

SUNNY DAY FOR A WEDDING

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Summary : The marriages which were contracted in France between 1976 and 1997 have been examined as a whole, especially according to the zodiacal longitudes the Sun had at the birth time of the spouses. From this experimentation, it emerges an indisputable correlation. Marriages between people having the same solar longitude (more or less 30°) are more numerous than one would expect. On the other hand, the analysis according to the lunar longitudes reveals no statistical link. Very strong interrelationships appear after having distributed the marriages according to the signs in which Mercury or Venus happened to be at the birth of the spouses.

A few years ago, a curious and candid book¹ was published in Germany and gave rise to a resounding debate. Produced by Gunter Sachs, it connects statistics and astrology according to the following principle : if it is true that the zodiac rules the human behaviours, then one could logically detect a trace of this rule in vast populations. But the problem is that leading an investigation on vast populations is extremely onerous. The Gunter Sachs' idea is to lead up to the question by a roundabout way by using the huge files the civil service keeps up to date and which indirectly show our behaviours.

Gunter Sachs starts then raking up patiently an impressive quantity of various statistics : marriages, divorces, studies, professions, health questions, deaths and a lot of others. After that, he investigates the files with the Chi-square independence test (Cf. method box). And after all, he brings to light some very singular phenomena.

One of the strangest results concerns the 358 763 weddings which were celebrated in Switzerland between 1987 and 1994. According to Gunter Sachs, the zodiacal signs play a role in the nuptial choices, in a hardly questionable way. Some zodiacal combinations, which remind the principle of the four elements order, seem to be more frequent than some others.

Since that time, the Gunter Sachs' experiment was replicated with french marriages. The data files are based on high quality statistics. This article describes the replication which has been carried out and also reports on complementary investigations led from other angles.

Method : Weddings breakdowns and the Chi-square independence test

The technic used by Gunter Sachs is a classic one in statistics. It has been used several times in this study. It consists in building a 144 cells table (12 signs for the husband * 12 signs for the wife) in which the whole sample is distributed. Then, a theoretical table is calculated. For each of the 144 cells, the total number of the column to which the cell belongs is multiplied by the total number of the row to which the cell belongs and is divided by the total number of the table. This procedure erases the natality disparities which exist between signs². For each cell, the deviation of the cell frequency from the theoretical value is calculated, squared and divided by the theoretical value. This calculation shows, for each cell, the amplitude of the shift in comparison with the expected value. Next, the 144 relative deviations are added up ; this result is called "Chi-square". Each relative deviation is called "contribution to the Chi-square". The risk taken by rejecting the null hypothesis is estimated from both Chi-square value and number of cells. This probability is a measure of the global significance of the deviations.

After that, it is possible to analyse one by one each relative deviation in order to appreciate the influence of each combination of signs in the global deviation.

French weddings statistics

In France, an organism called Insee (ie National Institute of Statistics and Economic Studies), keeps up to date yearly computer files in collaboration with the registry offices of the town councils and

¹" Die Akte Astrologie " - Gunter Sachs - Goldmann Verlag - München - 1997

²For instance, the Taurus is the most represented sign in the French population (+7.5% in comparison with the mean value), Scorpio is the less represented sign (-8.2%) - " Population and zodiac rythms " - Didier Castille - Correlation **XXXXXXXX** "

concerning births, deaths and marriages. These files are public and are generally used for demographical or sociological study purposes.

The registry offices files cover the years 1976 to 1997 and represent a whole of 6 498 658 unions. They provide for every marriage the date of birth of the spouses. The hours of birth are not known.

At first, this population is associated with an astrological calendar in order to attribute a solar sign to each of the spouses (Cf. method box).

Method : The zodiac

The astrological zodiac is a reference to locate the Sun, the Moon and the solar system planets in space. The point of origin of this reference is called " the vernal point ", which means spring equinoctial point.

It is important to precise here that the entry of the Sun in a given sign does not occur at fixed dates and hours. The following table shows the variability of the days when the Sun changed signs during the XXth century. For example, for some " March, 20th " at 12 noon G.M.T., the Sun was in Pisces. On the other hand, for some others, the Sun was in Aries. Idem for some " March, 21st ". This particular point is taken into account in the study. The 12 noon G.M.T. solar sign is attributed to each birth date.

