

The Behavioral and Psychological Consequences of a Nuclear Catastrophe. The Case of Chernobyl

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Abstract

In modern economics, preferences are the unmoved movers of economic and social behavior. They are taken as given such that all social phenomena need to be explained by changes in beliefs or constraints. The assumption of given preferences constitutes however merely a convenient assumption that is not supported by evidence.

Here, we examine the impact of radiation fallout after the nuclear catastrophe on the preferences and beliefs of the Ukrainian population. As the geographical distribution of radiation is essentially randomly determined by local and regional weather conditions, the radiation fallout after the catastrophe in Chernobyl constitutes a natural experiment.

We find that people who were subjects to higher radiation after the catastrophe display stronger risk aversion and a higher discounting of future returns. They save less, are less entrepreneurial, are much less inclined to support democratic political institutions and market economies, and they engage less in political and civic activities.

Because we exclude the people in the vicinity of Chernobyl from our sample, the radiation fallout "consumed" by our sample population is very low – comparable to the exposure of an average individual during one year in a non-contaminated environment.

It is therefore highly unlikely that the direct health consequences of radiation fall out affect people's economic and political preferences. It rather seems that the impact is purely psychologically mediated and due to the pervasive uncertainty or fear stemming from the imagined future consequences associated with physically unnoticeable and unseizable radiation fall-out.