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## 18 SYMMETRY

### 18 A Worm Seeks Its Midpoint

Bilateral symmetry – mirror-image body halves – is a basic structural principle of higher organisms. Jochen Rink from the Max Planck Institute of Molecular Cell Biology and Genetics is studying flatworms to discover how symmetrical body structures arise.

### 26 Matter Undergoes the Vampire Test

Everything in the universe owes its existence to a tiny imbalance between matter and antimatter. How it came about is a fundamental question of physics. Research groups at Max Planck Institutes in Heidelberg, Munich and Garching are using different approaches in their quest for an answer.

### 34 A Cinch for the Brain

At first glance, the body appears to be symmetrical, but in reality, it isn't. The asymmetry of the brain, for instance, seems to be an important factor in the functioning of our thought, speech and motor faculties. Researchers at the Max Planck Institute for Psycholinguistics are investigating the reasons behind this phenomenon.

**ON THE COVER** It's found in the basic building blocks of matter and in the vast expanses of the universe, in flowers, in butterflies and in our own bodies: symmetry is deeply embedded in nature. Perfect symmetry, however, is rare, and it is often precisely the little differences that offer the key advantage for our existence.

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It's becoming increasingly easy to store, transfer and analyze huge volumes of data. This can create a new dynamic in science.

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