Disparity of the days when the Sun changed signs during the XXth century (at 12 noon G.M.T)

January, 20th	Capricorn	72						July, 23rd	Cancer	30
	Aquarius	28							Leo	70
February, 19th	Aquarius	30						August, 23rd	Leo	58
	Pisces	70							Virgo	42
March, 20 th	Pisces	94	March, 21st	Pisces	13			September, 23rd	Virgo	46
	Aries	6		Aries	87				Libra	54
April, 20th	Aries	53						October, 23rd	Libra	82
	Taurus	47							Scorpio	18
May 21 st	Taurus	49						November, 22th	Scorpio	73
	Gemini	51							Sagittarius	27
June, 21st	Gemini	81	June, 22th	Gemini	4			December, 22th	Sagittarius	27
	Cancer	19		Cancer	96				Capricorn	73

With this operation, 338 marriages are pointed out : at least one of the two birth dates is wrong (February, 30th or April, 31st, for instance. Without any other obviously erroneous date, the study population reaches 6 498 320 couples. Then, a first Chi-square test can be carried out.

A first test confirms the Swiss results

The independence test carried out on a population of 6 498 320 marriages leads to a Chi-square value equal to 470.1. With such a value, the risk taken by rejecting the null hypothesis, that is to say that there is no association between the signs of people who decide to marry, is very slight.

The columns of the following table correspond to the zodiacal sign of the wife, the rows correspond to sign of the husband. At the cross between a column and a row figures the deviation of the cell frequency to the expected value. For example, the weddings celebrated between an Aries man and a Taurus woman are more numerous than in theory (+175 couples). In the same way, the weddings between an Aries man and a Gemini woman are less numerous than in theory (-72 couples).

Breakdown of marriages according to the spouses' solar signs

	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	Total
♈	Aries	934 ***	175	-72	-213	-31	-117	-173	-237	-105	-147	-59	46	564 684
♉	Taurus	-196	992 ***	64	570 *	-643 ***	114	-179	-280	-517 *	163	-259	171	582 442
♊	Gemini	288	166	1 029 ***	-159	-137	-111	-86	168	-271	-132	-119	-635 ***	565 465

♋	Cancer	-235	-291	287	964 * * *	92	8	-465 *	123	-164	-164	-23	-132	565 352
♌	Leo	-141	-265	-30	-87	949 * * *	146	278	-446 *	-194	-147	-45	-18	547 524
♍	Virgo	-633 * * *	-80	-160	14	321 * * *	972 * * *	96	66	71	-125	-325	-217	538 762
♎	Libra	-55	-85	-330	-405	201	247	922 * * *	-2	57	-192	-280	-77	524 980
♏	Scorpio	-344	-316	-105	-243	-305	31	249	1 281 * * *	106	-46	-335	27	494 748
♐	Sagittarius	-36	-361	91	-127	216	-374	333	-265	1 003 * * *	-130	96	-448 *	497 582
♑	Capricorn	164	-182	-346	32	-179	-346	-333	-236	83	1 068 * * *	387	-113	522 877
♒	Aquarius	-80	343	-58	127	-429 *	-529 *	-209	-241	-10	-46	1 059 * * *	72	538 868
♓	Pisces	334	-95	-369	-474 *	-54	-41	-435 *	68	-58	-103	-97	1 323 * * *	555 036
Total		561 791	581 311	571 256	565 511	548 505	540 358	526 700	496 698	498 076	517 497	537 788	552 829	6 498 320

The grey cells correspond to the combinations for which the real number of marriages is superior to the theoretical number. The amplitude indicator of the contribution which figures under the value can be translated as follows :

The value of the contribution is :	the indicator is :	It means that the deviation is :
superior to 7.88	* * *	significant with a risk of 0.5% at the most
comprised between 6.63 and 7.88	* *	significant with a risk of 1% at the most
comprised between 3.84 and 6.63	*	significant with a risk of 5% at the most
inferior to 3.84		not significant

By examining more closely the marriages breakdown and, particularly, the contributions to the Chi-square, another phenomenon appears. The table presenting the deviations of the effective frequencies from the expected values shows a structure.

