Ayanamsas—A Statistical Study

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September 14, 2007

Twenty five ayanamsas were applied to the moon's position in the lunar mansions, or nakshatras, of 12 large data sets of timed births. These included a random ayanamsa and the tropical zodiac (ayanamsa = 0°00′00″). Although some of the ayanamsas showed significance for some of the data sets, no single ayanamsa showed significance in all of the tests. This suggests that, for the moon in the nakshatras and the data sets in question, the use of any ayanamsa is as good as none.

1 Introduction

The fundamental metric of sidereal astrology—East and West—is the ayanamsa[1] This value is critical to the definition and calculation of all astrological charts, methods and techniques in the sidereal system. One small change in the value of the ayanamsa used collaterally impacts all of the succeeding results.

This study includes 25 different ayanamsas which were chosen as being the most readily available as options in the more popular software programs and astrological libraries. The purpose of this study is to see which—if any—of the included ayanamsas stand out in a series of strict statistical tests.

Although there is much *anecdotal* evidence of the validity of the chosen ayanamsa by its adherents, a search of the literature failed to turn up any detailed *statistical* study of various ayanamsa values. This work serves to fill that gap and encourage further research by others.

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2 The "Two" Zodiacs

In all methods of calculating a sidereal chart—by hand or computer—the routine is the same. Given the Date, Time and Place of the event:

1. Calculate the **tropical** positions of the planets.
2. Calculate the **tropical** house positions for the location.
3. Calculate the **ayanamsa** for the date and time.
4. Subtract the value of the ayanamsa from the tropical planets and houses, giving
5. The **sidereal** positions of the planets and houses.

The equation is:

$$Sz_\lambda = Tz_\lambda + A_t \tag{1}$$

Where:
Sz_λ = sidereal zodiac longitude
Tz_λ = tropical zodiac longitude
A_t = the ayanamsa at time t where the ayanamsa is a negative value From this it is clear that the ayanamsa is the difference between the "two zodiacs" and, if the sidereal zodiac is the foundation of Hindu astrology, the value of the ayanamsa is critical to its credibility.

Although astrologers commonly speak of the "*tropical/moveable zodiac*" or the "*sidereal/fixed zodiac*" that's only a convenience as it is understood that there is only one zodiac, just different starting points. As the zodiac is a circle, any point on that circle can be a legitimate starting point for an astrological reference system and, although the tropical starting point is well defined, the same can't be said for the sidereal. This leads to an interesting paradox:

- **Tropical** – Called the "*moveable*" zodiac because it's fiducial, the spring equinox, is slipping backwards against the background of the fixed stars at the rate of about 50.3″ a year. However, the tropical zodiac is **fixed** in that it's fiducial is set each year and agreed upon by all tropical astrologers. There is no ambiguity in the tropical starting point.

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- **Sidereal** – Called the "*fixed*" zodiac because its fiducial is linked to a fixed star. However, the sidereal zodiac is actualy **moveable** as " "fixed" stars all have proper motion and so are not really fixed at all. Further, with any number of different ayanamsas pointing to different starting points for the sidereal zodiac it can't in any way be thought of as fixed. The starting point is ambiguous at best and is a source of disagreement throughout the sidereal world.

Many sidereal astrologers believe that the planetary positions shown in their charts reflect the actual positions of the planets in the constellations thus making theirs the *correct* zodiac. However, the plethora of ayanamsas makes this claim spurious. As an example, calculate a chart 6:46:04 PM on 27 October 2006 and you will see the Sun at 4° Scorpio 25′ and Mercury at 25° Scorpio 02′, tropically. You can give that date and time to 10 different tropical astrologers located anywhere in the world and they will all come up with the exact same positions for the Sun and Mercury.

However, give the same data to 10 sidereal astrologers world wide and they could possibly come up with 10 different positions for the same planets, depending on the ayanamsa in use. For example, four of the ayanamsas in our list give the following sidereal positions:

Fagan/Bradley	Sun = 09° Libra 35′	Mercury = 00° Scorpio 12′
Lahiri	Sun = 10° Libra 28′	Mercury = 01° Scorpio 05′
Raman	Sun = 11° Libra 55′	Mercury = 02° Scorpio 32′
DeLuce	Sun = 06° Libra 31′	Mercury = 27° Libra 08′

So, where exactly is the Sun and Mercury in the *correct* zodiac? This is just a sample. One of the software packages I use has 19 other ayanamsas to work with, none of which can conclusively be shown to be the correct one.

3 The Elephant in the Room

A recent Google search for the word *ayanamsa* returned 22,800 links so the term is not unknown. Yet, on the Internet blogs, forums and newsgroups it is seldom mentioned. There are always a few technical participants who do bring up the ayanamsa controversy, but mainly to promote their own value.

Given the importance of the ayanamsa in all sidereal astrological schools it is surprising that the majority of practitioners seem to be unconcerned[2].

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On the venues mentioned above, the focus currently seems to be on *birth time rectification*, where the time of birth is refined to hours, minutes and *seconds* and then confirmed by various techniques whose validity rests squarely on the ayanamsa. Two of the most favored are the Dasa–Bhutki–Antaradasa system of timing, which relies on the moon's position in the nakshatras at birth (the same criterion as the present study), and, lately, Divisional Charts, where the natal planetary positions are multiplied by some factor to create a new chart supposedly relevant to a specific area of life. For example, in the D10 chart where professional concerns are shown, the natal positions are multiplied by 10. In rectification, a D60 chart is sometimes used so that all natal factors are multiplied by 60. Of course, any error in the basic calculation of the natal positions—such as a wrong ayanamsa—is multiplied by the same factor.

Many Western sidereal astrologers weren't aware of there being any ayanamsa other than Fagan/Bradley as that was what they were trained with. The situation is similar with Hindu practitioners who would use what they were taught by their Guru or teacher.

Those astrologers of both camps who were aware of ayanamsas other than the one they used would defend their ayanamsa vigorously although when pressed for reasons would mostly reply "it works for me". However, most intriguing is the activity in the Internet Hindu/Vedic astrology forums where all sorts of charts, systems and predictions are explored and exchanged between astrologers with nary a mention of what ayanamsa was used leaving one to wonder what page *anyone* is on.

So how can many sidereal astrologers, using different ayanamsas, all have their charts "work" for them? Garth Allen in an article for American Astrology magazine, (see reference below), explains it this way:

> *The point we are getting at here is that a randomly invented, wholly groundless ayanamsa will yield highly "significant" ingress charts for a majority of events. Yes, we said majority, and meant it. A phony vernal point will "work" so well, so much of the time, that at first glance any value you might fabricate on the spur of the moment has a good prospect of seeming like a major astrological "discovery."*
>
> *If you are reluctant to believe this, take the first telephone number having six digits in your local directory and con yourself into considering it to be the genuine ayanamsa in degrees, minutes and seconds, for any event you want to "study."*
>
> *The odds are surely better than 50-50 that by your third ingress chart for the event, using this fake ayanamsa, pretending it to be real, you'll come up with a persuasively "accurate" horoscopic picture of the event. If the event is a catastrophe, there are enough malefics in the sky, and more than enough square aspects within reach of at least one of your two, three, four or more sets of angular cusps to fill the bill and produce a "triumph" for the ersatz ayanamsa employed.*

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We tested his theory by including a random Phone Book ayanamsa in this study.

4 Previous Studies

A search of the Internet for previous statistical studies turned up only two. The first and earliest was *"How to Unvex a Vexed Question!"*, an article by Donald Bradley writing as Garth Allen for American Astrology magazine[3]. In this article Bradley details his work with Cyril Fagan in discovering the Synetic Vernal Point or SVP, now know as the Fagan/Bradley ayanamsa. This was done by refining and correcting the Lahiri ayanamsa against hundreds of Ingress charts. It seems to be the first serious study in the determination of a "correct" value.

In the other study, *"The Sun in the Lunar Mansions"*[4], 3 ayanamsas—Fagan/Bradley, Lahiri and tropical (ayanamsa = 0°)—were tested peripherally as the main thrust of the study was an analysis of the sun's position in the lunar mansions. Here, a statistical study was made of the solar positions of 2,492 clergy in 3 different zodiacs and 4 lunar mansion schemes. In all, 8 sidereal and 4 tropical classes of 27 or 28 lunar mansions were tested. The results of this study was rather surprising: the combination showing the greatest statistical significance was the tropical solar distribution in the 28 Lunar Mansions measured from 0° Taurus with a percentile of 99.8%.

5 The Present Study

The present study is composed of five components, Design, Ayanamsas, Data, Test Statistic and Methodology, as follows.

5.1 The Design

The study was designed to include certain parameters specific to Hindu sidereal astrology. Hindu astrology is know for its predictive ability with some astrologers claiming an accuracy level up to 90%! The main predictive tool of the Hindu astrologer is a technique called Vimshotarri Dasa, a system that is based on the moon's sidereal position in the nakshatras (or lunar mansions) at birth. From that position, a series of time periods are laid out based on the cycle of the remaining planets. The complete system is too complex to describe here but a good text on the subject can be found here[5].

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Based on this, it was decided that a valid test of ayanamsas must include the moon's sidereal position and the nakshatra or mansion it was in at the time of birth of each datum. This meant that all birth data collected must have a birth time associated with it. With that in mind, the study was designed to incorporate the following parameters:

- Data sets including the Date, Place and Time of birth.
- Ayanamsas currently in use or available.
- Calculations to tally the moon's position in the nakshatra at birth.
- An appropriate test statistic to evaluate the significance of the study.

Some might object that the moon and/or the nakshatras are not applicable to the data sets used. That is, that neither have anything to do with an individual's profession. This is simply not true. In Hindu astrology the moon governs the mind and the mind governs the individual and his/her inclinations. No one can argue with the fact that certain professions—scientists, military leaders, artists, writers, etc.—all share a certain mind set. Those data sets are included here.

Additionally, other data sets are included which represent an unhealthy or diseased mind. These included alcoholics, murderers, psychotics and schizophrenics. Any consulting astrologer would look at the moon to access the mental condition and health of a client exhibiting these attributes.

Finally, in the Hindu system, the zodiac is divided into the 27 nakshatras, or constellations, each with a length of $360°/\ 27 = 13°\ 20'$, $\approx$ the moon's daily motion. As the moon's position in the nakshatra at birth is considered far more important the *sun-sign* position, so important in the West, it is certainly relevant here.

