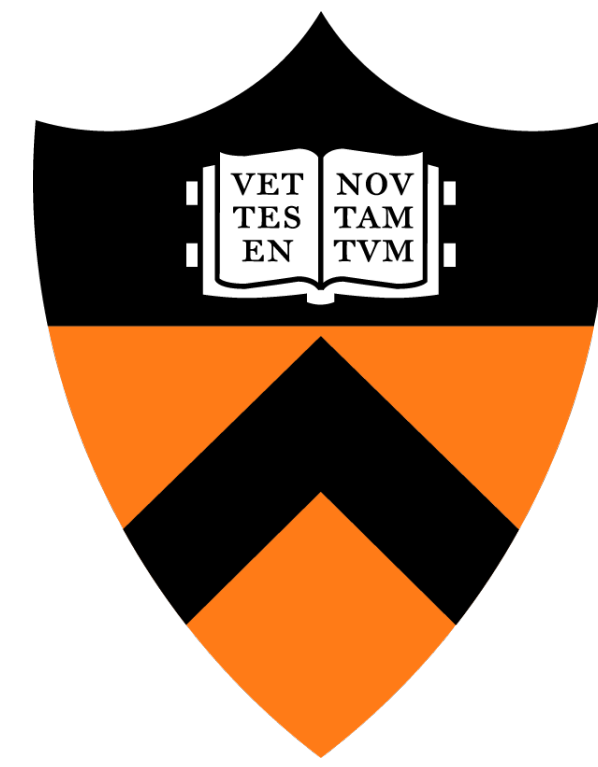# Why Movements Emerge: An Analysis of Egyptian and Palestinian Prison Letters

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Summary

- This paper explores how and why prisoners' movements emerge.
- Employs a novel empirical strategy, using NLP to analyze Egyptian and Palestinian prison letters.
- Findings suggest that movement emergence is related to the interplay between external political dynamics and internal resistance narratives, with Palestinian detainees more likely to connect their detention with the broader national movement.
- Contributes to the literature on prisons as sites of contentious politics, while adding to our understanding of the structural factors that cause movements to emerge more generally.
- Demonstrates how machine learning techniques can be used to take advantage of unstructured data in low-information environments.

Theory

I theorize that the emergence of prisoners' movements is contingent upon the social and political opportunity structure; particularly the way prisoners are perceived and their roles are framed within their respective movements and societies. A robust prison movement emerges in Palestine but not in Egypt due to the differing political context that exists outside of the prison walls. These contexts, and specifically the context of occupation in the Palestinian case, engender different cultural resonance around imprisonment, and in turn create different political opportunities.

Political Context: Egypt	Political Context: Palestine
Social Perception of Prisoners	Social Perception of Prisoners
Cultural Resonance: Weak	Cultural Resonance: Strong
Prison Movement: Limited	Prison Movement: Robust

Analysis Pipeline

Building the Corpuses

- Two distinct corpuses compiled: the first containing 471 letters from Egyptian political prisoners (post-2011), and the second containing 162 letters from Palestinian political prisoners (post-Oslo).
- Egyptian political prisoner letters sourced from archives of letters published by the El Nadeem Center for the Rehabilitation of Victims of Torture.
- Palestinian letters sourced from The Palestinian Museum's Digital Archive.
- The letters were converted into a machine-readable format using the Google Vision API.

Keyword Extraction/Frequency Analysis

- Implementation of a simple keyword analysis
- Assessment of differences in terms
- Assessment of differences in term frequency

Topic Modeling...

- Comparison of underlying topics
- Topics presented here based on Latent Dirichlet Allocation (LDA)
- Experimented with topic modeling based on Arabert embeddings, but LDA provided more interpretable results

