#Indiref2: Twitter and the Potential for a Second Scottish Independence Referendum

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On Twitter, conversations around Scotland’s independence, dampened momentarily by a failed referendum in 2014, have been reinvigorated with advent of Brexit. By downloading tweets from January of this year, this article examines how public sentiment towards Scottish independent varies across the United Kingdom four constituent nations (i.e. England, Wales, Northern Ireland, and Scotland).

Perhaps not surprisingly, the majority of tweets (71.4%) on the subject were sent from the mainland of Scotland. 22.2% were sent from England, and collectively, Wales and Northern Ireland account for less than 6% of the tweets (see Figure 1).

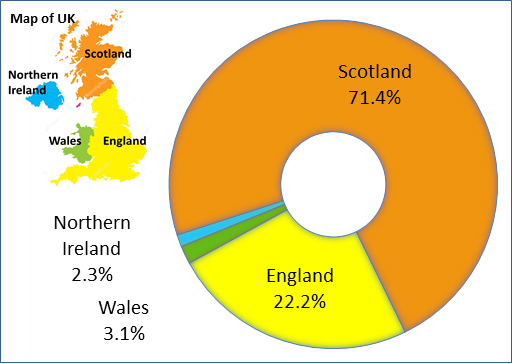


Figure 1. Percentage of tweets on Scottish Independence across the United Kingdom, between January 1st and January 30th, 2020

**Words used in tweets**

Figure 2 showcases the most commonly used words in these tweets by country. The bigger and bolder a word appears, the more often it is mentioned in the posts. The most common words and hashtags, such as ‘Indiref2’, ‘Scotland, ‘Scottish’ and ‘independence’ were removed in order to enable clearer visualization.



Figure 2. Words used in tweets

There are both similarities and differences between the four countries. Names, such as ‘Boris,’ ‘Johnson,’ and ‘Sturgeon’ are amongst the most commonly used words. Interestingly, ‘Brexit’ proves highly significant in each country. This appears to support [recent polls](https://www.thetimes.co.uk/article/poll-finds-1-in-4-who-voted-yes-in-scottish-independence-referendum-have-changed-their-minds-hb9tk2f0x).) which shows that certain people who voted for Scotland to remain part of the UK may have changed their mind due to anxieties around ‘Brexit’ (See here:

There are a few distinct words associated with Scotland and Wales as compared with the rest of the UK due both nation’s independence movements For example, the word ‘referendum’ in Scotland clearly emphasizes the discussion around the call for another referendum. In Wales,, words such as ‘Indywales’ and ‘yescymru,’ can be attributed to the rising nationalist sentiments across the nation. Despite the Welsh having supported Brexit, there are some renewed calls for Welsh independence on Twitter. However, similar words were not found in Northern Ireland or in England.

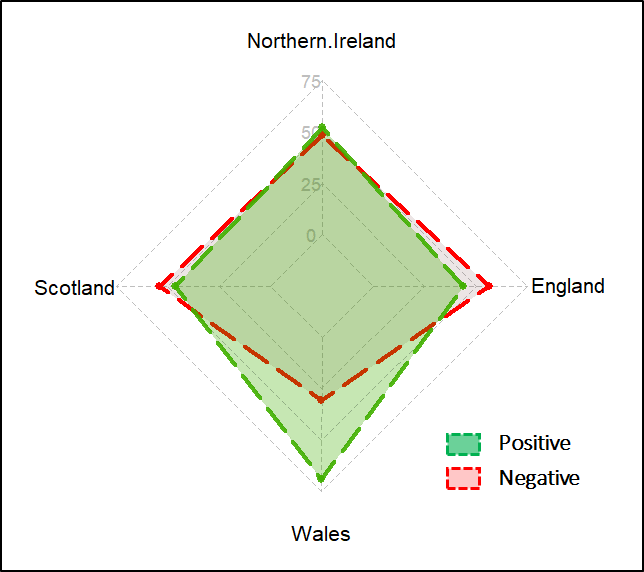


Figure 3 Binary classification of sentiment (%)

**Emotions expressed in tweets**

I then extracted the purported emotions expressed in these tweets, performing a binary classification of tweets in each country into positive or negative sentiment. Wales and Northern Ireland appear to have predominantly positive sentiments (69% and 51%, respectively), whilst both England and Scotland have mainly negative sentiments (69% and 52%, respectively) (See Figure 3). The results for Scotland, in particular, appear to contrast the [YouGov poll](https://yougov.co.uk/topics/politics/articles-reports/2020/01/30/scottish-independence-yes-leads-remainers-increasi?utm_source=twitter&utm_medium=website_article&utm_campaign=scottish_independence_Jan_2020).), published on the eve of Brexit, which has Yes in the lead for the first time since 2015, by 51% to 49%.

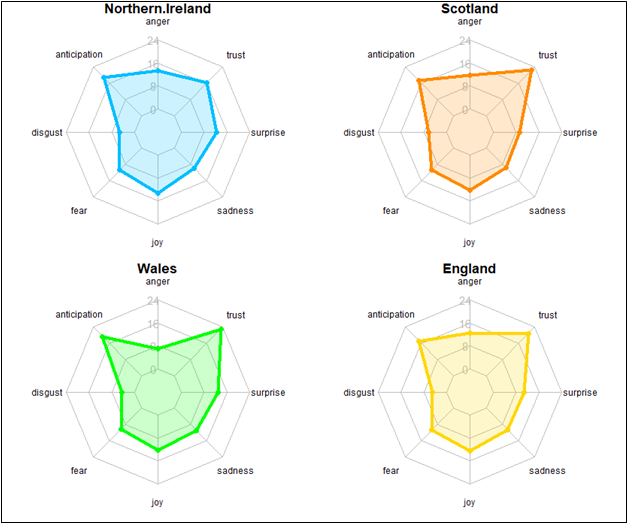


Figure 3. Sentiment analysis of tweets (%)

Figure 3 provides further insight into a range of common human sentiments, such as trust, surprise and joy. Generally speaking, the patterns across all four countries are comparable. Most notably, the figure shows similar levels of ‘fear’, ‘joy’ and ‘sadness‘ across all four countries. ‘Anticipation’ and ‘trust’ are the two most expressed emotions, with Wales showing slightly higher percentages in both categories. ‘Disgust’ is the least expressed sentiment relating to the subject. In all, the analysis demonstrates how social media data can be used as a source for gauging public sentiment on political issues.