Astrology

Study on Chess Grandmasters

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Summary

This study shows that there is a correlation between the conjunction of the planets Mercury and Venus and the birth of chess grandmasters.

The research targeted players born between 1880 and 1999 who all have the title of Grandmaster accredited by the World Chess Federation (FIDE).

Introduction

In the last century, Françoise and Michel Gauquelin published the results of a study that revealed the existence of a link between the position of certain planets in the sky and the birth of individuals practicing the same profession.

The Mars effect sparked a lively debate between astrologers and skeptics who maintained that a subjective selection of individuals could not guarantee the validity of a result.

In this study, the selection of individuals has been made objectively, according to a ranking system that excludes any form of human intervention. Thus, in this respect, the validity of the results obtained cannot be doubted.

The breakdown of the results by period helped to mitigate the impact of seasonal, generational and astronomical effects. The choice of periods was guided by the distribution of births in time.

Data

Players

A *Players* file containing the date of birth of 1,684 chess grandmasters has been created. All the names appear on a [list](#) published by the FIDE that has itself calculated the rating of these players. This list contains no information about the place and time of birth.

Longitude 00N00, latitude 00E00 and time zone 0 have been assigned as coordinates. The astrological themes have been calculated for 12:00 PM.

Control Group

One *Nbs* (Natural births) file has been created to compare its results with those of the *Players* file. This file contains 587,141 dates generated and mixed [randomly](#) for the period 1880-1999.

Longitude 00N00, latitude 00E00 and time zone 0 have been assigned as coordinates. The fictional themes have been calculated for 12:00 PM.

The months have been distributed according to the [natural birth](#) curve in the northern hemisphere.

Data	J	F	M	A	M	J	J	A	S	O	N	D
587,141	8.10%	6.90%	8.54%	7.58%	8.49%	8.27%	8.84%	9.20%	8.61%	8.82%	8.13%	08.51%

Hypothesis

An astrological postulate asserts that the conjunction ☌ (0 ° angle between two planets) is the most powerful aspect of all. This study has focused on this assumption to verify if it turns out to be true for a group of individuals who practice the same activity at its highest level.

Methodology

According to the astrological tradition, the planetary positions are calculated on the basis of the geocentric system (apparent motion of the planets). The Swiss Ephemeris library is used to perform the calculation of planetary positions. Only the fastest planets ☽, ☿, ♀ and the ☉ are targeted by this study.

Any ☌ of a planet with ☿, ♀ or the ☉ having a gap (or orb) above 2° is excluded from the data compilation.

The ☽ is evaluated separately due to its fast-daily pace of 12°. Any ☌ of a planet with the ☽ having an orb beyond 6° is excluded from the data compilation.

The following example shows the distribution of the planets in ☌ with ☿ for *Players* and *Nbs* files. The last line shows the difference in percentage between the players and the control group.

	Data	♀	☉	♂	♃	♄	♅	♆	♇
Players	100	29(29.00%)	32(32.00%)	11(11.00%)	8(08.00%)	4(04.00%)	2(02.00%)	10(10.00%)	4(04.00%)
Nbs	12,472	2,736(21.94%)	4,185(33.56%)	1,442(11.56%)	701(05.62%)	959(07.69%)	798(06.40%)	695(05.57%)	956(07.67%)
		+07.06%	-01.56%	-00.56%	+02.38%	-03.69%	-04.40%	+04.43%	-03.67%

In this example, ☌ ☿ ♀ shows a percentage of +07.06% in favor of players.

The following functions are used to perform the Chi-squared (or χ^2) test and the p-value calculation :

```
Dim chi As New MathNet.Numerics.Distributions.ChiSquared(df)  ' df = degree of freedom
P = 1 - chi.CumulativeDistribution(Khi2)
```

1. 1880-1999

1.1 Distribution of ☌ ☽, ☿, ♀ and ☉

Orb	Players	Nbs	p	☿	♀	☉	♂	♃	♄	♅	♆	♇
☽☌ -6º+6º	520	175,784	0.9725	+01.19%	+00.60%	+00.07%	-00.18%	-00.02%	+00.76%	-00.39%	-01.35%	-00.66%
☿☌ -2º+2º	337	101,863	0.0743	-	+06.99%	-04.05%	-00.08%	+00.60%	-01.28%	-01.93%	+00.46%	-00.71%
♀☌ -2º+2º	285	85,119	**0.0243**	+07.97%	-	-02.48%	+02.35%	+00.21%	-01.35%	-02.45%	-01.24%	-03.01%
☉☌ -2º+2º	278	98,323	0.3501	+00.93%	+00.81%	-	-00.93%	+00.73%	+01.80%	+01.62%	-02.02%	-02.94%

