

Nudges toward De-Radicalization and Reintegration from Violent Islamic Extremism

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Islamic Extremism as a Global Threat

- Violence by Islamic groups is prevalent not only around Middle East, but all over the world
- In Africa,
 - the number of violent Islamic groups
 - the number of violent events involving them
 - their complex geographical coverage

have been increasing over the past 10 years.

- Al Shabaab: a jihadist group based in Somalia, responsible for the greatest volume of recent fatalities in Africa
 - Goal: “*Topple the Somali government and establish an Islamic empire within the country guided by a strict reading of Shariah law*” (Source: Mapping Militant Organizations)

De-Radicalization & Reintegration for Reducing Violence by Islamic Extremist Groups

- Negotiation with a group leader is not feasible. Incentivizing individuals inside such groups is a key.
 - If it is difficult for ex-combatants to re-integrate into a society and civilians, then the risk of their re-radicalization and re-joining a violent group is increased.
 - An environment where re-integration process is facilitated might incentivize combatants of a violent group to surrender at their initiatives.
- Q.** Through the lens of individual-level incentives, what are obstacles behind **de-radicalization & reintegration** from Islamic extremism into a civil society?
- Q.** Is there a low-cost **nudge** to shift individuals' preferences towards de-radicalization and reintegration?

Setting: Mogadishu Central Prison where Al Shabaab Ex-Combatants are Detained



This Paper

- Put the highest priority for feasibility — One paper from only a one-shot baseline survey and low-cost survey experiments
 - On Jan 2021, we have developed an App and checked that the baseline survey using a tablet inside the prison is feasible
 - On the other hand, tracking all the prisoners with a regular interval seems very difficult
- Focus on low-cost **nudges to influence implicit and explicit attitudes toward reintegration and Al-Shabaab identity**

3 Steps:

- ① Baseline survey to understand ex-combatants' socio-economic background and IAT to measure their implicit jihadist identity and extremism
- ② Small lab experiments to complement the IAT measure (TBD)
- ③ Survey experiment: New information from role models about life after the release from the prison

Role Model Treatment

Treatment structure

- T** Show the information about a previous Al Shabaab ex-combatant who has successfully reintegrated into a civil society
- C** No exposure to the role model information

What does role model do?

- ①** information and update of belief
- ②** motivation (enhancing effort)
- ③** overconfidence

Examples of the Role Model Information

- My goal is to become a welder. However, it was impossible for me to start working right away, so I am currently living with my family and working as a tuk-tuk driver with some friends to achieve my goal.
- My goal is to open my own restaurant. I am currently working as a waiter in a little known restaurant in Mogadishu to achieve my goal.
- As I had originally hoped, I joined the Somali National Army (SNA) and am now working as a government soldier.
- My goal is to become a video creator. I'm currently working for a private security company (more like a bodyguard or a person who protects facilities) while I'm learning about video by buying a computer. On my days off, I play soccer with my friends.
- My goal is to make a school, become a teacher, and make money. Especially in the form of uploading lectures to YouTube or something and sending the URL to those who pay the tuition. I'm currently working as a teacher and admin at a small school.
- My goal is to study at a university. Right now, I'm living with my family and helping them out in order to make money for that and to build my daily life.

More detailed information (e.g. frequency of work per week, monthly wages, occupational variations especially from rural areas) are under inquiries.

Data

- ① Own expected income after the release
- ② Expected income of another ex-combatant (who has similar characteristics and the same treatment status)
- ③ Prob of getting a great job
- ④ Prob that another ex-combatant gets a great job
- ⑤ Take-up for a short (15-30 min) job/skill training at the end of the survey
- ⑥ Expected effort of another ex-combatant (who has similar characteristics and the same treatment status)

Goal Setting Training Example: Shohei Ohtani's Goal Setting Exercise



(source: full-count.jp & AP, news.jsports.co.jp)