5.2 The Ayanamsas

A group of 25 ayanamsas—including the tropical ($= 0°$)—were included in this study. Of that group, 18 are standard in the Swiss Ephemeris library, a collection of astrological routines incorporated in many popular software packages. A complete description of these can be found in the Swiss Ephemeris documentation[6]. It is unlikely that all of the Swiss Ephemeris ayanamsas are in use. However, as they are available, they were included in the study.

These 18 are supplemented by 6 more ayanamsas that are often mentioned, or have web pages, on the Internet, each with their own group of followers. Here, no weight was given as to the reasonableness of logic behind the proposed values. They are available, popular and in use and so are included.

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In the east, the most popular ayanamsa included here is Lahiri, but not always for the right reason. Many astrologers think the Indian Government chose Lahiri as their choice for astrological use and, so, use it for that reason. However, Lahiri was adopted by the Indian Government for calendar (not astrological) reform[7]. In the West, the Fagan/Bradley ayanamsa is by far the most popular with many western sidereal astrologers unaware that others exist.

We chose a random ayanamsa by following the advise of Garth Allen above. We picked the first number found in our phone book and called this the Phone Book ayanamsa.

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The table includes the source of the ayanamsa, the reference (SE = Swiss Ephemeris, PC = Personal Communications), the Year of Coincidence and the values for the ayanamsas and the moon calculated for 6:46:04 PM on 27 October 2006 at 32°N 15′, 97°W 46′, TZ +5.

SOURCE	**REF.**	**AYANAMSA**	**Y.O.C.**	**MOON**
Fagan/Bradley	SE	-24° 50′ 10″	221 AD	16° Sag 00′
Lahiri	SE	-23° 57′ 10″	285 AD	16° Sag 14′
De Luce	SE	-27° 54′ 19″	1 BC	12° Sag 56′
Raman	SE	-22° 30′ 24″	389 AD	18° Sag 20′
Sassanian	SE	-20° 05′ 20″	564 AD	20° Sag 45′
Ushashashi	SE	-20° 09′ 11″	559 AD	20° Sag 41′
Hipparchos	SE	-20° 20′ 34″	545 AD	20° Sag 30′
Djwhal Khool	SE	-28° 27′ 19″	41 BC	12° Sag 23′
Yukteshwar	SE	-22° 34′ 28″	292 AD	18° Sag 16′
JN Bhasin	SE	-22° 51′ 28″	364 AD	17° Sag 59′
Babylonian, Huber	SE	-24° 43′ 43″	229 AD	16° Sag 07′
Babylonian, Kugler 1	SE	-25° 55′ 43″	143 AD	14° Sag 55′
Babylonian, Kugler 2	SE	-24° 31′ 43″	243 AD	16° Sag 19′
Babylonian, Kugler 3	SE	-23° 40′ 43″	305 AD	17° Sag 10′
Babylonian, Mercier	SE	-24° 37′ 03″	237 AD	16° Sag 13′
Galactic Center	SE	-26° 56′ 55″	69 AD	13° Sag 53′
Krishnamurti	SE	-23° 51′ 22″	292 AD	16° Sag 59′
Aldebaran at 15 Taurus	SE	-24° 51′ 16″	220 AD	15° Sag 59′
Chandra-Hiri[8]	PC	-24° 40′ 43″	233 AD	16° Sag 10′
Tarun Chopra[9]	PC	-11° 53′ 43″	1153 AD	28° Sag 57′
Dhira[10]	PC	-23° 09′ 48″	342 AD	17° Sag 41′
Krushna[11]	PC	-23° 02′ 54″	350 AD	17° Sag 47′
Wilhelm_Ardra[12]	PC	-23° 30′ 16″	317 AD	17° Sag 20′
Phone Book	-NA-	-87° 56′ 08″	-NA-	12° Lib 54′
tropical	-NA-	-00° 00′ 00″	-NA-	10° Cap 50′

As can be seen from the table, the values tested range from 0° (tropical) to 88° (Phone Book). Dismissing these outliers gives a range of from 11° Tarun Chopra to 28° Djwhal Khool and disagreements in the Year of Coincidence from 41 BC re: Djwhal Khool to 1153 AD re: Tarun Chopra.

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5.3 The Data

The major challenge of the study was to find a credible source of complete birth data. One of the shortcomings of the Sun in the Lunar Mansions study was that the sun's position for each person's birthdate was calculated for noon on that date rather than an individual birth time. As one of the parameters of this study was the moon's position in a lunar mansion, the data used had to include time of birth in order to accurately determine the lunar position in the nakshatra.

It was also considered important to find and include more than one, large data set so that the results of the first test could face replication. As it turned out, we were fortunate enough to find, not only one or two data sets but twelve, all made available through the generosity of the the Michel Gauquelin Archives[13].

The 12 data sets found were:

1. 1,472 Painters
2. 3,646 Scientists
3. 6210 Murderers
4. 2,087 Sports Champs
5. 1,793 Alcoholics
6. 1,392 Actors
7. 1,247 Musicians
8. 1,265 Schizophrenics
9. 3,046 Military
10. 2,018 Writers
11. 1,002 Politicians
12. 1,136 Psychotics

Each data file was downloaded from the site. The records of each data file appeared to be coded for punch cards. An example from the Painters data file looks like this:

```
P 1F30101853155040 048N36 2E20ETAMPES 91
```

A program was written to read each raw data file, decode each record, and rewrite the data to a format more accessible for use in the main analysis program. At the same time, each record was processed by a sub-routine to check for the validity of each date. This routine did find a few errors in each data set, such as February 30 or September 31, etc. These were clearly data entry errors and a few were to be expected. It can also be expected for there to be other entry errors that, while valid, were simply incorrect. For instance, the operator could have entered 16 March when 15 March was intended. Fortunately, the *Law of Large Numbers* protects the results due to the *size* of the data sets, for the law states that the larger the sample the smaller the error and these data sets are very large.

Once processed, the above record was rewritten as follows:

```
18531030|155040|0|48N36|2E20
```

or

30 October 1853, 15:50:40 GMT TZ: 0hr 48° N 36′– Lon: 002° E 20′

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Note that all of the birth times given in the data files have already been converted to standard time, so the seconds shown in the above record results from a LMT to Standard time conversion; the birth time of record was recorded in hours and minutes only.

Each of the 12 data files were processed in this manner resulting in 12 reformatted data files for use in the main program.

5.4 The Test Statistic

Before the tests were run, a proper statistical measurement had to be selected and testing hypotheses developed. The *research* hypothesis is that a relationship exists between the ayanamsa tested and the data tested against. The *null* hypothesis is that no relationship exists between the ayanamsa tested and the data tested against. In other words there is no difference between the observed and expected number of cases in the test, and that any observed differences are nearly chance variations to be expected in the sample.

The statistic selected was the χ^2 (Chi-Square) test, which measures the extent to which a distribution among various categories differs from chance. The null hypothesis H_0 is formed and then tested with

$$\chi^2 = \sum_{i=1}^{k} \frac{(O_i - E_i)^2}{E_i} \tag{2}$$

Where:
O_i = observed number of cases categorized in the ith category
E_i = expected number of cases in the ith category under H_0
$\sum_{i=1}^{k}$ directs one to sum over all (k) categories

The expected frequencies can be derived from the null hypothesis. As H_0 states that there is no relationship between the observed and expected frequencies—the proportion of cases in each category are the same—then $E_i = \frac{N}{k}$, where N is the number of cases in each data set (sample size) and $k = 27$, the number of nakshatras or lunar mansions.

However, for this study we chose to calculate the expected frequencies directly by having the program compute the sidereal position of the moon, and the nakshatra in which it fell, for 12:00 GMT on each day of the data span. In the Military data set example shown below, this involved 46,383 separate calculations, the number of days in the data span.

The results of these calculations gave the *actual* number of cases or frequencies over the data span. The following equation was then used to normalize these numbers for use in Equation (2):

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$$E_i = N(\frac{A}{D}) \tag{3}$$

Where:
E_i = the expected frequencies
N = the sample size
A = the actual frequencies
D = time span of the data set in days

A level of significance of $\alpha = 0.05$ was selected. A table of critical values for chi-square at 0.05 for 26 degrees of freedom (27 Nakshatras - 1) gives 38.89 as the value to beat in order to reject the null hypothesis with 95 percent confidence. So, in order for the null hypothesis to be rejected, the calculated χ^2 value must greater than, or equal to 38.89.

5.5 The Method

Once all twelve data sets were downloaded from the Gauqelin archives and the data file formats converted for use in the test, an ayanamsa data file was created which included each ayanamsa and the parameters needed to calculate it for each date. A program was written to process the data and compute the expected and observed frequencies of the moon in the nakshatras for each ayanamsa and data set. The program performed as follows:

1. Open the Ayanamsa file
2. Open the first Data file
3. Find the first and last date in the file and find the difference in days
4. Read in the first ayanamsa
5. Calculate the Actual frequencies: For each day of the data set
   (a) Calculate the moon's sidereal position at noon for that day
   (b) Find and tally the nakshatra of the moon for that position
   (c) Normalize to Expected frequencies—Equation (3)
   (d) Repeat for the next day
6. Calculate the Observed frequencies: For each record in the Data file:
   (a) Calculate the moon's sidereal position at the recorded date and time

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(b) Find and tally the nakshatra of the moon for that position

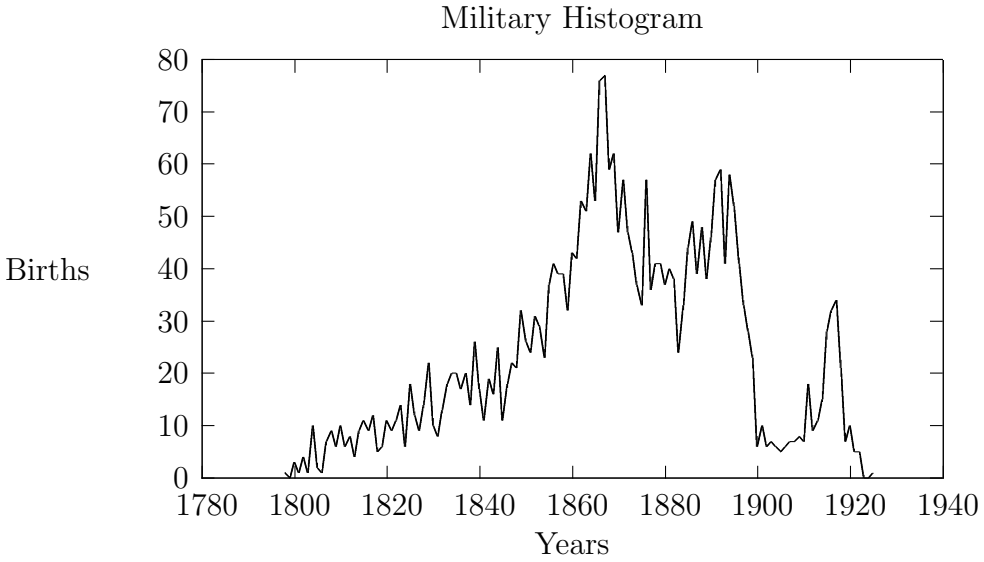
(c) Repeat for the next record

7. Calculate chi-square statistic—Equation (2)
8. Write results to disk for that ayanamsa
9. Repeat for the next ayanamsa

The above outlines one run for the ayanamsas against one Data set. It was repeated for each of the remaining eleven Data sets.