First, there is a diagonal of surplus observations for the weddings contracted by people born under the same solar sign. Secondly, there is a line of lower frequencies for people born under opposed signs.

The total of the Chi-square contributions of the 12 combinations which form the diagonal of excess observations is very high. It reaches 296.9, that is 63.2% of the Chi-square value ; in theory, it should reach 39.2 (a twelfth of the Chi-square). The number of weddings concerned by this diagonal is superior by 2.3% to the theoretical number (+12 497 couples). This very particular diagonal can not be attributed to chance.

On the other hand, the diagonal of lower frequencies is formed by 10 negative deviations which contributes lightly to the Chi-square. The total of these 10 contributions reaches 12.2 (2.6% of the Chi-square) when it should be equal to 32.6 in theory. The number of weddings concerned by this partial diagonal is inferior by 0.4% to the theoretical number (-1 991 couples).

Checkings

In order to verify the previous results, another Chi-square independence test is carried out on a shorter sample : a random selection of a tenth of the whole population.

This test, realized on 649 831 marriages, produces a Chi-square value equal to 147.9 and allows to reject the null hypothesis with a risk of 5% at the most.

Here again a diagonal of excess observations appears. The number of marriages concerned by the diagonal is superior by 2% to the theoretical number and the total of the 12 contributions corresponds to 34% of the Chi-square (8.3% in theory).

Therefore, the control operations confirm the previous conclusions. From that moment, a special attention is granted to the weddings celebrated between people born under the same solar sign.

Special case : spouses born on the same day

A wedding out of one thousand (6 417 marriages out of a whole of 6 498 320 unions) presents a strange particularity : the spouses were born on the same day precisely. Knowing that the number of marriages contracted between people born on the same year is 681 802 (10.5% of the whole sample), the theoretical number of marriages of people born on the same day is 1 867 (681 802 / 365). So, the effective value is equal to 3.4 times the expected value.

One of the main arguments which could be produced here concerns the statistics reliability. Actually, we have already noticed that wrong birth dates exist in the files, despite all the efforts displayed to guarantee their quality.

A lot of documents handlings are done before statistics could be produced : copy of the spouses' birth certificates, registration of the marriage with the birth dates, copy of these informations on a statistical form, capture of this form by the Insee. Therefore, the birth dates are treated four times what multiplies careless mistakes such as writing the same birth date for both spouses.

This argument can not be easily checked because the Insee does not keep the captured forms. Only a survey with the local registry offices could base the verification.

Whether they are a reality or a measure of the human reliability faced with the administrative tasks, these excess marriages are questioning the previous results. This particularity has to be taken into account when a test is being carried out.

Excluding each marriage contracted between people born on the same day is too radical because such marriages can justifiably happen. It is preferable to weight the number of marriages contracted between people born on the same day by the ratio of the theoretical number to the effective number. In order to be as precise as possible, the ratio is calculated for each yearly file, as follows :

1976	0.39	1979	0.29	1982	0.23	1985	0.24	1988	0.30	1991	0.32	1994	0.35	1997	0.29
1977	0.30	1980	0.34	1983	0.24	1986	0.22	1989	0.34	1992	0.34	1995	0.34		
1978	0.30	1981	0.29	1984	0.23	1987	0.24	1990	0.35	1993	0.34	1996	0.27		

For example, in 1976, 291 marriages were contracted between people born on the same day. In theory, they should have been 113. Then, the weighting for 1976 is equal to $113 \times 100 / 291 = 39\%$.

A second test on a weighted population confirms the results³

Once weighted, the population reckons 6 493 772 marriages. The independence test led on this population produces a Chi-square value of 295.1. With such a value, the risk taken by rejecting the null hypothesis, that is to say there is no association between the signs of people who decide to marry, is very light.

