

How Do Overconfidence and Other Behavioral Biases Affect Gun Ownership and Safety?

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- ➔ This is a correlation between overconfidence and high levels of gun acceptance and carrying.
- ➔ Attitudes towards firearms differ across cultures and regions.
- ➔ Personal behavioral biases like overconfidence can have significant implications for public safety and policy.

CONTEXT

Amidst increasing gun violence and debates around gun control, understanding the psychological factors influencing gun ownership is crucial. Countries in the Americas differ significantly in terms of gun violence rates, gun control laws, and cultural attitudes towards firearms, providing a varied setting for exploring how individual biases interact with societal norms and regulatory frameworks to influence personal decisions on gun ownership and use.

Key Concept

OVERPRECISION

When people have excessive certainty about the accuracy of their beliefs.



PROJECT

This study probes the intersection of overconfidence—a cognitive bias where individuals overestimate their knowledge or capabilities—and attitudes towards gun ownership and use. A novel online survey of over 7,000 individuals in Argentina, Brazil, Chile, Colombia, Mexico, and the United States was undertaken to measure overconfidence using both overestimation and overplacement indices, comparing subjects' perceived abilities against actual performance and societal averages. The survey probed respondents' stances on who should carry weapons and their likely reactions in various crime scenarios, offering insights into the psychological factors influencing gun-related attitudes and preferences.



RESULTS

The results indicate a strong correlation between overconfidence and the propensity to accept and use guns. Overconfidence, quantified through overestimation and overplacement, was found to be significantly associated with a greater likelihood of endorsing gun ownership and carrying. Statistically, an increase in overconfidence indices corresponded to heightened approval for weapon carrying among different societal roles, including police, private guards, and ordinary citizens. As shown in the [figure](#), an increase of one standard deviation on the overestimation index is associated with an average increase of between 0.03 and 0.06 standard deviations in the four outcome variables related to weapons carrying (police, security guards, citizens at home, and citizens in the street). These increments are all statistically significant. In other words, the higher a person overestimates his or her performance in answering general knowledge questions, the more he or she agrees that police, private guards, and citizens should carry weapons. Similarly, the principal component of overplacement is always positively correlated and statistically significant. A one standard deviation increase in overplacement increases between 0.04 and 0.07 standard deviations in all four outcome variables related to carrying weapons. This means that people who overplace themselves are more prone to accept gun ownership and carrying.

Key Concept

OVERESTIMATION

When people believe that their abilities are greater than they are.



The analysis additionally revealed that individuals with higher overconfidence are more inclined to declare that they would use guns when confronting criminals and more likely to resist burglary or robbery attempts. The findings underscore that overconfidence is not just a personal

trait but significantly shapes societal attitudes towards gun handling, ownership, and usage. This behavioral trait's correlation with gun-related attitudes suggests that overconfidence could lead to preferences for less regulation and greater gun prevalence, potentially impacting public safety and legislative processes. The study's robust results held across various analytical specifications, highlighting the strong predictive power of overconfidence on gun preferences.



POLICY IMPLICATIONS

There is a critical link between cognitive biases and gun policy preferences. Overconfidence, associated with risk-taking behaviors, could account for numerous accidental shootings and influence individuals' support for gun ownership, potentially raising the number of firearms in society beyond the socially optimal level. This means that policymakers need to consider behavioral biases in decision-making processes, as overlooking such factors could result in inefficient equilibria, much like in the cases of seat-belt usage or substance consumption. To mitigate the risks associated with overconfident attitudes towards gun usage, the study suggests interventions that provide information on actual performance and risks, coupled with strategies to encourage reflection on choices. Such efforts are crucial in regulatory contexts, as they can help rectify observed biases, influencing both individual decisions and policy formulation. By addressing overconfidence, it is possible to align gun ownership attitudes more closely with safety outcomes, thus potentially reducing gun-related incidents.