Shohei Ohtani, 12/6/2010 - Sophomore in High School								
Care the body	Take supplements	FSQ 90kg	Improve in-step	Strengthen the body core	Stabilize the pivot	Create an angle	Hit the ball from above	Strengthen the wrist
Flexibility	Physical	RSQ 130kg	Stabilize the release point	Control	Get rid of uneasy feelings	Do not tense up	Precision	The lower body leads
Stamina	Range of motion	Meals Dinner: 7 Breakfast: 3	Strengthen the lower extremities	Don't open the body	Control mental	Release the ball in the front	Increase the number of rotations	Range of motion
Have clear goals and purposes	Do not swing joy and sorrow	Cool head and hot passion	Physical	Control	Precision	Turn at the pivot	Strengthen the lower extremities	Gain weight
Be strong at pinches	Mental	Don't sway by atmosphere	Mental	Draft #: 8 teams	Speed 160km/hr 99 mph	Strengthen the body core	Speed 160km/hr 99 mph	Strengthen around the shoulders
Don't create ups and downs	Tenacity for victory	The heart to care team mates	Personality	Luck	Curve balls	Range of motion	Catch liner balls	Increase pitching
Sensitivity	Worthy to be loved	Plan ahead	Greetings	Picking trashes	Clean the room	Increase count balls	Perfect fork balls	Precision of sliders
Caring	Personality	Gratitude	Use the tools with care	Luck	Attitude for judges	Curve balls with speed and drop	Curve balls	Decisive balls for left batter
Well-mannered	Worthy to be trusted	Sustained efforts	Positive thinking	Worthy to be supported	Read books	Pitch with the same as straight	Control from strike into ball	Imagine the depth

Born: July 5, 1994, Joined the Hokkaido Nippon-Ham Fighters March 29, 2013, First pick in the major league draft, pitcher. Batting average = .257, home runs = 13, win-loss = 14-4, earned run = 2.61, strikeouts 225 - Speed of pitch = 99 mph, 160kph, (11-16-14)

(source: The Wall Street Journal)

Contributions

- Measures one of the pre-conditions for successful reintegration
- Examines the impact of new information in the environment where there are no other ways to obtain information (cf. Jensen 2012 QJE)
- Disentangling mechanisms behind “why role model works”

Model Setup

An ex-combatant's problem:

$$\max_e \underbrace{p_{ii}(e_{ii}, \theta)\alpha(\theta)}_{\equiv \tilde{y}_{ii}(e_{ii}, \theta)} - \underbrace{c(e, \theta)}_{\text{effort cost}}$$

- θ : information from the role model treatment
- $\alpha(\theta)$: additional income with a positive (subjective) probability $p_{ii}(e, \theta)$
- $\tilde{y}_{ij}(e, \theta)$: j 's income in expectation by i (so that we can obtain a mathematical expression to compare the own expected income with the expected income of another).

Similar notational rules apply for other variables.

- $c(e_{ii}, \theta)$: effort cost, including self-motivation

Out interests are (1) $\frac{de_{ii}}{d\theta}$ & (2) $\frac{d[\tilde{y}_{ii}^*(e_{ii}, \theta) - \tilde{y}_{ij}^*(e_{ij}, \theta)]}{d\theta}$

- Assume $\frac{\partial p_{ii}}{\partial e} > 0$, $\frac{\partial^2 p_{ii}}{\partial e^2} < 0$, $\frac{\partial \alpha}{\partial \theta} > 0$, $\frac{\partial c(e, \theta)}{\partial e} > 0$, $\frac{\partial^2 c(e, \theta)}{\partial e^2} > 0$
- 4 combinations of the signs of (1) and (2) are possible depending primarily on: $\frac{\partial p_{ii}}{\partial \theta}$ and $\frac{\partial^2 c(e, \theta)}{\partial \theta \partial e}$

Model Implications

$$\begin{aligned}\text{Sign of } \frac{de_{ii}}{d\theta} &= \text{Sign of } \left[\frac{\partial^2 p_{ii}}{\partial \theta \partial e_{ii}} \alpha(\theta) + \frac{\partial p_{ii}}{\partial e_{ii}} \frac{\partial \alpha}{\partial \theta} - \frac{\partial^2 c(e, \theta)}{\partial \theta \partial e} \right] \\ \tilde{y}_{ij}^*(e_{ij}^*(\theta), \theta) &= p_{ij}(e_{ij}^*(\theta), \theta) \alpha(\theta) \\ \frac{d(\tilde{y}_{ii}^* - \tilde{y}_{ij}^*)}{d\theta} &= \alpha(\theta) \left[\left(\frac{\partial p_{ii}}{\partial e_{ii}} \frac{de_{ii}^*}{d\theta} - \frac{\partial p_{ij}}{\partial e_{ij}} \frac{de_{ij}^*}{d\theta} \right) + \left(\frac{\partial p_{ii}}{\partial \theta} - \frac{\partial p_{ij}}{\partial \theta} \right) \right] \\ &\quad + \frac{\partial \alpha}{\partial \theta} [p_{ii}(e_{ii}^*(\theta), \theta) - p_{ij}(e_{ij}^*(\theta), \theta)]\end{aligned}$$

Model and Data Collection

We obtain following data through the experiment:

