Using Latent Variable Models to Estimate the Prevalence of Sexual Violence in Armed Conflict: An Introduction

Jule Krüger,
Center for Political Studies, University of Michigan

Workshop on Empirical and Computational Social Sciences in India

Ashoka University, December 15, 2018

This workshop builds on ongoing research with

and

Ragnhild Nordås

Christopher Fariss

Wartime Sexual Violence

- ► Includes the use of rape and other forms of sexual violence
- ► Constitutes a severe human rights problem
- ► Is difficult to observe and document as a practice

A lack of systematic data impedes empirical analysis with regard to extent, spatiotemporal trends, and patterns.

Why Conflict-Related Sexual Violence Is Hard to Measure

- ▶ Shame, fear of retaliation, stigma and rejection due to socio-cultural taboos
- ▶ Inconsistency in testimony and lack of clear narrative due to trauma-induced memory loss
- ▶ Differing conceptualizations and language used to refer to sexual violence events
- ▶ Perpetrators' incentives to conceal activity and evade accountability for war crimes
- ▶ Blending of state actors and institutions with regard to the perpetration and reporting of these crimes

All of these issues vary over space and time.

Why the Observation of Wartime Sexual Violence May Improve over Time

- ▶ Increasing international focus
- ▶ Changing norms and perceptions of survivors
- ▶ Recent challenges to societal taboos
- ▶ Growing initiatives to empower survivors to speak out
- ▶ Changes in the wording of sexual violence experiences leading to more explicit descriptions
- ▶ Growth in documentation efforts paired with improved documentation practices

While these trends vary across space, we will likely see higher reporting rates in some places over time.

How We Currently Measure Wartime Sexual Violence

Sexual Violence in Armed Conflict

DATASET   FAQ   PEOPLE   BIBLIOGRAPHY   FUNDERS

The Sexual Violence in Armed Conflict (SVAC) Dataset measures reports of the conflict-related sexual violence committed by armed actors (state forces, pro-government militias and rebel groups) during the years 1989-2009. The dataset includes information about the prevalence, perpetrators, victims, forms, timing, and locations of the reported sexual violence by each armed actor in each conflict-year. The information used to compile these data comes from three separate sources: the U.S. State Department, Amnesty International and Human Rights Watch.

An updated version of the dataset is available here (Nov 2016 – Version 1.1).
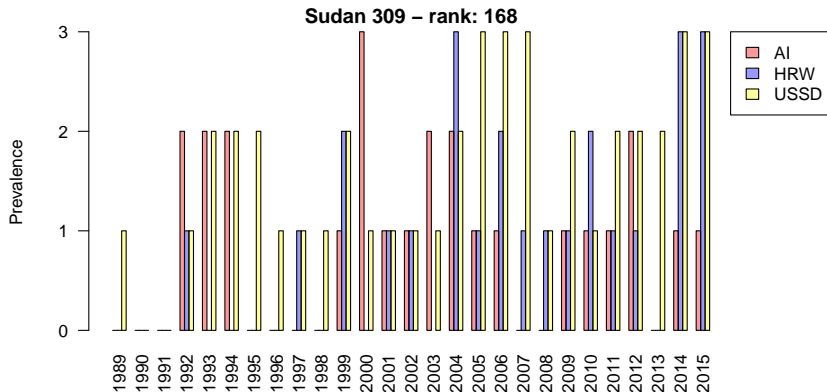
SVAC, http://www.sexualviolencedata.org/

Let's import the data into R and take a look at it:
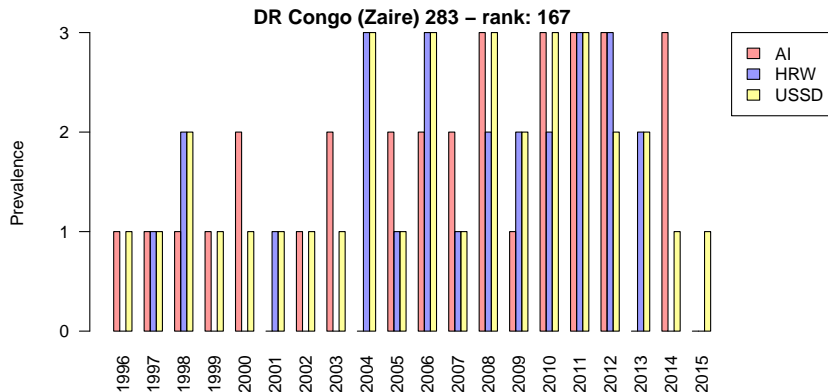
```
$: cd ~/git/SVAC-LVM-tutorial/import
$: open -a Rstudio src/import-check-data-main.R
```

SVAC Provides Three Indicators that Report Prevalence of Wartime Sexual Violence

Reported level of engagement in wartime sexual violence by state forces in Sudan according to three sources est

Another Case...

DR Congo (Zaire) 283 – rank: 167

Reported level of engagement in wartime sexual violence by state forces in DRC according to three sources est

Let's make some more barplots of reported state behavior for other armed conflict cases:

```
$: cd ../visualize
$: open -a Rstudio
   src/barplot-sources-by-conflict.R
```

The promise of latent variable models for measuring sexual violence