

Compensate at your own risk

Heterogeneity in compliance with preventive behaviors through the lens of economic and social preferences

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Abstract - Protective behaviors play a central role in controlling the spread of infectious diseases. The COVID-19 pandemic represents an interesting setting to study compliance with preventive behaviors when several prophylactic measures aiming to reduce the same infection risk are available. Until now, most of the literature on the understanding of the willingness to comply with protective behaviors at the individual level focused on either one of those behaviors or studied several behaviors but independently. However, protective behaviors might not be independent of each other's and the question of the relationship between these various behaviors deserves to be further investigated. The aim of this study is to investigate how economic and social preferences may shape the relationships between three types of COVID-19 protective behaviors among a representative sample of the French population (the RESPIRE survey, $N = 1017$): 1) respect of sanitary rules issued by the government, 2) use of Non-Pharmaceutical Interventions (NPIs) and 3) COVID-19 testing. Using a Latent Class Analysis, we identify four groups with diverging patterns of compliance with protective behaviors, differing both in terms of intensity and types of prophylactic measures followed: 1) individuals who apply all protective behaviors, 2) those who reject them all, 3) those who frequently break sanitary rules but stick to NPIs and test frequently and, 4) those who follow sanitary rules but lightly apply NPIs. When looking at the factors associated with class membership, we find that the adoption of different patterns of protective behaviors is highly correlated with individuals' time and risk preferences as well as their prosociality and interpersonal trust. Our results suggest that the relationship between various protective behaviors differs depending on individuals economic and social preferences, in favor of the existence of a risk compensation process leading individuals to customize, according to their preferences, their menu of prophylactic measures until they reach the risk threshold they are willing to handle. Exploring heterogeneity in preventive behaviors may motivate authorities to design targeted prevention and communication campaigns that are better tailored to achieve public health goals.

Keywords - Protective behaviors, Risk compensation, Latent class analysis, Behavioral Economics, Infectious diseases

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