Breakdown according to the solar sign of the spouses
weighted sample : 6 493 772 marriages

	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	Total
♈	567 *	213	-36	-177	3	-85	-141	-206	-76	-115	-24	78	564 281
♉	-158	606 **	102	608 **	-607 **	148	-145	-247	-486 *	196	-222	205	582 016
♊	324	205	655 ***	-122	-102	-78	-54	199	-241	-100	-83	-602 **	565 053
♋	-199	-253	324	594 **	127	41	-433 *	154	-135	-132	12	-99	564 946
♌	-107	-229	5	-52	594 **	178	309	-416 *	-166	-117	-12	13	547 136
♍	-600 **	-46	-126	46	352	635 ***	125	94	97	-96	-293	-188	538 396
♎	-24	-52	-298	-373	231	276	593 ***	26	83	-164	-249	-49	524 623
♏	-313	-283	-74	-212	-276	59	276	960	131	-18	-305	55	494 399

³From now on, the investigations are led on the weighted population

♈	-6	-330	121	-97	245	-347	359	-239	696	-104	125	-421	497 251
♉	196	-149	-314	64	-148	-317	-305	-209	109	741	417	-84	522 522
♊	-45	380	-23	162	-396	-497	-178	-211	19	-15	701	104	538 476
♋	367	-61	-336	-441	-23	-12	-406	96	-31	-74	-65	987	554 671
Total	561 388	580 885	570 844	565 105	548 117	539 992	526 343	496 349	497 745	517 142	537 396	552 464	6 493 772

Once again, the diagonal of surplus observations is very pronounced. Even in these conditions, it can not be assigned to chance. The total of the 12 contributions reaches 136.3 (46.2% of the Chi-square) when it should be equal to 26.6 in theory. The number of weddings concerned by this diagonal is superior by 1,5% to the theoretical number (+8 329 marriages).

Checkings

In order to verify the previous results, another independence Chi-square test is carried out on a fictitious population. This population is built by dividing the original file in two parts, one for the husbands and the other for the wives, and by creating illegitimate couples in a random way.

The test produces a Chi-square value equal to 119.4. This value allows to reject the null hypothesis with a very high risk (52.5% at the most)

The diagonal of cells corresponding to the marriages contracted by people born under the same solar sign comprises only 9 excess combinations. The sum of their contributions is superior by 0.3% to the theoretical sum.

Breakdown of a fictitious population according to the solar sign of the spouses

	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	
♈						*							
♉													
♊													
♋													
♌													
♍													
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♈											***		

The breakdown of a fictitious population built at random according to the solar signs of the spouses is due to chance. The divergences between the existing and the theory which exist on the real population do not persist in these conditions. This is what therefore confirms the previous results.

Beyond the zodiacal signs, the neighbouring of the solar longitudes

Having recourse to the zodiacal signs is now too rough to deepen the astrological relationship which exists between two people who get married.

On the one hand, because the sharp observation of the deviation table shows that the diagonal of excess combinations spreads to the neighbouring signs. For example, the weddings between Aries spouses are more frequent than in theory and it is also the case for the weddings between an Aries man and a Taurus woman or between a Pisces man and an Aries woman.

On the other hand, because a zodiacal sign is nothing else but a 30° interval. This interval is too large to investigate precisely which are the marriages involved in the statistics imbalances.

Now, the attention is no more spotted on the spouses' signs but on the synastric aspect that their two Suns make. These aspects are calculated for each couple of the population taking the yearly weightings into account. The couples are broken down into 36 classes of 10° each according to the value of the aspect. Next, the distribution is confronted to a theoretical uniform distribution and a one-way Chi-square test has been realized in order to measure the global amplitude of the deviations.