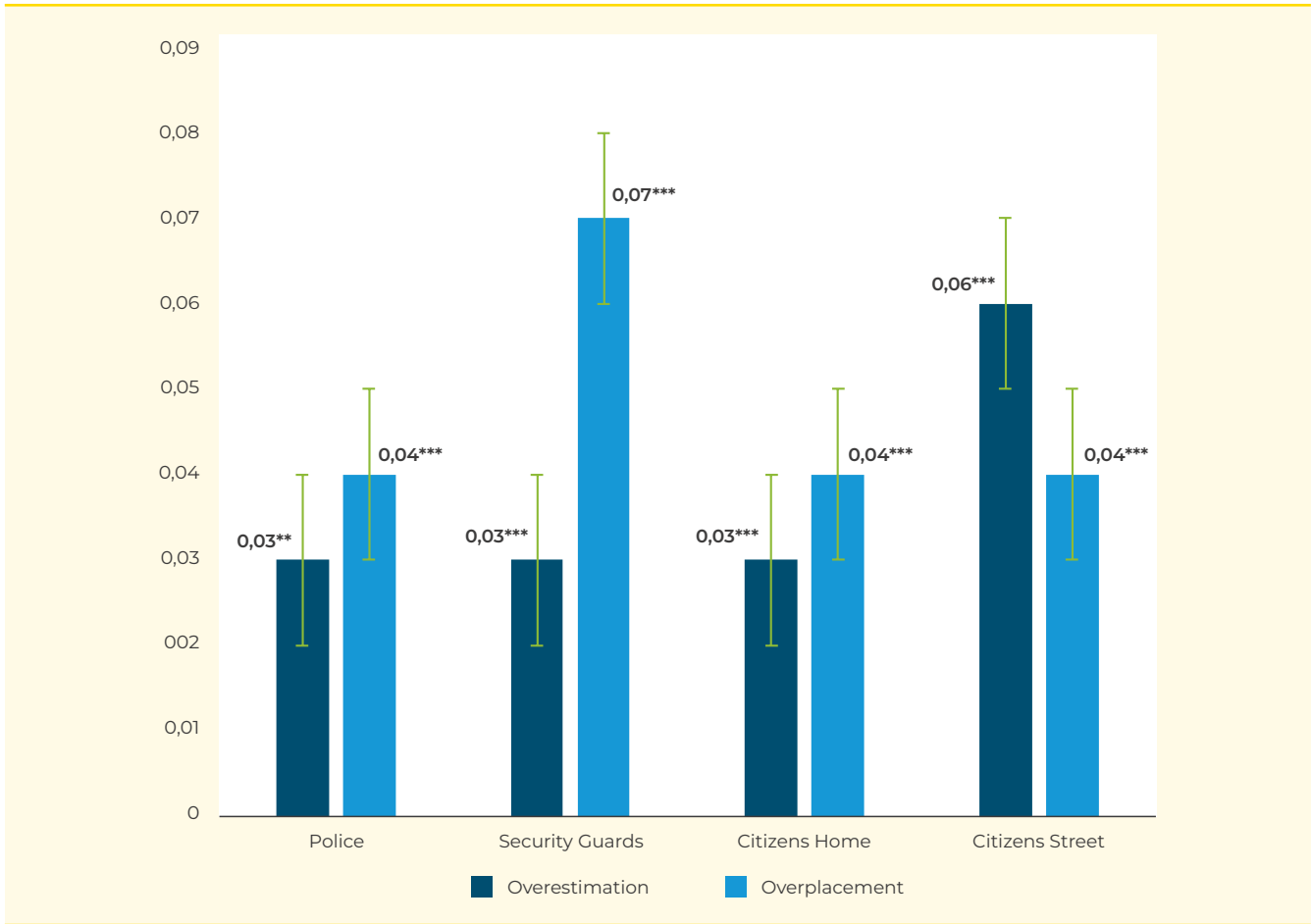
Key Concept

OVERCONFIDENCE

Overconfidence is observed when people's subjective confidence in their own ability is greater than their actual performance.



