

Spinning Egg Riddle

Not All It's Cracked Up to Be

by Sarah Potter

Try this at home - take a hard-boiled egg (size, type, and color don't matter, but it must be **hard-boiled**) and spin it on a tabletop. One end rises until the egg is spinning vertically, like a top - amazing! But why?

Mathematicians from England and Japan spent the past six months figuring out the answer to that cosmically important question. Their explanation? Friction.

As the egg spins, it touches the table at only one point because of the curve of its shell. But this point of contact moves in a small circle around a vertical axis. As the spinning egg slides across the table, the movement creates friction, which slows the egg's rotation just enough to throw the contact point a little off-center. This causes the egg to twist (and shout?), and one end rises - till the egg is standing vertically!

You can read all about their findings (and check out the sixteen equations needed to explain this phenomenon) in the 4 April 2002 issue of the journal *Nature*.