Online in the US, Personal Identity is Increasingly Political

Jason Jeffrey Jones *

<https://orcid.org/0000-0002-4140-0268>

Department of Sociology and Institute for Advanced Computational Science, Stony Brook University

Nick Rogers

<https://orcid.org/0000-0003-0624-8413>

Department of Sociology, Stony Brook University

Author Note

* Corresponding author: Jason Jeffrey Jones, jason.j.jones@stonybrook.edu

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Abstract

We estimate the prevalence of including political affiliation in one's public profile among American users of Twitter. In 2020, we estimate that more than 1 in 100 users do so, and that this proportion has consistently increased every year from 2015. By our definition and within our sample, the prevalence of political affiliation surpassed religious affiliation in 2018. Informal expressions of political ideology (e.g. the acronyms BLM and MAGA) followed the same trajectory. We encourage further study of the temporal dynamics of identity through exploration of public profile biography data.

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In the United States, affective political polarization – an interpersonal distaste between people of competing ideological views – has reached alarming levels. We suspect that this is partly due to an intertwining of political ideology and personal identity. Social Identity Theory (Tajfel & Turner, 1979) and Realistic Group Conflict Theory (Sherif, 1961) suggest that when individuals see themselves as belonging to a group in conflict with another, the individuals' behavior tends to warp in predictable ways. In a phenomenon termed group polarization, the opinions of each group member become more extreme and certain (Sunstein, 2002). Contrary opinions from outside the group are perceived as threats against the members' sense of identity. Otherwise routine debate, then, becomes unduly personal.

Here we aim simply to measure to what degree political ideology is enmeshed within Americans' personal identity and observe this quantity over time. We do so with a sample of about 10 million American users of Twitter each year 2015 through 2020.

Visualization

Findings and Discussion

As our figure visualizes, the prevalence of users including politics in their identity is on a steady rise. Beginning in 2018, US Twitter users were more likely to define themselves with a political affiliation than a religious affiliation. Although other types of descriptors – e.g. those referring to sports or arts – are more common, those types are declining in prevalence. These data suggest that politics is becoming a more salient (see Stryker & Serpe, 1994) aspect of individual Americans’ identities. To the extent that it is, we should expect that the dynamics of group polarization and Realistic Group Conflict Theory have activated accordingly. By that process, Americans sorted into one or another political “team” would find their ideologies becoming more coherent, extreme, and immovable. Expressions of contrary political opinions become felt as personal affronts, leading to a feedback loop of intergroup animus. Prior research has suggested that such toxic cycles may be escaped if a unifying identity (e.g. “American”) supersedes the sectarian identity in salience (Lavendusky, 2018), or if an obvious “superordinate” challenge requires intergroup cooperation to achieve (Sherif, 1961). But it is difficult to predict whether this will occur. Our data show the trend of political content increasing in prevalence within personally expressed identity has continued over six years.

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Supplemental Material for

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Background

One aspect of the broader phenomenon of political polarization is affective polarization – personal dislike and antagonism between partisans. Affective polarization has been on a steady rise in the United States. (Abramowitz and Webster, 2016; Iyengar and Westwood, 2015; Pew Research Center, 2016). Writ large, the resulting toxicity can gridlock government (Jones, 2001), lead to cultural schisms (Hetherington and Weiler, 2018; Mason, 2018), and even devolve to violent tribalism (Chua, 2018).

But what is the root cause of affective polarization? We think it is partly due to an individuals' incorporation of political affiliation into their sense of personal identity. When an individual forms an identity around a particular group membership, the individual tends to change in predictable, measurable ways. For example, their values and beliefs become more extreme and intractable. (Sunstein, 2002). And they develop a volatile defensive posture against perceived threats to the group, especially rival outgroups. (Sherif, 1958, 1961). We suppose that the salience of politics within personal identity has risen in tandem with growing affective polarization. The intent of the current work is to provide a consistent and persistent measure of the salience of political identity.

Method

Personal identity is difficult to operationalize and measure. Identity cannot be directly observed. However, language is deeply expressive, and a straightforward approach to operationalizing identity is to ask individuals to describe themselves with words.

Accordingly, for many years identity has been examined through the “Twenty Statements Test” (“TST”), in which respondents were asked to list a number of words that describe them, and the substance of those words could then be analyzed for insights. (Kuhn and McPartland, 1954). When administered broadly and across time, the TST can measure society-wide trends in identity. For example, Zurcher (1977) argued that Americans had become increasingly likely to list personal traits (e.g. “smart”; “hard-

working”) and less likely to list group affiliations (e.g. “Freemason”; “New Yorker”). This was inferred to reflect a widespread cultural shift away from collectivism and toward individualism.

