## Supplementary Materials for "Shadowing as a Tool for Studying Political Elites"

#### Jennifer Bussell

- 1. Study Design and Pre-Analysis Plan (Village Council Presidents—VCP—study
- 2. Shadowing Training Manual (VCP study)
- 3. Coding Instructions (VCP study)
- 4. Coded Field Notes (Example from VCP study)
- 5. Coding Memo Themes (VCP study)
- 6. Coding Memo Day in the Life (VCP study)
- 7. Field Notes Coded (Subject P(H) VCP study)
- 8. Completed shadowing study (VCP study)
- 9. VCP Study Appendix

# Shadowing Indian Village Council Presidents Study Design and Pre-Analysis Plan

Jennifer Bussell

#### Introduction

This study design is intended to guide the implementation and analysis of a shadowing study focused on village-level politicians in India. The primary goal of this project is to develop an understanding of "the daily life" of local political leaders (village council presidents or panchayat presidents/pradhans/sarpanch) in India. In particular, I am interested in the activities of politicians when they are in their constituency. I want to understand how politicians spend their time in the constituency, what are their normal activities, how they interact with other individuals and groups, and what they try to accomplish and how. I have a specific interest in the ways in which politicians engage with individual constituents, either at their home or in the community. At the same time, I want to understand how these individual interactions fit in with the broader set of engagements with other public and private individuals and groups, as well as the range of different events in which a politician takes part while in his/her electoral district.

#### **Research Questions**

The questions that I hope to address in this study fall into the following buckets:

#### 1. Interactions with citizens

O How and when does the politician interact with individual citizens? What are the "rules" of these engagements? In other words, can individuals approach politicians at any time, or are there set programs and procedures for when individuals can meet the politician?

- If there are procedures, do these procedures differ across different types of people? In what ways?
- o How does the politician explain the reason or need for these interactions?

#### 2. <u>Interactions with other politicians</u>

- o Do village council presidents exhibit clear political party preferences/affiliations?
- o With which other politicians does he/she regularly engage?
- What are the formats of these interactions (letter, phone, in person)?
- What is the typical content of these interactions?
- Does the politician have interactions with elected politicians at other levels, e.g.
   Members of Parliament, Members of the state Legislative Assembly or
   Legislative Council, Zilla panchayat members, Block Samiti members?
- o If so, what is the content of these interactions and how does it differ across these different relationships?

#### 3. Interactions with bureaucrats

- With which bureaucrats does the politician interact, e.g. department officers,
   district collector, block officers, panchayat secretary, police?
- What are the formats of these interactions (letter, phone, in person)?
- What is the typical content of these interactions and how does it differ across different types of bureaucrats?

#### 4. <u>Interactions with others</u>

- Does the politician spend a significant amount of time interacting with other types
   of actors (e.g. representatives of NGOs or the private sector)?
- o If so, who are these individuals and what is the content of their discussions?

#### 5. Efforts to allocate resources

- What resources, if any, does the politician actively make use of?
- What does this look like in the field?
- Is he/she asking for input on what projects to initiate or satisfaction with previous projects?
- o Is he/she visiting project sites to evaluate progress?
- O Is he/she meeting with contractors or other individuals about past or potential projects?

#### 6. Other activities

On what other activities, if any, does the politician spend significant amounts of time?

#### 7. Role as a Politician

- o How does the politician perceive his/her role as an elected official?
- What are the activities that seem of most importance to him/her and why?
- O Does there seem to be any conflict between what the politician sees as important and what he/she thinks others believe to be important?

#### 8. Challenges

- What does the politician see as the biggest challenges to his/her role in the constituency?
- Why does he/she think these challenges exist?
- What does she/she do to try to overcome these obstacles?

#### **Subject Pool and Sampling**

The subjects for this study are village council presidents in Uttar Pradesh (India's largest state by population). Thus, all of the state legislators and village council presidents currently holding office in Uttar Pradesh make up the subject pool. This is a sample pool of 404 state legislators and 52,000 village council presidents.

#### Sampling

The sampling strategy for village council presidents builds on s sampling strategy used for a related project studying state legislators in Uttar Pradesh. In that study, I used a stratified random sample procedure to select seven state legislators who were shadowed for the study. My sample of village council presidents will include two presidents from each of the selected legislative constituencies, for a total of 14 village council presidents.

The initial stratification was on the basis of party affiliation and gender. At the time of the study, there were three political parties that currently each hold a substantial (more than 15) number of seats in the Uttar Pradesh state legislature: the Bharatiya Janata Party (BJP), the Samajwadi Party (SP), and the Bahujan Samaj Party (BSP), with the SP leading the ruling government. In addition, there are two parties that hold more than five seats: the Apna Dal (Sonelal) (AD(S)), and the Indian National Congress (INC) (a key national-level party). Within the lists of legislators from each party, I used a random number generator to rank each politician. My team then approached the politicians in the order denoted by the rank to request that they participate in the study. We continued down the list of ranked legislators until we secured the desired sample size.

My legislative sample included three SP legislators (two women and one man), two INC

legislators (one woman and one man), one BJP legislator (male), and one BSP legislator (male). The legislature was predominantly male, so the inclusion of female legislators required weighting the sample toward certain political parties with more female representatives.

Once the state legislators were selected, I identified the list of village councils that sit within their constituencies. I will use a random number generator to rank these councils and will go through a similar process of contacting potential subjects according to their ranking. I will continue down the list of ranked councils until I secure two president respondents from each constituency.

#### **Implementation Strategy**

The shadowing described here will be conducted by an India-based enumerator team. I will train the team according to the guidelines outlined in the associated Training Guide, which includes details on all rules for observations and elements of the data collection process.

#### Additional Data Collection

I will also collect additional, individual-level administrative data on each president. This will include their home village, home block, age, education level, occupation, marital status, and number of children.

#### **Data Analysis Plan**

This section concerns both the coding plan for the shadowing field notes and the plan for data analysis.

#### Transcription of Data

Observations will be collected in a hand-written format in the native language of the shadower. Upon completion of each shadowing engagement, the observations will be translated into English and transcribed into a spreadsheet format. This electronic format will replicate the three-column format to be used in data collection (see associated Training Plan). The electronic and English version of the observations will then be used for data analyses.

#### *Qualitative Coding Scheme*

Once the shadowing studies are completed, I will develop a coding plan using an open coding strategy informed by the research questions described above. After completing the coding scheme, I will code all of the field materials on a line-by-line basis. While the full coding scheme is dependent on the material collected in shadowing itself, it will include, at a minimum, codes that allow for the analyses described in the next subsection.

#### Text Analysis Coding Scheme

The field notes will also be cleaned and prepped for text analysis/topic modeling using machine learning. This will include generating time-based observations from the field notes which include codes for the subject, day of the shadowing engagement, day of the week, calendar date, time, and time of day (morning or not morning).

#### Proposed Analyses

This study will include both quantitative and qualitative analyses of the material(s) collected during the shadowing engagements.

#### Quantitative Analyses

I will conduct the following analyses, on the basis of the preliminary coding scheme in the Appendix.

#### 1. Descriptive Statistics

- a. Average visitors each day
- b. Proportion of visitors who are individual citizens, party workers, other politicians, bureaucrats, businesspeople, family, media
- c. Proportion of requests that are for individual benefits
- d. Proportion of requests that are for routine requests
- e. Proportion or requests that result in intermediation by the politician with the bureaucracy
- f. Proportion of time spent away from home in the constituency
- g. Proportion of time away from home in the constituency allocated to interactions with: individual citizens, party workers, other politicians, bureaucrats, businesspeople, family, media
- h. Proportion of time spent on activities not related to role as politician (breaks outside of meals, etc.)

#### 2. Text-based themes

a. Overall descriptive themes/topics emerging from the text analysis/topic modeling.

#### 3. Bi-variate and Multivariate Analyses

- a. For each of the descriptive statistics listed above, I will run bi-variate OLS or logistic regressions, as appropriate, relating these measures to the demographic data available on each politician.
- b. For those independent variables that display a statistically significant relationship with the outcome variable(s), I will also run a multivariate model to further assess correlations between demographic characteristics and behavior.
- c. For the text analysis, I will use structured topic models to estimate any descriptive relationships between specific themes/topics and the characteristics of the time-based observations (e.g. subject-level, date, and time-based correlations)

#### Qualitative Analyses

My qualitative analysis of the data produced in the shadowing field notes will progress through two stages. In the first stage, concomitant with the open coding exercise, I will read through the unprocessed field notes. Based on this reading, I will write a preliminary set of coding memos, which will discuss general impressions from the field notes.

In the second stage, I will reread the field notes and revisit the conclusions in the coding memos to produce a revised memo, or set of memos, that outline the major findings from the study. While this memo is not intended for direct publication, it will inform the claims that I make in any narrative presentation of the shadowing material and may be used as a reference for published work on the study.

#### Shadowing Indian Village Council Presidents Shadowing Training Manual

Jennifer Bussell

#### 1. Background on Research Project

The primary goal of this project is to develop an understanding of "the daily life" of village council presidents in Uttar Pradesh, India. In particular, we are interested in the activities of politicians when they are in their constituency. We want to understand how politicians spend their time in the constituency, what are their normal activities, and what they try to accomplish and how. We have a specific interest in the ways in which politicians engage with individual constituents, either at their home or in the community. At the same time, we want to understand how these individual interactions fit in with the broader set of engagements with other public and private individuals and groups, as well as the range of different events in which a politician takes part while in his/her electoral district.

There are a number of themes that are relevant to the project and that should be kept in mind by the field team. These are not the only things that we care about, but they should give you a sense of the main things that are of interest to us about politicians:

- <u>Interactions with citizens</u>—how and when does the politician interact with individual citizens? What are the "rules" of these engagements? In other words, can individuals approach politicians at any time, or are there set programs and procedures for when individuals can meet the politician? If there are procedures, do these procedures differ across different types of people? In what ways? How does the politician explain the reason or need for these interactions?
- <u>Interactions with other politicians</u>—with what other politicians does the politician regularly engage? What are the formats of these interactions (letter, phone, in person)? What is the typical content of these interactions? Does the politician have regular interactions with elected politicians at other levels, e.g. Members of Parliament, State legislature, Zilla panchayat, Block Samiti, Gram Panchayat members? If so, what is the content of these interactions and how does it differ across these different relationships?
- <u>Interactions with bureaucrats</u>—with which bureaucrats does the politician interact, e.g. department officers, district collector, block officers, panchayat secretary? What are the formats of these interactions (letter, phone, in person)? What is the typical content of these interactions and how does it differ across different types of bureaucrats?
- <u>Interactions with others</u>—does the politician spend a significant amount of time interacting with other types of actors (e.g. representatives of NGOs or the private sector)? If so, who are these individuals and what is the content of their discussions?
- <u>Efforts to allocate resources</u>—What, if any, resources does the politician make use of? If yes, what does this look like in the field? Is he/she asking for input on what projects to initiate or satisfaction with previous projects? Is he/she visiting project sites to evaluate progress? Is he/she meeting with contractors or other individuals about past or potential projects?
- Other activities—on what other activities, if any, does the politician spend significant amounts of time?

