Further research on the Quaoar criterion
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The main purpose of this study is to test the criterion and methods described in the article about Nobel Prize laureates[1] on other data.
It was shown that the moments of birth of Nobel Prize laureates satisfy the so-called Quaoar criterion much more often than other moments. A random moment of time satisfies the criterion with probability around 0.245, but among the Nobel laureates 33.47% satisfy the criterion. Because there are 726 persons in five categories, this is a statistically significant deviation: 243 of them satisfy, while the mean value is 177.352, and the standard deviation is 11.535. Shape of the distribution is "bell curve". It was observed that deviation is **higher** if all laureates in Chemistry and Physics are excluded. +6.145 stdev if only 391 laureates in the remaining three categories are considered: Literature, Physiology/Medicine, Peace prize.

There are two awards that are similar to Nobel Prize.
The Ramon Magsaysay Award is often considered Asia's Nobel Prize[2][3][4]. Every year since 1958 the Ramon Magsaysay Award Foundation gives prizes to Asian individuals and organizations for achieving excellence in their respective fields. The awards are given in six categories. As of 2009, there are 81 laureates in the two categories that are similar to the three 'high deviation' Nobel Prize categories:
    * Journalism, Literature and Creative Communication Arts
    * Peace and International Understanding
The other four categories are: Government Service, Public Service, Community Leadership, Emergent Leadership.

The Wolf Prize is also an international award, it has been presented annually since 1978 to living scientists and artists for "achievements in the interest of mankind and friendly relations among peoples". It is awarded in six fields: Agriculture, Chemistry, Mathematics, Medicine, Physics, and an Arts prize. The Wolf Prizes in physics and chemistry are often considered the most prestigious awards in those fields after the Nobel Prize[5][6]; in medicine, the prize is probably the third most prestigious, after the Nobel Prize and the Lasker Award. Until the establishment of the Abel Prize in 2003, the Wolf Prize was probably the closest equivalent of a "Nobel Prize in Mathematics". The Prize in Agriculture has likewise been equated to a "Nobel Prize in Agriculture"[7]. As of 2009, there are 80 laureates in the two categories that are more or less similar to the 'high deviation' Nobel Prize categories:
    * Arts
    * Medicine (unfortunately in one case -- Henri-Gery Hers -- natal data were not found)

Pulitzer Prize is not an international award, but it is very prestigious, although the cash award is only US$10,000. Originally there were only three Journalism categories and four Letters and Drama categories in 1917. Now there are 14 Journalism categories, six Letters and Drama categories, and one for Music. There have also been a number of Special Citations and Awards.

The study of Nobel Prize laureates and additional data[1] has shown that the percentage of persons satisfying the Quaoar criterion is the highest, more than 45%, in the following groups:
   * six the most acknowledged science fiction writers (83.33%)
   * eighteen first Kalinga Prize laureates (66.67%)
   * nine Pulitzer Prize laureates who have received it three or more times in Letters and Drama categories (55.55%)
   * thirty non-European laureates of Nobel Prize in Literature (46.67%)
This looks like the highest percentage is among writers. Therefore it was decided to include also all the persons who have received at least one Pulitzer Prize in the Letters and Drama categories before year 1960 (if all of them were included, almost all persons in the database would satisfy this criterion: "Awarded in 1958 or later"). 348 natal data sets in the database, this is actually enough. In one case natal data were not found: John A. Carroll (1958, category Biography).

Now the question is: what is the percentage of records satisfying the Quaoar criterion in the new database?

The answer is 31.89%, 111 of 348, and this is a statistically significant deviation, +3.162 standard deviations. The mean value is 85.686 and the standard deviation is 8.007.

Here is a description of the Quaoar criterion:
a moment satisfies the Quaoar criterion if at this moment the angle between ecliptic longitudes of Quaoar and one (or more) of these four objects - Sun, Moon, Jupiter, Venus - is 90 degrees plus-minus 6 degrees. Geocentric system is used.

The following effects were observed on the Nobel Prize laureates natal data:
1. Deviation is much higher for the criterion with only 'type A' aspects than for the criterion with 'type B' aspects. 'Type A' if the next angle between a faster object and Quaoar was 180 degrees, otherwise 'type B': the object was between opposition and conjunction with Quaoar. Here is an illustration: position of a faster object corresponds to the end of the minute hand of a mechanical clock, Quaoar's position corresponds to the end of the hour hand. Quaoar's orbital period is almost 300 years.
2. Deviation is higher if Mars is added to the set {Sun, Moon, Jupiter, Venus}
3. Deviation is positive for criteria with 0, 180 and 45 degrees (instead of 90 in the Quaoar criterion), negative for 120 degrees : +1.590, +1.693, +0.678, and -2.153 stdev accordingly.
4. Deviation gets higher if the range of the Random item gets wider: +5.394, +5.520, +5.691, +5.706, +5.734 -- ranges +-256, +-512, +-1024, +-2048, +-8192 days accordingly.
5. Deviation is higher if each time of birth is set to 6:00am or 3:00am instead of noon.

