Research statement

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1.5 billion people — one in four in the world — live in places affected by high levels of violence due to armed conflict and crime. In several projects, I study the causes of and remedies for violence. I work on three main questions: (a) How does natural resource wealth cause violence? (b) How do ordinary people shape and how are they shaped by violence? and (c) How can governments reduce violence?

My work on violence has led me to encounter methodological problems that I have sought to solve for myself and the discipline. Much of my work has relied on experiments, in which I navigated tradeoffs between cost, learning, and ethics. This led to my first methodological research agenda, on improving research designs. Second, in my research on civilians in violent contexts, I often wanted to ask sensitive survey questions, and I therefore examined the best way to ask such questions scientifically and ethically. Finally, in my third research area, I developed tools to conduct meta-analyses and systematic reviews to understand accumulated findings in the substantive areas in which I work.

I have published 15 articles, one book is forthcoming, and another is under advanced contract. My articles appear in *American Political Science Review* (4), *American Journal of Political Science* (2)*, Political Analysis* (2), *Journal of Politics, Journal of the American Statistical Association*, *Proceedings of the National Academy of Sciences, PS: Political Science & Politics, Science,* and *Science Advances.* My book manuscript on community policing is under advance contract at Cambridge University Press and will be submitted this fall. My book on research design is forthcoming at Princeton University Press. I have been awarded the Midwest Political Science Association's Pi Sigma Alpha Best Paper Award and the Leamer-Rosenthal Prize for Open Social Science. My papers have been cited 1,850 times according to Google Scholar, and they appear in 130 course syllabi according to OpenSyllabus. My statistical software has been downloaded 275,000 times and won the Society for Political Methodology Statistical Software Award and the Society for Improving Psychological Science Commendation.

Understanding and preventing crime and violence

I make theoretical and empirical contributions in three distinct areas: the role of natural resources in conflict, the role of civilians in armed conflict, and the role of government in reducing crime. In many studies, I draw on ideas from social psychology to build new theories. Empirically, I draw on original data and new methods I developed for planning experiments, studying sensitive topics in surveys, and accumulating knowledge through meta-analysis.

a. How do natural resources cause conflict

Scholars are divided over why and whether resource wealth from oil and minerals causes conflict. In three papers with Darin Christensen and our coauthors Michael Gibilisco, Aaron Rudkin, and Valerie Wirtschafter, I argue that when armed groups can disrupt resource extraction, whether by destroying the resource or selling it for profit, conflict ensues. Otherwise, resources are not associated with conflict. In "**Do commodity price shocks cause armed conflict? Evidence from a meta-analysis**" (Blair, Christensen, and Rudkin, 2020, *American*

Political Science Review), we survey 350 empirical papers on the topic and find support for such a "lootability" argument, as well as an opportunity cost theory of conflict. In **"The point of attack: Where and why does oil cause armed conflict?"** (Blair, Christensen, and Gibilisco, in prep), we argue that conflict will take place at vulnerable locations, like pipelines, and not at easily-defended locations, like oil fields and mines. We test the argument using novel, detailed data from an oil industry group on the timing and location of the construction of oil infrastructure in Africa and case evidence from Nigeria. In "**How does armed conflict shape investment? Evidence from the mining sector**" (Blair, Christensen, and Wirtschafter, 2020, *Journal of Politics*), we argue that the implication of this disruption theory is that we expect to see less investment by extraction firms near conflict, where risk of destruction or theft is high, but *more* investment in the wider region, where state presence is limited by conflict. Finally, in new work funded by the Hewlett Foundation, we are collecting data on the location of artisanal, small-scale mining — by nature lootable — in five countries to study how conflict emerges.