- Role as a Politician—How does the politician perceive his/her role as an elected official? What are the activities that seem of most importance to him/her and why? Does there seem to be any conflict between what the politician sees as important and what he/she thinks others believe to be important?
- <u>Challenges</u>—What does the politician see as the biggest challenges to his/her role in the constituency? Why does he/she think these challenges exist? What does she/she do to try to overcome these obstacles?

#### 2. Shadowing Overview

"Shadowing" refers to the practice of observing an individual in the context of his/her everyday life. In this project, this means observing a politician as they spend time in their constituency. The role of the Senior Investigator (SI) will be to accompany their assigned politician throughout all of their activities on days in the constituency. For example, if the politician has visiting hours at his house to meet with citizens and other guests, the SI will sit and observe these meetings. If the politician attends a political rally, the SI will attend and observe this rally. If the politician goes to a wedding or other social event of a constituent, the SI will also attend. In general, whatever the politician does, the SI will accompany him/her and observe.

The SI will also take detailed notes on his/her observations, as discussed below in section 5.

#### 3. Basic Logistics

The SIs should take with them into the field a minimum of the following items:

- Multiple hardback notebooks in which to keep their notes
- A large number of pens (15-20), so that they never need to look for a writing instrument
- Clothes and toiletries for the duration of the expected time with the politician
- A mobile phone to remain in contact with the Project Manager
- A camera to document their shadowing (this can be the same device as the phone in the case of a camera phone, but it should have reasonably good resolution to allow for printable photographs)

#### 4. Prior to Beginning Shadowing

Once the politician has agreed to the shadowing engagement and a specific SI has been assigned to that politician, but before the actual shadowing begins, the SI should learn as much as possible about the specific individual. This can be from public data as well as media reports such as newspaper articles. Relevant information includes, but is not limited to:

- Names of family members and close associates
- Political party (if available)
- Number of times he/she has been elected
- Other political positions the person has held
- Occupation other than politician
- Any major issues or projects the person has been engaged in

Background information should be documented and included as a part of the SI's field notes.

#### 5. Note-taking

Written notes are the primary form of documentation for shadowing. It is fundamental to the success of the project that SIs take detailed and comprehensive notes while they are in the field. Thus, it is important to make observations on any and every thing that the SI sees and experiences while shadowing. This includes, at a minimum:

- What are the settings where you are observing during the day (e.g. politician's house, public market, village, constituent home)? Make note of the location and any relevant details (e.g. the name of the village).
- What is the content of an interaction? What are people talking about? Does the conversation stay on that topic, or does the topic change? If someone is making a request of the politician, who are they, what are they asking for, and for whom? What is the politician's response to these discussions/requests?
- What is the mood in a given interaction? Are people friendly, confrontational, respectful, etc.?
- What is your own impression of an interaction? How does it make you feel?
- What are your initial impressions of the politician and his/her associates? Do these impressions change during the shadowing period? If so, how and why?

#### 5.1. Daily Timed Notes

Over the course of each day, the SI should make a note about what the politician is doing at a minimum of every 15 minutes. In other words, the specific time of events should be noted and if an event continues for at least 15 minutes, the continuation of that event should be noted. This is the basic structure for note-taking throughout the day. Within the SI's notebook, he/she should use a three-column structure for note-taking, along the lines shown in Figure 1. This is a hypothetical example of shadowing a politician with the initials HR (an example from a real research project on a different topic is provided on the last page of this document).

- The first column, **Time**, is simply for noting each time interval (15-minutes or shorter).
- <u>The second column</u>, **Activities**, is for noting the specific activities that take place, the actors involved, the location, and any other details. The examples shown here are the minimum amount of detail I expect, and the SI can provide much more detailed information, as discussed above, within the timed notes, as appropriate.
- <u>The third column</u>, **Comments/Questions**, is for any observations or questions that the SI has about the current activities. This can be particularly helpful when he/she has a question, but the politician is unable to provide commentary at that moment. The SI can go back to these notes later in the day/week as a basis for questions to the politician during a quieter moment.

Figure 1 – Example Daily Notes Format

Date: 20/11/15

Time	Activities	Comments/Questions
9:00	HR visited Hanuman temple in Vijayanagar	Why was this particular
	village, accompanied by wife and Ram Yadav.	temple chosen for a visit?

	About 20 villagers there watching	Wife seemed happy to be there, RY less so.
9:10	Continued visit at temple, met with priest [name]. Priest seemed agitated about something, but conversation was inaudible.	What did HR discuss with priest?
9:25	Concluded visit at temple, took car back to house	
9:40	Traveling to house with wife and Ram Yadav	
9:55	HR arrived at house and greeted individuals waiting there	
10:05	Opened house for visitors, accompanied by Rajendra Prasad and Dharam Yadav, who are party workers of the SP; approximately 150 people already in line outside the house	What happens to people who do not make it to the front of the line?

#### 5.2. Relationship Notes

The SI should also keep a running list of people who interact with the politician and are referenced in the timed notes. This should take the form of a two-column list in a different part of the notebook, along the lines of the example in Figure 2

Figure 2 – Example Relationship Notes Format

Individual	Role
Shri Devi	HR's wife, director of children's education NGO [name]
	based in Lucknow
Ram Yadav	HR's closest associate, manages HR's daily schedule and
	activities. Also acts as "social worker" in home village
	[name]
Rajendra Prasad	SP worker, typically assists HR with visitors during home
	visiting hours (see notes for visiting hours 20/11/15 –
	23/11/15)
Sita Devi	Sarpanch of Vijayanagar, SP loyalist (see 20/11/15 notes)
Dharam Yadav	SP party worker (see notes for visiting hours 20/11/15),
	also has major land holdings in the constituency

#### 5.3. "Debrief"/End-of-Day notes

In addition to taking notes during the day, the SI should write "debriefing" notes at the end of each day. These notes should include the SI's general impressions about the activities of the day, any observations about the kind of work the politician is doing and why they might be doing it, observations about the behavior of other individuals around the politician, etc.

There is no specific format for the End-of-Day notes, but the SI should dedicate a separate section in a notebook for these notes. Where a specific event is discussed, the SI should also include the time and date of that activity, so that it can be cross-referenced with the information in the Daily Notes.

#### 5.4. "Other" notes

Outside these formats, the SI can take advantage of any "down times" in activity to write up more detailed notes of the events of the day. This can include specific accounts of events and also stories about things that have happened. There is no specific format for these notes, they can be added to the columns in the Daily Notes or written up elsewhere. If these notes are not in the column format noted above, they should be put in a separate dedicated section in a notebook. These notes should also include clear references to the time and date of the activity(ies) discussed, so that they can be cross-referenced with the information in the columns

#### 5.5. Drawings

In addition to written notes, the SI is encouraged to draw pictures or diagrams of the spaces where the politician is working. For example, what is the layout of the politician's house/office where he/she greets guests? Where do the politician's companions stand at public events? What parts of villages does the politician visit?

#### 6. Photographs

In addition to the diagrams noted above, the SI should take regular photographs of activities and events throughout the shadowing period. This should include, but is not limited to:

- The politician's home/office where they receive visitors, during the time when they are receiving these individuals
- The line of visitors outside the politician's home/office when they are receiving visitors
- Public events that the politician attends
- The politician in interaction with people during visits in the constituency
- Public works sites and/or projects that the politician visits while in the constituency

When preparing these photos for delivery to the PI, the titles of the photos should be coded and linked to specific events documented in the SI's written notes.

#### 7. "Other" Documentation

It is possible that the SI will have opportunities to collect other materials during the course of shadowing, such as pamphlets, local media with reference to the politician, etc. Please retain these materials along with documentation of the circumstances under which they were acquired (day/time/location/event/from whom).

#### 8. Asking Questions

While there is no questionnaire or set of specific questions to cover during the shadowing period, the SI should take the opportunity to ask questions of the politician while they are together. This does not mean constantly asking questions, because we do not want to overly distract the politician from his/her work in the constituency. But it does mean taking the time to ask questions to clarify anything that the SI observes, to gain additional understanding of the reasons why a politician is doing certain things, to gain insights into project themes, and to allow the politician to reflect on his/her own experience in the constituency.

#### 8.1. Clarifying Questions

There are many reasons why an SI may need to ask questions to clarify what has happened and/or the importance of something that has happened. It is very important that the SI assume he/she **does not** understand what is happening while observing. For example, if there is a conversation that occurs and the SI cannot hear all of it, then he/she should not guess about the content. Instead, the SI should make a note about the conversation in the field notebook and then ask the politician about it later. Similarly, if something happens and it is not clear what the relevance of the event is to the politician, then the SI should make a note of it and ask the politician to comment on it later.

#### 8.2. Motivation Questions

The SI can also ask questions to gain information on why a politician does something in particular. For example, if the politician has to choose between attending two different events at the same time, the SI can inquire as to why one was chosen over the other. Or, if the politician is visiting a particular development project, the SI can ask why this project is of particular interest. Similarly, if two different citizens ask for help with getting access to a welfare benefit and the politician helps one and not the other, or helps them in different ways, then the SI can ask about the logic for these decisions.

#### 8.3. Questions about Project Themes

The SI should also ask questions of the politician to attempt to gain insight into the themes of the project discussed above. For example:

- How does the council president make decisions about projects to pursue in the area?
- How does the president make decisions about providing assistance to individual citizens? Is there a sense that the politician helps certain individuals more readily than others? If so, the SI can ask about the reasons for this. Does the politician seem more willing to help individuals with certain kinds of requests over others? Again, if this is the case then the SI can ask about it.
- How often, and when, does the politician accept visitors at his home or office? The SI can ask about why this is done in a particular way.
- What ideas and opinions does the politician talk about with reference to his work, such as his thoughts about his role as an elected representation, the state of his community, the

constituency, the state, the country? The SI can ask the politician to expand on any of these themes and topics.

