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Social Distancing and Ethnic Diversity

Voluntary social distancing plays a vital role in containing the spread of the disease during a pandemic. As a public good, it should be more commonplace in more homogeneous and altruistic societies. For healthy people, social distancing offers private benefits, too. If sick people are more likely to stay home, healthy ones have fewer incentives to do so, especially if asymptomatic transmission is perceived to be unlikely. This interplay may lead to a stricter observance of social distancing guidelines in more diverse, less altruistic societies. Consistent with this prediction, we find that mobility reduction following the first local case of COVID-19 was stronger in Russian cities with higher ethnic fractionalization and cities with higher levels of xenophobia and we confirm that mobility reduction in the United States was also higher in counties with higher ethnic fractionalization. Our findings highlight the importance of creating strategic incentives for different population groups in crafting effective public policy.

During the COVID-19 pandemic, governments in almost all affected countries have imposed restrictions aimed at promoting social distancing. However, enforcing these restrictions is logistically and politically costly. The effectiveness of these measures depends heavily on people voluntarily observing social distancing guidelines. The conventional wisdom is that informal social norms are more difficult to sustain in ethnically diverse societies (Alesina and La Ferrara, 2000; Algan et al., 2016). In Egorov et al. (2021), we challenge this notion by showing that during the COVID-19 pandemic ethnic diversity has increased prosocial behavior in Russia and the United States.

At least at the beginning of the pandemic, most people considered themselves healthy. For them, the decision to stay home has been driven more by the fear of getting infected than by the desire to avoid infecting others. The likelihood of getting infected is higher if sick people cannot be expected to self-isolate, which, in turn, depends on their prosocial considerations. If people are subject to out-group biases and care less about people from other groups, then the sick are less likely to engage in social distancing in more diverse places. This makes people who consider themselves healthy more likely to self-isolate. Since healthy people constitute a majority, at least in the early stages of a pandemic, we expect to see more social distancing in more diverse societies. Generally, in these circumstances, the private benefits of those who consider themselves healthy align with social objectives.

In Egorov et al. (2021) we formalize this argument and provide causal evidence of the differential decline in social distancing based on ethnic diversity in Russia and the United States.

Method

Our theory predicts that people engage in social distancing more in places with higher ethnic fractionalization when the probability of getting infected becomes nontrivial. To test this prediction empirically, we use two approaches. First, we report difference-in-differences estimates, where we compare cities with higher and lower levels of ethnic fractionalization before and after the first reported case of COVID-19 infection in their region. Second, we combine the difference-in-differences approach with a two-stage least-squares approach, in which the timing of the first reported case is instrumented using measures of preexisting migration.

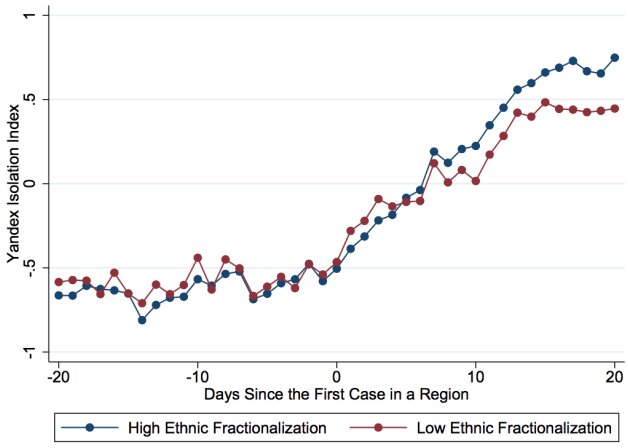
One potential concern with the first approach is that the timing of the first case is not fully random. For example, regions could report late COVID-19 cases because their medical capacity precluded them from correctly identifying the virus in time, or because their testing policies could be ineffective, or because their administration was prone to conceal the first cases for a longer time. To deal with these potential confounds in the first approach we use predicted timing of the first case. Specifically, we use the fact that travel connections between various cities and Moscow (where the first major outbreak occurred) could affect the timing of the first case in those cities' respective regions. We rely on internal migration as a proxy for these types of connections (Mikhailova and Valsecchi, 2020; Valsecchi and Durante, forthcoming) and use a shift-share instrument for internal cross-regional migration to deal with the endogeneity of migration.

Data and Results

To measure social distancing, we use data on people's movements provided by Russia's largest technology company, Yandex, which tracks individuals' cell phones with its mobile apps. In particular, we use daily averages of the Yandex Isolation Index, which aggregates data on people's movements at the city level and is analogous to the Google Mobility Index. The index is calibrated for each city to be 0 for the busiest hour of the working day, and 5 for the quietest hour of the night before the coronavirus outbreak. We use daily data for 302 cities with a population over 50,000 from February 23, 2020, through April 21, 2020.

Information on the first reported case of COVID-19 in each region is taken from the government-agency website that contains official information about the pandemic. Data on ethnic fractionalization is based on the 2010 Census. Information on interregional migration and control variables comes from the Russian Federal State Statistics Service.

Figure 1. *Isolation Over Time for Places with High and Low Ethnic Fractionalization*



Source: Egorov et al. (2021)

Figure 1 shows no visible difference in the behavior of people in cities with low and high levels of ethnic fractionalization before the first coronavirus case. In both groups of cities, people have engaged in more social distancing since the discovery of the first case. However, after one week, people in more fractionalized cities have been more likely to stay home than people in less fractionalized cities. The effect does not manifest itself immediately after the discovery of the first case, which likely reflects the fact that a certain time is needed to disseminate information about the discovery of the coronavirus in the region. Moreover, the growth in self-isolation in more fractionalized cities is somewhat lower in the first days after the discovery of the first case, which may be driven by people catching up on unfinished tasks that require mobility, such as last-minute purchases, in anticipation of more stringent self-isolation in the future.

The results of the difference-in-differences and IV estimation confirm the results of the visual analysis. The magnitudes of the IV estimation imply that a one-standard-deviation increase in ethnic fractionalization leads to 3.7% higher social distancing following the report of the first local COVID-19 case. In other words, a one-standard-deviation increase in ethnic fractionalization can explain 5.7% of the average mobility reduction after the report of the first case or, alternatively, 4.7% of the weekday-weekend gap for an average locality.

To make sure that the results are not Russia-specific, we also show that ethnic fractionalization led to a bigger reduction in mobility following the first local COVID-19 case using the United States county-level data.

Conclusion

Overall, the results in Egorov et al. (2021) highlight the role of ethnic diversity in voluntary adherence to socially beneficial norms, such as self-isolation and social distancing during a pandemic. We show that people in more diverse places were more likely to restrict their mobility following the reports of the first local COVID-19 cases.

Our study has important implications for government policy. It highlights not only that the propensity of different groups of people to engage in prosocial behavior may differ but also that there may be important strategic effects. In the context of the pandemic, decisions by healthy and sick individuals to self-isolate are strategic substitutes. This means, for example, that in a homogeneous society with high levels of tolerance, extensive testing would allow people to learn that they are sick and self-isolate, enabling the rest to go out with little fear. In a heterogeneous society with low levels of tolerance, the same policy may spur people who learn that they are contagious to go out more because they have little to lose, with the exact opposite implications for the healthy population.

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