Resource-rich countries also experience persistent corruption. In "**Motivating the adoption of new community-minded behaviors: An empirical test in Nigeria,**" (Blair, Littman, and Paluck, 2019, *Science Advances)*, we investigate how to motivate people to take action against corruption in Nigeria. We find that when people think others are reporting corruption and when such reporting becomes less costly, corruption reporting increases.

b. How ordinary people shape — and are shaped by — violence

Dominant theoretical accounts in the social sciences treat civilians as "rational peasants," regularly shifting allegiances to the side that can currently minimize harm and maximize material benefits. Work on reintegration of fighters after war largely ignores civilians, instead examining government efforts to rehabilitate ex-combatants. I show in a series of studies that what is missing is an account of the psychology of civilians. I argue that the social identities of civilians and their emotional responses to combatant actions shape their behavior both during and after war. To test these ideas, I have conducted some of the first wartime social science surveys.

In "**Explaining support for combatants during wartime: A survey experiment in Afghanistan**," (Lyall, Blair, and Imai, 2013, *APSR*), we draw on social identity theory to build a theory of how wartime experiences such as violent victimization shape attitudes toward combatants. We find that civilians respond differently to victimization and aid depending on whether they share an identity group with the perpetrators. Ingroup members are forgiven for victimization, and outgroups punished harshly. In "**Poverty and support for militant politics: Evidence from Pakistan**," (Blair, Fair, Malhotra, and Shapiro, 2013, *AJPS*), we overturn the longstanding claim that poor people are motivated by relative deprivation to support and join armed groups. We argue that the opposite is likely to be true, because the poor are often the most victimized by armed attacks. We find, indeed, that the middle class, which is rarely victimized by the violence, is most supportive of the combatants.

In new work I led with Rebecca Littman in Nigeria, I studied why civilians are reluctant to accept fighters returning home from conflict and what might motivate them to do so. We conducted two field experiments in the heartland of Boko Haram in northeastern Nigeria. In **"Trusted**

authorities can change minds and shift norms during conflict," (Blair, Littman, Nugent, Wolfe, Bukar, Crisman, Etim, Hazlett, and Kim, 2020, forthcoming, *Proceedings of the National Academy of Sciences*) we argue that people form beliefs and make decisions based on cues from trusted leaders, and that leaders' words and actions serve as signals of social norms which can in turn shift attitudes and behaviors. We find a striking 10 percentage point increase in willingness to allow former fighters to return after hearing a message from a religious leader. In **"Concerns about recidivism drive willingness to reconcile with former violent extremists"** (Littman, Blair, Wolfe, Bukar, Kim, Crisman, Kurama, Yetcha, Bulama, and Aino, in prep), we argue that victims are willing to reconcile with perpetrators who harmed them when they believe the perpetrator is capable of genuine change. We test whether messages written by ex-fighters about their willingness to leave behind their extremist ideology can change civilian willingness to accept them back into the community. We find large shifts in willingness to accept returning fighters. I formed the partnership with our implementing partner Mercy Corps, co-led qualitative fieldwork and piloting in Nigeria, trained research staff, and co-wrote the papers.

c. *How can governments reduce violence*

Mainstream political science has been remarkably silent on the politics of the police. My third research agenda aims to help rectify this imbalance. I study community policing, a common set of policing practices that aim to increase cooperation between citizens and police through foot patrols and community meetings. Community policing has been adopted by police on every continent and has been promoted by international donors and United Nations peacekeeping missions. Despite its popularity, there is not established theory or empirical evidence about why or even whether it works to improve cooperation and reduce crime.

I was lead investigator for coordinated field experiments run in partnership with police agencies in six countries, funded by a grant from the British Foreign and Commonwealth Development Office. This was the largest multi-site field experiment conducted with governments to date in political science. We describe the study in an article and a book manuscript, of which I am the lead author (Blair et al., 2021, "**Does community policing build trust in police and reduce crime? Evidence from six coordinated field experiments in the Global South**," accepted, *Science*; and Blair et al., ***Crime, insecurity, and community policing: Experiments on building trust****,* under advance contract, Cambridge University Press).

In the project, we introduce a theory of community policing. Citizens, we argue, are a critical source of valuable information about crime and criminals. This information helps the police allocate their time and attention in ways that will prevent crime and improve public safety. When citizens consider whether to cooperate with the police, they weigh the costs of cooperation against the expected returns. We expect community policing to reduce search costs, change citizen expectations about the police, increase the benefits of cooperation, and thereby lead to increased cooperation that improves police capacity to fight crime.

