

# Why Travel?

## Biology



### Introduction

Why do humans move and travel? The evolutionary and biological origins of human movement point to the fundamental needs of animals to capture food for sustenance, to reproduce and to defend themselves from predatory attack. The evolution of animal locomotion is rooted in these primeval needs.

But are there aspects of human movement that are distinct?

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*Movement is the most fundamental feature of animals. Plants can be stationary and enjoy a long and healthy life rooted to the earth. Animals move. If you had to limit your study of humans to two essential features of existence, they would be eating and movement.*

**Dr Stephen Gislason, Language and Thinking (2011)**

*All organisms search for food and mates. But we search for purely intellectual reasons. We're constantly tinkering. We can't stand still.*

**Professor Charles Pasternak,  
Oxford International Biomedical Centre**

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## Key Aspects

### Impulses for Movement:

Biologists suggest that patterns of animal movement are driven by basic needs, including food, reproduction, and survival from attack. Some predatory animals move by stealth; others use movement as a means of defence or disguise themselves by not moving at all and blending into the background.

### Physiological Design:

The design of humans is unique – we have developed as bipedal animals, capable of travelling long distances in our search for food and territory. Science author Hans Villarica notes that many paleoanthropologists believe our style of locomotion was a crucial starting point in human evolution. 'Our ancestors probably did not have much larger brains than the chimps, nor did they have much more sophisticated hands. What initially separated them and us from other primates was habitual erect, bipedal locomotion.' Gender differences also exist: women and men have different gaits or styles of movement, relating to differences in pelvic design.

### Evolutionary Benefits:

Various theories exist for the benefits of bipedalism on human movement. Primatologist Elaine Videa has showed that this evolved in order to exploit widely dispersed resources – in other words bipedalism aided the human survival impulse for travel and migration.

Bipedalism allowed the freeing of the hands and arms for other uses. It is more energy efficient for long distance travel than quadrupedalism. Our sweat glands also enable us to travel longer distances without overheating. Such are our endurance capabilities that we are capable of outrunning antelope over the course of a day and pursuing them to exhaustion.

### Movement and Health:

The human body is designed for movement rather than a sedentary lifestyle. Moderate physical movement has been shown to have a range of benefits, from strengthening muscles and joints, to better cardiovascular and mental health, as a result of the lowering of cortisol and the rise in endorphins produced by physical exercise. However, excessive physical movement which strains the body beyond its natural limits can be harmful.

## Practical Implications

- Like other animals, humans have a fundamental need for movement. The need to provide food and sustenance, find a partner, and adapt to threats continues to motivate human movement today.
- The human body is designed for travel over long distances. Our physiological design is related to our primeval need to hunt and gather over large areas. Even today, we experience a 'high' from prolonged exercise, due to the release of pain-relieving endorphins in the brain.
- Movement is important for human health. In an increasingly sedentary society, human powered movement has an increasing role in preventing obesity and health problems.
- Human evolution encouraged the development of migration. This has enabled us to adapt successfully to climate change, migrating vast distances to find land suitable for habitation. During the last glacial period, when sea levels were lower, human migration reached every continent on earth except Antarctica.

## Further Reading/Resources

John Archer and Lynda Birke, (eds), *Exploration in Animals and Humans* (1993)

Good introduction to the basics of animal movement.

Charles Pasternak, *Quest: The Essence of Humanity* (2003)

Argues that humanity's defining feature is our unceasing desire to search and explore.

Dirk Brockmann et al., 'The Scaling Laws of Human Travel', *Nature* 439 (26 January 2006)

Explores the complex patterns that make up human movement.

Hans Villarica, 'How humans and other animals learn to walk', *Atlantic Magazine*, (Nov 17 2011)

Article suggests that the mechanisms of human movement are not as distinct as we might like to believe.

## Key Questions

In what ways do the primeval needs for food, safety and relationships drive our travel choices today?

What is the relationship between movement and human well-being: does this explain why policies to encourage homeworking have not fulfilled their objectives?



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