Global χ^2 – Higher percentage of ☌ ☿ ♀

1.2 ☌ ♀ and decreasing orb

Orb	Players	Nbs	p	☿	☉	♂	♃	♄	♅	♆	♇
♀☌ -6º+6º	731	252,422	0.0286	+03.40%	+00.83%	+01.14%	-01.63%	-00.38%	-00.05%	-01.26%	-02.05%
♀☌ -4º+4º	495	168,137	0.168	+02.61%	+00.37%	+03.37%	-01.37%	-01.43%	-00.68%	-00.91%	-01.96%
♀☌ -3º+3º	387	126,902	0.1052	+03.50%	+00.06%	+04.22%	-00.74%	-01.58%	-02.30%	-00.95%	-02.22%
♀☌ -2º+2º	285	85,119	0.0017	+07.97%	-02.48%	+02.35%	+00.21%	-01.35%	-02.45%	-01.24%	-03.01%
♀☌ -1º+1º	150	43,147	0.0328	+07.50%	-01.36%	-01.07%	-01.10%	+01.16%	-01.59%	-01.67%	-01.87%

χ^2 ☿ - Percentage of ☌ ☿ ♀ in inverse progression of the chosen orb

1.3 *Players* file shuffled 400 times and shifted within ± 90 days

Orb	Shift	Players	Shuffle	p	☿	☉	♂	♃	♄	♅	♆	♇
♀☌ -2º+2º	0	285	100,957	0.0129	+06.45%	-01.60%	-01.17%	+00.74%	-01.26%	-01.16%	-00.12%	-01.87%
♀☌ -2º+2º	-90	285	102,806	0.0022	+07.80%	-02.03%	-00.09%	+00.61%	-00.91%	-01.86%	-01.03%	-02.50%
♀☌ -2º+2º	+90	285	100,171	0.0043	+07.33%	-02.31%	-00.20%	+00.55%	-00.44%	-01.63%	-00.41%	-02.89%

χ^2 ☿ - Maintained percentage for ☌ ☿ ♀

1.4 Distribution of aspects ☿ ♀ at orb of ±2.0º

Players	Nbs	p	☌	✧	⚻	∠	✳	✧
463	152,087	0.000084	+06.27%	-02.66%	-01.61%	+00.86%	-03.13%	+00.27%

χ^2 ☿ – Higher percentage of ☌ ☿ ♀.

2. Per period

2.1 Distribution of ♂ ♀ per period at orb of ±2.0º

Period	Players	Nbs	p	☿	☉	♂	♃	♄	♅	♆	♇
1880-1934	20	38,318	0.5613	-05.67%	+33.47%	-05.83%	-08.87%	-04.29%	+02.31%	-02.91%	-08.20%
1935-1954	16	13,395	0.3551	+09.53%	+03.08%	+13.79%	-03.33%	+02.41%	-09.89%	-08.41%	-07.19%
1955-1964	55	6,778	0.0838	+09.29%	-09.66%	+06.64%	+00.29%	+01.25%	-01.01%	-05.60%	-01.22%
1965-1974	60	8,246	0.4116	+04.86%	+01.19%	-01.16%	+09.96%	-04.64%	-02.35%	-01.76%	-06.11%
1975-1984	55	6,923	0.0309	+11.51%	-06.42%	-06.73%	-02.06%	+02.36%	-02.68%	+05.58%	-01.56%
1985-1999	79	11,459	0.0095	+12.50%	-05.46%	-03.10%	-01.74%	+00.24%	-01.22%	-00.57%	-00.66%
1880-1999	285	85,119	0.0017	+07.97%	-02.48%	+02.35%	+00.21%	-01.35%	-02.45%	-01.24%	-03.01%

χ^2 ☿ − Higher Percentage of ♂ ☿ ♀ for most of analyzed periods

Conclusions

This study demonstrates that there is a ☿ ♀ effect among chess grandmasters. A second study targeting international masters could confirm or invalidate the results of this research.

In astrology, ☿ represents the analytic mind, while ♀ represents affectivity. The amalgam of these two very dissimilar planets seems difficult to conceive at the chess player level. Ultimately, this ♂ ☿ ♀ could simply symbolize the love of logic, an element certainly essential to succeed in this highly demanding activity.

It would be wrong to conclude that the ♂ ☿ ♀ is the primary condition to succeed in chess. It illustrates perhaps rather some dynamic that occurs itself in anyone who enjoys the activities involving logic.

Finally, some aspects like ☌ ☽ ♅, ♂ ☉♇ and ☌ ☉♇ would deserve a special attention.

