

GlobeLife

Why we're often lost in space

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As an experimental psychologist, Colin Ellard maps the differences between the navigational skills of animals and humans. In his work at the University of Waterloo, Dr. Ellard has come to learn that we can't hold a candle to even the common mouse - let alone remarkable migratory species such as the Monarch butterfly.

And still, when Dr. Ellard embarked on a family camping trip in Algonquin Park he couldn't avoid making the kinds of human errors he studies. He and his wife managed to get spectacularly lost after leaving a marked trail, even convincing themselves that a familiar landmark - an island with an osprey nest - was not the same island but a second, completely different island.

In his new book, *Where Am I? Why We Can Find Our Way to the Moon but Get Lost in the Mall*, Dr. Ellard explores how we have all come to lose our way in the world, despite being its brainiest creatures.

There were a number of cases this past winter of skiers getting horribly - sometimes fatally - lost after leaving marked trails. You argue that these aren't random events - they're predictable.



[Enlarge Image](#)

Colin Ellard at Toronto's Eaton Centre with geese: They have navigation tools we lack.
(HARPER COLLINS)

We cling to this idea that we know where we are. By the time we abandon it, we're really lost.

Then we're really in trouble. My story was like that. Even though the facts were obvious, in hindsight, at the time, in the context, we were quite convinced that there were these two islands with two osprey nests. We wouldn't let go of that idea. I've heard of other stories when people have been lost and they've had a compass and the compass disagrees with their mental map of space. So they think their compass is broken.

There's an added level of frustration. You think, "I'm a smart person. Why can't I figure this out?"

It's really primal. One of our earliest and biggest fears is the fear of being lost. You can even see it written into aspects of our mythology. Think of the Minotaur and the labyrinth. It's deep. We're the only animals that talk about this stuff. We can reduce it all to sets of equations and send rocket ships off into space, but you put the average one of us into the shopping mall and we're trapped in there for years eating fries and drinking bad coffee.

You explain one of the reasons we have this problem is that our brains construct spaces instead of sense them.

One of the hallmarks of being human is to have the ability to detach ourselves from the here and now. How often are you actually in the moment? You're usually off somewhere else, imagining some entirely other place or situation. That works to our benefit, that ability to imagine places where we're not. When it comes to being able to locate ourselves in the here and now, it can be a handicap.

So, what does the ant or the homing pigeon have that we don't?

The African ant forages for these vast distances. They find what they're looking for and make this immediate straight line back to their nest. For the entire time that they've been foraging they've been able to preserve this kind of homing vector. At any given time they can immediately turn and not only know the right direction home, but how far they have to go. In human terms, imagine getting about 40 kilometres from where you started and being able to make a beeline, or an ant-line I suppose, directly home. Formally, it's called "path integration" and we can do it but we really are not very accurate at all.

A different case would be homing pigeons or sea turtles which have access to magnetic fields. They have sensory equipment, as far as we know ... which they can use to find direction and, in some cases, location.

But some human cultures have figured out good systems.

Two things seem to be universal in wayfaring cultures like the Inuit and the Australian Aborigines. One of them is that they've honed this exquisite eye for detail that we don't have. The other thing that these cultures do is use narrative and story. The best example of all is these song lines in Aborigines - what they're doing is they are making an explicit connection between their creation, the creation of everything, and the shape and size of

the landscape. They're using song lines as a kind of navigational aid, but at the same time there's this spiritual connection to place.

You suggest our built environment - even cyberspace - adds to the static between us and nature.

Part of it is we just lack the tools that other animals have. And part of it is that because of our abilities, we've built an environment for ourselves that has made it possible for us to survive without having access to that very detailed information about where we are. We build a shelter and cocoon for ourselves from the rest of the world.

But then again, we invented the GPS! We can't find our way for real, but we can create a technology to do it for us.

The first time I thought about technology that way was not long after I bought a GPS for my family to try geocaching with my kids. I thought it was a wonderful way to get them outside and get them interested in place. ... It's the same with social networking features on your phone; now you can use it to track not only what your friends are doing, but where they are. And how far they are away from you.

It's almost a hyper-modern, silicone-based analogue of Aboriginal song lines. We're connecting our stories to places, but not by singing songs, with these gizmos we hold in our hands.