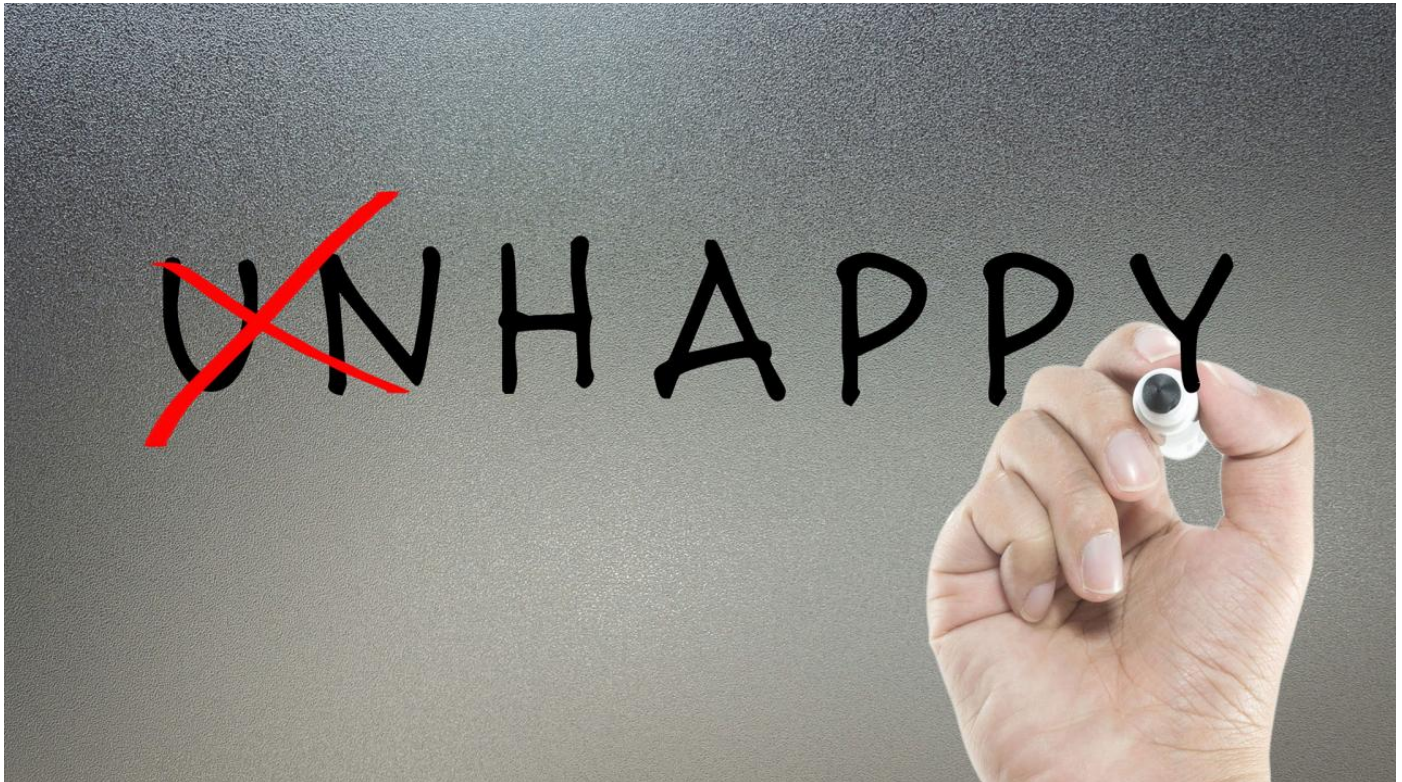


Spanish is the happiest language; Chinese, not so much



By [John Bohannon](#) Feb. 9, 2015 , 3:00 PM

People tend to remember and describe things in positive terms, even when the reality doesn't justify it. Psychologists call it the Pollyanna principle, and according to one hypothesis, this "positivity bias" is baked into language itself. It's not just that people choose positive rather than negative words when they talk, but there may simply be fewer negative words to choose from. Rigorously testing that idea has been difficult because of a shortage of data. To map out the positive bias, you need an enormous corpus of digitized text from multiple languages, not just European ones. And then you need native speakers of each language—thousands of them—to rate how those words make them feel, using a standard numerical scale. The Internet has solved both problems: first by generating a torrent of digitized text from sources such as Twitter, Google Books, and online news media, and second by making it possible to cheaply hire thousands of people for large-scale psychology experiments online. A study published online today in the *Proceedings of the National Academy of Sciences* put those two resources together to measure the positivity bias in the 100,000 most frequently used words from 10 different languages, including English, Spanish, Korean, and Chinese. Every word was scored for its

emotional resonance by 50 different native speakers. [Graphs of the data](#) show that the Pollyanna principle is indeed part of language itself. If there were no bias, then the median emotional values of the words (red lines) would fall in the middle of the emotional scale. But instead, [the median emotional resonance of words falls well into positive territory for every corpus from every language tested](#). Spanish was the most positively biased language overall, while Chinese had the smallest "positivity bias" of all the languages, at least for digitized books in Chinese. Clearly, our Pollyanna brains have shaped our languages. What remains to be seen is whether using a different language, Spanish rather than Chinese, for example, can actually make you happier.

(Credit for linked graphs: Peter Dodds)

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