We find that community policing does not live up to its promise: it neither reduces crime nor increases citizen trust in or cooperation with police. We identify institutional constraints in our

qualitative work that may have reduced the effectiveness of the intervention and that may undermine police reform broadly.

I was chair of the project steering committee, which included Fotini Christia and Jeremy Weinstein. I led the design of the ex-ante meta-analysis, authored the preanalysis plan, led the coordination of teams working in each context, was lead author of the article, wrote four chapters of the book manuscript, and played a large role in the other chapters. I relied heavily on my methodological work on research design to coordinate and optimize plans for each study.

Research design and methodology research

Motivated by constraints I faced in my own work on crime and violence, my methodological work aims to address challenges scholars face in answering important social science questions. I have developed tools for planning for and assessing empirical research designs and for answering descriptive questions with surveys to elicit sensitive information. I have also developed and applied methods for accumulating knowledge from credible designs. I have applied each of these innovations in my own research on crime and violence.

a. Improving research designs

Experiments and surveys involve many decisions, from choices about sample size to decisions about which standard errors to adopt. For many of these decisions, methodological texts and papers offer closed-form expressions for statistical power and bias. For some very simple designs, power calculators exist. But for many of the designs, no such off-the-shelf methods exist — such as for the stepped-wedge experiment in my *Science Advances* article or the six-site community policing study with different experimental designs in each site (Cambridge UP book manuscript).

In an article and book manuscript funded by a grant from the Arnold Foundation, I develop an approach to making such research decisions. In "**Declaring and diagnosing research designs**," (Blair, Cooper, Coppock, and Humphreys, 2019, *APSR*), we introduce a framework for defining the elements of a research design and a method for assessing designs through Monte Carlo simulation. The framework allows scholars to answer the question: "is this a good research design given the question I posed?" Moreover, it allows scholars to communicate research designs to reviewers, editors, and readers.

We have developed the project into the enclosed book manuscript, ***Research design: Declare, diagnose, redesign*** (Blair, Coppock, and Humphreys, forthcoming, Princeton University Press). The book fills a gap between purely theoretical scholarship and the choices applied researchers face daily. Moreover, the book is a teaching tool for communicating to a wide audience of applied researchers and students a holistic view of research design. I teach from it in my own courses.

We have developed four statistical software packages for the R platform to help researchers adopt these ideas. The **DeclareDesign** software is used by many scholars across political

science, psychology, and economics for research planning and registering preanalysis plans. It is incorporated into the study registry for political science.

b. Overcoming sensitivity bias

The credibility of survey research depends on respondents telling the truth. Yet, respondents may hide the truth or refuse to answer out of fear that others — the interviewer or, in the case of my research on civilians in wartime, armed groups — will judge or punish them for their responses. My work has helped popularize three techniques for mitigating the sensitivity bias that results: the list experiment, the endorsement experiment, and the randomized response technique. My research focuses on methods for empirically assessing the validity of the identifying assumptions of each technique and for assessing tradeoffs between techniques. I apply these methods in my own survey research on crime and violence.

The list experiment provides privacy protection by aggregating the response to a sensitive question item with responses to unrelated control items: respondents answer "how many" yes responses to all the items together. The average response to control items is estimated using a randomized control group without the sensitive question. The design identifies how many respondents answer yes to the sensitive questions, under two assumptions: no design effects (responses to control items do not depend on whether the sensitive item is in the list) and no liars (no ceiling or floor effects). In "**Statistical analysis of list experiments**" (Blair and Imai, 2012, *Political Analysis*), we introduce two new methods for addressing violations of these assumptions. The first, which is now all-but-required for publishing work on list experiments, is the design effects test. We also provide a model-based assessment of the no liars assumption. We extend this work in "**List experiments with measurement error**" (Blair, Imai, and Chou, *Political Analysis*, 2019) to nonstrategic measurement error from flawed implementation or respondent inattention. We provide tests for such measurement error and tools to adjust for it.