- ① Distribution of own expected income and others' expected incomes → obtain sets of $\{p_{k,ii}, \alpha_{k,ii}\}$ and $\{p_{k,ij}, \alpha_{k,ij}\}$.
 - We use visual method to backup distributions of expected incomes (See Gine et al. 2011, JDE)
 - Subscript k is the bin of incomes (e.g. \$0 – \$20, \$20 – \$40... \$300 – \$500)
 - In the theory, we have only one α and p for each ex-combatant, but in the experiment, we have income bins of α and corresponding p .
 - By setting arbitrary cutoff, we can make single α and p , corresponding to the model (*no need to do so?*)
- ② (i) Own effort (take-up of the short training), (ii) expectation on others' efforts and (iii) actual others' effort (which becomes observable *ex-post*) → obtain e_{ii} and e_{ij}
 - Difference between (i) and (ii) → confidence and motivation
 - Difference between (ii) and (iii) → confidence (overplacement)
(*true?*)

Microfoundation of the Role Model Effect



Suppose the treatment increases

- A** ⇒ Motivated by reducing ambiguity about the future
- B** ⇒ Just becoming more confident by seeing successful examples
- C** ⇒ Motivated to catch up realizing that I need more efforts
- D** ⇒ Disillusionment and de-motivated

Implicit Association Test (IAT)

- We will modify the IAT examples by Harvard
- Fix one dimension — Good vs. Bad of words (Use sounds due to the potential literacy problem of respondents)
- Variants of another dimension:
 - ① Islam vs. Western
 - ② Weapons vs. Harmless objects (ethical issue?)
 - ③ Arabism vs. Somali culture
 - ④ Somali government vs. General Somali citizens
 - ⑤ Al Shabaab vs. General Somali citizens (ethical issue?)

Use pictures instead of written words

Implicit Association Test

Next, you will categorize items into groups as fast as you can. These are the four groups and the items that belong to each:

Category	Items
Good	Enjoy, Pleasure, Magnificent, Smiling, Delightful, Fabulous, Friendship, Delight
Bad	Hatred, Awful, Scorn, Poison, Pain, Humiliate, Sickening, Ugly
Islam	 , Mosque, Koran, Muslim, Islam
Christianity	 , Church, Bible, Christian, Christianity

Implicit Association Test

Next, you will categorize items into groups as fast as you can. These are the four groups and the items that belong to each:

Category	Items
Good	Joyous, Cherish, Joyful, Smiling, Triumph, Friendship, Spectacular, Pleasure
Bad	Yucky, Horrific, Annoy, Gross, Tragic, Despise, Sadness, Humiliate
Arab Muslims	Hakim, Sharif, Yousef, Wahib, Akbar, Muhsin, Salim, Karim, Habib, Ashraf
Other People	Ernesto, Matthias, Maarten, Philippe, Guillame, Benoit, Takuya, Kazuki, Chalyo, Marcelo

There are seven parts. The instructions change for each part. Pay attention!

Implicit Association Test

Next, you will categorize items into groups as fast as you can. These are the four groups and the items that belong to each:

Category	Items
Harmless Objects	
Weapons	
Black Americans	

Bad

or

Christianity

Part 3 of 7

Good

or

Islam

Put a left finger over the **left** green area for Christianity items and for **Bad**. Put a right finger over the **right** green area for Islam items and for **Good**. If you make a mistake, a red **X** will appear. Touch the other side. Go as fast as you can while being accurate.

Touch the **lower** green area to start.

Bad

or

Christianity

Good

or

Islam



If you make a mistake, a red **X** will appear. Touch the other side to continue.

Bad

or

Islam

Part 6 of 7

Good

or

Christianity

Put a left finger over the **left** green area for Islam items and for **Bad**.

Put a right finger over the **right** green area for Christianity items and for **Good**.

If you make a mistake, a red **X** will appear. Touch the other side. Go as fast as you can while being accurate.

Touch the **lower** green area to start.

Bad

or

Islam

Good

or

Christianity

Delightful

If you make a mistake, a red **X** will appear. Touch the other side to continue.

Al Shabaab

- Caused highest fatalities in Africa over the past decade, in Somalia & beyond borders (Kenya, Uganda, Djibouti)
- Ideology: Islamist / Salafi / Jihadist
- Goal: “*Topple the Somali government and establish an Islamic empire within the country guided by a strict reading of Shariah law*”
- Estimated group size: 7000-9000
- Al Qaeda network & global Somali network

Note. Information here is partly based on:

Mapping Militant Organizations. “Al Shabaab.” Stanford University. Last modified January 2019.