Most of these effects are observed on the new data considered in this article.
1. +3.836 stdev for the criterion with 'type A' aspects, +1.183 for 'type B'.
2. +3.340 (instead of +3.162) if Mars is included.
3. Negative for 120 and 0 degrees criteria, positive for 180 and 45 criteria: -1.849, -0.401, +1.570 and +0.278 stdev accordingly.
4. +2.845, +3.052, +3.162, +3.185, +3.237 accordingly.
5. Not higher for 6:00 am, 110 satisfy instead of 111; higher for 3:00 am, 113 satisfy.

If each Pulitzer Prize laureate is included as many times as the number of Pulitzer prizes he/she has received (in 'Letters and Drama' categories, before 1960), there are 368 records, and deviation is +3.579 stdev for the Quaoar criterion, +4.084 for the criterion with 90-type-A.

If categories are considered separately, the percentages are:
34.69% -- 17/49 -- Magsaysay Award - Journalism, Literature and Creative Communication Arts
31.25% -- 10/32 -- Magsaysay Award - Peace and International Understanding
30.55% -- 11/36 -- Wolf Prize - Arts
32.56% -- 14/43 -- Wolf Prize - Medicine
23.81% -- 10/42 -- Pulitzer Prize - Biography or Autobiography
33.33% -- 12/36 -- Pulitzer Prize - Fiction (Novel before 1948)
33.33% -- 12/36 -- Pulitzer Prize - Drama
36.36% -- 16/44 -- Pulitzer Prize - History
30.00% -- 9/30 -- Pulitzer Prize - Poetry
31.89% --111/348-- all nine categories jointly
32.50% -- 52/160-- all four Magsaysay Award and Wolf Prize categories jointly
24.62% - ten million control groups (formed using all 348 natal data sets as described in the Nobel Prize laureates study[1]).

Twenty one Nobel Prize laureates are present in the new database. Twelve of them satisfy the Quaoar criterion. Seven of these twelve are inside the *Wolf Prize--Medicine* file, one in *Magsaysay Award--Peace* (Mother Teresa), four in *Pulitzer Prize* groups: *Drama* (Eugene O'Neill) and *Fiction* (Pearl S. Buck, John Steinbeck, Ernest Hemingway).

Conclusion:

The percentage of persons whose natal data satisfy the Quaoar criterion is for some reason significantly higher than expectation not only among those who have won a Nobel Prize in Literature, Medicine, or Nobel Peace prize, but also among winners of similar awards in similar categories: Wolf Prize, Ramon Magsaysay Award, Pulitzer Prize.

One option for further research is to test the discussed criteria on other similar data: various national and international peace, medicine and especially literature prizes and awards, preferably only the most distinguished persons.
In case there is a correlation
   Astronomical factors => something => prizes and awards
the Quaoar criterion must show significant deviations.

But in case the correlation is
   Astronomical factors => long-term psychological characteristics => something => prizes and awards
it is probably an option to try the Quaoar criterion on groups with detected long-term psychological characteristics, e.g. 'Judging' determined in MBTI.

All databases used in this study are downloadable at http://james.freehoster.co.cc/mwp_data.zip or http://vixra.org/data/mwp_data.zip
Source code of the program is included in the Nobel Prize laureates article[1] as Appendix 1.

References:

[1] James Gunasekera. Nobel Prize laureates and inexplicable statistical variations.
http://vixra.org/abs/0910.0003 or http://james.freehoster.co.cc/is.html
[2] Clare Arthurs (25-Jul-2000). "Activists share 'Asian Nobel Prize'". BBC News.
http://news.bbc.co.uk/1/hi/world/asia-pacific/851034.stm
[3] "Arvind Kejriwal selected for Magsaysay Award". The Times of India. 31-Jul-2006.
http://timesofindia.indiatimes.com/articleshow/1832474.cms
[4] Ann Bernadette Corvera (8-Oct-2003). "'03 RAMON MAGSAYSAY AWARDEES: A LEAGUE OF EXTRAORDINARY MEN & WOMEN". Philippine Star.
http://www.newsflash.org/2003/05/si/si001665.htm
[5] Belle Dumé, Physicsworld.com: Wolf prize goes to particle theorists.
http://physicsworld.com/cws/article/news/18884
[6] Basolo, F: "From Coello to Inorganic Chemistry: A Lifetime of Reactions", page 65, Springer, 2002
[7] National Research Council: "National Research Initiative: A Vital Competitive Grants Program in Food, Fiber and Natural-resources Research", page 155, National Academies Press, 2000