Analysis Using Embeddings

- Pre-trained embeddings are used to calculate the corpus specific embeddings for specified words of interest by taking an average of neighboring words, using the method outlined by Rodriguez, Spirling and Stewart (2022)
- Comparison of nearest neighbors for corpus specific embeddings of selected words
- Regression of the embeddings on their corpus of origin.
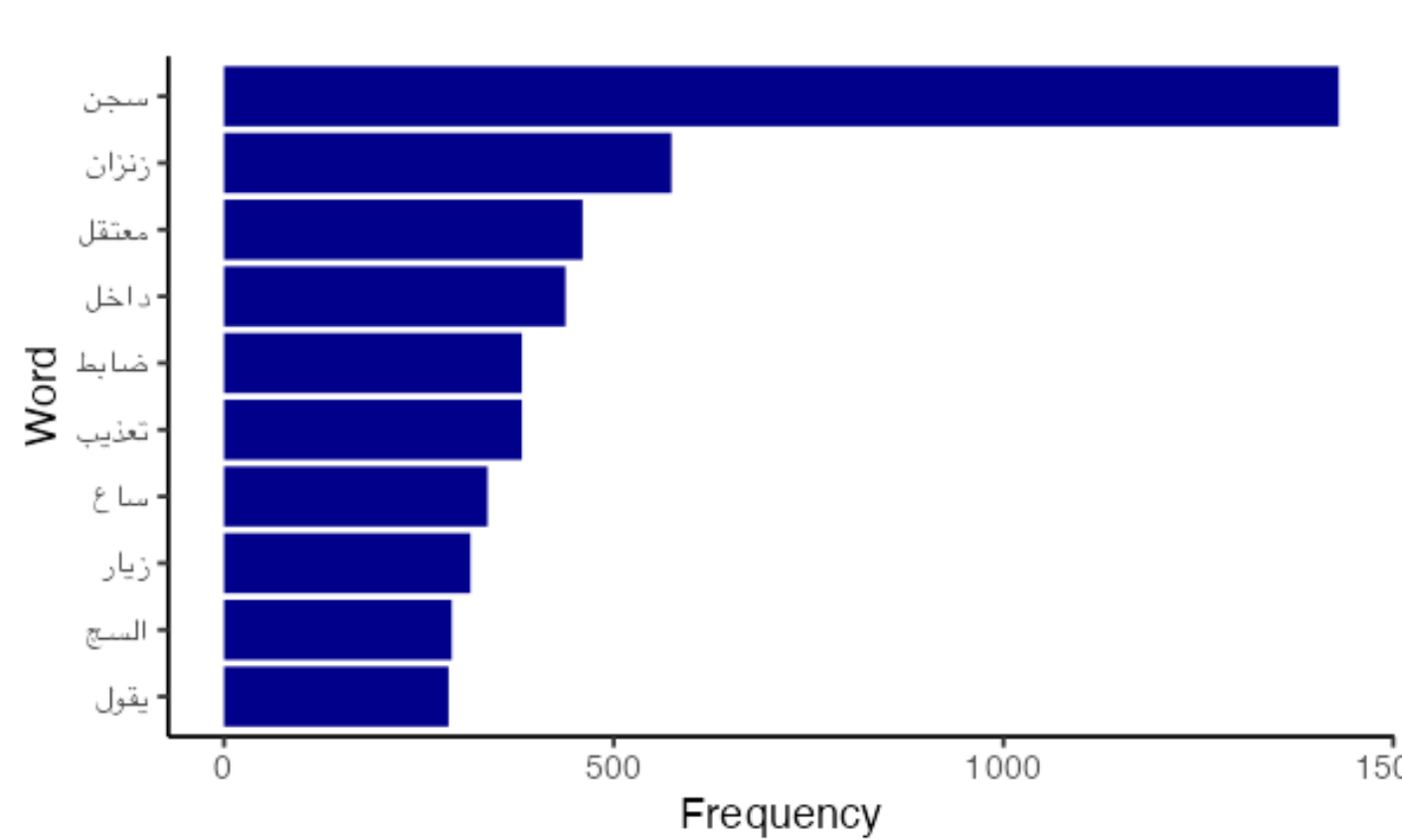
Keywords/Frequencies

