

## The major factor behind Asia's more effective handling of diseases

By Lynn K Tan and Norman P Li

**S**INCE early this year, the Covid-19 pandemic has plagued just about every country in the world. Yet, countries have differed vastly in their infection rates and responses to control the situation. Asian nations seem to be handling the virus more effectively than Western countries. China, for instance, hit a peak of daily new cases in February and largely eliminated new cases within a few weeks. In contrast, in the US and Brazil where total cases together exceed five million, the new case numbers are coming down very slowly or are still rising after a few months. Such differences have been attributed to various cultural differences between the East and West. Here, we consider a major factor that may underlie why Asian countries are more naturally suited to handle such crises: evolution.

First, let's take stock of the explanations identified thus far. One involves looser government policies and lower citizen cooperation in the West versus East. For instance, England has been reported to experience low cooperation with policies and guidelines such as social distancing and mask-wearing. In the US, where no quarantines have been imposed for citizens, several protests have occurred, with slogans declaring that people would rather die than be at home and out of work. Likewise, Australia and Italy have experienced large-scale violations of orders pertaining to lockdowns and social distancing.

Another reported explanation is that Asian countries have had recent experience dealing with other outbreaks (for example, Sars, Mers) and hence are better prepared with knowledge and infrastructure facilitating the management of epidemics. Other suggested explanations include Asia taking measures such as rigorous testing and contact tracing, Asian societies' normal social habits (such as wearing masks due to air pollution and past influenza experiences), and Asians having a stronger sense of social responsibility and less individualistic values.

These various cultural differences may all have a common evolutionary origin. Culture evolution researchers believe that psychological tendencies collectively known as the behavioral immune system have evolved to minimise exposure to situations where pathogens might lurk. Importantly, this psychological immune system evolved to be stronger in places that historically faced a greater level of pathogens. In line with this idea, Asia appears to have had higher pathogen levels than Western countries throughout history and to also have behavioural tendencies that are more cautious against contracting pathogens.

What exactly are these "cautious" genes that Asians have inherited? Firstly, the behavioral immune system manifests in personality traits that prevent people from coming into contact with un-

related others who might have pathogens. Studies have found that people in regions with historically higher pathogen prevalence have lower levels of extraversion, are less open to new experiences, and have a more restricted socio-sexuality. Extraverted people enjoy social interactions with strangers and hence, have higher social contact with people who could have contagious germs. Openness refers to being receptive to trying novel, non-conventional things, such as a new type of food, making friends of different ethnicities, etc. – things that increase exposure to contagion. Sociosexuality refers to the extent to which one engages in casual or promiscuous sexual behaviours, which puts a person at greater risk of contracting sexually and non-sexually transmitted diseases.

Across several studies, Asians have been found to be lower than Westerners on all three traits. Using data from cross-cultural studies of personality traits and live Covid-19 number of cases globally, we found that both extraversion and openness significantly and positively predicted a country's number of confirmed cases per 100,000 people.

### COLLECTIVISM

Secondly, the behavioural immune system manifests in values – in particular, being especially communal and law-abiding. Higher adherence to a society's norms and authorities (as in Asian countries) has been linked to greater prevention of pathogen transmission. Indeed, studies have found that when people become aware of pathogen threats, they tend to endorse conformity, prefer others who demonstrate more conformist traits, and conform to the majority opinion. Furthermore, high historical pathogen prevalence – such as in Asia – has been found to be correlated with higher conformity pressures, endorsement of collectivistic values, and authoritarian attitudes, and a stronger sense of social responsibility. Using public data on cross-national collectivism scores, we ran statistical analyses and found that higher collectivism is not only related to lower Covid-19 death rates, but is also a significant explanatory factor for why Asian countries have lower death rates from this virus.

In summary, a major factor underlying Asia's higher success in handling the coronavirus is because Asians have potentially been dealing with viruses for thousands of years, and have evolved to have personality traits and values that are conducive for preventing and containing contagious diseases. Although the modern world is quite different from the ancestral world, some of the solutions to the threat or presence of viruses are still facilitated by the same cautious traits.

■ The writers are from the School of Social Sciences, Singapore Management University. Lynn K Tan is a PhD student in psychology. Norman Li is associate professor of psychology