several independent studies that tested possible sign effects: no significant correlation has been found. Among the abundant literature on the subject, some recent appraisals can be mentioned (Kelly 1979; Jackson and Fiebert 1980; Eysenck and Nias 1981) and several articles that have appeared in the SKEPTICAL INQUIRER [McGarvey, Spring/Summer 1977; Bastedo, Fall 1978; Mechler et al., Winter 1980-81; Kelly, Summer 1981; Lackey, Fall 1981]. Even in serious astrological circles, a shadow of a doubt is emerging and the reality of sign effects is occasionally questioned. The most open-minded astrologers do not try to cover up proofs against sign influences (Addey 1980). Moreover, in a detailed survey of the astrological literature, two astrologers pointed out recently the dubious value of the so-called proofs claimed by astrologers themselves in favor of the signs (Dean and Mather 1976). In 1978, Dean even launched a prize of £500 to the benefit of the first author able to bring a scientific proof of the reality of zodiacal influences. Nobody was the winner of the prize. Of course, despite the pressure of the facts, almost all of the astrologers are still continuing to believe in signs. They are wondering how they could survive, as practitioners, a horoscope without a zodiac. For our part, we are wondering how the horoscope itself could survive such a fatal blow.

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