

## The interest of social distancing

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**Social distance or distancing, the term is often used in the Covid19 pandemic. Far from being useless, its ambivalence is paramount. It illustrates the relationships between the social animals that are human beings and its content is much richer than the simple physical or geographical distance.**

Social distance or distancing, the term is ambiguous and could be considered an oxymoron. Yet this ambivalence is paramount. It has the merit of illustrating the relationships between the social animals that are human beings and its content is much richer than the physical or geographical distance. I will illustrate it with a few examples, based on epidemiological analyses, proxemics and proximity relationships.

In 1918, during the Spanish flu pandemic, Doctor Max Starkloff defined and then implemented the principle of «social distancing», which we now translate sometimes into social distance. This empirical method, which only repeats and systematizes much older practices, prohibiting in particular the gatherings of more than twenty people, has then been applied during various epidemic episodes. Studies conducted in the city of Sydney estimate that these measures saved from 100,000 to 260,000 lives in 1919. They are often considered to play a major role in reducing the impact of the epidemic in terms of public health (Caley et al., 2006). But other works, based on simulations, suggest that social distancing, however severe, is only effective in the case of not too virulent epidemics (Reluga, 2010), and that nothing replaces the effectiveness of vaccination as soon as the spreading factor becomes too important.

Let's briefly come to the physical distance in its simplest form, which is that of geographical proximity, extensively studied and documented by the researches on proximity relations (Torre, 2014). In the case of the Coronavirus pandemic, as in many other situations, it can be simply observed that a strong geographical proximity promotes the spread of the virus and the infestation of people, by direct (cough, sneezing, postillions, etc.) and indirect physical contacts (when someone touches a contaminated surface), or by air transmission. This is the reason why, following the great epidemics of the twentieth century, is advocated the setting of a social distancing, which takes various forms and is based on more or less radical techniques, some of which are familiar to us since the Middle Ages: wearing masks, isolating identified patients, quarantining, closing schools, banning cultural, sporting or religious gatherings, starting with total confinement of the population, absolute prohibition of leaving one's place of life... So many actions or measures that can be combined, and whose objective is to avoid suffering this deadly geographical proximity.

The introduction of these rules, and in particular of the most extreme one, lock-down, is far to be related to the sole technical or physical domains and carries a very strong social and institutional content. This is evidenced, for example, by the differences, in this situation, between countries such as Sweden, which has not decided on containment, and Italy, where the rules are very strict. Or, in a more extreme way, in the USA, the demonstrations of the supporters of de-confinement, who ask a return to a situation of freedom of movement of people by arguing of obstacles to their fundamental rights. Obviously, economic considerations are not unrelated to these differences as well; the introduction of isolation or barrier gestures is clearly a powerful brake on productive and commercial activity. But it also has a strong impact on our lifestyles, calls into question many personal or

professional habits and practices, and raises many issues about life in society and relationships between people.

The first concerns obstacles or deprivation of physical contact, which have a social dimension that goes beyond mere physiology. The proxemics studies, developed by the cultural anthropologist Edward Hall (1966) and the geographers Moles and Rohmer, allow us to understand that behind the physical distance lies social contact, whose limitation impacts the comfort zone surrounding the individual. Each person is surrounded by a surface around him, a kind of bubble that constitutes an emotionally strong zone or an individual security perimeter. Its size varies from crop to crop, but covers four growing areas. The intimate distance, which is accompanied by a great physical involvement and a high sensory exchange, is used to embrace, touch, it is that of love. Personal distance refers to specific conversations and interactions between friends or family members. The social distance, which concerns interactions with friends and colleagues, applies particularly well in the context of work. Finally, public distance is required when talking to groups of people. From these different distances, it results in the existence of territories of the individual. They are defined according to the type of interactions and relationships that he practices and correspond to the territory of the social animal that is the human being. It is also found in animal societies, and some species go as far as practicing the “shyness” of trees, which implies a gap between their tops (Fish et al. 2006).

This contact area is obviously very strongly influenced by both technical actions and fear of contact caused by the indisputable spatial dimension of the spread of the pandemic. Thus, work in co-presence and co-working, as we like to practice in open spaces, becomes dangerous and prohibited, whereas face-to-face interactions, recommended for the co-creation of knowledge, ideas or the dissemination of innovations (Feldman, 1994), are cut off or made impossible. A large part of the benefits of co-location of innovators or engineers is thus mostly reduced and the interior design of workplaces needs to be rethought (Zhang et al., 2020). The same is true of all invention laboratories, such as living labs or fab labs, which are based on grouping people in one place, face-to-face exchange, common manipulation of technical objects and joint interventions on the same process... Or third places, which mix technicians and lay users in the development of shared projects (Oldenburg, 1991). All the well-known and often celebrated virtues of face to face interactions are thrown down because of the need to maintain a social distancing, which rightly prohibits social practices and their positive effects. This even goes as far as urban development, which can be modified to reduce contact possibilities, by means of temporary settings corresponding to strategic urbanism tactics (Honey-Roses et al. 2020).

Proximity approaches have taught us for a long time that the distancing of people does not only have geographical or spatial effects, but that it leads to a loss of exchanges and landmarks. An important part of the interactions between human beings goes through attitudes, facial expressions, pheromones, human contact, kisses, hugs, shaking hands, conviviality around a glass or a meal, and can only reproduce imperfectly at a distance. This distance exchange and its limitations are well known to sociologists (Urry, 2002). It is also on this observation that the existence of localized production systems and policies for the creation of clusters or technopoles is based, which seek to promote exchange between scientists or technicians (Porter, 1998).