5.6 Example: Military Data Set

The Military data file has 3,046 records and a date range from 11/14/1798 to 11/12/1925, a difference of 46,383 days. A histogram of the data shows an interesting pattern.



Rather than a normal bell curve, three distinctive peaks are shown, the first and major peak at 77 births in 1866, the second at 59 births in 1891 and the third at 34 births in 1917. The complete test run on the Military sample can be found in Appendix B. Eight of the 25 ayanamsas had χ^2 values exceeding the critical value of 38.89. These were, in order:

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Ayanamsa	**Odds**	χ^2	**Value**
1. Hipparchos	47.07	144 to 1	18° 19′ 32″
2. Sassanian	45.73	102 to 1	18° 04′ 15″
3. Ushashashi	44.66	78 to 1	18° 08′ 07″
4. Phone Book	43.79	62 to 1	85° 55′ 04″
5. Yukteshwar	41.19	33 to 1	20° 33′ 24″
6. Raman	41.04	32 to 1	20° 29′ 20″
7. Dhira	40.68	29 to 1	21° 08′ 45″
8. JN Bhasin	40.18	26 to 1	20° 50′ 24″

The values of the ayanamsas are taken at the midpoint of the data range, or May 14, 1862. Ignoring the Phone Book ayanamsa for the moment, the difference between the minimum and maximum value is 3° 04′ 30″ which equals 11,070 ″ of arc. As the precessional rate is ≈ 53″ per year this equates to a difference of around 209 years. Including the Phone Book value in the mix clearly renders the results unreliable. If we are looking for a definitive, *true* ayanamsa we won't find it here.

6 Ayanamsa Test Results

The results of the tests are summarized here by Data Sets. Required probability is $p \leq 0.05$ giving odds of 20 to 1 or greater. Some tests—noted with * —have multiple hits and in those cases only the most significant ayanamsa is listed. The complete set and details of all test runs can be found in Appendix A.

1,472 Painters No ayanamsa passed – See Appendix A for details.

1.793 Alcoholics Tarun Chopra passed with $p = 0.04$ Odds = 23 to 1

3,046 Military * Hipparchos passed with $p = 0.01$ Odds = 144 to 1

3,646 Scientists * Phone Book passed with $p = 0.02$ Odds = 41 to 1

1,392 Actors * 20 of the 25 ayanamsas passed – See Appendix A for details.

2,018 Writers No ayanamsa passed – See Appendix A for details.

621 Murders * All ayanamsas passed – See Appendix A for details.

1,247 Musicians No ayanamsa passed – See Appendix A for details.

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1,002 Politicians No ayanamsa passed – See Appendix A for details.

2,087 Sports Champions Sassanian passed with $p = 0.04$ Odds 22 to 1

1,265 Schizophrenics * Phone Book passed with $p = 0.01$ Odds = 188 to 1

1,136 Psychotics No ayanamsa passed – See Appendix A for details.

To summarize, not counting the Actor set where 20 out of 25 passed, and the Murderer set where **all** ayanamsas passed, the following had hits:

1. 4 Hits - Sassanian
2. 3 Hits - Phone Book
3. 2 Hits - Hipparchos
4. 2 Hits - Ushashashi
5. 1 Hit - Taurn Chopra

Curiously, the most popular of all of the ayanamsas—Lahiri—did poorly in all of the tests, falling in the 2nd half of all tested in 9 out of 12 cases.

7 Conclusions

If there is a *true* ayanamsa, it is not a part of this test group. Of the 25 ayanamsas tested the one with the most significant showing is Sassanian with a total of 4 out of 12 tests. This would prove noteworthy if it wasn't followed by the fictitious Phone Book ayanamsa totaling 3 out of 12 hits.

Of the 12 tests, 5, or 42%, had no significant ayanamsa, 20, or 80% of the ayanamsas showed significance in the Actors test and all ayanamas proved significant in the Murders test.

One can only conclude that, in astrological techniques involving the moon's position in the nakshatras, or lunar mansions, use of any of the included ayanamsas—or none at all—is pointless.

Perhaps the most important result of this study is the confirmation of the need for *replication* of any statistical test performed. The first test actually run was on the 1,793 Alcoholics and the Tarun Chopra ayanamsa stood out as the winner. If the test wasn't replicated, one could have rushed into print claiming the *true* ayanamsa had been found.

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It is hoped that this study will inspire others to perform similar tests. Some useful modifications to this test might include:

- Current data sets verified by a rating system.
- Testing the Ascendant in the nakshatras.
- Testing the moon corrected for parallax.
- The addition of newly proposed ayanamsas.

Clearly, more work needs to be done if a well-defined platform for astrology is to be established.

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Notes

1. The Ayanamsa is a Hindu term standing for the difference between the tropical zodiac of the seasons and the sidereal zodiac of the constellations. It seeks to correct the following anomaly caused by a phenomena know as the Precession of the Equinoxes.

   In the circle of the ecliptic known as the zodiac, the vernal equinox is used as the starting point. This is the date and time when the Sun, moving from south to north, crosses the celestial equator. This point is also known as the First Point of Aries, or 0 degrees Aries and occurs on or around March 21 in the northern hemisphere. This point also defines what is known as the tropical Zodiac.

   At one time in the distant past, the 1st. point of Aries coincided with 0 degrees of the constellation Aries (sidereal Aries), which is where it got its name. However, due to various factors in the earths orbit, 0 degrees tropical Aries has been slipping backwards against the framework of 0 degrees of the constellation Aries at a rate of almost 1 minute of arc a year. Although there is controversy over in exactly which year tropical Aries and sidereal Aries coincided, most generally agree that at present there is about a 24 degree difference between the two zodiacal starting points. This means that presently the spring equinox actually takes place in around 6 degrees Pisces (remember, it's slipping backwards from 0 degrees Aries). Eventually, it will slip back from Pisces into 30 degrees Aquarius, at which time the Age of Aquarius will really begin. Using the above numbers, that should be around the year 2364.

2. Although there are sidereal schools with different traditions, the two main schools are the Eastern (Hindu) and Western. Of the two, the Western school, founded in 1944 by Cyril Fagan, is affected the least by the ayanamsa as, in the charts and techniques they most depend on (solar and lunar returns), only the signs will change while the house positions of the planets and the aspects between them will remain the same regardless of the ayanamsa used. The Eastern school however, with a tradition dating some 5000 years, have macro and micro technical charts and sub-charts that are greatly impacted by even a small change in the value of the ayanamsa. For the remainder of this report it will be the Eastern-Hindu sidereal system referred to.

3. **How to Unvex a Vexed Question!**, Garth Allen, American Astrology Magazine August 1964.

4. **The Sun in the Lunar Mansions**, Buz Overbeck, Cosmocology Bulletin #10/11 NY - 1980.

5. **Directional Astrology of the Hindus**. V. G. Rele, D. B. Taraporevala Sons & Co. 1973

6. Swiss Ephemeris: `http://www.astro.com/swisseph/swisseph.htm\#\_Toc129145871`

7. **History of Ayanamsa Controvery** Chandra-Hari, Personal Communication. Chandra-Hiri explains the problems leading up to the establishment of an "official" ayanamsa:

   > *India had more than thirty regional calendars prevalent at the time of independence and hence the need was felt for a uniform National Calendar. To resolve the above mystery as well as to get rid of the multitude of in-congruities prevailing with the regional calendars of India the Government of India appointed a Calendar Reform Committee under the chairmanship of Prof. Meghanad Saha in November 1952. The Committee was entrusted with the task of examining all the existing calendars, which are being followed in the country at present and after a scientific study of the subject submit proposals for an accurate and uniform calendar for the whole of India*

   As to the Indian Government endorsing their choice for astrological purposes. Chandra-Hiri goes on to say:

   > *The Calendar reform committee had no respect towards the astrological aspect of the zodiac and the true initial point. Their sole aim was to achieve some sort of uniformity among the regional calendars by forwarding an official solution conforming to the prevalent tradition.*

8. Chandra-Hari: `http://www.kerala.com/astrology/htm/true.htm`

9. Tarun Chopra: `http://www.occultwizard.com/ayanamsha.htm`

Notes and references on Page 16

10. Dhira: http://www.geocities.com/dvdd1008/Dhira_ayanamsa.html

11. Krushna: http://krushna.sageasita.com/pdf/lesson06.pdf

12. Wilhelm: http://www.vedic-astrology.net/

13. **Archives Gauquelin** (143,860 Data)—http://cura.free.fr/gauq/17archg.html
A complete explanation of the data and how it was collected can be found on this site in English, French and Spanish

