

Terror attacks impact online immigration discourses. Is it due to *how* people talk or *who* is talking?

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Extended Abstract

Online discussions are constantly changing, making social media conversations essential sensors of what the public thinks, feels, and is concerned with at any given time. Previous research finds both spikes in the volume of generated content and changes in the tonality of online discussions in the wake of unexpected events [5, 2, 1]. However, previous studies typically focus on aggregate-level changes to online discussions following unexpected events. The question of which mechanisms generate such aggregate-level shifts has received less attention. Seeking to answer this question, we test if shifts in the online discussions about immigration in the wake of Jihadist terrorist attacks are brought about by (1) within-individual changes in how users speak or (2) changes in the composition of users contributing to the debate.

To capture how online discussions about immigration shift, we measure the salience of three themes in the online debates before and after 37 Jihadist terrorist attacks in Western Europe between 2010 and 2020 [3]. We study how salient interpretations of immigration related to culture, economy, and security are in online discussions before and after the attacks. We use a corpus of 7.5M posts written on Sweden’s most frequented online discussion forum, Flashback, to study these shifts. We capture the prevalence of a specific interpretation of immigration as the salience of a corresponding theme in online debates using a seeded topic model [4]. Interpreting terrorist attacks as exogenous treatments to the immigration debates, we contrast texts posted online before and after the treatment event to estimate shifts in online discussions using OLS regressions with subforum fixed effects. To disentangle the effect of the two mechanisms under study, we examine how changes within users and by users leaving and joining the discussion immediately after the attack contribute to shifting collective interpretations of immigration. Assuming different reactions among online discussants to close and remote attacks, we compare responses to attacks inside and outside Sweden. For both attack categories, we also identify how long the shifts in immigration discourse generated by the attack persist and the role of both mechanisms in forming post-event discussions in the long run.

Figure 1 shows the aggregate-level shifts in the online immigration debate following terrorist attacks. The results in Figure 1 indicate that terrorist attacks amplify the salience of culture and security themes in online discussions on immigration and decrease the focus on the economy theme both when they occur in Sweden and other European countries. These results suggest that online discussants focus primarily on cultural issues related to immigration following Jihadist terror in their immediate cultural context rather than the potential threat to one’s safety posed by such an event. When attacks occur in other European countries—outside the users’ immediate cultural context—threats to one’s security seem to be perceived as more imminent than the cultural aspects.

Our results on the two mechanisms show that changes in how individual users talk about immigration are a significant factor in changing the online immigration debates in all studied contexts. Notably, while the users that are already active in the immigration debate on

Flashback increase how much they discuss immigration through a cultural and security lens, they still primarily associate immigration with matters of the economy even after the high-profile Jihadist terrorist attacks that take lives and terrify society. Our results suggest that the within-individual change mechanism alone cannot fully explain the observed aggregate-level shifts. In contrast, the new users who joined the platform to discuss immigration after terrorist attacks mainly concentrate on matters of religion and national identity. The inflow of new people on the platform wanting to discuss immigration as a cultural issue is essential to generate aggregate-level results. Our findings show that both the within-individual change and composition change contribute to the immediate and long-run shifts, albeit to a different extent under different contexts.

We argue that social media data hold great potential for further empirical studies on the dynamics of public discourse and collective interpretations of what is happening. Compared to yearly surveyed attitudes, the setting of online discussions allows zooming into the rapid fluctuations of how people discuss a vast range of cultural issues, providing a potential sensor to measure changing worldviews or preferences on a highly fine-grained temporal scale and over long periods of time. However, birds-eye analyses of social media data—as well as cross-sectional survey studies of immigrant attitudes—often interpret shifts as individual-level changes, typically neglecting changes in the composition of speakers. Our findings highlight the necessity of individual-level text data to differentiate two separate mechanisms that can bring about similar shifts in aggregate discourse measures.

References

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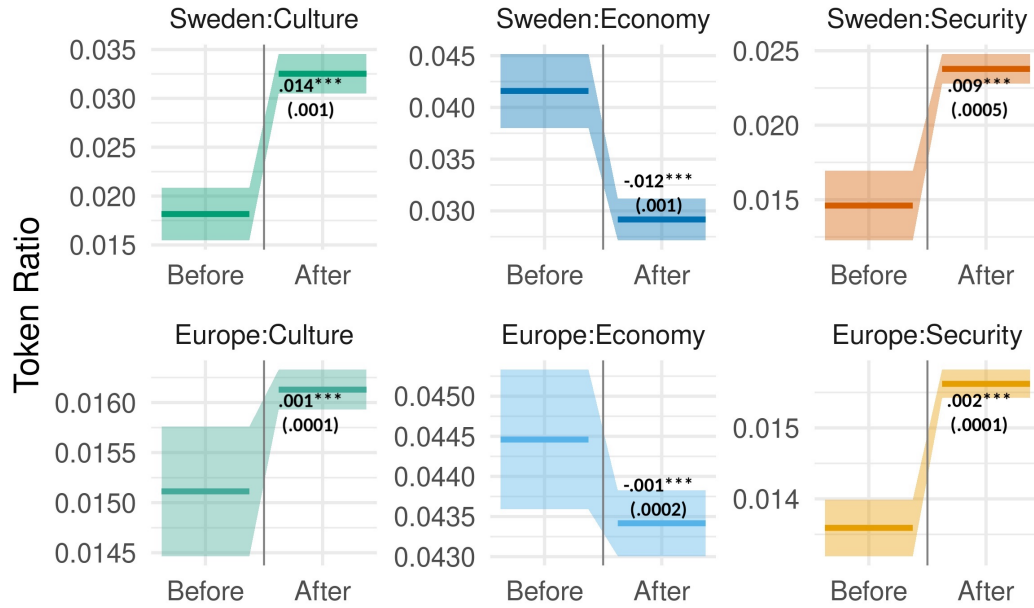


Figure 1: Average shift in the salience of different themes in the immigration discussions following terrorist attacks in Sweden (upper panel) and in other Western European countries excluding Sweden (lower panel). The y-axis captures the average proportion of words in immigration-related posts from topics quantifying the themes of culture, economy, and security on Flashback. The x-axis captures the period of 21 days before and 7 days after an attack. The first column from the left (green) shows the association between culture and immigration, the second column (blue) shows the association between economy and immigration, and the third column (orange) represents how the association between security and immigration shifts. $N = 41,916$ for Swedish attacks, and $N = 645,603$ for non-Swedish attacks. Standard errors in parenthesis. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.