#### 8.4. Encouraging Reflection

It will also be helpful to encourage the politician to reflect on or provide commentary on what they are doing and why they are doing it. Reflection can take place at any calm point in the day, particularly in the evening. If there is a break in activity, ask the politician to discuss more general issues related to his/her experience in this role. For example, ask the politician to comment on their activities from the day, how representative this is of a typical day, any issues that came up that seem particularly important or need further attention, etc. This is a chance to cover remaining questions in the SI's notes, but it is also the politician's opportunity to frame the day for the SI and can offer important perspectives on what a politician does and why he/she does it.

#### 9. Making Observations

In addition to the specific topics and questions covered to this point, the SI should make general observations about the politician's environment and the kinds of individuals with whom he interacts. This will include, but is not limited to:

- When the politician meets with visitors, how many people generally come to make requests? To answer this question, the SI should both make a rough count of people at the politician's home/office as well as take photographs of the people waiting.
- Who are the people who make requests of the politician?
  - Are there individual citizens? If so, do these individuals tend to come by themselves or with a group?
  - Are there other individuals who come on behalf of a different individual or group? If so, who are these people (are they informal helpers, lawyers, or officials at a different level of government?)
  - What other kinds of people, e.g. bureaucrats, party workers, other politicians, NGO representatives, representatives of other organizations? Provide an approximate breakdown of visitors across the categories of people (e.g. 50% individual on their own, 15% individuals in groups, 10% private individuals on behalf of others, 5% business people, 3% bureaucrats, 3% party workers, 4% other politicians).
- When the politician goes to an event in the constituency, what kinds of people or groups are sponsoring these events (e.g. neighborhood associations, a political party, caste associations, etc.)?
- In what kind of constituency is this politician working? Is it largely rural, semi-urban, urban? How does the politician negotiate the geographic characteristics of the constituency and how does this/might this affect his work? For example, can the politician visit many small groups in one day because he represents a constituency with a dense population? Or must he arrange a few large meetings spread out over the course of the day in order to meet many constituents in a more sparsely populated area? How do these choices affect the way the politician thinks about how to represent his district?

#### 10. Techniques for minimizing/accounting for the "observer" effect

It is inevitable that the politicians being shadowed will at least initially note the presence of the SI and possibly alter their behavior as a result. It's likely that this will lessen over the shadowing period, but it is important to try to reduce this effect as much as possible and also be aware of when it seems to be conscious on the mind of the politician. These are some strategies for accounting for the politician's awareness of the SI as an observer:

- Ask the politician about whether the day so far has been "normal" or representative of a typical day in the constituency
- Make note of any time that the politician comments on the SI as an observer, e.g. "what are you writing down?"
- When the politician is interacting with others, who will be more conscious of the SI as an observer, the SI should make every effort to be discrete and not intrude on the discussion.

In general, there is no reason to keep daily notes private from the politician, particularly if sharing them would increase trust. If there is something that the SI wants to write down that he/she thinks should remain private from the politician, he/she should try to write this in a separate notebook maintained for end-of-day observations, rather than the notebooks that will be out and visible to the politician during the day.

#### 11. <u>Unexpected Events/Problems</u>

Shadowing is, by its nature, unpredictable and intensive. It is hard to know exactly what the situations are that the SI will experience and, as a result, it is impossible to prepare fully for the experience. The SIs should feel comfortable bringing up any issue, concern, problem, or question with the Project Manager. The Project Manager should similarly feel comfortable raising these questions/issues with the PI during the course of the shadowing engagement. We will make every effort to respond quickly and thoroughly to any issues that are raised. While this is a new and exciting research opportunity, we also want to be sure that the SIs are safe and reasonably comfortable during their shadowing engagement and will make every effort to ensure this is the case.

Example 1 – Three column note-taking format

A		
10230	phone nip. Ind annuas + Intercours to M-15~	
	last from enorg solutions arena! He answers +	how much of
	Sap you know what were methodistricte pulpably not interested inis year. She wanted to know it	shedongs involves merel sens diff
	he wanted season tix.	How so d level
	M sciolls tringer emal still, we talk about	out identity
	ment reals in TX	analysis?
	S comes in go bank Startement + asks for 4 Chs.	
	M sap he needs to look @ time sheets first #	Q4M: B How offer or
	101	At what times does
	not? I be say well then I don't get anothers. She	
	Say of + Dring transack in say 3 didnt	Collide? Does of
	do one. M loss hem are - are 2 pg by	ich him? Get
	pits aside of back to emoil - huds email a	hun off his game? inafe sense fa
	lumpean temp + we talk about the conf. in	him
	empe + back to racisM.	how would you define home
	Inend sent photo de 02 stage for new torn	non-wary?
	Stay & 12 & + grys hardy conf organ, tree	
	also when 12 came here + radio station	
45	pota 2 after un mm.	
10,0	M gres 2 men's poon Does two every how I half	) [[ ]
	how + fells me it a mtg Im not inuted b. Bu	1 111 1
	before a after he uses his time to wander trigge	<u> </u>
	Sy in a check in wy crys. I hear her fally to	
	Janese about casual striff to time	

From: Rebecca Gill, Joshua Barbour, Marleah Dean, (2014) "Shadowing in/as work: ten recommendations for shadowing fieldwork practice", Qualitative Research in Organizations and Management: An International Journal, Vol. 9 Iss: 1, pp.69 - 89

#### 4. Coding Instructions

(Example)

The following categories will be columns in the coding spreadsheet:

- **Subject ID**: This is a unique ID within the coding spreadsheet for a single politician, associated with a single observation. For example, the third row of observations for politician D should be given the unique ID 3. You will use this unique ID in the coding sheet to match the themes that you code to the specific observation in the filed notes spreadsheet.
- **Theme**: This is the major category into which the observation falls. The set of theme categories and instructions are provided below. Place the number associated with the theme in the appropriate cell, not the word.
- **Sub-theme**: This is a more specific category within the theme. Place the number associated with the sub-theme in the appropriate cell, not the word.
- **Type**: This is an additional code within some of the sub-themes to account for specific types of activities or subjects of action. For example, there will be a specific code for different types of documentation that a subject may be providing in response to a request.

Coding Themes, Sub-themes, and Types

Theme	Sub-theme	Туре			
1 – Executive These are activities in which the VCP is engaged in providing official documentation, supervising the implementation of government programs, completing administrative work, or serving as an intermediary between citizens and other actors. Use this code when the activity is one of those listed as a sub-theme.	1.1 – Documentation For use when the politician is providing official documentation to someone  1.2 - Intermediary For use when the politician is intermediating between different individuals or groups	Note the type of documentation being provided:  1.1.1 Ration card  1.1.2 Proof of address/Domicile certificate  1.1.3 ID document  1.1.4 Other  Note the entity the politician is approaching on another's behalf:  1.2.1 BDO/Lekhpal/other bureaucrat  1.2.2 Police  1.2.3 Ration shop owner/manager			
	<ul> <li>1.3 - Supervision For use when the politician is visiting a site to oversee government work</li> <li>1.4 - Administrative duties For use when the politician is engaged in other administrative work</li> </ul>	1.2.4 Other/Unclear  Note the type of program being reviewed:  1.3.1 Education/Schools  1.3.2 Construction			
2 - Legislative These are activities related to the official responsibilities of the village council, such as the holding of village meetings, selection of beneficiaries for state and central government welfare programs, and overseeing the direct distribution of government benefit programs.	2.1 – Selection of beneficiaries  For use when the politician is engaged in decisions over beneficiaries, such as in the creation of eligibility lists for new or ongoing programs.	Note the particular government program: 2.1.1 Housing scheme 2.1.2 Private toilets 2.1.3 LPG gas connections 2.1.4 NREGA 2.1.5 Other			
	2.2 – Distribution  For use when the politician is engaged in direct distribution or mediation of access	Note the particular government program or item: 2.2.1 Drought relief			

	to a welfare program.	2.2.2 2.2.3 2.2.4	Rations School dress Other
3. General These are activities in which the politician is acting in her official role, but not engaged in a specific task. This includes spending informal time in the village talking with people, traveling between different events, and taking phone calls.	3.1 – Discussions at home/office For use when the politician is talking informally in an open setting with members of the public at her home office		
	3.2 – Discussions in village For use when the politician is talking informally with the public in an open public space		
	3.3 – Phone calls  For use when the politician is engaged in a phone call that can not be coded as a different activity		
	3.4 – Travel For use when the politician is traveling between events		
	3.5 – Discussions at another home For use when the politician is talking informally with the public at another person's home	Note 1 3.5.1 3.5.2	8
4 – Personal These are activities that are unrelated to the politician's official position. This includes any non-work activities at home, meals, and personal activities conducted outside of the home/office.	4.1 – Meals/tea For use whenever the politician is eating or having a tea break		
	<b>4.2 – Down time at home</b> For use when the politician is at home		

	and is not working		
	4.3 – Activities outside home		
	For when the politician conducts		
	personal activities during the day outside		
	the home, such as going to the bank or		
	visiting an agricultural plot		
5 - Shadowing	5.1 – Discussions with shadowee		
These are activities that involve either the	For use when the shadowee is talking		
subject in discussion with the shadower, the	with the shadower about subjects that do		
exclusion of the shadower from an activity, or	not fit in other categories		
the shadower's personal observations apart			
from a timed observation.			
	5.2 – Shadower activities		
	For use when the observation is about the		
	shadower, not the shadowee		
	5.3 – Excluded activities	5.3.1	Meetings with bureaucrats
	For use when the shadower is excluded	5.3.2	Election-related events
	from an activity and so cannot report on	5.3.3	Other
	its content.		