Notes and references on Page 16

APPENDIX

A Ayanamsa Test Results - 3 Pages

B Example: Military Sample - 11 Pages

B.1 Military Sample Statistics - 1 Page

B.2 Military Ayanamsa Statistics - 1 Page

B.3 Military Complete Test Results - 9 Pages

Notes and references on Page 16

Chi-Square Value: p .05 = 38.89

1,472 Painters	X^2	P =	Odds	Pass	1,793 Alcoholics	X^2	P =	Odds	Pass
De Luce	35.53	0.10	9 to 1	No	Tarun Chopra	39.70	0.04	23 to 1	Yes
Babylonian, Kugler 2	34.67	0.12	8 to 1	"	Galactic Center	38.51	0.05	18 to 1	No
Babylonian, Huber	34.01	0.13	7 to 1	"	Babylonian, Kugler 1	38.13	0.06	16 to 1	"
Chandra Hiri	33.92	0.14	7 to 1	"	Aldebaran at 15 Taurus	35.77	0.10	10 to 1	"
Galactic Center	33.31	0.15	6 to 1	"	Babylonian, Mercier	34.91	0.11	8 to 1	"
Djwhal Khool	31.60	0.21	4 to 1	"	Chandra Hiri	34.55	0.12	8 to 1	"
Babylonian, Mercier	31.48	0.21	4 to 1	"	Fagan_Bradley	34.24	0.13	7 to 1	"
Phone Book	30.01	0.27	3 to 1	"	Babylonian, Huber	33.62	0.14	6 to 1	"
Fagan_Bradley	29.50	0.29	3 to 1	"	Tropical Zodiac	33.27	0.15	6 to 1	"
Aldebaran at 15 Taurus	29.30	0.30	3 to 1	"	Babylonian, Kugler 2	32.32	0.18	5 to 1	"
Babylonian, Kugler 1	28.84	0.32	3 to 1	"	De Luce	32.25	0.18	5 to 1	"
Lahiri	28.21	0.35	2 to 1	"	Djwhal Khool	27.21	0.40	2 to 1	"
Tarun Chopra	28.13	0.35	2 to 1	"	Yukteshwar	22.70	0.65	1 to 1	"
Krishnamurti	28.08	0.35	2 to 1	"	Sassanian	22.08	0.68	1 to 1	"
Tropical Zodiac	27.85	0.37	2 to 1	"	Hipparchos	22.01	0.69	1 to 1	"
Raman	26.73	0.42	2 to 1	"	Raman	21.46	0.72	1 to 1	"
Yukteshwar	26.72	0.42	2 to 1	"	Wilhelm_Ardra	21.45	0.72	1 to 1	"
Wilhelm_Ardra	26.55	0.43	2 to 1	"	Babylonian, Kugler 3	21.41	0.72	1 to 1	"
Babylonian, Kugler 3	26.50	0.44	2 to 1	"	Ushashashi	21.16	0.73	1 to 1	"
JN Bhasin	24.21	0.56	1 to 1	"	Lahiri	21.02	0.74	1 to 1	"
Sassanian	23.59	0.60	1 to 1	"	JN Bhasin	20.94	0.74	1 to 1	"
Ushashashi	23.55	0.60	1 to 1	"	Phone Book	20.71	0.76	1 to 1	"
Krushna	22.96	0.64	1 to 1	"	Krishnamurti	20.05	0.79	1 to 1	"
Dhira	22.79	0.64	1 to 1	"	Dhira	19.83	0.80	1 to 1	"
Hipparchos	22.23	0.68	1 to 1	"	Krushna	19.73	0.80	1 to 1	"

3,046 Military	X^2	P =	Odds	Pass	3,646 Scientists	X^2	P =	Odds	Pass
Hipparchos	47.07	0.01	144 to 1	Yes	Phone Book	42.12	0.02	41 to 1	Yes
Sassanian	45.73	0.01	102 to 1	*	Sassanian	39.43	0.04	22 to 1	*
Ushashashi	44.66	0.01	78 to 1	*	Ushashashi	38.32	0.06	17 to 1	No
Phone Book	43.79	0.02	62 to 1	*	Hipparchos	37.59	0.07	15 to 1	"
Yukteshwar	41.19	0.03	33 to 1	*	Raman	36.83	0.08	12 to 1	"
Raman	41.04	0.03	32 to 1	*	Yukteshwar	34.47	0.12	8 to 1	"
Dhira	40.68	0.03	29 to 1	*	Babylonian, Kugler 3	31.38	0.21	4 to 1	"
JN Bhasin	40.18	0.04	26 to 1	*	Wilhelm_Ardra	29.91	0.27	3 to 1	"
Krushna	38.61	0.05	18 to 1	No	Tropical Zodiac	29.43	0.29	3 to 1	"
Wilhelm_Ardra	35.92	0.09	10 to 1	"	Galactic Center	29.13	0.31	3 to 1	"
Babylonian, Kugler 3	35.48	0.10	9 to 1	"	Dhira	28.83	0.32	3 to 1	"
Krishnamurti	34.91	0.11	8 to 1	"	Krushna	28.81	0.32	3 to 1	"
Lahiri	33.67	0.14	6 to 1	"	JN Bhasin	28.64	0.33	3 to 1	"
Babylonian, Kugler 2	32.05	0.19	5 to 1	"	Krishnamurti	28.00	0.36	2 to 1	"
Tropical Zodiac	31.32	0.22	4 to 1	"	De Luce	27.38	0.39	2 to 1	"
Chandra Hiri	30.85	0.23	4 to 1	"	Lahiri	27.37	0.39	2 to 1	"
Babylonian, Huber	30.76	0.24	4 to 1	"	Babylonian, Kugler 1	25.92	0.47	2 to 1	"
Babylonian, Mercier	30.06	0.27	3 to 1	"	Aldebaran at 15 Taurus	25.84	0.47	2 to 1	"
Fagan_Bradley	29.98	0.27	3 to 1	"	Fagan_Bradley	25.62	0.48	2 to 1	"
Aldebaran at 15 Taurus	29.80	0.28	3 to 1	"	Babylonian, Mercier	25.14	0.51	1 to 1	"
Tarun Chopra	28.93	0.31	3 to 1	"	Tarun Chopra	25.07	0.52	1 to 1	"
De Luce	27.52	0.38	2 to 1	"	Djwhal Khool	24.70	0.54	1 to 1	"
Babylonian, Kugler 1	27.49	0.38	2 to 1	"	Babylonian, Kugler 2	24.65	0.54	1 to 1	"
Djwhal Khool	26.79	0.42	2 to 1	"	Babylonian, Huber	24.52	0.55	1 to 1	"
Galactic Center	21.60	0.71	1 to 1	"	Chandra Hiri	24.17	0.57	1 to 1	"

Chi-Square Value: p .05 = 38.89

1,392 Actors	X^2	P =	Odds	Pass	2,018 Writers	X^2	P =	Odds	Pass
Galactic Center	52.76	0.00	689 to 1	Yes	JN Bhasin	30.14	0.26	3 to 1	No
Tarun Chopra	52.37	0.00	616 to 1	*	Phone Book	29.29	0.30	3 to 1	"
Babylonian, Kugler 1	52.16	0.00	580 to 1	*	Krushna	28.82	0.32	3 to 1	"
Fagan_Bradley	51.19	0.00	442 to 1	*	Yukteshwar	28.75	0.32	3 to 1	"
Babylonian, Huber	49.84	0.00	304 to 1	*	Dhira	28.12	0.35	2 to 1	"
Aldebaran at 15 Taurus	49.77	0.00	298 to 1	*	Raman	27.60	0.38	2 to 1	"
Chandra Hiri	47.40	0.01	157 to 1	*	Babylonian, Kugler 3	27.52	0.38	2 to 1	"
Babylonian, Mercier	46.66	0.01	129 to 1	*	Fagan_Bradley	26.86	0.42	2 to 1	"
De Luce	45.70	0.01	101 to 1	*	Tarun Chopra	26.84	0.42	2 to 1	"
Babylonian, Kugler 2	45.65	0.01	100 to 1	*	Wilhelm_Ardra	26.81	0.42	2 to 1	"
Phone Book	44.04	0.01	66 to 1	*	Babylonian, Kugler 2	26.62	0.43	2 to 1	"
Babylonian, Kugler 3	43.28	0.02	55 to 1	*	Babylonian, Huber	26.59	0.43	2 to 1	"
Lahiri	42.94	0.02	51 to 1	*	Krishnamurti	26.59	0.43	2 to 1	"
Tropical Zodiac	42.81	0.02	49 to 1	*	Chandra Hiri	26.54	0.43	2 to 1	"
Krishnamurti	41.96	0.02	40 to 1	*	Babylonian, Mercier	26.03	0.46	2 to 1	"
Yukteshwar	41.91	0.03	39 to 1	*	Lahiri	25.83	0.47	2 to 1	"
JN Bhasin	41.24	0.03	34 to 1	*	Aldebaran at 15 Taurus	25.72	0.48	2 to 1	"
Wilhelm_Ardra	41.21	0.03	33 to 1	*	Babylonian, Kugler 1	25.66	0.48	2 to 1	"
Dhira	40.53	0.03	28 to 1	*	Sassanian	22.94	0.64	1 to 1	"
Raman	39.39	0.04	22 to 1	*	Ushashashi	21.64	0.71	1 to 1	"
Krushna	38.83	0.05	19 to 1	"	Hipparchos	20.19	0.78	1 to 1	"
Djwhal Khool	38.77	0.05	19 to 1	"	Galactic Center	19.87	0.80	1 to 1	"
Hipparchos	31.48	0.21	4 to 1	"	De Luce	17.40	0.90	1 to 1	"
Ushashashi	28.93	0.31	3 to 1	"	Djwhal Khool	16.66	0.92	1 to 1	"
Sassanian	28.48	0.34	3 to 1	"	Tropical Zodiac	15.89	0.94	1 to 1	"