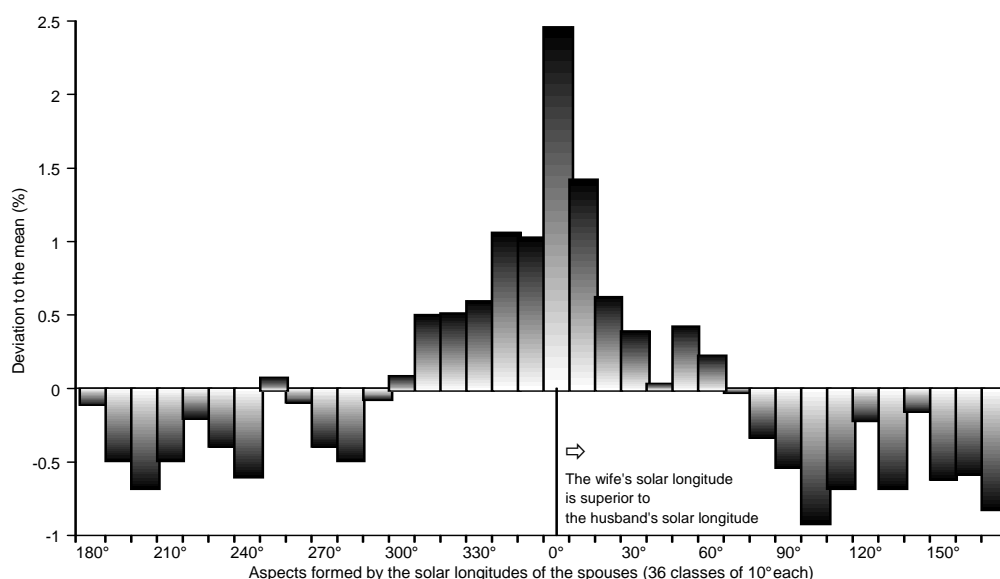
The Chi-square value is 313.7. This value allows to reject the null hypothesis, that is to say the marriages are independent from the aspect formed by the spouses' Suns, with a very light error risk.

14 classes out of 36 are characterized by an above average frequency. These 14 classes concern a whole of 2 542 419 marriages, that is a surplus of 17 064 marriages in comparison with the theoretical value (+0.7%).

The astrological interrelationship which exists between two people who decide to marry has much to do with their solar longitude proximity than with their solar sign neighbouring.

Marriages between people celebrating their birthday 30 (or even 60) days apart are more frequent than in theory.

Breakdown of the marriages according to the aspect formed by the spouses' Suns



No correlation between the lunar longitudes

This new investigation consists in breaking down the weddings according to the signs transited by the Moon or by the Sun at the spouses' birth.

The following tests are exactly modelled on the previous tests. But the Moon is fast and changes sign every 2 or 3 days. In the whole of the women and men constituting the study population, a huge part of them (44%) were born on a day when the Moon was in a given sign at 0:00 a.m. and in the following sign less than 24 hours later.

This characteristic is taken into account in a partial way as the birth hours are not mentioned in the files. People born on a day when the Moon changes sign are distributed in both signs in proportion to the hour of sign changing. For example, if, for a given day, the Moon is transiting from Aries to Taurus at 8:00 a.m., people born this very day are distributed for one third in the class " Moon in Aries " and for two thirds in the class " Moon in Taurus " ⁴.

From the different tests which are led, it appears that no interrelationships exist. The Chi-square values are much too weak to pretend that the distributions are not due to chance. The following table is a synthesis of the tests :

Chi-square independence test between :	Chi-square value	Error risk
the husband' solar sign and the wife's lunar sign	113.7	66.8 %
the husband' lunar sign and the wife's solar sign	118.4	55.0 %

⁴Failing precise informations, the circadian rythm irregularities are not taken into account.

the husband' lunar sign and the wife's lunar sign

83.4

99.6 %

Mercury and Venus longitudes: very strong statistical links

The conclusions are really different concerning the results of the Chi-square independence test led on the breakdown of the weighted population according to the signs transited by Mercury at the spouses birth.