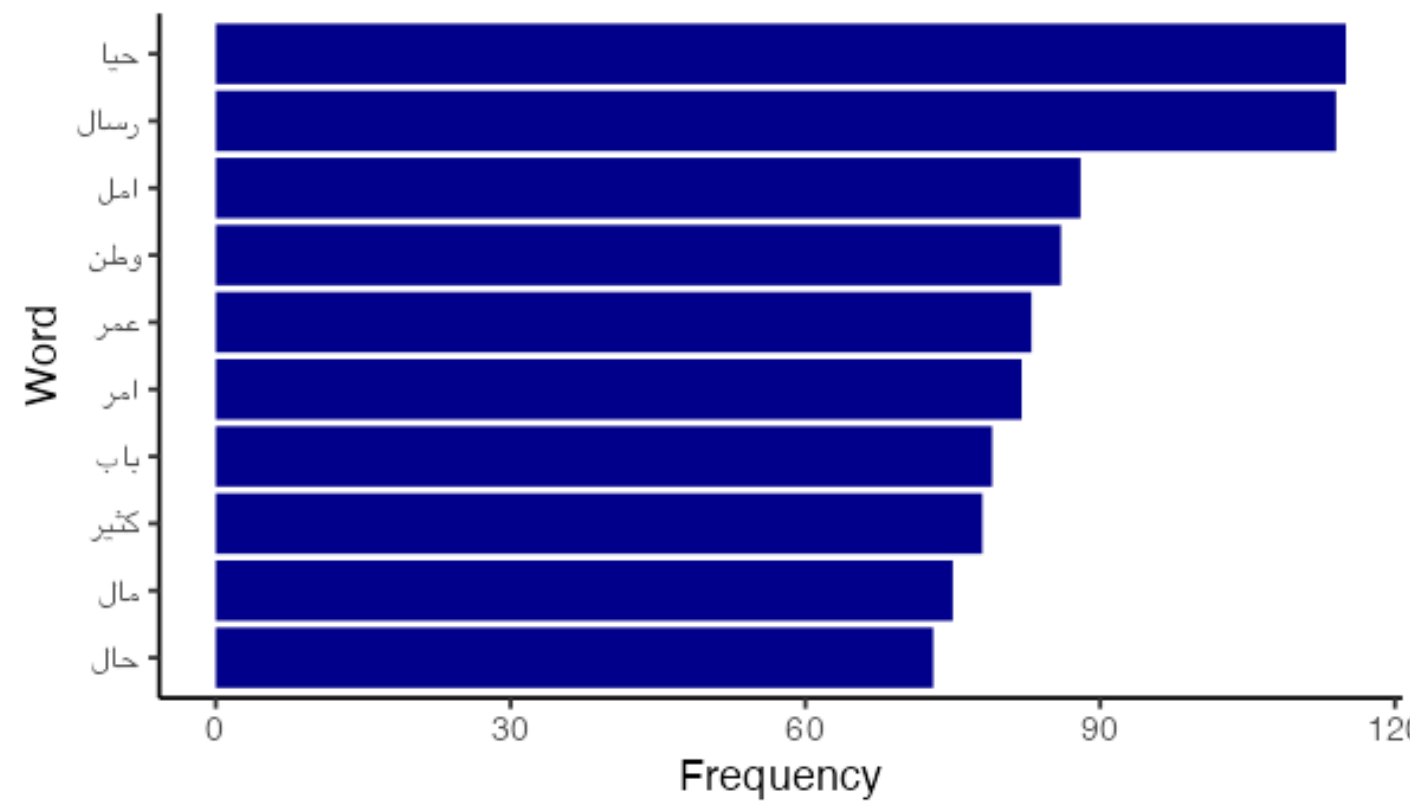
Figure 1: Egypt Top Terms

Figure 2: Palestine Top Terms

- Egypt notable terms: "Mo'takl" (prisoner), place-based words such as "sijn" (jail), "zinzana"(cell), and "dakhil" (inside). References to detention conditoins including "ziyar" (visitation) and "ta'zib" (torture).
- Palestine notable terms: "Aseer" (captive), "watan" (nation), "ard" (land), and 'tareekh' (history), "astatee'" ("I am able")
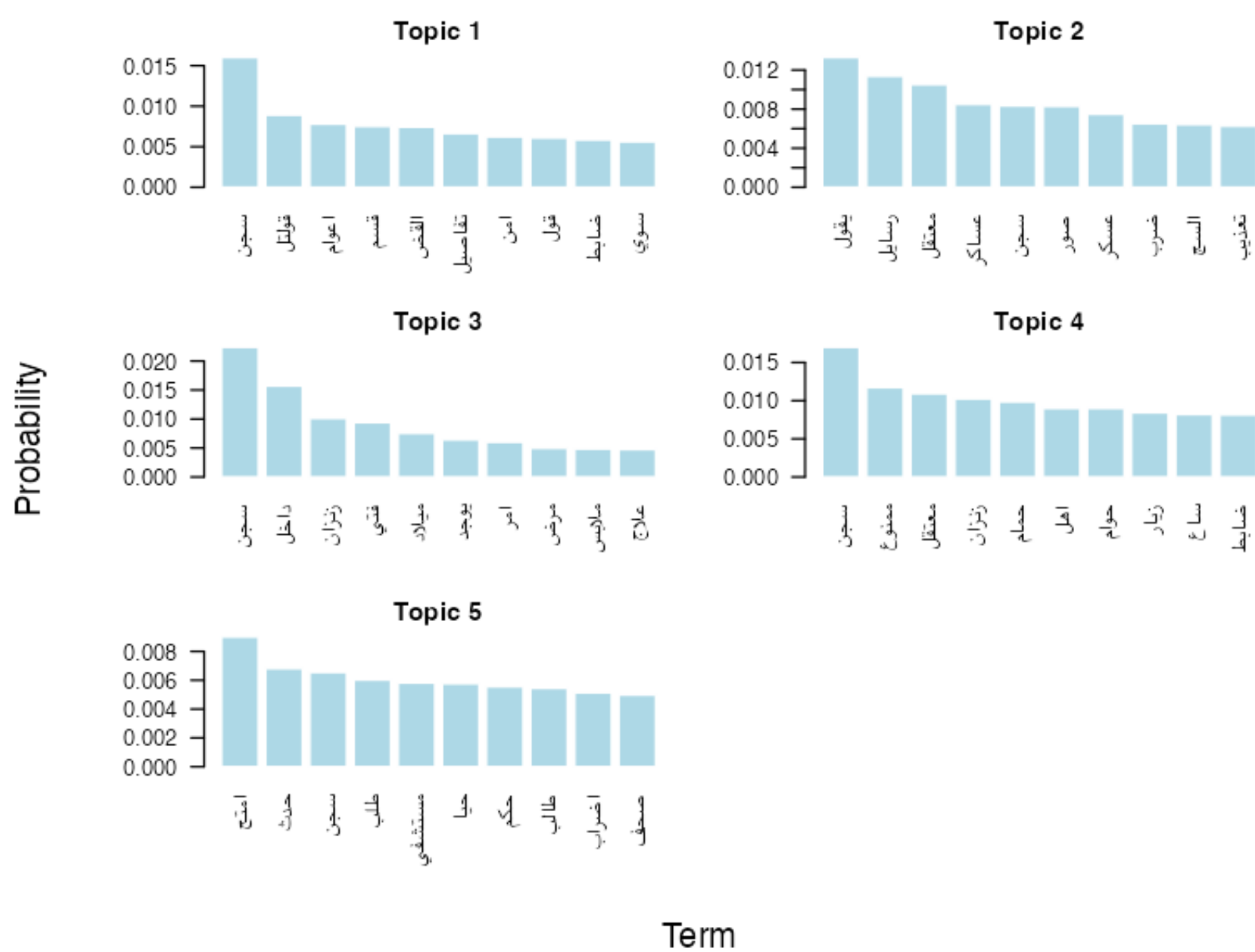
Topic Modeling
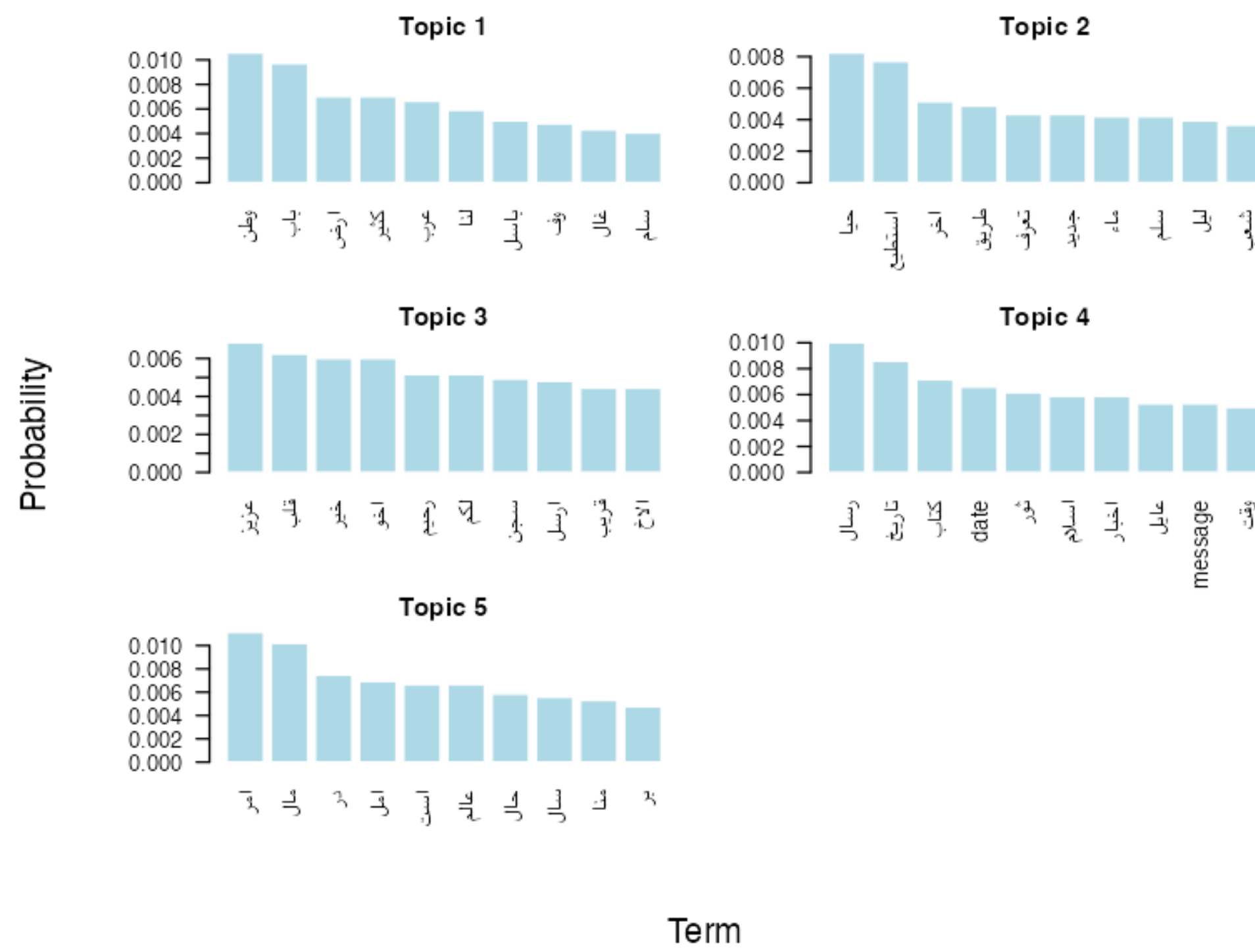

