

The Dunbar Number, From the Guru of Social Networks

By Drake Bennett January 10, 2013



Photograph by Finn Taylor

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A little more than 10 years ago, the evolutionary psychologist Robin Dunbar began a study of the Christmas-card-sending habits of the English. This was in the days before online social networks made friends and “likes” as countable as miles on an odometer, and Dunbar wanted a proxy for meaningful social connection. He was curious to see not only how many people a person knew, but also how many people he or she cared about. The best way to find those connections, he decided, was to follow holiday cards. After all, sending them is an investment: You either have to know the address or get it; you have to buy the card or have it made from exactly the right collage of adorable family photos; you have to write something, buy a stamp, and put the envelope in the mail. These are not huge costs, but most people won’t incur them for just anybody.

Working with the anthropologist Russell Hill, Dunbar pieced together the average English household’s network of yuletide cheer. The researchers were able to report, for example, that about a quarter of cards went to relatives, nearly two-thirds to friends, and 8 percent to colleagues. The primary finding of the study, however, was a single number: the total population of the households each set of cards went out to. That number was 153.5, or roughly 150.

This was exactly the number that Dunbar expected. Over the past two decades, he and other like-minded researchers have discovered groupings of 150 nearly everywhere they looked. Anthropologists studying the world’s remaining hunter-gatherer societies have found that clans tend to have 150 members. Throughout Western military history, the size of the company—the smallest autonomous military unit—has hovered around 150. The self-governing communes of the Hutterites, an Anabaptist sect similar to the Amish and the

Mennonites, always split when they grow larger than 150. So do the offices of W.L. Gore & Associates, the materials firm famous for innovative products such as Gore-Tex and for its radically nonhierarchical management structure. When a branch exceeds 150 employees, the company breaks it in two and builds a new office.

For Dunbar, there's a simple explanation for this: In the same way that human beings can't breathe underwater or run the 100-meter dash in 2.5 seconds or see microwaves with the naked eye, most cannot maintain many more than 150 meaningful relationships. Cognitively, we're just not built for it. As with any human trait, there are outliers in either direction—shut-ins on the one hand, Bill Clinton on the other. But in general, once a group grows larger than 150, its members begin to lose their sense of connection. We live on an increasingly urban, crowded planet, but we have Stone Age social capabilities. “The figure of 150 seems to represent the maximum number of individuals with whom we can have a genuinely social relationship, the kind of relationship that goes with knowing who they are and how they relate to us,” Dunbar has written. “Putting it another way, it's the number of people you would not feel embarrassed about joining uninvited for a drink if you happened to bump into them in a bar.”

While Dunbar has long been an influential scholar, today he is enjoying newfound popularity with a particular crowd: the Silicon Valley programmers who build online social networks. At Facebook ([FB](#)) and at startups such as Asana and Path, Dunbar's ideas are regularly invoked in the attempt to replicate and enhance the social dynamics of the face-to-face world. Software engineers and designers are basing their thinking on what has come to be called Dunbar's Number. Path, a mobile photo-sharing and messaging service founded in 2010, is built explicitly on the theory—it limits its users to 150 friends.

“What Dunbar's research represents is that no matter how the march of technology goes on, fundamentally we're all human, and being human has limits,” says Dave Morin, one of Path's co-founders. To developers such as Morin, Dunbar's insistence that the human capacity for connection has boundaries is a challenge to the ethos of Facebook, where one can stockpile friends by the thousands. Dunbar's work has helped to crystallize a debate among social media architects over whether even the most cleverly designed technologies can expand the dimensions of a person's social world. As he puts it, “The question is, ‘Does digital technology in general allow you to retain the old friends as well as the new ones and therefore increase the size of your social circle?’ The answer seems to be a resounding no, at least for the moment.”