

Bargaining over the Bomb

Can nuclear agreements like the Iran Deal work? This book develops formal bargaining models to show that they can over time despite apparent incentives to cheat. Existing theories of nuclear proliferation fail to account for the impact of bargaining on the process. William Spaniel explores how credible agreements exist in which rival states make concessions to convince rising states not to proliferate and argues in support of nuclear negotiations as effective counter-proliferation tools. This book proves not only the existence of settlements but also the robustness of the inefficiency puzzle. In addition to examining existing agreements, the model used by Spaniel serves as a baseline for modeling other concerns about nuclear weapons.

William Spaniel is an assistant professor in political science at the University of Pittsburgh. He previously served as a Stanton Nuclear Security Postdoctoral Scholar at Stanford University's Center for International Security and Cooperation. He is also the author of *Game Theory 101: The Complete Textbook*.

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The Successes and Failures of Nuclear Negotiations

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Acknowledgments

The inspiration for this book came in 2009. I spent a gap year between undergrad and grad school working at a coffee shop on the campus of UC San Diego, where I had majored in political science. We had a large television, and I watched President Barack Obama make a speech urging Iran to accept concessions in exchange for ending its nuclear program. Theories we had in international relations suggests such a deal would not work. Power drives concessions; without it, strong states have no reason to negotiate with the weak. It appeared Obama's speech was merely a ploy, one which Iran would never fall victim to. I set out to write a paper to demonstrate why power politics would certainly doom such diplomacy.

Formal theory has a nasty tendency to invalidate one's intuitions. Much to my surprise (and delight!), I was wrong. Concessions-for-weapons agreements work; Obama's desired diplomacy could be effective in theory. Of course, this created a more fundamental puzzle: if concessions-for-weapons works, why does any state choose to proliferate at all? I spent the next several years trying to figure out some answers.

I am indebted to five groups of people for helping me write this manuscript. My undergraduate education at UC San Diego primed me to think about puzzles in international relations. I would not have pursued a career in this discipline or begun training in formal theory had I gone elsewhere. Erik Gartzke, Cullen Hendrix, Ethan Hollander, Sam Kernell, Darren Schreiber, and Branislav Slantchev were all instrumental in starting my passion for research. I also thank Leo Acosta and Daniel Morales for tolerating my whims at The Village.

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