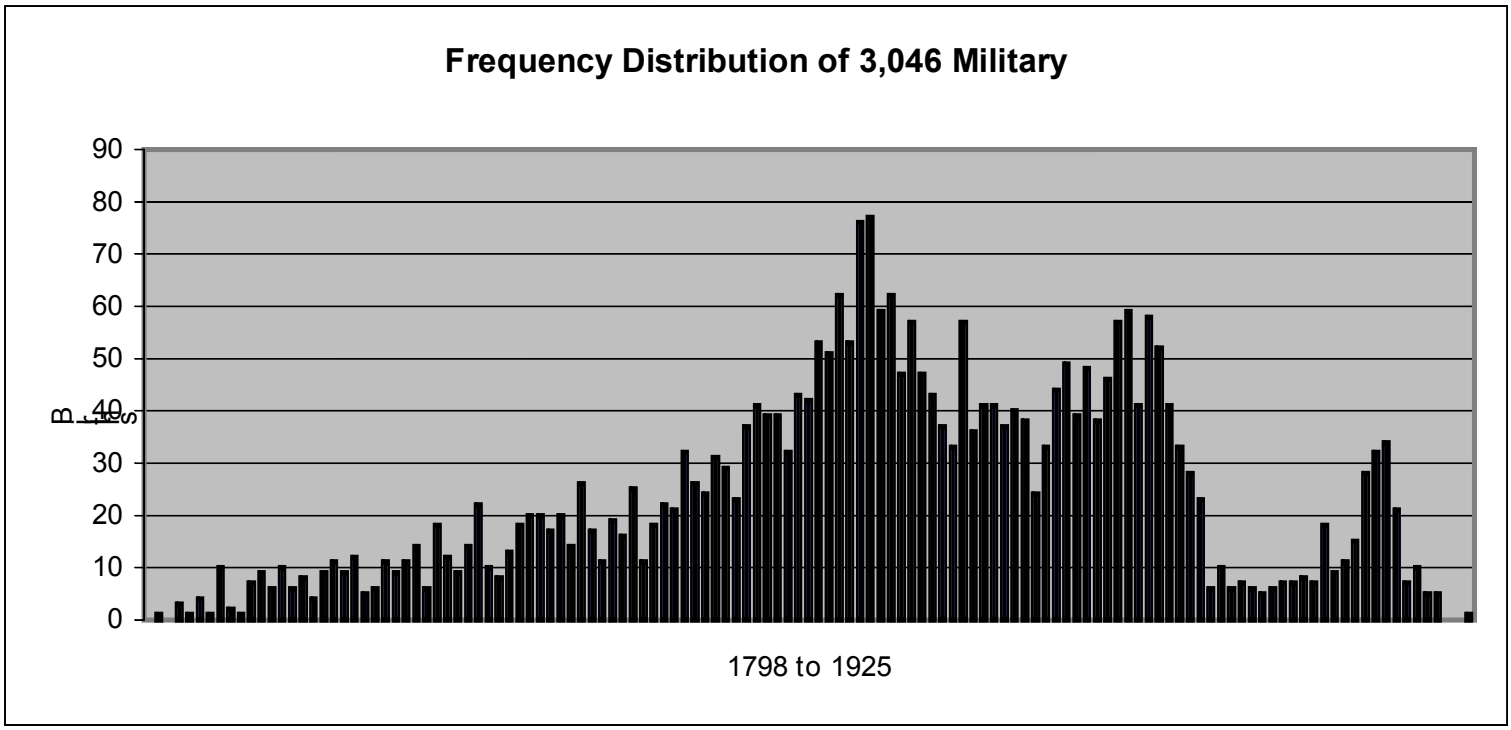
621 Murderers	X^2	P =	Odds	Pass	1,247 Musicians	X^2	P =	Odds	Pass
Babylonian, Huber	55.80	0.00	1669 to 1	Yes	Sassanian	32.68	0.17	5 to 1	No
Babylonian, Mercier	55.76	0.00	1648 to 1	*	Ushashashi	32.30	0.18	5 to 1	"
Chandra Hiri	55.71	0.00	1626 to 1	*	Hipparchos	31.38	0.21	4 to 1	"
Babylonian, Kugler 2	55.69	0.00	1617 to 1	*	Phone Book	31.06	0.23	4 to 1	"
Aldebaran at 15 Taurus	54.92	0.00	1287 to 1	*	Krishnamurti	23.92	0.58	1 to 1	"
Fagan_Bradley	54.89	0.00	1276 to 1	*	JN Bhasin	23.67	0.59	1 to 1	"
Wilhelm_Ardra	54.15	0.00	1028 to 1	*	Babylonian, Huber	23.53	0.60	1 to 1	"
Lahiri	54.03	0.00	994 to 1	*	Raman	23.23	0.62	1 to 1	"
Tarun Chopra	52.85	0.00	706 to 1	*	Dhira	23.03	0.63	1 to 1	"
Krishnamurti	52.82	0.00	701 to 1	*	Lahiri	22.75	0.65	1 to 1	"
Babylonian, Kugler 3	52.77	0.00	690 to 1	*	De Luce	22.44	0.66	1 to 1	"
Krushna	52.35	0.00	612 to 1	*	Fagan_Bradley	22.33	0.67	1 to 1	"
JN Bhasin	52.17	0.00	583 to 1	*	Yukteshwar	22.06	0.69	1 to 1	"
Dhira	50.46	0.00	361 to 1	*	Babylonian, Mercier	21.55	0.71	1 to 1	"
Raman	50.33	0.00	348 to 1	*	Babylonian, Kugler 3	21.45	0.72	1 to 1	"
Babylonian, Kugler 1	49.37	0.00	267 to 1	*	Chandra Hiri	21.39	0.72	1 to 1	"
Yukteshwar	48.99	0.00	241 to 1	*	Krushna	21.31	0.73	1 to 1	"
Sassanian	48.87	0.00	233 to 1	*	Galactic Center	21.28	0.73	1 to 1	"
Hipparchos	48.82	0.00	230 to 1	*	Aldebaran at 15 Taurus	21.09	0.74	1 to 1	"
Ushashashi	48.49	0.00	211 to 1	*	Babylonian, Kugler 2	20.65	0.76	1 to 1	"
Phone Book	48.48	0.00	210 to 1	*	Wilhelm_Ardra	19.72	0.80	1 to 1	"
De Luce	46.81	0.01	135 to 1	*	Tarun Chopra	18.67	0.85	1 to 1	"
Tropical Zodiac	44.10	0.01	67 to 1	*	Tropical Zodiac	18.30	0.86	1 to 1	"
Djwhal Khool	43.46	0.02	57 to 1	*	Djwhal Khool	15.79	0.94	1 to 1	"
Galactic Center	43.40	0.02	57 to 1	*	Babylonian, Kugler 1	14.77	0.96	1 to 1	"

Chi-Square Value: p .05 = 38.89

1,002 Politicians	X^2	P =	Odds	Pass	2,087 Sports Champs	X^2	P =	Odds	Pass
Hipparchos	30.73	0.24	4 to 1	No	Sassanian	39.43	0.04	22 to 1	Yes
Ushashashi	28.90	0.32	3 to 1	"	Ushashashi	37.79	0.06	15 to 1	No
Sassanian	28.64	0.33	3 to 1	"	Hipparchos	35.88	0.09	10 to 1	"
Phone Book	26.95	0.41	2 to 1	"	Tropical Zodiac	31.65	0.21	4 to 1	"
Tropical Zodiac	21.45	0.72	1 to 1	"	Wilhelm_Ardra	31.50	0.21	4 to 1	"
Wilhelm_Ardra	21.34	0.72	1 to 1	"	JN Bhasin	31.33	0.22	4 to 1	"
Babylonian, Kugler 3	21.23	0.73	1 to 1	"	Dhira	30.62	0.24	4 to 1	"
Krushna	20.74	0.76	1 to 1	"	Babylonian, Kugler 3	30.55	0.25	4 to 1	"
JN Bhasin	20.71	0.76	1 to 1	"	De Luce	30.50	0.25	4 to 1	"
De Luce	20.61	0.76	1 to 1	"	Krushna	29.35	0.30	3 to 1	"
Galactic Center	20.40	0.77	1 to 1	"	Babylonian, Kugler 2	29.21	0.30	3 to 1	"
Dhira	20.09	0.79	1 to 1	"	Djwhal Khool	28.98	0.31	3 to 1	"
Yukteshwar	19.60	0.81	1 to 1	"	Raman	28.94	0.31	3 to 1	"
Raman	19.56	0.81	1 to 1	"	Babylonian, Mercier	28.93	0.31	3 to 1	"
Krishnamurti	18.17	0.87	1 to 1	"	Phone Book	28.71	0.32	3 to 1	"
Babylonian, Kugler 1	17.79	0.88	1 to 1	"	Lahiri	28.70	0.32	3 to 1	"
Djwhal Khool	17.47	0.89	1 to 1	"	Babylonian, Huber	28.00	0.36	2 to 1	"
Lahiri	17.45	0.89	1 to 1	"	Krishnamurti	27.96	0.36	2 to 1	"
Babylonian, Mercier	16.49	0.92	1 to 1	"	Yukteshwar	27.92	0.36	2 to 1	"
Babylonian, Kugler 2	15.95	0.94	1 to 1	"	Chandra Hiri	27.61	0.38	2 to 1	"
Chandra Hiri	15.48	0.95	1 to 1	"	Babylonian, Kugler 1	27.49	0.38	2 to 1	"
Babylonian, Huber	15.10	0.96	1 to 1	"	Aldebaran at 15 Taurus	27.37	0.39	2 to 1	"
Aldebaran at 15 Taurus	14.57	0.96	1 to 1	"	Fagan_Bradley	27.17	0.40	2 to 1	"
Fagan_Bradley	14.24	0.97	1 to 1	"	Tarun Chopra	26.91	0.41	2 to 1	"
Tarun Chopra	13.79	0.98	1 to 1	"	Galactic Center	26.44	0.44	2 to 1	"

1,265 Schizophrenics	X^2	P =	Odds	Pass	1,136 Psychotics	X^2	P =	Odds	Pass
Phone Book	48.04	0.01	186 to 1	Yes	Tarun Chopra	38.66	0.05	19 to 1	No
Ushashashi	43.48	0.02	58 to 1	*	Dhira	37.85	0.06	15 to 1	"
Sassanian	42.86	0.02	50 to 1	*	Wilhelm_Ardra	37.52	0.07	14 to 1	"
Hipparchos	41.88	0.03	39 to 1	*	Krushna	37.28	0.07	14 to 1	"
Krushna	35.51	0.10	9 to 1	No	Krishnamurti	36.49	0.08	12 to 1	"
Dhira	33.83	0.14	7 to 1	"	Babylonian, Kugler 3	36.28	0.09	11 to 1	"
Raman	33.33	0.15	6 to 1	"	Babylonian, Kugler 1	35.94	0.09	10 to 1	"
JN Bhasin	32.93	0.16	6 to 1	"	Babylonian, Kugler 2	35.88	0.09	10 to 1	"
Krishnamurti	32.23	0.19	5 to 1	"	Phone Book	35.82	0.10	10 to 1	"
Yukteshwar	32.14	0.19	5 to 1	"	Chandra Hiri	34.94	0.11	8 to 1	"
Wilhelm_Ardra	31.96	0.19	5 to 1	"	Tropical Zodiac	34.76	0.12	8 to 1	"
Lahiri	31.72	0.20	4 to 1	"	Babylonian, Huber	34.18	0.13	7 to 1	"
Babylonian, Kugler 3	28.80	0.32	3 to 1	"	Babylonian, Mercier	33.74	0.14	7 to 1	"
Babylonian, Kugler 2	26.88	0.42	2 to 1	"	JN Bhasin	33.52	0.15	6 to 1	"
Tropical Zodiac	25.45	0.49	2 to 1	"	Fagan_Bradley	33.43	0.15	6 to 1	"
De Luce	25.16	0.51	1 to 1	"	Aldebaran at 15 Taurus	33.37	0.15	6 to 1	"
Djwhal Khool	24.91	0.52	1 to 1	"	De Luce	33.28	0.15	6 to 1	"
Babylonian, Huber	24.51	0.55	1 to 1	"	Sassanian	32.89	0.17	6 to 1	"
Chandra Hiri	23.92	0.58	1 to 1	"	Lahiri	32.51	0.18	5 to 1	"
Babylonian, Mercier	23.37	0.61	1 to 1	"	Raman	31.98	0.19	5 to 1	"
Babylonian, Kugler 1	22.63	0.65	1 to 1	"	Galactic Center	31.61	0.21	4 to 1	"
Fagan_Bradley	22.15	0.68	1 to 1	"	Djwhal Khool	31.40	0.21	4 to 1	"
Galactic Center	21.74	0.70	1 to 1	"	Yukteshwar	31.33	0.22	4 to 1	"
Aldebaran at 15 Taurus	21.69	0.71	1 to 1	"	Hipparchos	30.63	0.24	4 to 1	"
Tarun Chopra	20.52	0.77	1 to 1	"	Ushashashi	30.24	0.26	3 to 1	"

