

Dunbar Number Reading

This reading comes from an interview of British social anthropologist Robin Dunbar by Alex Krotzky, of the British Newspaper, “The Observer”. Dunbar did some very rigorous research where he found that he could calculate the natural size of groups for any species of primate simply from the size of the part of the brain called the “neocortex” for that particular species. So here is the reading:

Not many people have a number named after them, but Robin Dunbar lays claim to the Dunbar Number. Confusingly, no precise value has been attached to this figure, but a commonly cited approximation is 150 – and this is the number of people with whom we can maintain a meaningful relationship, whether in a hunter-gatherer society or on Facebook.

[Dunbar is ...]The director of the Institute of Cognitive and Evolutionary Anthropology at Oxford University.

What does your work tell us about the way we interact socially?

The way in which our social world is constructed is part and parcel of our biological inheritance. Together with apes and monkeys, we're members of the primate family – and within the primates there is a general relationship between the size of the brain and the size of the social group. We fit in a pattern. There are social circles beyond it and layers within – but there is a natural grouping of 150.

This is the number of people you can have a relationship with involving trust and obligation – there's some personal history, not just names and faces.

And this is is the Dunbar number! How did you come up with this concept?

I was working on the arcane question of why primates spend so much time grooming one another, and I tested another hypothesis – which says the reason why primates have big brains is because they live in complex social worlds. Because grooming is social, all these things ought to map together, so I started plotting brain size and group size and grooming time against one another. You get a nice set of relationships.

It was about 3 am, and I thought, hmm, what happens if you plug humans into this? And you get this number of 150. This looked implausibly small, given that we all live in cities now, but it turned out that this was the size of a typical community in hunter-gatherer societies. And the average village size in the [Domesday Book](#) is 150 [people].

It's the same when we have much better data – in the 18th century, for example, thanks to parish registers. County by county, the average size of a village is again 150. Except in Kent, where it was 100. I've no idea why.

Has this number evolved at all?

The Dunbar number probably dates back to the appearance of anatomically modern humans 250,000 years ago. If you go back in time, by estimating brain size, you can see community size declining steadily.

How can we grow the Dunbar number?

We're caught in a bind: community sizes were designed for hunter-gatherer- type societies where people weren't living on top of one another. Your 150 were scattered over a wide area, but everybody shared the same 150. This made for a very densely interconnected community, and this means the community polices itself. You don't need lawyers and policemen. If you step out of line, granny will wag her finger at you.

The alternative solution, of course, is that we could evolve bigger brains. But they'd have to be *much* bigger, and it takes a long time.