

# Baby, I've got your number

*There's an optimum size for organisations, work teams, social groups, and even messages,*  
writes **Fiona Smith**

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Do you know why most people at social events congregate in groups of no more than four? Or that we can't remember accurately lists of more than seven things? Why, when our organisations grow to more than 150 people, do we start to feel disconnected.

The answer to these questions lies in the evolution of our brains, from 250,000 of years of tribal living on the plains, topped off by the short hop, skip and a jump of a few hundred years living in towns and cities.

The process of natural selection over millennia means that even though we live so differently from our ancient ancestors, our brains have not kept pace with the change.

Our preference for certain numerical groupings is an area that does not seem to make sense in the modern world, but was perfectly adapted to a time when humans lived in small groups and were (rightly) suspicious of outsiders.

"You can take the person out of the Stone Age... but you can't take the Stone Age out of the person," according to one of the best-known researchers in organisational behaviour, Nigel Nicholson of the London Business School.

The importance of numbers in the modern organisation is one theme in a book by Australian human resources consultant, Andrew O'Keeffe, *Hardwired Humans: Successful Leadership Using Human Instincts* (Roundtable Press). Sydney based O'Keeffe specialises in explaining the implications of human instincts, often looking to chimpanzees to make points about human behaviour. (Chimps share almost 99 percent of our DNA). In his view, you can't hope to manage people effectively if you don't understand the evolutionary reasons for why we do the things we do.

## **FOUR – Commanding attention**

People, when they gather, tend to stand around in groups of no more than four. Take a look next time you are at a party or break for tea at a conference. When a fifth person joins a group of four within seconds the group either breaks into two groups of two and three, or one person wanders off to join another group," says O'Keeffe.

The reason for this is that we naturally form groups according to our ability to hold people's attention. In a group of four, each voice can be heard and there is space to acknowledge each person. In a cluster of five or six, attention gets too fragmented.

O'Keeffe says our vocal ability – often gossip and small talk – is our form of social grooming and is used to maintain relationships in much the same way as the chimps at Sydney's Taronga Zoo bond by combing through each others' fur in search of fleas.

Humans can hold the attention of up to three people at a time (unless they are a powerful alpha-type), according to research by an Oxford University evolutionary psychologist and anthropologist, Robin Dunbar.

By the way, Dunbar says 66 per cent of our conversations are social chitchat and the average person spends 20 percent of their day "grooming" through such small talk. No coincidence that chimps spend the same proportion of their days flea-hunting.

Leaders can use this information to understand that people won't speak up in large groups but, in a small huddle of people, may express their concerns and have them addressed. This can be particularly useful in change management.

## **SEVEN – A memory challenge**

People find it hard to recall lists of more than seven things and this relates to the size of the brain's working memory, says O'Keeffe.

This is the reason experts often recommend leaders should have no more than seven direct reports or more than the number of responsibilities. "After seven, plus or minus two, we tend to make mistakes," says O'Keeffe. "Up to seven is the number of people that work in a syndicate team at an office – eight is quite dysfunctional due to the increased mathematical combinations."

In a study by physicist Peter Kline of the Medical University of Vienna, analysing the size of a committee that is the most dysfunctional, the number that stood out as the worst was the committee size of eight.

"Seven or so people as a group is the size that can best create a sense of intimacy."

Travel group Flight Centre is a convert to this way of thinking and limits staff numbers in its retail outlets to seven. It has preferred to open a second outlet in the same area, rather than expand staff beyond that ideal number. O'Keeffe quotes flight Centre human resources director Michael Murphy in his book: "Any time we compromise the rule of seven and even

had eight staff in a store, productivity dropped. From painful experience, we will not compromise team size, our family team, of seven in number.

“This family unit is a foundation of our business, both in terms of the connection of people and the accountability of managers.”

Another principle where seven makes an appearance is in the number of words you have in which to make an impression before your listeners make up their own minds.

“When we seek to persuade others, we only get two seconds, or seven words, to influence people before they make their own conclusions about the proposition you have put,” says O’Keeffe.

### **150 – It takes a village**

The natural size of a grouping of humans is 150, based on the ratio of the size of the brain and body, according to Oxford’s Robin Dunbar. “The way in which our social world is constructed is part and parcel of our biological inheritance,” Dunbar told *The Guardian* newspaper last month.

“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.”

As organisations grow beyond 150 workers, people begin to feel they are less friendly and silos start to form. People start to identify with their department or location, rather than with the organisation as a whole.

O’Keeffe says: “Our brains are not big enough for individuals to associate with and gain identity in organisations of 2,000, 20,000 or 200,000. “A significant implication of our clannish instinct is that we have an inherent fear of strangers,” says O’Keeffe.

Holding fast to this principle is US based firm Gore Associates (Makers of Gore-Tex), which limits its facilities to 150 people. Once its 150-space car park fills up, it is time to build a new facility.

Flight Centre groups its operations in smaller “villages” of around 100 people. “Flight Centre in effect uses the clan-size concept to foster a healthy sense of rivalry rather than allow the rivalry to emerge in an unplanned and unmanageable way,” says O’Keeffe.