APPENDIX B-1 MILITARY SAMPLE STATISTICS



Births	
Mean	23.796875
Standard Error	1.643308407
Median	18.5
Mode	6
Standard Deviation	18.59191229
Sample Variance	345.6592028
Kurtosis	-0.365369507
Skewness	0.730606875
Range	77
Minimum	0
Maximum	77
Sum	3046
Count	128
Largest(1)	77
Smallest(1)	0
Confidence Level(95.0%)	3.251810647

Year	
Mean	1861.5
Standard Error	3.278719262
Median	1861.5
Mode	#N/A
Standard Deviation	37.09447398
Sample Variance	1376
Kurtosis	-1.2
Skewness	-1.42091E-16
Range	127
Minimum	1798
Maximum	1925
Sum	238272
Count	128
Largest(1)	1925
Smallest(1)	1798
Confidence Level(95.0%	6.487993463

Ayanamsa and Moon Positions for May 14, 1862

Ayanamsa	Value Degrees	Moon Position
(Sorted)	(Sorted)	
Tropical Zodiac	0	241°07'12.0504
Tarun Chopra	9°52'39.5400	231°14'16.6765
Sassanian	18°04'14.6254	223°02'41.5911
Ushashashi	18°08'07.9123	222°58'48.3042
Hipparchos	18°19'31.5934	222°47'24.6231
Raman	20°29'20.4403	220°37'35.7762
Yukteshwar	20°33'24.4555	220°33'31.7610
JN Bhasin	20°50'24.4579	220°16'31.7586
Krushna	21°01'50.7401	220°05'05.4764
Dhira	21°08'44.5408	219°58'11.6757
Wilhelm_Ardra	21°29'12.7415	219°37'43.4750
Babylonian, Kugler	21°39'40.6804	219°27'15.5361
Krishnamurti	21°50'18.4567	219°16'37.7598
Lahiri	21°56'06.1483	219°10'50.0682
Babylonian, Kugler	22°30'40.6804	218°36'15.5361
Babylonian, Mercier	22°36'00.6557	218°30'55.5608
Chandra Hiri	22°39'49.2619	218°27'06.9546
Babylonian, Huber	22°42'40.6804	218°24'15.5361
Fagan_Bradley	22°49'06.1017	218°17'50.1148
Aldebaran at 15 Tau	22°50'13.5104	218°16'42.7061
Babylonian, Kugler	23°54'40.6804	217°12'15.5361
Galactic Center	24°55'50.8585	216°11'05.3580
De Luce	25°53'15.4363	215°13'40.7802
Djwhal Khool	26°26'15.6076	214°40'40.6089
Phone Book	85°55'04.1088	155°11'52.1077

Descriptive Statistics	
Mean	21.42186
Standard Error	0.690013
Median	21.83846
Mode	#N/A
Std. Deviation	3.309187
Sample Variance	10.95072
Kurtosis	6.17446
Skewness	-1.86339
Range	16.56002
Minimum	9.87765
Maximum	26.43767
Sum	492.7027
Count	23
Largest(1)	26.43767
Smallest(1)	9.87765
Conf. Level(95.0%)	1.431001

Ayanamsa Test Run

Subject: Military N = 3,046 Date Range: 11/14/1798 to 11/12/1925 46,383 Days

	Fagan/Bradley				Lahiri				De Luce			
Nak	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2
1	127	1712	112.43	1.89	132	1728	113.48	3.02	122	1725	113.28	0.67
2	127	1725	113.28	1.66	123	1716	112.69	0.94	130	1713	112.49	2.72
3	124	1713	112.49	1.18	127	1727	113.41	1.63	123	1724	113.22	0.85
4	129	1728	113.48	2.12	128	1723	113.15	1.95	123	1725	113.28	0.83
5	90	1724	113.22	4.76	90	1718	112.82	4.62	83	1715	112.63	7.79
6	105	1723	113.15	0.59	103	1726	113.35	0.94	121	1732	113.74	0.46
7	131	1710	112.3	3.12	133	1727	113.41	3.38	121	1717	112.76	0.60
8	107	1725	113.28	0.35	107	1713	112.49	0.27	114	1724	113.22	0.01
9	119	1709	112.23	0.41	118	1723	113.15	0.21	113	1707	112.1	0.01
10	101	1731	113.68	1.41	103	1717	112.76	0.84	89	1719	112.89	5.05
11	103	1715	112.63	0.82	99	1714	112.56	1.63	118	1718	112.82	0.24
12	126	1717	112.76	1.56	125	1719	112.89	1.30	117	1720	112.95	0.14
13	101	1714	112.56	1.19	108	1716	112.69	0.20	114	1716	112.69	0.02
14	122	1717	112.76	0.76	123	1712	112.43	0.99	109	1714	112.56	0.11
15	96	1710	112.3	2.37	92	1712	112.43	3.71	110	1709	112.23	0.04
16	118	1717	112.76	0.24	119	1715	112.63	0.36	108	1716	112.69	0.20
17	116	1720	112.95	0.08	118	1711	112.36	0.28	116	1712	112.43	0.11
18	111	1708	112.17	0.01	104	1719	112.89	0.70	112	1721	113.02	0.01
19	103	1714	112.56	0.81	105	1711	112.36	0.48	97	1716	112.69	2.18
20	104	1712	112.43	0.63	104	1717	112.76	0.68	111	1706	112.03	0.01
21	129	1720	112.95	2.28	131	1711	112.36	3.09	127	1707	112.1	1.98
22	110	1723	113.15	0.09	112	1716	112.69	0.00	115	1730	113.61	0.02
23	116	1708	112.17	0.13	116	1728	113.48	0.06	106	1707	112.1	0.33
24	102	1721	113.02	1.07	98	1718	112.82	1.95	114	1727	113.41	0.00
25	106	1715	112.63	0.39	112	1711	112.36	0.00	97	1717	112.76	2.20
26	111	1724	113.22	0.04	109	1718	112.82	0.13	112	1713	112.49	0.00
27	112	1728	113.48	0.02	107	1717	112.76	0.29	124	1733	113.81	0.91
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N =	3046	46383	X^2 =	29.98	3046	46383	X^2 =	33.65	3046	46383	X^2 =	27.49
Sig.=	0.268		Odds:	3 to 1	0.144		Odds:	6 to 1	0.384		Odds:	2 to 1

Ayanamsa Test Run

Subject: Military N = 3,046 Date Range: 11/14/1798 to 11/12/1925 46,383 Days

	Raman				Ushashashi				Krishnamurti			
Nak	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2
1	136	1728	113.48	4.47	132	1726	113.35	3.07	134	1730	113.61	3.66
2	123	1717	112.76	0.93	127	1721	113.02	1.73	122	1715	112.63	0.78
3	126	1717	112.76	1.56	120	1721	113.02	0.43	127	1726	113.35	1.64
4	131	1725	113.28	2.77	137	1714	112.56	5.31	128	1718	112.82	2.04
5	88	1723	113.15	5.59	94	1727	113.41	3.32	91	1724	113.22	4.36
6	100	1728	113.48	1.60	89	1725	113.28	5.20	103	1727	113.41	0.96
7	134	1720	112.95	3.92	135	1718	112.82	4.36	132	1723	113.15	3.14
8	115	1723	113.15	0.03	112	1716	112.69	0.00	107	1719	112.89	0.31
9	116	1710	112.3	0.12	110	1733	113.81	0.13	119	1716	112.69	0.35
10	103	1719	112.89	0.87	109	1703	111.84	0.07	102	1717	112.76	1.03
11	95	1725	113.28	2.95	95	1728	113.48	3.01	98	1713	112.49	1.87
12	121	1719	112.89	0.58	127	1711	112.36	1.91	126	1718	112.82	1.54
13	111	1715	112.63	0.02	113	1726	113.35	0.00	109	1721	113.02	0.14
14	122	1709	112.23	0.85	115	1713	112.49	0.06	121	1708	112.17	0.70
15	93	1717	112.76	3.46	101	1714	112.56	1.19	92	1715	112.63	3.78
16	121	1703	111.84	0.75	112	1710	112.3	0.00	121	1715	112.63	0.62
17	116	1726	113.35	0.06	114	1716	112.69	0.02	117	1713	112.49	0.18
18	107	1709	112.23	0.24	113	1711	112.36	0.00	105	1721	113.02	0.57
19	109	1720	112.95	0.14	113	1720	112.95	0.00	105	1713	112.49	0.50
20	95	1706	112.03	2.59	89	1702	111.77	4.64	103	1715	112.63	0.82
21	138	1719	112.89	5.59	133	1713	112.49	3.74	131	1714	112.56	3.02
22	109	1715	112.63	0.12	113	1723	113.15	0.00	112	1710	112.3	0.00
23	113	1718	112.82	0.00	122	1711	112.36	0.83	117	1729	113.54	0.11
24	102	1715	112.63	1.00	93	1717	112.76	3.46	97	1718	112.82	2.22
25	108	1722	113.08	0.23	121	1725	113.28	0.53	111	1705	111.97	0.01
26	106	1709	112.23	0.35	106	1723	113.15	0.45	111	1723	113.15	0.04
27	108	1726	113.35	0.25	101	1716	112.69	1.21	105	1717	112.76	0.53
N =	3046	46383	X^2 =	41.04	3046	46383	X^2 =	44.67	3046	46383	X^2 =	34.92
Sig.=	0.031		Odds:	32 to 1	0.013		Odds:	78 to 1	0.113		Odds:	8 to 1

