Appendix 1: Constructing the Database [1]

Three main strategies using different platforms are adopted to construct our database of all sunk-cost signaling examples in the mainstream International Relations (IR) literature. This database captures only the examples in journal articles and books published up to 2020, focusing on sinking costs, one of the costly signaling mechanisms in Fearon (1997).[2]

Strategy 1: JSTOR Global Search

The first strategy utilized JSTOR as our main search platform. Using the advanced search function, we input the following keywords as the search key: [["sinking costs" OR "sunk costs" OR "sinking cost" OR "sunk cost"] AND [credibility OR credible OR resolve OR deter OR deterrence OR signal OR signaling] AND [Fearon]]. While it was a global search in the sense that we did not specify the publishers[3] or journal titles, we limited our search to the discipline of International Relations (106 titles) and Political Science (235 titles) with the Journal filter function. At the time when we pursued our first strategy (February 9th, 2021), we saw 276 search results. 11 documents were screened out from the documentation. 7 of them were irrelevant to the research (e.g. Front matters of a journal, Annual Conference Programs). 4 of them were written in non-English languages.

[1] We thank Martin Quick and Yung-Hsuan Wu for their hard work in elaborating and implementing the search strategies, and constructing the dataset from scratch.

[2] Fearon, James D. "Signaling Foreign Policy Interests: Tying Hands Versus Sinking Costs." *Journal of Conflict Resolution* 41, no. 1 (1997): 68-90. http://www.jstor.org/stable/174487.

[3] Note that the collection from Cambridge University Press and Oxford University Press on JSTOR only covers their journal articles, not their books.

The JSTOR global search has its limitations. First, the moving wall embargo imposed on the journals prevented us from accessing the most recent articles. [4] As a remedy, our next strategy below is designed to patch up this limitation. Second, while the global search covered most of the major university publishers, it did not cover the books published by Cambridge University Press and Oxford University Press. Our third strategy addresses this issue.

Strategy 2: Mainstream Journal Patch-up

Our second strategy is divided into two parts. The first part is targeting the mainstream journal titles captured in our search on JSTOR. No matter how sensitive a search engine is, there is always a risk that some articles are missed out in a particular search. Thus, as an exercise of caution, we used the advanced search function within mainstream political science and international relations journal titles, [5] and repeated the search process one journal title after another until all of them were exhausted. Then, we compared the resulting list to what we previously extracted from the global search strategy. As of March 6th, 2021, we identified thirteen missing articles through this patch-up work.

The second part of the strategy was devised to overcome the JSTOR moving wall embargo as well as the fact that some mainstream titles are not on JSTOR at all.[6] For each journal, we

[4] See "About the Moving Wall" on JSTOR: https://support.jstor.org/hc/en-us/articles/115004879547-About-the-Moving-Wall#:~:text=What%20is%20the%20Moving%20Wall,recent)%20issues%20of%20a%20journal.&text=This%20is%20when%20another%20year,not%20include%20the%20current%20year.

[5] The journals are *American Journal of Political Science, American Political Science Review, British Journal of Political Science, Conflict Management and Peace Science, European Journal of International Relations, Foreign Policy Analysis, International Interactions, International Organization, International Security, International Studies Quarterly, Journal of Conflict Resolution, Journal of Peace Research, Journal of Politics, Political Research Quarterly, Political Science Research and Methods, Security Studies,* and *World Politics*.

[6] The mainstream journals that are not covered by JSTOR include *International Interactions, Security Studies, European Journal of International Relations, Political Science Research and Methods, Journal of Global Security Studies*.

first identified the platforms that give their most recent collections. We then exploited their advanced search function to replicate what we did on JSTOR except for the platform Cambridge Core,[7] which does not have such a function. Searches on all platforms were limited to the years between their moving wall embargoes on JSTOR and 2020. The exceptions are the journals that were entirely missing from JSTOR, for which they were searched in their full coverage up to 2020.

While most search engines were sufficiently sensitive, we developed an extra step for journals on Cambridge Core and Oxford Journals. We found examples that do not fit the conditions of our keywords. For instance, in certain articles returned on those two platforms, the variations of the phrase "sinking cost" and "sunk cost" were completely missing. To prevent these searches from falling through the cracks of our searches, we conducted a manual screening. Within the articles returned on those two platforms, we used the "search within article function" (Ctrl+F) to look for the variations of "sinking cost" and "sunk cost" as well as "Fearon". It is only when the result for either the variations or "Fearon" returned nothing that we would exclude them from the database.

The above search method yielded false hits. We cleaned them manually by filtering out the non-relevant articles or books. Only sources that have cited Fearon (1997) would be captured in the database.

[7] This includes MIT Press Journals, Sage Journals, Taylor & Francis, Wiley Online Library, University of Chicago Press, Oxford Journals.