Breakdown of marriages according to the sign transited by Mercury at the birth of the spouses

	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	Total
♈	871 ***	-927 ***	-392	949 ***	679 ***	-733 ***	-813 ***	249	-8	-896 ***	-62	1082 ***		535 628
♉	955 ***	803 ***	-758 ***	-419 *	652 ***	462 *	-1080 ***	-486 *	616 ***	230	-820 ***	-153		511 699
♊	79	679 ***	1292 ***	-806 ***	-329	517 *	245	-721 ***	-263	642 ***	-99	-1237 ***		514 256
♋	-1149 ***	-155	666 ***	776 ***	-649 ***	-174	1002 ***	-126	-841 ***	-170	558 **	262		503 805
♌	-524 *	-967 ***	-304	788 ***	926 ***	-470 *	52	419 *	33	-722 ***	-76	845 ***		513 190
♍	719 ***	-42	-968 ***	-70	988 ***	704 ***	-277	-24	692 ***	-320	-1096 ***	-307		535 702
♎	28	771 ***	129	-852 ***	-645 ***	962 ***	1049 ***	-602 **	-77	292	-119	-937 ***		557 728
♏	-907 ***	-303	391	209	-779 ***	-364	693 ***	705 ***	-98	-228	625 ***	58		549 321
♐	-256	-1033 ***	-453 *	595 ***	479 *	-573 **	-324	1037 ***	602 **	-794 ***	154	565 **		562 265
♑	852 ***	548 *	-913 ***	-512 *	383	-28	-946 ***	-182	703 ***	925 ***	-562 *	-270		582 412
♒	80	620 ***	693 ***	-937 ***	-820 ***	599 **	51	-752 ***	-447 *	968 ***	572 *	-629 ***		576 744
♓	-750 ***	6	618 ***	280	-888 ***	-902 ***	346	482 *	-912 ***	73	925 ***	722 ***		551 019
Total	539 455	517 122	509 124	502 958	518 038	542 231	555 635	547 065	565 624	583 121	569 573	543 823		6 493 772

The Chi-square value is enormous ; it reaches 1 353. The risk taken by rejecting the null hypothesis is extremely weak. More, the distribution table shows a sharp structure : several diagonals of surplus combinations appear in an alternative way. Finally, most of the deviations are highly significant (***) .

Concerning the signs where Venus was at the spouses' birth, the independence test is very surprising as well.

Breakdown of marriages according to the sign transited by Venus at the birth of the spouses

	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	Total
♈	1 660 ***	581 **	174	146	-330	-1 540 ***	-37	1 118 ***	-278	-277	-1 282 ***	65		666 883
♉	-227	370	-226	129	63	-132	-78	-135	276	-151	181	-70		498 917
♊	-433	-79	666 ***	577 *	28	215	-182	-593 *	-309	-82	225	-33		581 295
♋	-950 ***	-378	349	874 ***	734 ***	144	99	-1 026 ***	-344	-138	854 ***	-218		576 709
♌	-226	-166	-91	405 *	225	307	169	-144	30	-69	-399	-38		473 008
♍	944 ***	114	-928 ***	-456	-128	1 204 ***	111	422	210	-459 *	-943 ***	-90		628 421
♎	-114	-87	45	-240	-123	266	232	248	173	8	-439 *	30		434 522
♏	-1 150 ***	-497 *	886 ***	228	-152	-1 137 ***	364	1 297 ***	43	426 *	176	-485 *		617 300

♁	-110	-16	30	-29	-324	89	-165	-231	400	73	274	10	448 291
♂	-356	-192	-6	-146	26	-22	-306	-0	68	405	311	219	457 934
♊	405	94	-856	-1 069	-92	1 039	-242	-769	-314	-56	1 068	793	646 309
♋	557	256	-42	-418	75	-433	36	-188	46	320	-26	-183	464 182
Total	671 654	488 839	587 934	574 014	480 273	628 318	435 219	615 708	443 177	461 124	645 183	462 328	6 493 772

The Chi-square reaches 622. This value allows to reject the null hypothesis without the least hesitation. Once again, the distribution table shows a structure : a large diagonal of surplus combinations appears. Finally, 23 cells present a highly significant deviation (***) .

When a man marries a woman who was born on the same year as he, his Mercury has one chance out of two of maintaining synastry aspects of conjunction or trine with her Mercury⁵. This phenomenon is induced by the retrogradation period.

For example, during the year 2000, Mercury went to and fro in Pisces (February/March), Cancer (June/July) and Scorpio (October/November). Therefore, approximately half of the babies who were born in year 2000 have Mercury in Water. Consequently, some decades from now, those who will get married with persons born in the same year as them will have around one chance out of two of marrying someone who has got Mercury in Water.