Ayanamsa Test Run

Subject: Military N = 3,046 Date Range: 11/14/1798 to 11/12/1925 46,383 Days

	Djwhal Khool				Yukteshwar				JN Bhasin			
Nak	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2
1	123	1715	112.63	0.96	137	1725	113.28	4.97	134	1719	112.89	3.95
2	128	1735	113.94	1.74	123	1722	113.08	0.87	123	1724	113.22	0.85
3	125	1714	112.56	1.37	126	1714	112.56	1.60	128	1721	113.02	1.99
4	119	1720	112.95	0.32	130	1723	113.15	2.51	128	1712	112.43	2.16
5	86	1722	113.08	6.49	89	1730	113.61	5.33	91	1727	113.41	4.43
6	123	1727	113.41	0.81	99	1721	113.02	1.74	98	1726	113.35	2.08
7	122	1718	112.82	0.75	134	1720	112.95	3.92	136	1717	112.76	4.79
8	107	1720	112.95	0.31	115	1727	113.41	0.02	111	1723	113.15	0.04
9	114	1721	113.02	0.01	116	1710	112.3	0.12	118	1721	113.02	0.22
10	90	1720	112.95	4.66	105	1718	112.82	0.54	104	1721	113.02	0.72
11	124	1709	112.23	1.23	94	1723	113.15	3.24	95	1715	112.63	2.76
12	114	1716	112.69	0.02	121	1716	112.69	0.61	121	1708	112.17	0.70
13	113	1722	113.08	0.00	110	1718	112.82	0.07	113	1728	113.48	0.00
14	110	1710	112.3	0.05	122	1709	112.23	0.85	120	1713	112.49	0.50
15	107	1723	113.15	0.33	93	1715	112.63	3.42	93	1718	112.82	3.48
16	110	1701	111.71	0.03	121	1708	112.17	0.70	118	1696	111.38	0.39
17	115	1715	112.63	0.05	118	1721	113.02	0.22	119	1728	113.48	0.27
18	111	1718	112.82	0.03	106	1711	112.36	0.36	109	1703	111.84	0.07
19	99	1715	112.63	1.65	109	1722	113.08	0.15	107	1725	113.28	0.35
20	113	1711	112.36	0.00	95	1705	111.97	2.57	95	1706	112.03	2.59
21	126	1717	112.76	1.56	137	1722	113.08	5.06	137	1714	112.56	5.31
22	114	1716	112.69	0.02	109	1711	112.36	0.10	109	1716	112.69	0.12
23	101	1724	113.22	1.32	114	1721	113.02	0.01	116	1720	112.95	0.08
24	121	1712	112.43	0.65	101	1716	112.69	1.21	100	1725	113.28	1.56
25	99	1726	113.35	1.82	110	1726	113.35	0.10	108	1720	112.95	0.22
26	111	1718	112.82	0.03	108	1704	111.9	0.14	109	1712	112.43	0.10
27	121	1718	112.82	0.59	104	1725	113.28	0.76	106	1725	113.28	0.47
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N =	3046	46383	X^2 =	26.80	3046	46383	X^2 =	41.19	3046	46383	X^2 =	40.20
Sig.=	0.420		Odds:	2 to 1	0.030		Odds:	33 to 1	0.037		Odds:	26 to 1

Ayanamsa Test Run

Subject: Military N = 3,046 Date Range: 11/14/1798 to 11/12/1925 46,383 Days

	Babylonian Kugler 1				Babylonian Kugler 2				Babylonian Kugler 3			
Nak	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2
1	131	1723	113.15	2.82	128	1723	113.15	1.95	135	1731	113.68	4.00
2	121	1713	112.49	0.64	127	1722	113.08	1.71	121	1720	112.95	0.57
3	128	1725	113.28	1.91	125	1730	113.61	1.14	128	1718	112.82	2.04
4	125	1722	113.08	1.26	130	1719	112.89	2.59	125	1726	113.35	1.20
5	89	1726	113.35	5.23	89	1720	112.95	5.08	92	1720	112.95	3.89
6	110	1724	113.22	0.09	103	1721	113.02	0.89	102	1726	113.35	1.14
7	129	1706	112.03	2.57	134	1714	112.56	4.08	136	1726	113.35	4.53
8	112	1726	113.35	0.02	104	1727	113.41	0.78	106	1709	112.23	0.35
9	117	1728	113.48	0.11	119	1717	112.76	0.35	117	1721	113.02	0.14
10	94	1712	112.43	3.02	102	1721	113.02	1.07	105	1717	112.76	0.53
11	111	1726	113.35	0.05	102	1716	112.69	1.01	96	1723	113.15	2.60
12	120	1704	111.9	0.59	126	1720	112.95	1.51	124	1711	112.36	1.21
13	104	1717	112.76	0.68	104	1708	112.17	0.59	113	1718	112.82	0.00
14	119	1725	113.28	0.29	120	1720	112.95	0.44	120	1714	112.56	0.49
15	101	1712	112.43	1.16	98	1725	113.28	2.06	91	1716	112.69	4.18
16	117	1710	112.3	0.20	118	1703	111.84	0.34	120	1710	112.3	0.53
17	111	1708	112.17	0.01	115	1712	112.43	0.06	120	1722	113.08	0.42
18	115	1711	112.36	0.06	109	1713	112.49	0.11	105	1711	112.36	0.48
19	102	1715	112.63	1.00	105	1716	112.69	0.52	105	1714	112.56	0.51
20	103	1721	113.02	0.89	104	1714	112.56	0.65	103	1710	112.3	0.77
21	131	1708	112.17	3.16	130	1708	112.17	2.84	130	1717	112.76	2.64
22	111	1728	113.48	0.05	108	1721	113.02	0.22	112	1718	112.82	0.01
23	112	1715	112.63	0.00	118	1716	112.69	0.25	117	1716	112.69	0.16
24	106	1708	112.17	0.34	101	1718	112.82	1.24	97	1721	113.02	2.27
25	102	1733	113.81	1.22	106	1723	113.15	0.45	112	1710	112.3	0.00
26	115	1718	112.82	0.04	111	1729	113.54	0.06	111	1726	113.35	0.05
27	110	1719	112.89	0.07	110	1707	112.1	0.04	103	1712	112.43	0.79
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N =	3046	46383	X^2 =	27.48	3046	46383	X^2 =	32.03	3046	46383	X^2 =	35.50
Sig.=	0.385		Odds:	2 to 1	0.192		Odds:	5 to 1	0.101		Odds:	9 to 1

Ayanamsa Test Run

Subject: Military N = 3,046 Date Range: 11/14/1798 to 11/12/1925 46,383 Days

	Babylonian Huber				Babylonian Mercier				Aldebaran@15 Taurus			
Nak	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2
1	129	1723	113.15	2.22	127	1724	113.22	1.68	126	1710	112.3	1.67
2	126	1725	113.28	1.43	128	1726	113.35	1.89	127	1728	113.48	1.61
3	124	1713	112.49	1.18	123	1722	113.08	0.87	124	1712	112.43	1.19
4	129	1726	113.35	2.16	130	1720	112.95	2.57	129	1727	113.41	2.14
5	90	1722	113.08	4.71	90	1726	113.35	4.81	90	1726	113.35	4.81
6	105	1725	113.28	0.61	103	1716	112.69	0.83	106	1720	112.95	0.43
7	132	1710	112.3	3.46	133	1717	112.76	3.63	130	1714	112.56	2.70
8	106	1729	113.54	0.50	107	1726	113.35	0.36	107	1723	113.15	0.33
9	120	1705	111.97	0.58	116	1712	112.43	0.11	119	1709	112.23	0.41
10	99	1736	114	1.97	102	1730	113.61	1.19	101	1730	113.61	1.40
11	103	1712	112.43	0.79	103	1710	112.3	0.77	103	1715	112.63	0.82
12	126	1714	112.56	1.60	126	1718	112.82	1.54	127	1715	112.63	1.83
13	102	1709	112.23	0.93	103	1712	112.43	0.79	100	1718	112.82	1.46
14	121	1725	113.28	0.53	120	1715	112.63	0.48	122	1713	112.49	0.80
15	98	1711	112.36	1.84	98	1723	113.15	2.03	96	1711	112.36	2.38
16	118	1719	112.89	0.23	118	1711	112.36	0.28	118	1721	113.02	0.22
17	115	1709	112.23	0.07	115	1710	112.3	0.07	116	1716	112.69	0.10
18	111	1717	112.76	0.03	110	1711	112.36	0.05	111	1708	112.17	0.01
19	104	1710	112.3	0.61	105	1715	112.63	0.52	103	1716	112.69	0.83
20	103	1710	112.3	0.77	103	1714	112.56	0.81	104	1711	112.36	0.62
21	130	1717	112.76	2.64	130	1711	112.36	2.77	129	1721	113.02	2.26
22	108	1727	113.41	0.26	109	1727	113.41	0.17	110	1722	113.08	0.08
23	117	1705	111.97	0.23	117	1707	112.1	0.21	116	1706	112.03	0.14
24	103	1719	112.89	0.87	102	1718	112.82	1.04	102	1724	113.22	1.11
25	106	1719	112.89	0.42	106	1726	113.35	0.48	106	1713	112.49	0.37
26	110	1727	113.41	0.10	110	1727	113.41	0.10	111	1725	113.28	0.05
27	111	1719	112.89	0.03	112	1709	112.23	0.00	113	1729	113.54	0.00
N =	3046	46383	X^2 =	30.77	3046	46383	X^2 =	30.05	3046	46383	X^2 =	29.77
Sig.=	0.237		Odds:	4 to 1	0.266		Odds:	3 to 1	0.277		Odds:	3 to 1