I have also advanced two other methods, the randomized response technique and the endorsement experiment, because list experiments are less efficient than direct questions and in some cases provide insufficient privacy protection. In "**Design and analysis of the randomized response technique**" (Blair, Imai, and Zhou, 2015, JASA), funded by a grant from the International Growth Centre, we make two main contributions: we propose power analysis methods for studying tradeoffs between many variants of the technique, and we present new robust designs based on less stringent assumptions than the original technique. I also helped introduce the endorsement experiment to comparative politics, coauthoring the first two applied endorsement experiment surveys in the subfield, which measured attitudes toward armed groups in Pakistan and Afghanistan (Blair, Fair, Malhotra, and Shapiro, 2013, *AJPS*; Lyall, Blair, and Imai, 2013, *APSR*). In "**Comparing and combining list and endorsement experiments: Evidence from Afghanistan**," (Blair, Imai, and Lyall, 2014, AJPS), we provide new methods for comparing data from list and endorsement experiments and combining them to gain efficiency.

Pulling together these strands, in "**When to worry about sensitivity bias: A social reference theory and evidence from 30 years of list experiments**" (Blair, Coppock, and Moor, 2020, *APSR*), we introduce a social reference theory to assess whether direct survey questions will be

biased by sensitivity. We show in a meta-analysis of 30 years of list experimentation that in some areas of political science, there is evidence of substantial sensitivity bias (e.g., support for authoritarian regimes), but that in others where it is expected it is absent (e.g., prejudicial attitudes of whites toward Black Americans). Only when costs such as arrest or violent harm are possible does sensitivity bias seem to be present. Given this evidence, we assess the choice between list and direct questions. We show that 14 times as many subjects are typically needed for a list experiment to deliver the same power as a direct question. Researchers often make suboptimal design choices in light of these tradeoffs.

I am following up on this work with a new line of research on sensitive questions and the mental health of survey respondents and research staff. We aim to provide empirical evidence to guide ethical decisions in research design, which are typically guided instead by conjecture. In **"Does asking about violent victimization retraumatize?"** (Blair, Crisman, Littman, and Wolfe, in prep), we report on an experiment in which we randomized whether respondents were asked about violent harm at the hands of Boko Haram before or after measuring symptoms of post-traumatic stress disorder.[1] In a new project, we are expanding this research to study whether the effects generalize to contexts with ongoing and past conflict and to different types of populations and topics — and what changes to survey protocols mitigate any harms we find.

c. Meta-analysis by design

My interest in informing policymakers with findings from my research led me to worry about relying too heavily on the results from a single study. In response, I have used tools I adapted from medicine: systematic reviews and meta-analysis. Both involve a census of past literature and a systematic application of rules to select relevant studies for summary. As a result, researcher bias, even if unconscious, does not creep into study selection. These two methods have yet to catch on in political science: we identified just five meta-analyses in the last twenty years published in the top three journals, and we found no systematic reviews in any journal.

In **"Do commodity price shocks cause armed conflict? Evidence from a meta-analysis"** (Blair, Christensen, and Rudkin, 2020, *APSR)*, we outline five challenges to implementing meta-analyses for observational research in political science and propose methods to address them. When studies are not comparable or when data for standardizing estimates are unavailable, systematic review is still possible to summarize the direction of effects. I have conducted two reviews in these circumstances, described in the *Journal of Politics* article (Blair, Christensen, and Wirtschafter, 2021) and my community policing article (Blair et al., 2021).

A new frontier is ex ante, planned meta-analysis. My study on community policing is one of the first examples of this design in political science. In "**Experiments in multiple contexts**," (Blair and McClendon, invited chapter in Donald P. Green and James Druckman, *Handbook of Experimental Political Science*, 2021, Cambridge University Press), we provide a framework for considering when coordinated, multi-site studies are useful, and when uncoordinated studies would be more efficient.

[1] We offered free psychological services referrals after measurement.