#### 5. Coded Field Notes – Sri Devi

Subject ID	Date	Time	Activities	Comments	Question	Answer	Conclusion	Theme	Sub- theme	Туре
1	26-Aug	8:00	Pradhan is sitting someone's shop where people of that shop are listening her.	Her son is a candidate of Panchayat who always stays with the Pradhan.	Whose shop is this?	It is a person's shop who is a resident of my village.		3	3.2	
2		8:15	Pradhan is talking about some plans to them. Plans for harijan (SC) is at 10 decimals and for others it is 50 decimals. Only 10 rupees stamp is required.		I asked her son which kind of plans she is talking about with them?	She is telling people about a government plan for boring water.		3	3.2	
3		8:30	Pradhan is now moving from that shop.	Pradhan meets with people gladly				3	3.4	
4		8:45	Pradhan is now at her home where there is a small office where people come and meet with her. Suddenly a man came.		I asked Pradhan whose that person and why he came here?	She told me his name. He came here to confirm about LPG gas connection which is registered on his wife name.		2	2.1	2.1.3
5		9:00	Another man has come and was asking about his LPG gas connection from Pradhan. Now Pradhan is calling someone.		To whom did you call?	I called to Gas agency.	After calling in gas agency Pradhan got to know the person's gas cylinder is already delivered.	1	1.2	1.2.4

6	9:15	Pradhan is still in her office and reading some papers. After reading papers she has called someone to come in the office.	Pradhan has spoken in her local language.	To whom did you call?	I called Panchayat secretary.	3	3.3	
7	9:30	Some people came here to meet Pradhan to whom she is giving some information regarding gas connection which is that if you have been registered one time with Aadhar card you cannot registered again.		Who is that person?	She told me His name, he is a resident of her village.	3	3.1	
8	9:45	Pradhan is saying cost of the land there it is 266 crore and here it is 66 crore. Samajwadi party donated this land. Now the pressure is coming from BJP why construction is not done?		Which land you are talking about?	A hospital is going to be constructed on this land. I am talking about that land.	3	3.1	
9	10:00	A woman came and greeted Pradhan. She is asking her please check the list my name is there or not? Pradhan is saying please note down your name and number here.		Who is this woman?	She told me her name, a ward member of the Gram Panchayat.	2	2.1	2.1.3
10	10:00			Which kind of list she was asking about?	She was asking about LPG gas connection list.	2	2.1	2.1.3

11	10:15	Pradhan is saying people respect the person who gives salary but do not respect the people who earns it				3	3.1	
12	10:30	Pradhan is asking who has been allotted with new LPG gas connection? Her assistant answered one connection has been done in the name of the villager.		May I know the name of this person who answered?	She told me his name, he looks after my work.	2	2.1	2.1.3
13	10:45	Pradhan is telling people that Aadhar card is an identity proof which will help you everywhere.	She told this when somebody inform her he has not got his Aadhar card still.	Who is he?	She told me his name.	3	3.1	
14	11:00	A man came to whom Pradhan is saying please sit I will come back in few minutes and she went into the room.		Who is he? I asked her son.	She told me his name.	1	1.4	
15	11:15	Pradhan is still inside the room.				1	1.4	
16	11:30	A man has come with a complaint. He is saying to Pradhan an auto man hit my son on road. After hit by auto he fell down and fainted.		Pradhan is saying now what help do you want from me?	I came here because I want that person to pay for my son's medical fee.	1	1.2	1.2.4

17	11:30		What will you do on this matter? I asked Pradhan.	If he wants to raise this issue in Panchayat I will solve this matter through Panchayat in which all the people of village will be involved.	1	1.2	1.2.4
18	11:45	A man is requesting Pradhan please make my residence letter which I do not have now.	Who was that person asking about residence letter?	She told me his name, he is the resident of her village.	1	1.1	1.1.2
19	12:00	Pradhan is saying to someone I am providing you 50 kg rice, 10 kg pulse and 1 kg mustard oil and give me your prescription I will ask my son to bring your medicines.	Who is this man?	She told me his name.	2	2.2	2.2.4
20	12:15	Someone came to whom Pradhan is saying please sit I am going inside to take bath.	Who is this person? I asked her son.	She told me his name, who was the contractor of C.C. road.	4	4.2	
21	12:30	Pradhan is still inside.			4	4.2	
22	12:45	A man came who is asking about where is Pradhan?	Who is this person? I asked her son.	He is from B.R.C. office.	4	4.2	
23	13:00	Pradhan is coming with some papers in her hands. She is saying to her son that signatures are missing in some papers.			1	1.4	

24	13:15	Pradhan is saying it should be standard in dress. I do not care if I will not get commission.				1	1.4	
25	13:30	Pradhan is taking her lunch with me and her son.				4	4.1	
26	13:45	Four or Five people came during lunch and asking about Pradhan.		Who are they?	These are property dealers from a village. They are helping me to sell my plot which is in another district.	4	4.1	
27	14:00	A man came with request please help me to get LPG gas connection. Pradhan is saying to him bring your wife's Aadhar card and yours too, two photographs and bank account number as well. You will get connection soon.		Who are these person?	She told me their names.	2	2.1	2.1.3
28	14:15	Pradhan is now getting ready to go Primary School.				4	4.2	
29	14:30	We reached primary school and there was a lady who is sitting on a chair asked Pradhan I want LPG gas connection for school.	Her son always drive the car of Pradhan.	May I know who is she?	She told me her name and she is the principal of primary school.	1	1.3	1.3.1
30	14:45	Pradhan is still at school.				 1	1.3	1.3.1

31	15:00	Pradhan is now going somewhere.		I asked Pradhan where are we going?	We are going to the block office.		3	3.4	
32	15:15	A car has stopped for a minute.	Pradhan is telling me this is my Plot.	Why we are going there?	I have to meet A.D.O for some work.		3	3.4	
33	15:15		Her assistant is telling me that her son drives very well. If someone takes four hours to reach Lucknow he takes only two hours.				3	3.4	
34	15:30	Now Pradhan is at block where we are waiting for A.D.O.					1	1.4	
35	15:45	Pradhan and her son both are inside the block.				They have met with A.D.O.	5	5.3	5.3.1
36	16:00	Pradhan is still inside the block.					5	5.3	5.3.1
37	16:15	Pradhan has come back from block office and saying lets go from here.					3	3.4	
38	16:30	Now Pradhan is going home.					3	3.4	
39	16:45	Pradhan is still in the car.					3	3.4	
40	17:00	Pradhan reached home and I am going to my hotel.					4	4.2	

#### 6. Village Council President Coding Memo - Themes

The goal of shadowing local council presidents is largely to provide a view into, and analysis of, the character of local-level politics in India, with specific attention to the ways in which local political actors balance their formal professional responsibilities as a part of the local council with their executive roles as presidents and their other opportunities in the village. In particular, I am interested in how they allocate their own time as well as time with other members of the council. To do this, I have paid particular attention in reviewing the shadowing fieldnotes to the dynamics of day-to-day politics.

Analyses of the shadowing reports suggest that there are a wide variety of activities in which village council presidents are typically engaged, but these can be organized reasonably easily into the categories set out in the coding scheme. First, they receive requests for assistance from citizens, both at their homes or offices and while they are traveling in their constituency villages. Presidents spend a considerable amount of their time dealing with individuals and groups who are making requests, either at their own home or when they are moving about in the panchayat area. Often this means starting their day quite early, though most of the presidents we observed did not extend their work into the late evening. Often these requests require presidents to exercise their executive roles, providing various kinds of documentation—such as domicile certificates—or intervening with the police or other government actors on behalf of a petitioner.

Second, council presidents play a central role in coordinating applications for government schemes and drafting lists of individuals who are eligible to receive particular benefits. This was particularly interesting to observe, as it helped to clarify how the government gets names for many of its programs, apart from direct applications by citizens. This is also a key legislative role for the village council and typically involved other members of the council (ward members) in making the lists. Generating and submitting lists often involves substantial interactions with administrative officials in their area.

Third, presidents visit local facilities, such as village schools, to perform routine checks or participate in special events. We observed many visits to schools and often this involved checking on whether some issue had been dealt with, or delivering some items to the school. Presidents also checked on various infrastructure projects in their villages and seemed to be interested in keeping these projects moving. All of these activities are tied to presidents' executive role in reporting up to higher levels of government on the progress of various programs and activities locally.

Fourth, they participate in ad hoc distribution of public benefits, such as relief packages, which often also includes participation of higher-level elected officials. This was a clear opportunity for presidents to take credit for delivering benefits and also to direct those benefits in particular ways. In the case of the drought relief packages, it was those individuals who showed up at a specific time who received the packages, suggesting that people could be informed, or not informed, about the distribution (though we did not observe this directly). While making the lists of eligible recipients of specific programs seemed at least somewhat rigorous in that the presidents went door-to-door, the distribution of relief packages seemed much more ad hoc and, thus, at risk of biased or preferential outcomes.

Fifth, they engage in general conversations with the public about government activities, including distribution-related programs and elections. These conversations happen in a variety of places, including the president's home or office, public spaces in the village, various village shops, and in or outside other people's homes. Many presidents spent time talking with citizens about various government activities or plans—such as building plans or new schemes. It seemed that they saw at least a part of their role to be conduits of information to citizens from the government. There was no formality to this, however, so it's very likely that not everyone in a panchayat, or across panchayats, is receiving the same amounts or types of information.

In addition to these professional undertakings, village council presidents are also often found taking a break or resting at home, and their working day is generally limited to business hours, running from eight or nine in the morning to five or six in the evening. All of these activities are fluid, and a village council president may engage in only one or all five over the course of one day. These observations are based on reviewing all of the shadowing reports.

#### 7. Village Council President - Day in the Life Memo

- (8:30) Subhash Yadav (a pradhan in Uttar Pradesh), is already sitting outside his house with his son when the shadower arrives. Shortly thereafter, a villager comes up to the house to tell the Pradhan that his Samajwadi pension—a new state program for the poor—has been deposited in his account. After this man leaves, Yadav's house grows quiet and there are no more visitors. The Pradhan decides to take his breakfast, and then announces that he did not slept well and is going to take this opportunity to get some rest. He goes into the house and does not return for two hours.
- (12:30) The Pradhan receives a phone call telling him that the son of a villager has drowned. He leaves immediately to go to the location and sees that the boy has indeed passed away. He makes a call to the police station to inform them and then tells the group of about 50 people gathered in the area that the police will have to decide whether or not to do a post mortem. If not, then they will all make plans to cremate the body.
- (2:00) After consulting with all the relevant parties, Yadav tells the parents of the boy that they may take the body. He then receives a phone call from a friend asking him to come to the police station. He makes plans to go to the station that afternoon, but he must attend a meeting at the block office first. The Pradhan participates in the meeting and then stops by a shop in the nearby market to check on a sign that is being produced with his photo. The purpose of the sign is not clear, but Yadav seems satisfied.
- (3:15) By mid-afternoon, the Pradhan arrives at the Police station, greets his colleague, and meets with the in-charge officer. The subject matter of their meeting seems less related to the death of the boy, and more concerned with an upcoming vacancy at the station. His friend had a photo that Yadav gives to the officer in-charge, ostensibly to support an application for the open position. Once this transaction is complete, he goes outside and takes a break to have tea outside the station.
- (4:30) Yadav begins to make his way home, via two villages in his council area. In the first village, a number of people stop him to complain that the electricity wire has not yet been connected. He discusses the problem and then departs for another village before finally making it back to his house and ending his work for the day (6:00).
- (8:00) Yadav is having tea outside his house when the owner of a local shop stops by to complain that the electricity was out all night, causing problems for his mobile phone recharge business. Shortly thereafter, a woman comes to the Pradhan and tells him that her husband beat her the previous night and she wants Yadav's help in dealing with him. Their conversation is interrupted by a phone call from the President of the local Pradhan union, who informs Yadav that there will be a meeting the following day. The Pradhan notes that they will need to arrange money for the meeting as well.
- (9:15) A group of about 15 villagers arrived at the Pradhan's house asking about when drought relief packages will be distributed. Yadav tells them that it will happen today by 3 PM at the latest. He then continues to talk with the gathered group, before making a phone call to one of the other council members. The Pradhan told the other councilor to inform people with Above Poverty Line (APL) ration cards about how to submit documentation for their cards. The general conversation continues until Yadav makes a

call to the local area's education officer to inform him that there will be a distribution of school uniforms at the primary school today and the officer should be there for it. The rather quiet morning continues until Yadav announces that he must prepare for the event at the school.