Ayanamsa Test Run

Subject: Military N = 3,046 Date Range: 11/14/1798 to 11/12/1925 46,383 Days

	Hipparchos				Sassanian				Galactic Center @0 Sag			
Nak	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2
1	134	1722	113.08	3.87	134	1725	113.28	3.79	127	1724	113.22	1.68
2	124	1718	112.82	1.11	126	1722	113.08	1.48	124	1729	113.54	0.96
3	124	1726	113.35	1.00	119	1725	113.28	0.29	125	1720	112.95	1.28
4	135	1723	113.15	4.22	139	1708	112.17	6.42	122	1717	112.76	0.76
5	94	1718	112.82	3.14	94	1732	113.74	3.43	91	1726	113.35	4.41
6	87	1724	113.22	6.07	89	1718	112.82	5.03	115	1714	112.56	0.05
7	136	1717	112.76	4.79	135	1724	113.22	4.19	122	1734	113.87	0.58
8	111	1721	113.02	0.04	110	1717	112.76	0.07	113	1712	112.43	0.00
9	114	1733	113.81	0.00	112	1729	113.54	0.02	117	1724	113.22	0.13
10	111	1709	112.23	0.01	109	1706	112.03	0.08	92	1714	112.56	3.76
11	91	1711	112.36	4.06	95	1725	113.28	2.95	113	1719	112.89	0.00
12	126	1719	112.89	1.52	126	1716	112.69	1.57	120	1713	112.49	0.50
13	115	1725	113.28	0.03	113	1719	112.89	0.00	110	1720	112.95	0.08
14	114	1706	112.03	0.03	116	1715	112.63	0.10	113	1709	112.23	0.01
15	101	1714	112.56	1.19	101	1715	112.63	1.20	107	1716	112.69	0.29
16	112	1720	112.95	0.01	111	1703	111.84	0.01	109	1705	111.97	0.08
17	113	1718	112.82	0.00	113	1721	113.02	0.00	116	1716	112.69	0.10
18	113	1702	111.77	0.01	113	1711	112.36	0.00	115	1726	113.35	0.02
19	112	1718	112.82	0.01	115	1722	113.08	0.03	98	1710	112.3	1.82
20	90	1720	112.95	4.66	89	1705	111.97	4.71	108	1714	112.56	0.18
21	133	1710	112.3	3.82	133	1708	112.17	3.87	131	1706	112.03	3.21
22	113	1713	112.49	0.00	112	1721	113.02	0.01	108	1721	113.02	0.22
23	122	1715	112.63	0.78	123	1721	113.02	0.88	107	1719	112.89	0.31
24	92	1715	112.63	3.78	93	1715	112.63	3.42	114	1723	113.15	0.01
25	124	1727	113.41	0.99	120	1724	113.22	0.41	102	1718	112.82	1.04
26	103	1719	112.89	0.87	105	1720	112.95	0.56	111	1719	112.89	0.03
27	102	1720	112.95	1.06	101	1716	112.69	1.21	116	1715	112.63	0.10
N =	3046	46383	X^2 =	47.07	3046	46383	X^2 =	45.73	3046	46383	X^2 =	21.61
Sig.=	0.007		Odds:	144 to 1	0.010		Odds:	102 to 1	0.710		Odds:	1 to 1

Ayanamsa Test Run

Subject: Military N = 3,046 Date Range: 11/14/1798 to 11/12/1925 46,383 Days

	Chandra-Hiri				Krushna				Wilhelm Ardra			
Nak	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2
1	129	1725	113.28	2.18	134	1717	112.76	4.00	137	1722	113.08	5.06
2	126	1717	112.76	1.56	124	1725	113.28	1.01	122	1716	112.69	0.77
3	124	1718	112.82	1.11	129	1726	113.35	2.16	126	1726	113.35	1.41
4	129	1723	113.15	2.22	125	1723	113.15	1.24	126	1722	113.08	1.48
5	90	1724	113.22	4.76	92	1715	112.63	3.78	93	1721	113.02	3.55
6	104	1721	113.02	0.72	100	1721	113.02	1.50	99	1725	113.28	1.80
7	132	1716	112.69	3.31	135	1720	112.95	4.30	137	1721	113.02	5.09
8	107	1726	113.35	0.36	109	1721	113.02	0.14	106	1713	112.49	0.37
9	119	1713	112.49	0.38	119	1722	113.08	0.31	119	1725	113.28	0.29
10	99	1729	113.54	1.86	105	1720	112.95	0.56	104	1710	112.3	0.61
11	104	1713	112.49	0.64	95	1710	112.3	2.66	96	1735	113.94	2.82
12	126	1716	112.69	1.57	122	1725	113.28	0.67	125	1702	111.77	1.57
13	102	1707	112.1	0.91	111	1717	112.76	0.03	111	1715	112.63	0.02
14	121	1723	113.15	0.54	119	1717	112.76	0.35	118	1717	112.76	0.24
15	98	1715	112.63	1.90	93	1711	112.36	3.34	94	1720	112.95	3.18
16	117	1716	112.69	0.16	119	1718	112.82	0.34	117	1714	112.56	0.18
17	115	1708	112.17	0.07	121	1705	111.97	0.73	122	1719	112.89	0.74
18	111	1711	112.36	0.02	107	1709	112.23	0.24	106	1703	111.84	0.30
19	105	1717	112.76	0.53	106	1729	113.54	0.50	105	1713	112.49	0.50
20	102	1715	112.63	1.00	95	1703	111.84	2.53	104	1717	112.76	0.68
21	131	1713	112.49	3.04	137	1713	112.49	5.34	127	1721	113.02	1.73
22	108	1726	113.35	0.25	109	1719	112.89	0.13	113	1712	112.43	0.00
23	117	1707	112.1	0.21	118	1712	112.43	0.28	117	1714	112.56	0.18
24	102	1715	112.63	1.00	100	1723	113.15	1.53	97	1716	112.69	2.18
25	106	1723	113.15	0.45	108	1726	113.35	0.25	113	1718	112.82	0.00
26	111	1728	113.48	0.05	109	1716	112.69	0.12	110	1725	113.28	0.10
27	111	1718	112.82	0.03	105	1720	112.95	0.56	102	1721	113.02	1.07
N =	3046	46383	X^2 =	30.83	3046	46383	X^2 =	38.60	3046	46383	X^2 =	35.92
Sig.=	0.235		Odds:	4 to 1	0.053		Odds:	18 to 1	0.093		Odds:	10 to 1

Ayanamsa Test Run

Subject: Military N = 3,046 Date Range: 11/14/1798 to 11/12/1925 46,383 Days

	Dhira				Tarun Chopra				Phone Book			
Nak	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2	Obs.	Act.	Exp.	X^2
1	133	1712	112.43	3.76	113	1733	113.81	0.01	92	1716	112.69	3.80
2	125	1724	113.22	1.23	126	1706	112.03	1.74	137	1725	113.28	4.97
3	130	1729	113.54	2.38	129	1739	114.2	1.92	108	1723	113.15	0.23
4	124	1720	112.95	1.08	124	1718	112.82	1.11	123	1725	113.28	0.83
5	94	1719	112.89	3.16	128	1720	112.95	2.00	103	1709	112.23	0.76
6	98	1718	112.82	1.95	90	1720	112.95	4.66	92	1718	112.82	3.84
7	136	1719	112.89	4.73	105	1722	113.08	0.58	130	1728	113.48	2.41
8	107	1723	113.15	0.33	133	1718	112.82	3.61	109	1713	112.49	0.11
9	119	1724	113.22	0.30	107	1726	113.35	0.36	118	1716	112.69	0.25
10	105	1714	112.56	0.51	119	1714	112.56	0.37	96	1706	112.03	2.29
11	95	1717	112.76	2.80	98	1721	113.02	2.00	117	1707	112.1	0.21
12	125	1726	113.35	1.20	108	1711	112.36	0.17	115	1715	112.63	0.05
13	110	1713	112.49	0.06	122	1720	112.95	0.72	107	1728	113.48	0.37
14	120	1721	113.02	0.43	103	1717	112.76	0.84	111	1710	112.3	0.01
15	91	1708	112.17	3.99	121	1712	112.43	0.65	98	1704	111.9	1.73
16	118	1717	112.76	0.24	95	1712	112.43	2.70	128	1714	112.56	2.12
17	122	1712	112.43	0.81	120	1724	113.22	0.41	117	1727	113.41	0.11
18	107	1710	112.3	0.25	111	1709	112.23	0.01	116	1713	112.49	0.11
19	106	1718	112.82	0.41	112	1713	112.49	0.00	94	1721	113.02	3.20
20	95	1706	112.03	2.59	104	1718	112.82	0.69	121	1719	112.89	0.58
21	136	1711	112.36	4.97	106	1708	112.17	0.34	102	1726	113.35	1.14
22	109	1722	113.08	0.15	128	1720	112.95	2.00	104	1705	111.97	0.57
23	120	1716	112.69	0.47	111	1714	112.56	0.02	137	1728	113.48	4.88
24	98	1716	112.69	1.92	116	1715	112.63	0.10	123	1722	113.08	0.87
25	111	1722	113.08	0.04	103	1727	113.41	0.96	123	1723	113.15	0.86
26	107	1728	113.48	0.37	102	1711	112.36	0.96	133	1720	112.95	3.56
27	105	1718	112.82	0.54	112	1715	112.63	0.00	92	1722	113.08	3.93
N =	3046	46383	X^2 =	40.67	3046	46383	X^2 =	28.93	3046	46383	X^2 =	43.79
Sig.=	0.033		Odds:	29 to 1	0.314		Odds:	3 to 1	0.016		Odds:	62 to 1

Ayanamsa Test Run

Subject: Military N = 3,046 Date Range: 11/14/1798 to 11/12/1925 46,383 Days

Tropical Zodiac

Nak	Obs.	Act.	Exp.	X^2
1	114	1711	112.36	0.02
2	119	1736	114	0.22
3	125	1711	112.36	1.42
4	128	1728	113.48	1.86
5	123	1717	112.76	0.93
6	121	1722	113.08	0.55
7	84	1722	113.08	7.48
8	123	1726	113.35	0.82
9	123	1718	112.82	0.92
10	106	1723	113.15	0.45
11	115	1715	112.63	0.05
12	88	1710	112.3	5.26
13	125	1728	113.48	1.17
14	113	1712	112.43	0.00
15	115	1723	113.15	0.03
16	109	1704	111.9	0.08
17	110	1722	113.08	0.08
18	106	1699	111.57	0.28
19	117	1735	113.94	0.08
20	116	1701	111.71	0.17
21	93	1723	113.15	3.59
22	114	1702	111.77	0.04
23	124	1726	113.35	1.00
24	117	1706	112.03	0.22
25	102	1732	113.74	1.21
26	120	1700	111.64	0.63
27	96	1731	113.68	2.75

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N =	3046	46383	X^2 =	31.31
Sig.=	0.217		Odds:	4 to 1