In this case, geographical proximity (let's call it physical distance) is not the only important variable. Another crucial dimension is the so-called organized proximity. I can find myself in the most beautiful technopolis, if I do not share cognitive, emotional, cultural and organizational resources with my neighbors it has no interest to be at a short physical distance from them. It is the combination of these two variables – geographical proximity and organized proximity – that creates positive interactions, whether economic or social. Their secret, to quote Alfred Marshall's famous joke, is not in the air but in the social bond. And this is also where the existence of urban agglomerations, and in particular cities,

comes from. The search for geographical proximity explains the constitution of cities and urban agglomerations, associated with the search for contact, the interactions of life in society, which fall under the organized proximity (Bourdeau-Lepage and Torre, 2020). Economies of agglomeration, which are positive externalities that benefit to every inhabitant and to which he aspires by being located in densely populated areas, are based on their combination.

But in times of pandemic this virtuous causality is reversed because the risk of diffusion becomes much more important in the heart of towns or cities. Regular and repeated meetings, face-to-face interactions, contacts, that's all the Covid19 appreciates! Geographical proximity, hitherto sought for its benefits, becomes a source of major inconvenience, at the risk of disease and death. As far as possible, people prefer to move to rural or less densely populated areas, which are less affected by geographical proximity because of their lower concentration. This is one of the causes of the urban exodus in France in March, conducted by the desire to find oneself in a more «healthy» area than the city. For people forced to stay or return to the urban space, the practice of the individual car becomes attractive again, because it makes it possible to recreate the famous bubble around the individual and thus to preserve, as far as possible, their health, given the challenge of protection in public transport. Geographical proximity is also a ruthless indicator of social inequalities and fractures. The size of the house, the number of rooms and people who occupy them, the layout of a garden or terrace, refer to a possibility of social distancing and of living in common more or less important according to income.

It is much more dangerous to impose lock-down inside homes for very large families. They feel probably safer and more likely to respect distancing when they are outside, especially in case of wearing masks. Beyond the epidemiological risk involved, the cramped housing for a large family makes confinement difficult. Proximity is exacerbated, social distancing becomes difficult, if not impossible, and the space of each person becomes drastically reduced. The increase in domestic and gender violence becomes the price to be paid in the event of an exit ban, and logically affects the more deprived neighborhoods, where the number of people is much higher per square meter. The penalty is then double, in the image of the character of social distancing: to the physical infection, much stronger in the more crowded and poor areas, comes added social misery. The message of lock-down is then difficult to communicate, especially when it comes to emerging economies, in which a large part of the population lives off to informal labor, which requires daily physical and social contacts, and does not have sufficient savings or income to cease all activity for a relatively short period of time. In slums and favelas, as well as in working-class neighborhoods in developed countries, the geographical proximity of workers and blue collars is deadly. Forced to exercise their activity as caregivers, cashiers, garbage collectors, etc. travelling in scarce public transport, they are exposed to the risk of disease, while they sometimes do not have access to the simplest tools of social distancing.

The vast majority of others, the middle classes, are now working remotely, and teleworking is developing, based on the use of information and communication technologies (ICTs), in parallel with other modes of remote interaction such as telemedicine or even a good part of teaching. Remote relationships replace face-to-face interactions. If they are just as social as the latter, these relations act the separation of bodies and people through the development of the Internet and social networks. Organized proximity, of relational and not geographical essence, is then used. It has always existed between people, making reference to the people we love, the friends, the family, the persons with whom we feel close because we share the same origins, the same culture, the same ways of seeing the world. Thanks to the development of ICTs it has developed; they enable knowledge exchange and remote working, largely abolish the constraints of geographical proximity, and therefore of distance, in particular (Torre and Rallet, 2005). But this augmented remoteness asks questions, and we do not

yet measure all the consequences. The development of syndromes and psychological diseases in time of lock-down is a cause for concern, but is it linked to this absence of social bond?

The use of ICTs is also strongly mobilized in proximity tracing or contact tracing applications, which should make it possible to identify infected persons and report them to people in their immediate geographical proximity, thanks to the virtues of Bluetooth, for example. The development of these practices, whether or not based on the voluntary work of infected persons, obviously raises massive legal questions and individual freedoms, as well as problems of artificial intelligence, big data or machine learning (Kuhn et al. 2020). Fraser and his team simulated the use of proximity tracing in a fictitious city of one million people (Ferretti et al., 2020) and estimated that the use of this application, based on geographical proximity, could lead to a massive reduction in the spread of Coronavirus. Recent applications in Singapore, however, suggest that the social component of proximity plays an unanticipated role, with the refusal of many people to download the application, which only becomes effective if more than 60% of the population makes use of it (Bay, 2020).

It appears that the term of social distance or distancing is well chosen, combining a purely physical component - the distance that can exist between two objects like a table and a chair - and the fundamental social component that governs every human or living relationship. These two variables must therefore be carefully considered. The physical distance to try to stop the contagion, the social proximity to try to preserve human exchanges and maintain life in society beyond the family or intimate circle. Considering social distancing forces us to think, to come out of easy patterns, and reminds us that distance or proximity is not only a physical affair. Man is indeed this social animal, which combines individual impulses with group functioning and fears the virus while feeling the pangs of spatial isolation. The question before us now, at the time of distant or distant exchanges, is our ability to socialize in ways other than anecdotal. Are we still a society, when we exchange through our connected terminals? These people who no longer see each other, who no longer touch each other, do they still form a society, or only an agglomeration of individualities? Are the laws and rules sufficient to maintain the link in the absence of social contact? Does the social and spatial distinction between those who go out to work and those who remain isolated to do their daily job introduce a new social and spatial divide?

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