- (11:45) At midday, the Pradhan is ready to depart for the school, which he explains was opened by a manufacturing company, rather than the government. When he arrives, there is a group of approximately 70 people gathered, including the school's teachers and all of the students. Shortly thereafter, two company representatives also arrive and they participate with Yadav in distributing uniforms to the children. When the ceremony is complete, the Pradhan also stops to check on the nearby primary and junior schools. In the process, he notes that the center for small children is not open and asks the teacher why this is the case. She is unable to give him an answer.
- (1:30) With the school visits completed, Yadav departs for a meeting at the block office with the Chief Development Officer for his area. There are a number of other pradhans also at the meeting and Yadav takes this opportunity to encourage them to attend the Pradhan union meeting the next day and to give a cash donation to support the union. (3:15) After the meeting, the Pradhan stops at a bank and then takes a break to have tea at a nearby shop.
- (3:45) During his break, Yadav receives a call from the operator of the local ration shop, who asks him to come now to his house. When the Pradhan arrives, her sees that the operator has prepared all of the packages for the drought relief distribution. Yadav joins the operator and stands in front of the more than 50 people who have gathered to receive their relief packages. (5:00) They spend more than half an hour handing out the bags of vegetables, at which point the Pradhan asks the shop operator to continue with process without him. Yadav heads home, having completed his work for the day.

## Strategic Interests and Public Roles: Village

### Council Presidents in India

Jennifer Bussell

March 11, 2020

Abstract: Village council presidents in India represent one of the largest populations of local elected executives in the democratic world. Yet, we have only limited insights into their political behavior, the degree to which their actions reflect stated goals for local councils, and how their acts affect governance and development outcomes in practice. This article sheds new light on the strategies local council presidents use to further their professional and personal interests. Drawing on multi-day shadowing of fourteen council presidents in Uttar Pradesh, I show that these political elites allocate time in a manner that enables them to execute their formal responsibilities while also engaging in activities that help to build their personal reputation. In particular, they spend a disproportionate amount of time on general activities in the constituency and executive tasks over which they have autonomous control, relative to those legislative tasks that are the core formal responsibility of the local council. I suggest that while this tendency may help to build a president's reputation in the district, it can also result in unequal access to government services among her constituents, thus limiting the benefits of delegating public programs to the local level.

#### Introduction

By nine o'clock in the morning, a small group of people had already congregated at Dheeraj Yadav's home office—the base of operations for this local council president in Uttar Pradesh, India. They were chatting animatedly with Yadav about work in the village that needed to be completed. Two additional men approached the president and asked him to provide their domicile certificates, which he quickly did.<sup>2</sup> An older man then arrived and asked Yadav about the status of his ration card,<sup>3</sup> while at the same time another man called to ask about the status of an event planned that day for disabled persons living in the area. Amidst these requests, the council president discussed current events with the gathered crowd, including an upcoming rally by the president of a national political party and recent government actions against neighboring Pakistan. Two more men arrived with requests, one about the status of his pension and the other about gaining access to a new program providing natural gas connections for cooking. The president asked for their documentation and said he would help them with how to proceed. Another individual then raised a question about a central government scheme to build toilets in private homes, but Yadav had to tell his constituents that the money for the scheme had not yet arrived. Meanwhile, a teacher called the president and made plans to talk with him later that day at the local government office. By this point, the crowd had dispersed, and the council president went inside to prepare for the rest of his day.

In this manner, over fewer than two hours, a local politician in India engaged in a range of professional activities, from the creation and delivery of official documents, to the dissemination of information about government programs, and intervened on behalf of multiple individuals in need of government programs, while also engaging in informal political discussion and planning for public and professional activities in the area later in the day. How do we characterize these various actions by a local elected official? Do these behaviors

<sup>&</sup>lt;sup>1</sup>Shadowing subject P(O)

<sup>&</sup>lt;sup>2</sup>Domicile certificates are official proof of residence documents.

<sup>&</sup>lt;sup>3</sup>Ration cards are identity documents that enable holders to acquire government-subsidized foodstuffs.

fit our expectations about the anticipated role for local council presidents in India? Or do the patterns of behavior by such politicians instead tell us something different about the incentives of these local political elites? Can the behavior of village council presidents in India shed light on how institutional expectations can meet with individual interests to produce particular, perhaps unanticipated, political and governance outcomes?

In this paper, I investigate the role of village council presidents—the elected executives of India's approximately 250,000 gram panchayats—in daily village life. These individuals, known, inter alia as pradhan, sarpanch, and mukhiya, occupy an important space in local governance structures. As Chauchard shows, village council presidents play both executive and legislative roles at the village level (Chauchard (2017)). They select local infrastructure projects, oversee implementation of programs—including controlling access and distribution of resources—and also serve as a primary intermediary between citizens and higher-level authorities (Chauchard (2017), Kruks-Wisner (2018), Bussell (2019a)). These formal and informal activities related to "development" and the functioning of state programs make up the predominant portion of their daily activities (Bussell (2019a)).

Yet, to what extent do presidents' distribution of time and effort to these activities reflect the official goals for local councils? Are council presidents primarily involved in decision-making and implementation of government works and development programs in the community? Or are they focused more on those activities, whether official or unofficial, which may help to pave the way for their goals beyond local politics? If the latter, what are the implications for overall governance outcomes in the community?

I argue that these local politicians establish routines by which they use their position to pursue endeavors that are most likely to build their reputation among constituents. In particular, I highlight the manner by which daily routines, and specific patterns of behavior, enable these actors to spend a disproportionate amount of time on general activities in the

<sup>&</sup>lt;sup>4</sup>Village council presidents surveyed in Bihar, Jharkhand, and Uttar Pradesh report spending a total of 87% of their time either meeting with citizens, bureaucrats, and other politicians, or conducting "office work" (Bussell (2019a): 183).

constituency and tasks over which they have autonomous control, relative to those tasks that are the core responsibility of the local council and over which they share authority with other council members. Thus, they are likely to spend time doing things that allow them to be seen in the community and to claim credit for the outcomes of their efforts. I base these claims on data from the shadowing of fourteen village council presidents in Uttar Pradesh. This intensive observation of presidents in their daily routines offers an opportunity to develop a clearer picture of the ways in which these individuals practice politics.

Observations of village council presidents were conducting via a process of structured observation, in which subjects were "shadowed" for approximately two days, as they went about their regular daily activities. This method allows for highly detailed descriptions of president behavior and interactions. To establish the basic patterns of behavior among the shadowed politicians, I first use text analysis and structured topic modeling, applied to the corpus of text generated over the full set of shadowing days and all fourteen politicians. Having established basic trends, and differences, across these politicians, I then draw on qualitative coding of the same documentation to elaborate in greater detail what constitutes these specific configurations of behavior. In doing so, I also offer specific narrative examples to highlight the dynamics of these activities within the lives of individual politicians.

This analysis offers a number of new insights into the behavior of political elites and the natural of governance in India. First, I show that there are clear patterns of behavior across the shadowed politicians, such that we can begin to elaborate characteristics of behavior among this relatively new, but very large, political class. Yet, and second, the behaviors of these elected representatives do not necessarily reflect the purported goals of the legislation that empowers them. Thus, and finally, the analysis presented here uncovers an important need for reevaluation of the ways in which local council institutions in India, rather than broadening the representative base at the village level, may instead be reinforcing dynamics of exclusion that threaten India's developmental goals.

In the next section, I consider our existing frameworks for characterizing the behavior

of local Indian politicians, and build on this work to suggest how we might expect village council presidents to act, given the constraints and opportunities of their institutional setting. I then describe in greater detail the shadowing methodology and how it was implemented in this project. In the fourth section, I draw on the methods of text analysis to uncover patterns within the written records produced by the shadowing engagements and discuss the results of the unsupervised text analysis and structural topic model, before moving in the fifth section to elaborate on details of the patterns identified via qualitative coding. I conclude with a consideration of what the findings of this analysis imply for our understanding of the relationship between India's local governance reforms and the quality of development outcomes on the ground.

#### The Village Council President in Indian Politics

Since the constitutional amendment of 1992, gram panchayats, or village councils, have the formal status as India's most local elected bodies.<sup>5</sup> While the introduction of these bodies has differed across the country, formal elections have been held at least since 2010 across all of India's states.<sup>6</sup> The presidents of these councils are then the elected executive officers that sit closest to India's predominant rural population. They live near their constituents and often know well the people they meet at home or on the street.<sup>7</sup>

Yet, is the role that these actors play in line with what was expected by the 73rd Amendment? The primary functions of village councils, as outlined in the amendment, are to, on the basis of activities delegated by the state legislature, oversee and implement programs across a wide range of 29 areas listed in the 11th Schedule of the Constitution, including agriculture, education, housing, drinking water, and poverty alleviation. Do village

<sup>&</sup>lt;sup>5</sup>The 73rd Amendment to India's Constitution laid down a framework for three levels of rural councils, while the 74th Amendment established a framework for urban elected bodies

<sup>&</sup>lt;sup>6</sup>Bohlken 2016. Jharkhand, the last state to officially implement village councils, held its first elections in 2010.

<sup>&</sup>lt;sup>7</sup>In Bussell (2019a), I find that the village council presidents here independently mentioned the name of the person visiting them in 77% of the 108 cases of individual requests we observed citizens making to their presidents. Bussell (2019a): 193. See also Schneider (2019) for some limitations on this knowledge.

councils and, in particular, their presidents, serve primarily to oversee the government's implementation of development programs in these areas? If so, how, if at all, do the personal interests of elected presidents affect the manner by which these goals are pursued?

Existing work suggests that a president's incentives to engage in different types of professional activities may be shaped by expectations of the control they hold over outcomes. In an analysis of differences across scheduled caste and non-scheduled caste<sup>8</sup> village council presidents, Chauchard effectively distinguishes between those responsibilities of village council presidents over which there is considerable variation in individual leverage and those over which all presidents are likely to exert independent control (Chauchard (2017)). For example, he finds that beneficiary selection for government welfare schemes exhibits characteristics of shared influence across members of the village council and local brueaucracy. Thus, there are areas where the full council and secretary have influence over decisions, which he terms legislative, and where we may expect a more limited, or at least varied, role of council presidents.

