

Generalized trust and the collective action dilemma of immunization

Björn Rönnerstrand

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Abstract: Immunization is one of the most cost-efficient medical treatments available. But the potential for societies to secure the public health benefits generated by vaccinations can be reduced by the collective action dilemma of immunization. High immunization coverage in a society can provide an incentive for individuals to benefit from the herd immunity generated by others being vaccinated in their place, without having to expose themselves to potential vaccination side effects. However, the other-regarding consequences of the vaccination decision can also motivate people to undergo vaccination for altruistic reasons. High immunization coverage rates are desirable in order to protect vulnerable groups, keep health care costs at a minimum, and reduce total morbidity and mortality rates. The possibility of achieving these objectives, however, depends largely upon how individuals decide when facing the vaccination dilemma.

Social capital theory talks about the causes of cooperation and defection in collective action situations. Theorists argue that generalized trust, which can be defined as the belief that most people can be trusted, facilitates the solution of problems of collective action because trust stimulates cooperation. This dissertation investigates whether generalized trust influences the individual's preferences for either cooperation or defection in the vaccination decision. Hypothetically, generalized trust reduces the prevalence of free riding and promotes collective action to provide the public good of herd immunity. More specifically, the questions investigated in this dissertation are (1) does generalized trust increase pandemic immunization acceptance, and if so, 2) what causal pathways and mechanisms link generalized trust with pandemic immunization acceptance.

Through this, the dissertation targets three gaps in the literature. Firstly, surprisingly few studies have explored the causes of cooperation and defection in voluntary large-scale collective action situations. Secondly, literature about the link between social capital and health-related behaviours has, until now, not properly addressed immunization. Thirdly, altruistic motivations in the vaccination decision have recently been acknowledged, but have not yet been sufficiently studied and, so far, are poorly understood.

Logistic regression analysis is used to investigate the individual-level association between generalized trust and the 2009 A(H1N1) pandemic immunization intent in Sweden. Multivariate regression is used to investigate the association between contextual state-level generalized trust and American state-level 2009 A(H1N1) immunization coverage. Multilevel logistic regression is used to investigate whether residing in a high-trusting U.S. state increased individual A(H1N1) immunization acceptance, controlling for confounders at the individual level. Finally, a between-subject scenario experimental design is used to investigate the link between generalized trust and willingness to vaccinate altruistically.

The results show that both residing in a high-trusting community and being a high-trusting individual increase immunization acceptance and uptake. The dissertation finds that altruism is an important causal pathway linking generalized trust with immunization acceptance in the vaccination decision. This result supports the theoretical claim that trust stimulates cooperation in large-scale collective action. Also, the empirical investigation indicates that high-trusting individuals are unconditional cooperators in collective action. This implies that trust may give rise to a willingness to vaccinate to protect others, even in the absence of reciprocity.

Key Words: Collective action, immunization, pandemics, A(H1N1), generalized trust, reciprocity, social capital, Sweden, United States.