Besides, it appears that the age gap, which separates the spouses, is narrow. It was an average of 2 years and 3 months for the marriages of 1976 and of 2 years and 6 months for the marriages of 1997.

Yet, the behaviour of the French towards marriage has changed a lot in 22 years. In 1976, the bride was most often 20 years old and the bridegroom was 22. Today, the bride is most often 25 or 26 years old whereas his husband is 26 or 27. But the age difference has hardly varied.

Consequently, it is in the constancy of this age difference associated with the demographic concentrations generated by the retrogradation periods of the planet that we find the main explanation of the imbalances noticed in the breakdown of the marriages according to Mercury and Venus.

Age gap between the spouses	The husband is older than his wife	The wife is older than her husband
less than 1 year	11%	8%
more than 1 year and less than 2 years	12%	5%
more than 2 years and less than 3 years	11%	3%
more than 3 years and less than 4 years	10%	3%
more than 4 years and less than 5 years	7%	2%
more than 5 years	23%	4%

Besides, for a given year, the Mercury retrogradation arc is 20° far from the one which happened one year before. That is why the diagonals which can be seen in the breakdown table according to Mercury are two signs wide. In short, the sharp imbalances of the Mercury table are principally due to the marriages of people who were born two years apart at the most.

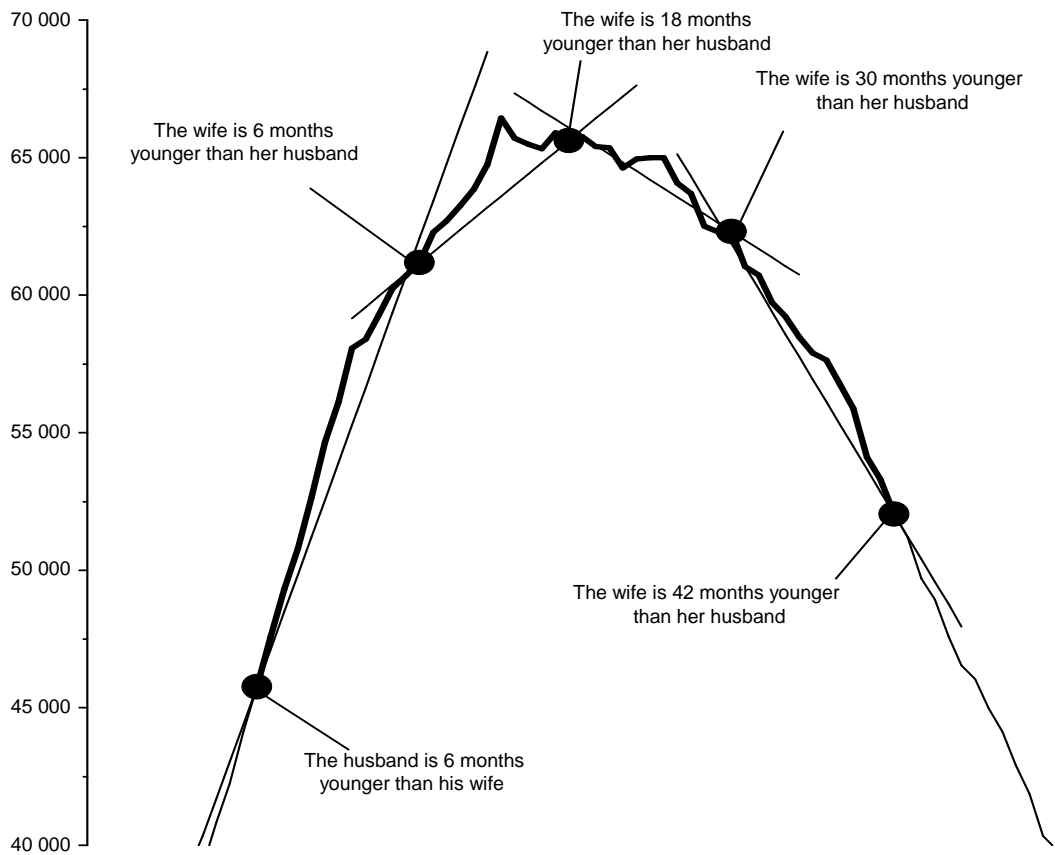
The situation is a bit different for the breakdown according to Venus : the divergences are less pronounced. The large central diagonal, which represents an excess number of weddings between people whose both Venus have almost the same longitude, is also due to the retrogradation periods. A Venus retrogradation phase happens every 20 months in an average and happens again on approximately the same arc every 8 years.