FIGURE 1. Overconfidence and Acceptance of Guns

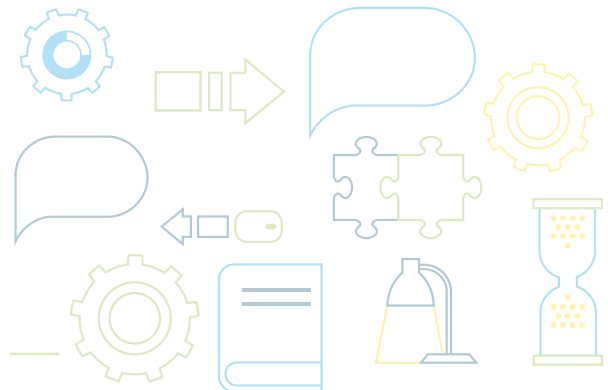


Notes: This figure shows the point estimates (bars) and the confidence intervals (lines) corresponding to an OLS estimation using standardized variables. Controls include age, gender, marital status, education level, employment, trust (in justice system, parliament, police, and president), life satisfaction, and country fixed effects. *** $p < 0.01$, ** $p < 0.05$

Key Concept

OVERPLACEMENT

When individuals rank their own skills too far above those of the average person.

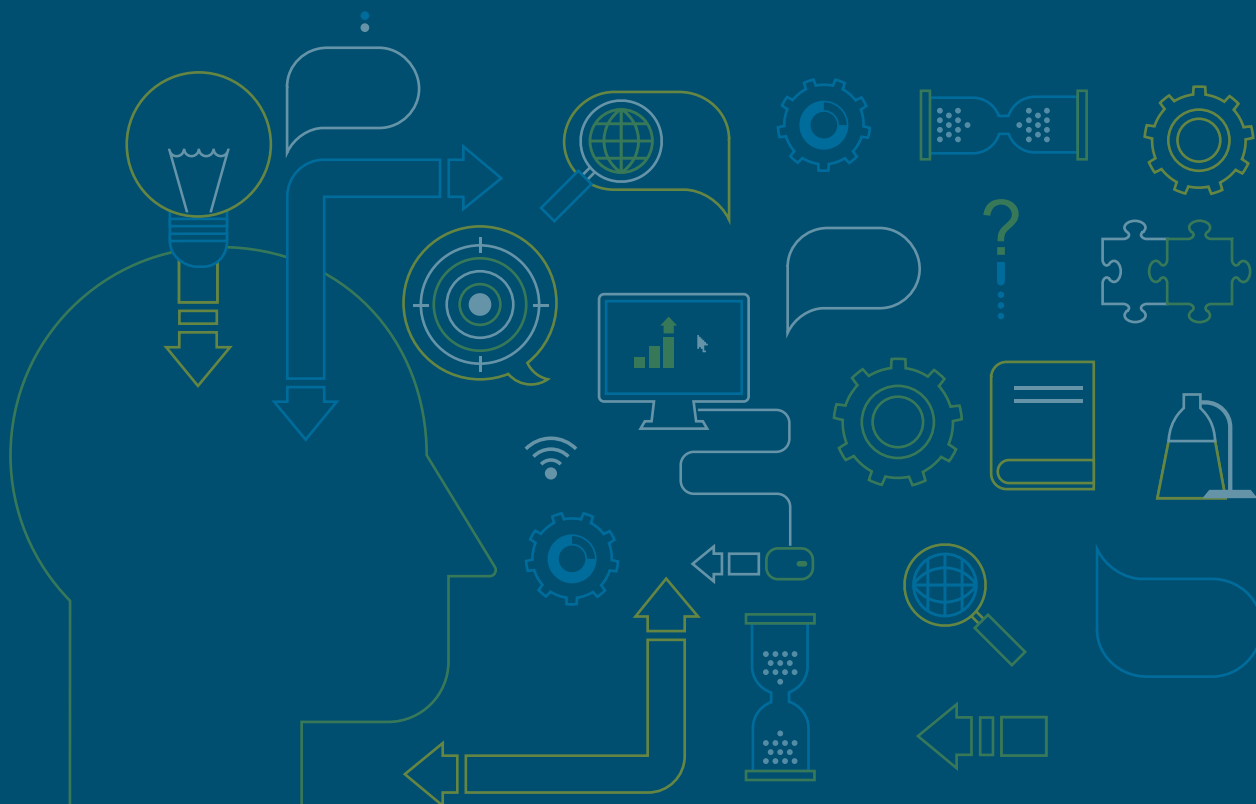


FULL STUDY

Cafferata, Fernando G., Patricio Domínguez, and Carlos Scartascini. 2023. "Overconfidence and Gun Preferences: How Behavioral Biases Affect Your Safety." IDB Working Paper No. 1225. Washington, DC: Inter-American Development Bank.

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