Strategy 3: Major Publisher Patch-up

Even though the JSTOR global search has covered many university publishers, the book selections from Cambridge University Press and Oxford University Press are not available on JSTOR. To fill in this gap, we adopted the third strategy. To zero in on only books relevant to Fearon (1997) and costly signaling, we used the reversed bibliographic search on Google Scholar to find 1,377 entries that cited Fearon (1997) as of March 6th. The function of "Search within citing articles" and "Return articles published in" enabled us to filter through those published by Cambridge and Oxford University Press. After getting the list of results, we went through each to find the published books. We did not include working papers and other unpublished work.

Documenting Examples

To determine whether the articles or books were relevant, we adopted the same in-article search methods across all strategies. Opening each with Adobe Acrobat DC, we used "Ctrl + F" to locate the paragraphs or the chapters that contained the variations of the phrase "sinking cost" or "sunk cost." We then determine if they discussed sinking costs as a costly signaling mechanism rather than something else (e.g. as the sunk-cost fallacy in psychology). For those that did, we extracted the relevant paragraphs and briefly summarized the type of example cited. This includes real examples and theoretical ones that were not based on any historical events. [8]

[8] There is one book to which we were unable to obtain and thus excluded from our universe (Jeong, Ho-Won, *International Negotiation: Process and Strategies* (Cambridge University Press, 2016)). There are also two

Coding Strategy

Finally, we coded each example according to the author's (authors') last name(s), the year of the document, the publisher or the journal title, and the type of examples they contained. The first three columns denote the detail of each entry. The rest are "example columns," whereby we put down 1 if an entry contains the said example, 0 if it doesn't. The following is an example of a data entry:

year	author	source	mobilization	alliance	sanctions	weapon_deployment
1997	Fearon	JCR	1	0	0	0

Category Explanation

- "Mobilization," "Economic Sanctions," and "Military Demonstrations" are all standalone categories with legends of the same names. "Military Demonstrations" are coordinated acts among countries to display military capacity, either through air drills or sea drills.

articles that have reprinted versions elsewhere but ended up in our search. To avoid repetition, they were also removed. Chan, Steve. "Extended Deterrence in the Taiwan Strait: Learning from Rationalist Explanations in International Relations." *World Affairs* 166, no. 2 (2003): 109-25. http://www.jstor.org/stable/20672683. and Chan, Steve. "Extended Deterrence in the Taiwan Strait: Learning from Rationalist Explanations in International Relations." *Asian Affairs* 31, no. 3 (2004): 166-91. http://www.jstor.org/stable/30172621. ; Kydd, Andrew H., and Barbara F. Walter. "The Strategies of Terrorism." International Security 31, no. 1 (2006): 49-80. http://www.jstor.org/stable/4137539. Kydd, Andrew H., and Barbara F. Walter. "The Strategies of Terrorism." In *Contending with Terrorism*, edited by Michael E. Brown, Owen R. Coté, Sean M. Lynn-Jones, and Steven E. Miller (The MIT Press, 2010).

- "Arms Buildups" capture both *arms_buildup* and *military_expenditure,* the latter focusing on defense-related costs.

- "Arms Transfer" includes *sponsoring_military_events* and *arms_transfer*. A state can sponsor aggressive militants of their rivals to meddle with international affairs, or it can transfer arms to allies or certain countries.

- "Alliance" includes both *alliance,* the initial alliance formation costs, and *military_coordination*, the military co-planning costs among leaders at times of crises.

- "Tripwires and Deployments" encapsulate both *weapon_deployment* and *tripwire_forces*. The latter describes smaller-sized troops deployed at the frontline or borders, where they are used to slow down enemies or increase the chances of a successful defense.

- "Reassurance" can take the form of *treaty_implementation, retrenchment, economic_interdependence, contrition, political_visit*, and *nuclear_latency*. Treaty implementation sometimes comes with economic or political costs domestically. Retrenchment is the removal of certain state capabilities pertaining to a specific issue or region. Economic interdependence is enhanced through trade relations. Contrition is making an apology for past actions. Political visits include officials' visits to target countries. Nuclear latency concerns the level of nuclear development in a certain target country; an irreversible reduction in nuclear development conveys commitment.

- “Suicide Terrorism and Individual-Level Examples” include *fictional* and *terrorism* cases. Terrorists may show their resolve through violent or suicidal acts. Fictional examples are those drawn from films, novels, or hypotheticals.

- “Others” include the non-political sunk costs examples of *cyber_operations* and *belligerence*. Cyber operations can include a wide variety of activities, but most of the examples mention hacking. Belligerence costs are part of the domestic audience costs incurred when a political figure makes a militant threat that is disapproved by (dovish) domestic audiences.