In contrast, village council presidents also have important formal and informal powers where their influence is not shared with other actors. Their official powers are primarily related to government documentation—"the sarpanch's signature and stamp are required on all official documents produced by the gram panchayat"—and the disbursement of funds for the construction of public works (Chauchard (2017): 92). These roles "make sarpanches highly visible in village life. They also provide them with a great deal of influence on various sets of villagers, regardless of their impact on formal decision-making within the council" (Chauchard (2017): 93, emphasis in original).

In addition, council presidents have substantial informal authority, thanks to these various forms of influence in other areas. They have leverage to negotiate with various government actors, including the police and local bureaucrats, and are frequently a part of public

<sup>&</sup>lt;sup>8</sup>Scheduled castes are those social groups included on an official list (schedule) allocating to them particular rights. In the case of village councils, a portion of each state's village council president positions is reserved only for candidates from the scheduled castes each election.

discussions in the community. As a result, presidents often play the role of intermediary between individuals in the community and other actors (Chauchard (2017): 94). Indeed, research on council presidents across northern India shows that they are the most likely across a range of public and private actors to be recipients of requests for assistance and intermediation from citizens (Kruks-Wisner (2018), Bussell (2019a)).

Key to this informal intermediary role, however, is the license it gives to council presidents to favor certain individuals over others. As shown in related work, individuals who share the political party preference of their local council president are more likely to receive government benefits allocated by the local council (Dunning and Nilekani (2013), Bussell (2019a): 194-198). In addition, individuals perceive these preferences. Survey respondents considering potential candidates for elected village office, in a hypothetical experimental setting, are more likely to say they expect to receive a job or benefit if the winning candidate shares their political party preference (Bussell (2019a): 199-200). This suggests that presidents may take advantage of their executive powers to build and retain their support base in the community (Stokes et al. (2013)).

Village council presidents might also have reasons to engage in other types of activities than those explicitly associated with their official role. As prominent members of the local community, they are likely to participate in many public and private activities, such as festivals, weddings, and funerals. Being "seen" in the community may be particularly important given that most presidents do not expect to remain in their elected role indefinitely. Past work highlights that many individuals pursue the role of village council president in order to achieve more lucrative goals later, such as a change in career or higher political office (Chauchard (2017): 96). Thus, engaging with other actors in the community and generally building their reputation, rather than specifically working on council-related activities, may also be an important element of presidents' daily lives.

These distinctions between the shared influence of presidents over official council activities and the generally autonomous leverage they hold over other official and unofficial business, as well as the incentives for general engagement with the community, suggest that we might expect to see presidents place a greater emphasis on those tasks over which their have autonomous control and general community activities, even where the official actions shared with other members of the council fall more precisely within the ambit of the village elected body In the remainder of this article, I test these expectations, through an investigation of village council president activities, offering specific attention to how presidents may, or may not, emphasize their autonomous and general roles relative to those more closely tied to the shared work of the council as a whole.

In order to distinguish between these different types of activities in the empirical record, I make the following conceptual distinctions: shared tasks are those tied directly to the role of the village council in executing "development works" in the council domain. This may include the selection of beneficiaries for schemes, choices over construction projects, and assistance in the distribution of various government benefits. Autonomous tasks are those explicitly within the domain of the village council president, such as the provision of official documents, supervision of government works, and intermediation between citizens and other actors. Finally, general activities are those in which the president is engaged in her official role, but is not executing specific council tasks. This could include informal discussions in the village, participation in public events, and other work-related actions such as travel between official activities.

#### Shadowing Village Council Presidents

The empirical material in this article is drawn from the detailed study of fourteen (14) village council presidents in Uttar Pradesh. The primary method of data collection was shadowing presidents in the course of their regular activities. Shadowing involves the direct observation of subjects in their daily lives, with detailed documentation on a regularized basis throughout the course of the observation (Bussell (2019a)). In this study, we typically shadowed each

president for two days, during which the shadower followed the politician as she engaged in a range of activities—from surveying construction sites to drinking tea—at home and in the constituency. Observations were made at a minimum of every fifteen minutes and accounted for the subject's location, activities, companions, and other commentary.<sup>9</sup>

The sample of shadowed presidents was selected as a part of a larger study that also included shadowing of state legislators in Uttar Pradesh<sup>10</sup>. Seven legislators were selected via a stratified random sample. Once these shadowing studies were completed, we identified the list of village councils that sat within the constituencies. Village councils were randomly selected from this list to prioritize potential subjects, who were then contacted to request a shadowing engagement. This process was followed until we were able to secure shadowing appointments with two president respondents from each constituency. Shadowing engagements were then completed between July and September 2016, approximately eight months after the village council elections of 2015 and five months before the state legislative elections held in 2017. I include in the Appendix to this paper the anonymized fieldnotes on which the analyses are based.

To illustrate the character of observations made possible through shadowing, and to provide an introduction to many of the typical activities of presidents shadowed in this study, I include here a summary of the observations for one village council president, who I refer to as Subhash Yadav.<sup>11</sup> Note that in Uttar Pradesh, village council presidents are called *pradhan*.

(8:30) Subhash Yadav is already sitting outside his house with his son when the shadower arrives. Shortly thereafter, a villager arrives to tell the Pradhan that his Samajwadi pension—a new state program for the poor—has been deposited in his account. After this man leaves, Yadav's house grows quiet and there are no more visitors. The Pradhan decides to take his

<sup>&</sup>lt;sup>9</sup>Shadowing engagements were completed by a team of enumerators from MORSEL Research and Development in coordination with the author.

<sup>&</sup>lt;sup>10</sup>See Bussell (2019a)

 $<sup>^{11}\</sup>mathrm{Shadowing}$  subject P(A). Note that this account draws on material also discussed in Bussell (2019a): Chapter 6)

breakfast, and then announces that he did not slept well and is going to take this opportunity to get some rest. He goes into the house and does not return for two hours.

(12:30) The Pradhan receives a phone call telling him that the son of a villager has drowned. He leaves immediately to go to the location and sees that the boy has indeed passed away. He makes a call to the police station to inform them and then tells the group of about 50 people gathered in the area that the police will have to decide whether or not to do a post mortem. If not, then they will all make plans to cremate the body.

(2:00) After consulting with all the relevant parties, Yadav tells the parents of the boy that they may take the body. He then receives a phone call from a friend asking him to come to the police station. He makes plans to go to the station that afternoon, but he must attend a meeting at the block office first. The Pradhan participates in the meeting and then stops by a shop in the nearby market to check on a sign that is being produced with his photo. The purpose of the sign is not clear, but Yadav seems satisfied.

(3:15) By mid-afternoon, the Pradhan arrives at the Police station, greets his colleague, and meets with the in-charge officer. The subject matter of their meeting seems less related to the death of the boy, and more concerned with an upcoming vacancy at the station. His friend has a photo that Yadav gives to the officer in-charge, ostensibly to support an application for the open position. Once this transaction is complete, he goes outside and takes a break to have tea nearby.

(4:30) Yadav begins to make his way home, via two villages in his council area. In the first village, a number of people stop him to complain that the electricity wire has not yet been connected. He discusses the problem and then departs for another village before finally making it back to his house and ending his work for the day (6:00).

(8:00) In the morning on the next day, Yadav is having tea outside his house when the owner of a local shop stops by to complain that the electricity was out all night, causing problems for his mobile phone recharge business. Shortly thereafter, a woman comes to the Pradhan and tells him that her husband beat her the previous night and she wants Yadav's

help in dealing with him. Their conversation is interrupted by a phone call from the President of the local Pradhan union, who informs Yadav that there will be a meeting the following day. The Pradhan notes that they will need to arrange money for the meeting as well.

(9:15) A group of about 15 villagers arrives at the Pradhan's house asking about when drought relief packages will be distributed. Yadav tells them that it will happen today by 3 PM at the latest. He then continues to talk with the gathered group, before making a phone call to one of the other council members. The Pradhan told the other councilor to inform people with Above Poverty Line (APL) ration cards about how to submit documentation for their cards. The general conversation continues until Yadav makes a call to the local area's education officer to inform him that there will be a distribution of school uniforms at the primary school today and the officer should be there for it. The rather quiet morning continues until Yadav announces that he must prepare for the event at the school.

(11:45) At midday, the Pradhan is ready to depart for the school, which he explains was opened by a manufacturing company, rather than the government. When he arrives, there is a group of approximately 70 people gathered, including the school's teachers and all of the students. Shortly thereafter, two company representatives also arrive and participate with Yadav in distributing uniforms to the children. When the ceremony is complete, the Pradhan also stops to check on the nearby primary and junior schools. In the process, he notes that the center for small children is not open and asks the teacher why this is the case. She is unable to give him an answer.

(1:30) With the school visits completed, Yadav departs for a meeting at the block office with the Chief Development Officer for his area. There are a number of other pradhans also at the meeting and Yadav takes this opportunity to encourage them to attend the Pradhan union meeting the next day and to give a cash donation to support the union. (3:15) After the meeting, the Pradhan stops by a bank and then takes a break to have tea at a nearby shop.

(3:45) During his break, Yadav receives a call from the operator of the local ration shop,

who asks him to come now to his house. When the Pradhan arrives, he sees that the operator has prepared all of the packages for the drought relief distribution. Yadav joins the operator and stands in front of the more than 50 people who have gathered to receive their relief packages. (5:00) They spend more than half an hour handing out the bags of vegetables, at which point the Pradhan asks the shop operator to continue the process without him. Yadav heads home, having completed his work for the day.

This summary highlights the broad range of activities in which shadowed presidents were typically engaged, including both those that appeared to be scheduled in advance and those that arose from unexpected events in the constituency. I now turn to the first set of analyses to illuminate and evaluate characteristics of behavior by these political elites.

#### Patterns of Behavior Across Village Council Presidents

As highlighted in the previous section, shadowing produces a large corpus of written materials documenting the daily life of shadowed individuals. In the case of this project, there are 1,041 individual time-based observations across the 14 subjects and 29 days of observation. Two representative examples of such observations, randomly chosen from the full set of text, are:

"Pradhan ji stopped at a local place [anonymized], a man asked him about his form submission." <sup>12</sup>

"Pradhan and a ward member<sup>13</sup> are walking and after few steps they stop in front of someone's house and Pradhan said to the ward member to note down his name in the list of Prime Minister House Scheme. I asked Pradhan whose house is this? He told me whose house it is."<sup>14</sup>

To summarize the details of these observations is a substantial task. I begin with a

<sup>&</sup>lt;sup>12</sup>Observation ID 678, subject P(J).