Figure 3: Egyptian Letters Topics

Embeddings Based Analysis

Figure 4: Palestinian Letter Topics

Three keywords are selected for the analysis here: prison, detainee, and nation.

Detainee		Nation	
Neighbor	Group	Neighbor	Group
احوال	Egypt	ادار	Egypt
ابلغ	Egypt	امن	Egypt
ادار	Egypt	مرحوم	Egypt
انس	Palestine	احوال	Egypt
امر	Palestine	اطفال	Egypt
افضل	Palestine	ابناء	Palestine
ابناء	Palestine	افضل	Palestine
		حقيق	Palestine
		وان	Palestine
		اهل	Palestine
		وطن	Palestine

Table: Nearest Neighbors Significantly Different to 5% P-Value

Variable	Coefficient	Estimate	P-Value
Detainee	Egypt	3.72	0.00
Nation	Egypt	3.40	0.00
Prison	Egypt	2.98	0.00

Table 2: Embedding Regreesion Results

References

[1] Google. "Google Cloud Vision API." Google Cloud, https://cloud.google.com/vision.

[2] Rodriguez Pedro L, Spirling Arthur, Stewart Brandon M. Embedding Regression: Models for Context-Specific Description and Inference. American Political Science Review. 2023;117(4):1255-1274.

[3]"The Oppression Archive": Reports 2015-2020. El Nadeem Center for the Rehabilitation of Victims of Torture. Cairo, Egypt.

[4]The Palestinian Museum Digital Archive. The Palestinian Museum. Birzeit, Palestine.