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Could your birthday predict your fate?



David Robson

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Your month of birth could influence your lifespan, mental health and even your eyesight. David Robson explains how.

With my birthday in the first week of October, my horoscope tells me that I should be [fair-minded and balanced; courageous but indecisive](http://books.google.com/books?id=Ud8MhSvUVI8C&pg=PA58&dq=libra+traits&hl=en&sa=X&ei=0pXgU-rEMMegyATC74KYAq&ved=0CBsQ6AEwADgK#v=onepage&q=libra%20traits&f=false) (<http://books.google.com/books?id=Ud8MhSvUVI8C&pg=PA58&dq=libra+traits&hl=en&sa=X&ei=0pXgU-rEMMegyATC74KYAq&ved=0CBsQ6AEwADgK#v=onepage&q=libra%20traits&f=false>). It may even describe my physical characteristics. According to one [19th Century astrologer, Raphael](https://archive.org/stream/amanualastrolog00smitgoog/amanualastrolog00smitgoog_djvu.txt) (https://archive.org/stream/amanualastrolog00smitgoog/amanualastrolog00smitgoog_djvu.txt), I should be a “rather elegant in person, [with] a round beautiful face, ruddy in youth, but very plain featured and inclined to eruptions, that disfigure the face when old.” I would be offended – until I realise that Zac Efron and Gwen Stefani supposedly have the same traits.

Needless to say, scientific studies have long debunked such predictions. Although one psychological study in the 1970s found that [certain star signs can correlate with certain personality traits](http://www.sciencedirect.com/science/article/pii/0191886994902437) (<http://www.sciencedirect.com/science/article/pii/0191886994902437>), later scientists concluded that this almost certainly reflected the power of expectations. If we grow up hearing that we will be just and fair, stubborn or passionate, then we act the script. Crucially, the scientists found that people who know nothing of their horoscope fail to match its predictions.

The specific forecasts of horoscopes may be wrong, but there is a grain of truth; over the last few years, scientists have begun to notice that the month of your birth really can predict your fate.



(Getty Images)

The most obvious effects concern school grades – children born in at the end of the school year perform slightly worse than those born in the beginning, although the differences tend to peter out over the years. But there are other, more startling patterns that are not so easily explained.

In the late 90s, for instance, Leonid Gavrilov at the University of Chicago found that people born in the autumn tend to live longer. He has since confirmed the discovery with many different studies, looking at centenarians, his latest paper found that [autumn babies are about 40% more likely to live to 100 than people born in March](http://www.hindawi.com/journals/ar/2011/104616/) (<http://www.hindawi.com/journals/ar/2011/104616/>).

Gavrilov’s discoveries initially met with resistance and misunderstanding. “People who are not familiar with the most recent scientific studies on this topic remain sceptical, associating the work with astrology,” he says. “But when we submit our findings to peer-reviewed professional journals, they are now very well received by experts.” Sreeram Ramagopalan, at the University of Oxford, agrees that the field is gaining momentum. He points out that some of the earlier studies had only examined a small number of participants – meaning it was hard to be sure that the results weren’t simply a fluke. “Only very recently, in the last four or five years, have large studies addressed those issues

comprehensively," he says. Some of the recent findings come from tens of thousands of participants. Ramagopalan's own studies, for instance, looked at the health records of nearly 60,000 patients in England, showing that winter and spring babies are typically more at risk of schizophrenia, depression and bipolar disorder (<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0034866>).



(Getty Images)

Others traits influenced by your birth season appear to be your eyesight (winter babies are the least likely to be highly short-sighted) and your risk of allergies (people born in the summer are less susceptible (<http://www.ncbi.nlm.nih.gov/pubmed/20408340>)).

Admittedly, the mechanisms behind these trends are a little murky. Changes in diet and yearly waves of infection could, feasibly, influence the growth of developing baby, with a lingering effect on its health for decades afterwards – even your talent at baseball could be affected (professional baseball players are more likely to have been born in autumn than in spring (<http://www.sciencedirect.com/science/article/pii/S0165178114001401>), possibly because they were healthier at the very start of their lives). You may also be exposed to different kinds of allergens during different seasons. Alternatively, it could be as simple as the length of the day. When it comes to eyesight, for instance, studies have shown that periods of darkness help to regulate the growth of the eyeball. So the long summer days might lead a baby's eyes to grow out of shape, leading them to lose their focus, while winter babies are less likely to need glasses as they grow up.



(Getty Images)

Then there's Vitamin D, which is produced when our skin is exposed to the sun. While a deficiency in the vitamin has long been known to weaken bones and cause rickets, it is now known to be crucial for the development of the immune system – which might also influence your risk of allergies – and the nervous system. "In animal studies, if you restrict Vitamin D during pregnancy, the offspring have severe neurological abnormalities," says Ramagopalan.

For this reason, lower levels of Vitamin D could feasibly lead to differences in the developing brain's wiring, which might explain the higher rates of mental illnesses like schizophrenia or depression among people born in the winter. The idea is still very much a hypothesis, although some fortuitous evidence comes from Denmark. Soon after they are born, every Danish baby is pricked on their heel, and a small spot of dried blood is kept as a record of their health at the moment they enter the world. Analysing this data for people born in the early 80s and early 90s, researchers found that those with the lowest levels of Vitamin D at birth were more likely to develop schizophrenia later in life (<http://archpsyc.jamanetwork.com/article.aspx?articleid=210878>).

Prospective parents may worry that they should try to plan their conception according to these dates – but it's important to remember that the effects tend to be relatively small. Even so, Ramagopalan says that eventually, we may be able to find simple interventions that smooth out those seasonal differences – by topping up Vitamin D in winter babies, for instance.



(Getty Images)

At the very least, the findings give us a better insight into the rich tapestry of influences guiding our destiny. Clearly our genes and our upbringing are the overriding factors, but if something as random as our birth month can shape our mental health and lifespan, what other factors could be determining our fortune? Our fates may not be written in the stars, but we are only just beginning to understand the many other invisible forces that direct the path of our lives from the very day we are conceived.

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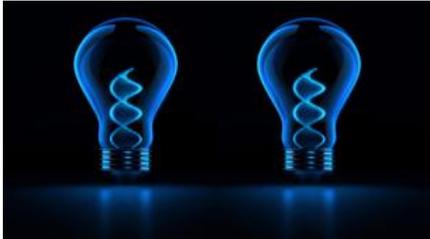
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