<sup>&</sup>lt;sup>13</sup>Ward members are other members of the village council

<sup>&</sup>lt;sup>14</sup>Observation ID 814, subject P(L).

form of text analysis that utilizes unsupervised machine learning to identify patterns in the associations between words and to uncover "topics" based on these patterns. Specifically, I use a structural topic model (STM) that allows for the addition of metadata—such as the identity of the shadowee or the time of day—to the analyzed text and then enables statistical modeling of the associations between these metadata and the identified topics.

For the shadowing data from my village council president sample, and using the strategies outlined in Roberts, Stewart, and Tingley (2019), I implement a twenty (20) topic model that includes the following metadata for each observation: subject (shadowee ID), the day of the shadowing study, whether it was the weekend, and whether it was morning.<sup>15</sup> These covariates were chosen to evaluate the presence of differing activities across times of the day and week, variations across presidents, and any possible changes in observer effects over the shadowing period.

#### **Summary of Topics**

By design, the model results in a set of twenty "topics," or sets of words that tend to appear together in the corpus of text. The model does not provide a substantive summary of the topics and this is left to the interpretation of the researcher. Here, I reviewed the top ten words associated with each topic, and then implemented a word cloud for each one, which displayed the top words sized according to the frequency of their appearance in the text. Based on these clouds, I interpreted the theme of, and determined a related name for, each topic. The topics, with names and top ten associated words are shown in Table 1. Representative word clouds are shown in Figures 1-3. In the Appendix, I also provide a short summary of how I interpret the substance underlying each topic, based on the most common words, the word clouds, and my knowledge of the local environment.

<sup>&</sup>lt;sup>15</sup>I also implemented models with a different number of set topics. 14 topics was the lowest number for which the models would converge within 200 iterations. The set of topics produced in the 20-topic model seemed the most reasonably distinct, while not becoming overly repetitive in content.

Table 1 - Summary of Topics

Topic	Description	Highest Probability Words	Type
1	Planning	will, discuss, start, soon, parti, elect, support, get	Autonomous
2	Distribution	head, toward, distribut, polic, packet, drought, now,	Shared
		relief	
3	Home	still, insid, home, travel, drive, meal, goingi, placei	Personal
4	President	pradhan, way, busi, farm, check, friend, will, issu	Personal
5	Paperwork	paper, submit, money, ask, will, work, answer, need	Autonomous
6	Education	school, say, will, son, primari, teacher, pleas, distribut	Autonomous
7	Questions	ask, name, told, man, person, anoth, ladi, make	Shadowing
8	Secretary	also, left, secretari, car, time, anoth, repli, got	Shared
9	At a House	hous, whose, sit, stop, someon, arrang, friend, care	General
10	In Village	villag, peopl, say, will, said, two, tell, panchayat	General
11	Phone Calls	call, talk, come, someon, ask, phone, said, will	General
12	Travel/Meals	said, went, place, leav, lunch, wait, let, outsid	Personal
13	Connections	meet, now, gas, connect, will, tomorrow, chief, lpg	Shared
14	Construction	work, construct, said, done, toilet, road, land, see	Autonomous
15	Tea Breaks	take, tea, shop, boy, everyon, owner, bath, brought	Personal
16	Public Events	sit, peopl, reach, back, greet, give, panchayat, speech	General
17	Rations	said, pradhan, card, ration, form, man, woman, get	Autonomous
18	Block Office	offic, block, reach, said, bike, present, bdo, somewher	Autonomous
19	Beneficiary	list, ward, member, repli, woman, survey, come, also	Shared
	Lists		
20	Visits	came, samaj, welfar, regular, sat, visitor, given, depart	Autonomous

Figure 1 displays the word cloud for the "Rations" topic. The most prominent substantive words displyed here are pradhan, ration, card, and form, with a wide range of other associated words, including photograph, food, aadhar, <sup>16</sup> man, woman, and submit. The majority of the words shown here seem to reference requests to the pradhan for assistance in acquiring a ration card or other government document, or accessing the benefits associated with these documents.

Figure 1 - "Rations" topic #17



<sup>&</sup>lt;sup>16</sup>Aadhar is a biometric ID that is now required for many government benefits

In Figure 2, we see the predominance of words such as work, construction, road, land, toilet, and done in the topic I refer to as "Construction." Overall, the words presented here seem closely linked to activities of supervision, in which the council president is inspecting or overseeing government works of some type.

Figure 2 - "Construction" topic #14

problem introduc CONSTRUCT

sunday yesterday assur cost receive rain to surce to concret for the following problem actually vote concret for the following problem around some policies inspect cement see for the following policies inspect cement see for the following policies inspect cement see for the following policies in spect cement see for the following policies in spect cement see for the following provided for the following provided for the following problem provided problem provided for the following provided for the foll

In the final word cloud example, shown in Figure 3, we see words associated with the "Beneficiary Lists" topic. Here, the predominant words are list, ward, member, survey, and reply, followed by, *inter alia*, woman, prepare, everyone, come, and scheme. These words all seem to be associated with the process of making beneficiary lists for government programs ("schemes"). This is also the one word cloud (among all twenty topics) in which the other ward members of the council are prominent in the topic.

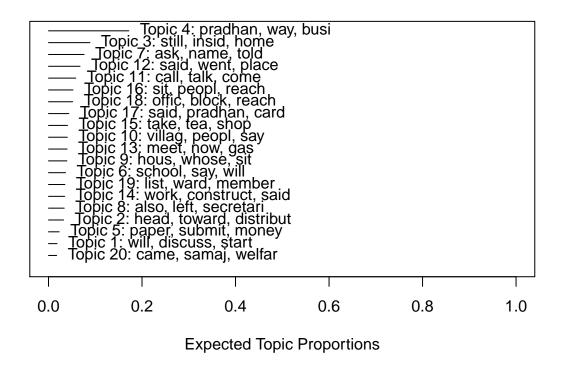
Figure 3 - "Beneficiary Lists" topic #19



Each topic appears with differing prevalence in the corpus of text. To summarize the relative importance of each topic in the overall set of observations, Figure 4 graphs the proportion of the corpus that can be accounted for with each topic, as well as its three most common words. This depiction suggests that a substantial portion of the text is made up of observations of and with the Pradhan: topics 4, 3, and 7 all concern the shadowers' observations of the presidents and questions posed to the presidents about their work. Beyond these observations, the next set of common topics, 12, 11, 16, 18, and 17 all concern the presidents' work, whether this is participating in public meetings, responding to requests about government programs, meeting with bureaucrats, or traveling between these various activities. Somewhat less common topics concern a variety of activities including discussions of construction projects (14), visits to schools (6), the making of beneficiary lists (19), and taking breaks for tea (15).

Figure 4 - Prevalence of Topics in Shadowing Fieldnotes

#### **Top Topics**



In Table 1, I also categorize each topic as one of five different activity types. As previously noted, I distinguish here between *autonomous* acts—those functions for which the president can be solely responsible, such as providing of official documentation and intermediating on behalf of individuals and groups—and *shared* activities—those that are more directly tied to decisions about and discharge of government programs, and over which the president may have less exclusive control. *General* activities are those conducted in the guise of the president but without clear indications of a specific purpose, such as visits to public spaces in the villages, and *personal* activities are those concerned with daily, non-professional, actions, such as meals. Finally, *shadowing* activities are those specific to the observations or questions of the shadower. Autonomous topics make up 35% of the topics from the corpus (7 topics), shared topics are 20% (4), general topics are 20% (4), personal topics are 20% (4), and shadowing is 5% (1).<sup>17</sup>

 $<sup>^{17}</sup>$ Note that this does not necessarily mean that presidents divide their time across activities in the same proportions. I consider time allocation in the next section.

This categorization of topics allows us to consider in a different manner the degree to which different types of activities make up the set of observations. Using these categories, in combination with the results shown in Figure 4, we see that the five most common topics are primarily related to personal activities, in addition to one each general and shadowing topics. The next five, however, are much more diverse with two autonomous topics, and one each shared, general, and personal topics. The third group is a split of autonomous (2) and general (2) topics, with one shared topic. Finally, the least common topics are a mix of autonomous and shared. Overall, this ranking suggests that personal and general topics make up a large portion of what was reported during shadowing. The former may be unsurprising given the inclusion of all daily activities (including meals, etc.) in the observations. The latter, with the emphasis on general activities, is perhaps more unexpected, particularly relative to official tasks, and merits further investigation. A second interesting finding is that autonomous topics are not only more predominant in the absolute number of topics versus shared topics, but they also tend to make up a larger portion of the topic corpus overall. This suggests that village council presidents may be spending more time on those activities over which they have greater influence. I consider these initial findings in greater detail in the next section.

#### Modeling Topics and Their Correlates

Beyond these summaries of the data, the inclusion of metadata for each observation allows for an analysis of whether the appearance of specific topics is associated with other variables in the data. I implemented a multivariate structural topic model that measures the correlation between subject identity, shadowing day, whether the observation occurred on the weekend, and the time of day (morning versus afternoon).

Existing research suggests that we may plausibly observe variations in behavior across local council presidents on each of these dimensions, and that these variations may differ depending on the type of activity concerned. As Chauchard observes, "the role played by

sarpanches in village life varies tremendously from one village to the next" (Chauchard (2017): 66). Though he posits that this variation is most predominantly associated with social status (Ibid.), he also finds that council presidents are most similar when engaging in their "executive" and "intermediary" functions (Chauchard (2017): 92-93). In other words, when presidents are providing official documentation, overseeing government works programs, and intervening with bureaucrats on behalf of private citizens, they should be least likely to differ from each other.

The day of the week may be pertinent to local presidents' behavior given regular cycles of business and school activities. In other words, visitors may still come to request things of the president on weekends, and may even be more likely to make requests, but the president may be less able to act on these requests until regular business hours during the week. Similarly, public events at schools should be less likely to occur on the weekends than on other days of the week.

Regarding the time of day, in related work on higher level politicians in India (Bussell (2019a)), I noted a typical daily rhythm to a politician's day. In the morning, representatives were most likely to be at their home offices, with doors open for visitors. In the afternoons, politicians were more likely to be out in their constituencies, following up on previous requests, meeting with bureaucrats, and participating in public events. While local council presidents sit at a much lower level of office than the state legislators that were the primary focus of these observations, I expect that we may see a similar pattern for these actors. Better understanding these rhythms of activity will help to uncover the strategies local presidents use to allocate their time and effort.

