

# Social distancing: Origins and effects

Under normal circumstances the interpersonal distances chosen by people depend on many things. But what are the impacts of required changes in behavior during unprecedented times?

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Staying away from each other has become crucial to slow the spread of the coronavirus. Public health officials have instructed us to practise social distancing, stay home, avoid crowds, and refrain from touching one another.

In 1963, when Edward Hall, a cultural anthropologist, coined the term *proxemics* to define studies about social distancing in everyday life, nobody thought that a virus, 100 times smaller than even a bacterium, would make human closeness a big problem. Hall's concern was that closer distances between two persons may increase visual, tactile, auditory, or olfactory stimulation to the point that some people may feel intruded upon and react negatively. Today we are worried about becoming exposed to a viral attack.

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Hall proposed four main zones of space between individuals:

- Intimate distance (less than half a metre), such as in giving or receiving a hug.
- Personal distance (about 1 metre), usually reserved for family or good friends.
- Social distance (2 to 3 metres), when meeting strangers.
- Public distance (more than 5 metres), such as in public presentations.

Under ordinary circumstances, the interpersonal distance chosen by people depends on attitudes toward each other, as well as gender, age, and even climate. In addition, “contact cultures” use closer interpersonal distances and engage in more touching; “noncontact cultures” exhibit opposite preferences. In ordinary times the amygdala is suspected of processing strong reactions to violations of social spaces. Now we are facing compulsory social distancing beyond the amygdala and proxemics. We are ordered by public health authorities to create distances between households, neighborhoods, cities, and even countries.

Overall, people are resilient to short-term social distancing, although individuals who already have problems with loneliness, anxiety, depression, substance abuse, or other health issues are likely to be vulnerable to even more problems. In the short run, understanding the purpose of prolonged isolation and having pride

in being a good citizen by following the advice of professionals may help.

A 2015 study suggested that long-term social isolation (in the absence of a threat like the current viral infection) increased the risk of mortality by 29% for people with chronic conditions such as heart disease, depression, and dementia.

There are no studies about the unintended side effects of enforced long-term social distancing. Confinement of families with children may result in unexpected interpersonal tensions. The physical closeness may exacerbate domestic violence. Missing the coping mechanisms provided by the emotional experiences of sporting or artistic events, or religious ceremonies, may be a problem for many people. Anxiety about finances secondary to job

losses and the interruption of schooling are only part of a predictable rise in mental health problems. And this is only a short list of what a submicroscopic lifeless protein can do when it burrows itself into the cells of our body to copy and copy itself, multiplying to wreak havoc in our lives, and even kill us. ■

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#### Suggested reading

- Kennedy DP, Gläscher J, Tyszka JM, Adolphs R. Personal space regulation by the human amygdala. *Nat Neurosci* 2009;12:1226-1227.
- Miller G. Social distancing prevents infections, but it can have unintended consequences. *Science*. Accessed 8 April 2020. [www.sciencemag.org/news/2020/03/we-are-social-species-how-will-social-distancing-affect-us](http://www.sciencemag.org/news/2020/03/we-are-social-species-how-will-social-distancing-affect-us)
- Wikipedia. Proxemics. Accessed 8 April 2020. <https://en.wikipedia.org/wiki/Proxemics>