In short, the couples which generate the central diagonal in the Venus table are principally composed by people born under the same retrogradation period, that is to say born on the same year or 8 years apart. This last case is pretty rare.

So, the marriages concluded between people born less than one year apart generate both of the Mercury and Venus imbalances. This situation can be compared to the breakdown according to the solar longitudes.

⁵“ Population and zodiac rythms ”- Didier Castille - Correlation **XXXXXXXX** ”

Breakdown of the most frequent weddings according to the age difference



Under objective criteria

Gunter Sachs is right. The marriage is a decision which is not independent from the partners' zodiacal signs. It is confirmed by the french statistics.

The detailed analysis of the weddings which were registered in France between 1976 and 1997, namely around 6 million and a half, leads to several remarks.

First, unions between people born precisely on the same day are 3 times more numerous than one would believe. This finding has no explanation and has to be confirmed : the statistical quality of the files deserves to be tested by complementary investigations like a specific survey, for instance.

Secondly, weddings concluded between people celebrating their birthday 60 days apart at the most are more numerous than in theory. This result broadens those obtained with the zodiacal signs. More than a similarity of signs, the study shows a proximity of the solar longitudes.

The deviations observed between the number of these particular marriages and the theoretical number is indisputable. The results are rather important as the experiment which is based on objective criteria. It does not lean on a sample but on an exhaustive population, it is not a question of psychological test and the observation criteria are not depending on the observer's subjective valuation.

We are gazing on a placid ocean and we are discerning the crest of a wave. It is clear that the crest is light but all those who will gazed again on this ocean will distinguish it. Such an important decision as marriage is in association with the date of birth of the spouses.

Thirdly, from the observation of the weddings according to the signs transited by the Moon at the spouses' birth, it emerges no notable interrelationship.

Fourthly, some very sharp statistical links appear from the observation of the we marriages according to the zodiacal signs where Mercury and Venus were at the spouses' birth. It can principally be

explained by the demographic concentrations generated by the retrogradation periods of Mercury and Venus and by the stability over the years of the age gap which separates the spouses.

These imbalances may be due to chance but only a deepening of the experiment could confirm it. Now, this deepening seems to be rather uneasy, for two main reasons :

- on the one hand because the Mercury and Venus longitudes depend on the longitude of the Sun. It would be risky to realize an independence test in these conditions. A global deviation observed for the longitudes of a given planet generates mechanically deviations when the longitudes of another planet are observed. Only a global approach can be considered from the moment we are talking about cyclic motions.
- on the other hand, the age gap which separates the spouses remains constant over the years. The husband is two years and a few months older than his wife on an average. Therefore, it seems difficult to set comparisons with some theoretical uniform breakdown. One of the possible track would be to reduce the population to a shorter part as, for example, the marriages concluded between people born less than one year apart. Surely the difficulty would be softened but it would still persist because, even when the age gap is light, the husband is more often a few months older than his wife on an average.

As we already said about Mercury and Venus, the age gap which separates the spouses is a major factor to explain the deviations. It also plays a great role in the breakdown of the marriages according to the solar longitudes. Actually, the surplus weddings are principally due to the couples formed by spouses of the same age as well as to the couples of which the husband is a little older than his wife (from 1 to 3 years). But the most entertaining question is the following. The weddings deviations may be due to the age gaps as well as the age gaps may be due to astrological weddings. A new " firts egg or firt hen " alternative.

Annex

Age of the spouses at the wedding time

373 965 marriages celebrated in 1976 283 978 marriages celebrated in 1997