We argue that a modern digital analog to the TST is the social media “bio” where users are prompted to briefly describe themselves (Jones, 2021; Rogers & Jones, 2021). On Twitter, specifically, the user is asked to “Describe yourself in 160 characters or less” as they create their account. The response is the user’s bio, and it appears beneath their picture and name. Users can edit their bio at any time.

This publicly available, self-authored, self-description may contain anything the user chooses. Some people leave the field blank. Some include a quotation. Many simply list words that describe themselves. Recent work has demonstrated that social identities are frequently present within self-descriptions (Pathak, Madani & Joseph, 2021). Users update these markers in response to events – the January 6, 2021 attempted insurrection, for example (Eady, Hjorth, Dinesen, 2021). In this work, we tally the prevalence of users whose bio contains a word from categories we constructed to reflect different aspects of identity.

We were specifically interested in measuring the category of Political Affiliation. To construct this category, we listed words we thought explicitly signaled political affiliation. For comparison, we constructed lists for Sports, Arts, Religion Affiliation and Other Political words. Lists of keywords for each category are contained in Table S1.

Sports	Arts	Religion Affiliation	Political Affiliation	Other Political
athlete	art	atheist	anarchist	activist
baseball	artist	baptist	communist	black lives matter
basketball	painter	buddhist	marxist	blm
boxing	dancer	catholic	socialist	blue lives matter
football	sculptor	christian	leftist	deplorable

golf	designer	episcopal	liberal	feminist
hockey	filmmaker	episcopalian	progressive	lgbtq
mma	musician	hindu	democrat	maga
soccer	poet	jewish	conservative	mens rights
softball	composer	lutheran	gop	nasty woman
sports	comedian	methodist	republican	red pill
tennis	comedienne	mormon	libertartian	the 99%
volleyball	performer	muslim	alt-right	woke
	actor	presbyterian		
	actress			
	playwright			

Table S1. Lists of keywords for each category.

A user counts for a category if they use any of the words within their bio. A user with the bio “GOP dad who likes baseball” counts once for Political Affiliation and once for Sports. We searched for whole word matches using regular expression pattern matching and ignoring case. From these counts, we normalize by the total count of observed users to compute a prevalence. Specifically, $\text{Prevalence} = (\text{Count of users with keyword}) / (\text{Total user count}) * 10,000$. It is important to be clear that we are always counting users and never words. A bio that reads “Painter, musician and poet” counts as one user who matches the Arts category, even though there happen to be three pattern matches.

Data

From 2015 to the present, we have collected a random sample of millions of tweets, and created a digital snapshot of each tweeter’s bio at the moment of observation. By comparing the usage of words in bios from year to year, we identify trends in how people describe themselves.

To obtain our sample of tweets, we used the Twitter Streaming API (Twitter, 2019). We filter this set to US users by examining the user-provided location. The location is entered by the user, and we filter to text that indicates a likely US location. We filter out locations that are likely not in the US (e.g. “London, UK”) and select in text that indicates a US location (e.g. state names and formal abbreviations).

From these many observations of tweets, we construct a much shorter list of unique users. Specifically, we choose at random one and only one instance of a user’s profile per year. Therefore, regardless of how many times a user was observed tweeting, their profile is present once and only once when computing prevalence. The number of unique users observed per year is contained in Table S2. This number is the denominator in every prevalence calculation.

Year	Unique User Count
2015	8,564,955
2016	10,227,688
2017	10,638,679
2018	10,310,854
2019	9,817,008
2020	10,181,678

Table S2. Unique user profiles observed per year.

Limitations

The reader must be aware that the dataset comprises a large but not complete sample of American users of Twitter. To be included, a user must indicate in their profile a likely US location. To be counted within a prevalence estimate in a category, they must use a word from the lists we constructed. Therefore, these results might not generalize to offline behavior or nations other than the US. Also, individuals’ private, internal sense of self likely differs from their public expression of identity.

Nonetheless, we point out that this sample is vastly larger than samples used in most social science research and more inclusive than most behavioral research conducted on convenience samples of local college students. We analyze public expressions of identity, because we don’t have access to the private, internal thoughts of anyone except ourselves.

One can imagine other ways to measure the “politicalness” or “religiousness” of bios that take more of the available language data into account. One could take a machine-learning approach to classify any bio on any dimension. However, the current approach has the benefits of clear operationalization and

efficient computability. Replication of these results is straightforward. Any person and every algorithm can agree on whether or not a short text contains “atheist” or does not contain “atheist.”

Further Applications

The current method could be applied to any word, phrase or regular expression. The current visualization uses US nationwide and annual data for ease of analysis and presentation, but daily temporal resolution and finer geographic resolution is possible with the same techniques. Further applications of this methodology will soon provide new insight into the temporal trends of shifting identity.

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