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Annex 1

1.1 Distribution of ☌ ☽, ☿, ♀ and ☉

Planet	Players	☿	♀	☉	♂	♃	♄	♅	♆	♇
☽ ☌ -6º+6º	520	64	60	59	57	57	63	55	51	54
☿ ☌ -2º+2º	337	-	92	98	37	29	20	16	25	20
♀ ☌ -2º+2º	285	92	-	53	45	26	21	15	19	14
☉ ☌ -2º+2º	278	98	53	-	28	24	25	24	14	12

Planet	Nbs	☿	♀	☉	♂	♃	♄	♅	♆	♇
☽ ☌ -6º+6º	175,784	19,543	19,236	19,837	19,580	19,303	19,962	19,288	19,623	19,412
☿ ☌ -2º+2º	101,863	-	20,691	33,748	11,266	8,158	7,347	6,801	7,092	6,760
♀ ☌ -2º+2º	85,119	20,691	-	17,943	11,444	7,581	7,421	6,564	6,737	6,738
☉ ☌ -2º+2º	98,323	33,748	17,943	-	10,818	7,771	7,071	6,893	6,939	7,140

1.2 ☌ ♀ and decreasing orb

Orb	Players	☿	☉	♂	♃	♄	♅	♆	♇
♀ ☌ -6º+6º	731	193	162	106	56	61	59	50	44
♀ ☌ -4º+4º	495	127	107	84	39	36	37	35	30
♀ ☌ -3º+3º	387	105	82	69	33	27	22	27	22
♀ ☌ -2º+2º	285	92	53	45	26	21	15	19	14
♀ ☌ -1º+1º	150	48	29	19	12	15	9	9	9

Orb	Nbs	☿	☉	♂	♃	♄	♅	♆	♇
♀ ☌ -6º+6º	252,422	58,046	53,839	33,730	23,461	22,022	20,492	20,455	20,377
♀ ☌ -4º+4º	168,137	38,750	35,729	22,870	15,559	14,630	13,707	13,415	13,477
♀ ☌ -3º+3º	126,902	29,991	26,810	17,266	11,764	10,866	10,123	10,057	10,025
♀ ☌ -2º+2º	85,119	20,691	17,943	11,444	7,581	7,421	6,564	6,737	6,738
♀ ☌ -1º+1º	43,147	10,573	8,926	5,929	3,928	3,814	3,273	3,310	3,394

1.3 *Players* file shuffled 400 times and shifted within ± 90 days

Orb	Shift	Shuffle	☿	☉	♂	♃	♄	♂	♆	♇
♀ ☌ -2º+2º	0	100,957	26,082	20,398	17,125	8,457	8,710	6,484	6,855	6,846
♀ ☌ -2º+2º	-90	102,806	25,162	21,211	16,323	8,745	8,509	7,316	7,917	7,623
♀ ☌ -2º+2º	+90	100,171	24,996	20,947	16,015	8,581	7,824	6,906	7,089	7,813

Orb	Players	☿	☉	♂	♃	♄	♅	♆	♇
♀ ☌ -2º+2º	285	92	53	45	26	21	15	19	14

1.4 Distribution of aspects ☿ ♀

Orb	File	Data	☌	✧	⊼	∠	✳	✧
☿ ♀ -2º+2º	Players	463	92	111	115	87	56	2
☿ ♀ -2º+2º	Nbs	152,087	20,691	40,501	40,223	27,264	23,160	248

Annex 2

2.1 Distribution of ♂ ♀ per period

Period	Players	☿	☉	♂	♃	♄	♅	♆	♇
1880-1934	20	4	11	1		1	2	1	
1935-1954	16	5	4	4	1	2			
1955-1964	55	16	6	12	4	4	4	4	5
1965-1974	60	21	13	8	11	3	2	2	
1975-1984	55	17	8	8	3	5	4	7	3
1985-1999	79	29	11	12	7	6	3	5	6
1880-1999	285	92	53	45	26	21	15	19	14

Period	Nbs	☿	☉	♂	♃	♄	♅	♆	♇
1880-1934	38,318	9,838	8,251	4,150	3,400	3,559	2,946	3,032	3,142
1935-1954	13,395	2,909	2,936	1,501	1,283	1,351	1,325	1,127	963
1955-1964	6,778	1,342	1,394	1,029	473	408	561	872	699
1965-1974	8,246	2,485	1,689	1,195	690	795	468	420	504
1975-1984	6,923	1,343	1,452	1,473	520	466	689	495	485
1985-1999	11,459	2,774	2,221	2,096	1,215	842	575	791	945
1880-1999	85,119	20,691	17,943	11,444	7,581	7,421	6,564	6,737	6,738