Tweeting India’s Nirbhaya Protest: A Study of Emotional Dynamics in an Online Social Movement


Introduction

Emotions
- Spontaneous, has a strong feelings component, valenced reaction or appraisal
- Intrinsic factors - moral values, cultural upbringing (Jasper, 1980)
- Extrinsic factors – social expectations, social identity (Castells, 2003)

Protests in Social Movements
- Collective action based on beliefs, ideologies and / or emotional instincts
- Belongingness to the identity of the movement
- Permeated with emotions (Taylor, 1989; Castells, 2012)
Introduction

- Posts on social media about mass protests are often posted live (Earl, Hurwitz, Mesinas, Tolan, & Arlotti, 2013; Theocharis, Lowe, Van Deth, & García-Albacete, 2014)

- Social media plays a positive role in offline protest action, such as
  - Arab Spring (Lotan et al., 2011)
  - The 2011 riots in Britain (Vis, 2013)
  - Protests in Iran (Burns & Eltham, 2009)
  - Occupy Wall Street protests (Gaby & Caren, 2012; Theocharis et al., 2014)

- There is a need to understand the characteristics of online social movements, and vet them against theory.
Research Objectives

- Identify whether emotions supported and nurtured the social movement in the same way as they do in the offline world.
- Identify the emotions which were dominant at before, during and after online protest action.
- Observe the transition of these emotions through the three stages of the social movement.
December 2012 – A young girl was raped by 5 men on a moving bus

The nation was shocked and then agitated by government ineptitude and delayed justice

Online discussions transformed to offline protests
Emotions in Protest

▪ What are the characteristics of an online social movement?

▪ Afford potential protesters the time and distance to appraise the situation and determine their participation in a safe manner (Castells, 2012)

▪ Enable a wider outreach to a younger, energetic audience (Chaudhuri & Fitzgerald, 2015).

▪ Are used to coordinate offline protest activities (Jaidka & Ahmed, 2013a)

▪ Act as an unmoderated online press, reporting first-person accounts of the offline happenings at protest venues and providing information (Jaidka & Ahmed, 2013b)

▪ Create the first bonds of reciprocity, trust, and togetherness through online emotional expression (Castells, 2012).

▪ But are they like offline movements?
Emotions in Protest

- Do the emotional characteristics of online social movements resemble those of offline social movements?

‘...the origins of social movements are to be found in the emotions of individuals and in their networking on the basis of cognitive empathy’ (Castells, 2012 p. 13)

Group Appraisal Theory - Arousal + Context combine to form emotions (Van Troost, Van Stekelenburg, & Klandermans, 2013).

- Primary Appraisal – Is the event positive / negative / neutral?
  - If negative, is it harmful / threatening / challenging?
- Secondary Appraisal – Are my coping abilities and resources sufficient to overcome the harm / threat or challenge posed by the event?
  - If yes, who is to blame for this event?
Emotions in Protest

- Do the emotional characteristics of online social movements resemble those of offline social movements?

(Jasper, 1980)
Areas of Investigation

- *Before protest*: negative emotions, anger, anxiety, individualism
- *During protest*: positive emotions, certainty and collectivism
- *After protest*: positive emotions, achievement and sadness
Method: Twitter Data

- Topsy Twitter archive

Tweet:
  - delhi OR gangrape OR rape OR #delhigangrape OR #delhiprotest OR #delhiprotests OR #indiagate OR #stopthsisshame
  - Collected 72,565 tweets posted from 17\textsuperscript{th} December to 26\textsuperscript{th} December.
  - Filtered out non-English language tweets (N = 65613)
**Methodological Decisions**

### Primary Data (studied in 3 phases)
- Topsy Search API, Eclipse IDE
- Pre-protest phase: 20,366 tweets (17 – 21 Dec 2012)
- Protest phase: 25,207 tweets (22 – 23 Dec 2012)

### Four hour time slots
- To account for sudden spikes or time lags
- Chosen according to the size and distribution of primary data

### Comparison against baseline trends
- Topical tweets (10729 tweets posted under #Newshoursnewsbreak, #1YearOfJaiHo and #FACup)
- Newspaper articles (487 articles from The Times of India, The Hindu, and The Telegraph India)
- Blogs and Talking corpora (analysis from 714000 posts and 2014 transcripts) (Tauczik & Pennebaker, 2010)

### Emotion Analysis (Linguistic Inquiry and Word Count)
- Pairwise comparison of bipolar emotions (Plutchik, 1980)
  - Positive vs Negative
  - Anxiety vs Certainty
  - Individualism vs Collectivism
Method: Automated analysis


<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
<th>Number of words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive emotion</td>
<td>Delight, humor, yay</td>
<td>406</td>
</tr>
<tr>
<td>Negative emotion</td>
<td>Hurt, ugly, nasty</td>
<td>499</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Worried, fearful, nervous</td>
<td>91</td>
</tr>
<tr>
<td>Anger</td>
<td>Hate, kill, annoyed</td>
<td>184</td>
</tr>
<tr>
<td>Sadness</td>
<td>Crying, grief, sad</td>
<td>101</td>
</tr>
<tr>
<td>Certainty</td>
<td>always, never</td>
<td>83</td>
</tr>
<tr>
<td>First person singular</td>
<td>I, me, mine</td>
<td>12</td>
</tr>
<tr>
<td>First person plural</td>
<td>We, us, our</td>
<td>12</td>
</tr>
<tr>
<td>Achievement</td>
<td>earn, hero, win</td>
<td>186</td>
</tr>
</tbody>
</table>
Dataset Description: Frequency Analysis
Results: Comparison with baselines
Results: Negative & Positive Emotions

- Gradual rise in negative emotions till the protests, after which it subsides
- High levels of positive emotions during the protest
Results: Anger & Sadness

- High level of anger in the early period dropped as the movement proceeded.
- Sadness was highest before and lowest after the protest.
Results: Anxiety & Certainty

- Highest value for anxiety was recorded on the day before the first day of protest
- Highest value of certainty recorded during protest
Results: Individualism, Collectivism & Achievement

- Collectivism was found to be lowest before and highest during protests.
- Steady rise in the sense of achievement throughout.
Discussion

- Online protests reflect...
  - the offline context
  - the same emotional patterns as offline protests
  - the same goals as offline protests

- Emotional liberation and cognitive liberation go hand in hand

- Online emotions changed after the physical protest
Larger Implications

- Placing emotions in context
- Conceptual stability
- Behavioral dynamics on social media
- Baselines
- Role of different emotions, e.g. anxiety

- Predict next week's emotion from this week's words
- Periodic stress
- Emotions and diagnoses / performance
- Tweeting intentions*
- Homogenous groups of users*
Limitation and Future Research

- Lack of an emotion lexicon for regional language tweets
- Alternative approaches to this study –
  - Survey of offline and/or online protesters
  - Use of only geo-tagged posts
Thank you
• Shifting Balance of Media Powers
• The “common man” was the most active in the three phases; highest jump in frequency from pre- to protest phase
• Creation of new content instead of retweeting content, during protest phase
Dataset Description – Social Network Layout

- Twitter – a rapid information route
- Sparse network; hub-spoke structures
- Decentralized interaction during the protest phase
- Localized interaction in the pre-protest and post-protest
Dataset Description: Tweet Themes

- The graphs show the intentions of tweets posted under the “police” and the “India Gate” (protest venue) themes.
- Protesters were fighting physical barricades with Twitter networks.
- Reportage, mobilization and tactics sustained the protests at India Gate.