Finally, variations in activities related to the stage of the shadowing study may help us to understand the ways in which observer effects can shape observations during shadowing studies in general and of these village council presidents in particular. Research on observer (or Hawthorne) effects posits that individuals will behave differently than they would otherwise when they know they are being observed. While this is a risk with nearly all research that

involves direct data collection on subjects by a researcher, the potential for observer effects is thought by some to be magnified when there is a shadower observing all of the daily activities of the subject. While I consider these risks more generally elsewhere (Bussell (2019b)), here I suggest that we may be able to uncover some potential areas for greater, or lesser, concern by evaluating any correlations between the shadowing day and local presidents' activities. As McDonald notes, the shawdowee may grow accustomed to being observed quite quickly, suggesting that we may observe differences in behavior even from the first to the second day of a shadowing engagement (McDonald (2005): 459).

Based on this discussion, I test the following hypotheses about potential patterns of behavior:

- H1: Presidents will differ more in their behavior when engaged in shared versus autonomous tasks.
- H2. Activities will differ on the weekend versus on a weekday
- H3. Activities will differ in the morning versus in the afternoon
- H4. Activities will differ after the first shadowing day, due to the shadowee growing accustomed to the presence of the shadower.

In the model, I compare each of the subjects to one excluded subject, Pradhan A (H1). The remaining variables are each dummies, with 1 representing an observation that occurred on the weekend (H2), in the morning (H3), or on the second (or third) shadowing day (H4).

#### Patterns of Politician Behavior

This analysis results in a number of interesting observations about patterns of politician behavior.<sup>18</sup> First, with regard to the first hypothesis and variations across politicians, and in line with Chauchard's (2017) observations, there are quite substantial differences in the degree to which specific topics appear in the corpus of text for each politician. However, the

<sup>&</sup>lt;sup>18</sup>The results for all twenty (20) models are provided in the Appendix

degree of variation depends highly on the topic itself. For topics 10, 11, and 15, which concern visits in the constituency, phone conversations, and breaks for tea, and are all categorized as general or personal activities, we see rather minimal variation across the observed politicians. For eight of the topics, there is slightly more variation, with either three or four subjects (21%- 28%) exhibiting statistically significant differences from the comparison subject. Here, four topics (50%) are categorized as autonomous, two (25%) as personal, and two (25%) as shared. In the next six topics, for which six to eight subjects exhibit statistically significant differences in the presence of the topic versus the comparison subject, three (50%) are categorized as autonomous, two (33%) as general, and one (17%) as shared. In the remaining three topics, for which the majority of subjects differed from the excluded subject, one topic each falls in the shared, personal, and shadowing categories. These findings suggest that there are considerable differences across local presidents in the activities observed during shadowing and that these differences may be somewhat associated with the type of activity. Overall, general activities topics display the least variation. Autonomous activities seem to display somewhat less variation than shared activities, as expected, but this differentiation is not stark. Personal activities seem to exhibit the greatest variation overall, which may simply highlight diversity in the individuals included in the sample.

With regard to the day of the week, we observe no difference in the presence of more than half of the topics (12) on the weekend versus during the week. Of the four topics that were less likely on the weekend, two (50%) are categorized as autonomous, 1 (20%) as general, and 1 (20%) as shadowing. And for the four topics that are more likely on the weekend, one each is categorized a general, autonomous, shared, and personal. These findings suggest that most activities occur throughout the week, but that autonomous actions may be somewhat less likely on the weekend, and that the time devoted to these activities may instead be allocated to general and other activities.

In addition to variations across the week, we see several variations in the presence of topics across time during an individual day. There is no statistically significant difference for seven topics, three (43%) of which are autonomous, three (43%) are general, and one (14%) is personal. Six topics were more likely in the morning, of which three (50%) were autonomous, and one each (17% each) of shared, general, and shadowing. In contrast, among the seven topics that were less likely in the morning, three were shared (43%), three (43%) were personal, and one (14%) was autonomous. The content of these activities suggests that politicians were more likely to make arrangements (topic 11) and to receive visitors requesting assistance with government programs (topics 17 and 20) in the morning, whereas they were more likely to travel (topic 12) and engage with bureaucrats (topics 8 and 18) in the afternoon. This suggests that there may be a general pattern of accepting visitors and petitioners at home or in the office in the morning, and then traveling to other locations in the afternoon. At the same time, the wide range of things that happened regardless of the time of day, including paperwork (topic 5), visits to schools and construction sites (topics 6 and 14), and engaging in public discussions (topics 10 and 16), highlights the persistent character of a village council president's work and the range of demands that can be placed on them in a given day.

Finally, I consider the degree to which topics tended to change on the second day of shadowing. For twelve of the topics (60%), we see no changes associated with the day of the shadowing engagement. Of these topics, five (42%) are autonomous topics, three (25%) are shared, three (25%) are general, and one (8%) is personal. This distribution approximately matches that of the overall corpus. For four of the topics, we see an increase in the prevalence of a topic after the first day of shadowing. Three of these were personal topics (75%) and one (25%) was a shared topic. This suggests that personal activities are disproportionately more likely on the second or third shadowing day. In contrast, among the four topics that were less likely after the first shadowing day, two (50%) were autonomous and one each (25% each) was general and shadowing. Among these topics, it is worth noting that two of the non-shadowing topics were related to quite public events: visits to schools (topic 6) and public meetings (topic 16), and the final non-shadowing topic concerned visits by others

to the politician (topic 20). This indicates that politicians may have been more likely to attend to these kinds of events and activities—which are clearly related to their professional responsibilities—on the first day, whereas they were more willing to spend time on personal activities once the shadower had spent one day with them. These findings overall reinforce the expectation that there may be observer effects in a shadowing engagement, but also that these effects may be limited to a relatively small proportion of activities and that they change after the first day of the engagement in ways that are discernable in the field record. In addition, a wide range of events and activities that demand a politician's time may be largely out of the control of the presidents themselves, thereby minimizing some risks of bias in observations associated with observer effects.

#### The Details of Village Political Life

The unsupervised text analysis offers an initial evaluation of trends in village council president behavior, but in a manner that abstracts away from the specificities of these activities. It also brings to light preliminary insights into the relative amounts of time presidents spend on different activities. In order to gain a more comprehensive understanding of presidents' roles in their communities, and to test further expectations about the degree to which presidents emphasize certain kinds of activities in their work, I conducted a second coding exercise using qualitative coding techniques based on direct reading of the shadowing fieldnotes. In related work, I used a similar technique to examine the role of local council presidents specifically with regard to processes of distribution (Bussell (2019a): 178-182). Here, the coding process is aligned with the categories outlined in the previous section and focuses on the full range of president activities, in order to illuminate a more complete picture of their work. By developing a coding scheme with a finer grain of detail than is possible with the topic model, I can more easily examine the specific types of activities that make up these broader categories.<sup>19</sup>

 $<sup>^{19}{\</sup>rm The}$  detailed coding scheme is provided in the Appendix

The coding of timed field observations also allows me to quantify the amount of time spent on various activities. Because the fieldnotes include the time of each observation, and observations were typically taken every fifteen minutes, I can use this information to make rough estimates of the time spent on each type of activity. I refer to these estimates as "observation time" and use that term here to clarify that I am referring to the time spent on activities based on these calculations, rather than more precise measures of the exact time spent. While this means that I may lose some nuances of time allocation, the frequency with which observations were made should allow for these estimates generally to reflect the actual allocation of presidents' time to various tasks and activities.

A summary of time spent on various undertakings is provided in Table 2. Overall, I find that activities falling in the "general" category make up the plurality of observed politicians' time, accounting for 42% of total observation time. Consider Naveen Singh<sup>20</sup> who, on the second day of shadowing, spent much of the first three hours of his day in general conversation with visitors to his home office. By late morning, he left to go out into the village, where he visited two different homes to talk with the people there. Later in the afternoon he went out to the market and sat outside a shop talking with a gathered crowd. While he also engaged in many other activities over the course of the shadowing engagement, visiting and chatting with people in the community was clearly a regular component of his time. The second day of shadowing Ajay Singh<sup>21</sup> was remarkably similar. When the shadower arrived at the president's home, multiple people from the village were already there talking with him about various government programs. In the midst of the discussion, a few people came to ask for help with documentation, but the majority of the morning was spent in general conversation, often related to planned projects under a national work program.<sup>22</sup> After a break for lunch, the president went to the market and talked with people there before receiving a phone call about a family emergency. These types of activities—in which presidents engage with others

<sup>&</sup>lt;sup>20</sup>Shadowing subject P(F)

<sup>&</sup>lt;sup>21</sup>Shadowing subject P(G)

<sup>&</sup>lt;sup>22</sup>The National Rural Employment Guarantee Act assures all citizens of access to at least 100 days of pay work each year and achieves this goal largely through the implementation of public works projects.

in the guise of their professional role, but without a specific task–make up approximately half of "general" observation time, while travel makes up another 40% and the remainder is made up of phone calls<sup>23</sup>

Table 2 - Time Allocated to Different Activities

Theme	Sub-theme	Share of Time (percent)
Autonomous	Documentation	5
	Intermediary	5
	Supervision	8
	Administrative	3
Shared	Beneficiary Selection	5
	Distribution	5
General	Discussion at Home	8
	Discussion in Village	7
	Phone calls	4
	Travel	16
	Discussion at other Home	6
Personal	Meals/Tea	7
	Down Time at Home	14
	Activities Outside Home	3
Shadowing	Discussion with Subject	2
	Shadower Activities	<1
	Excluded Activities	2

The next most common activities were those of a personal nature (24% of total observation time) and autonomous actions (21% of total observation time). I do not elaborate here on the content of presidents' personal time, other than to say that it is made up predominantly

<sup>&</sup>lt;sup>23</sup>Where possible, I code phone calls based on the content of the call, so that these observations fall within the relevant substantive category. Where this is not possible, I code them generically as phone calls, and that is what appears here as a part of the General category.

of resting at home, meals, and drinking tea. Autonomous actions, however, represent a key element of presidents' time dedicated to professional activities, in line with the expectations set forth by the text analysis. For Badri Prasad,<sup>24</sup> this meant a morning of visitors to his home making requests for assistance with domicile certificates and photo verifications. For Sridevi,<sup>25</sup> executive actions are interspersed throughout her day, from requests for assistance with residence letters and intervention in the aftermath of an auto accident in the morning, to paperwork and visits to the local primary school in the afternoon. Similarly, Raj Singh<sup>26</sup> spent a considerable amount of his day supervising a road construction project and visiting a primary school, in addition to entertaining multiple requests for assistance with ration cards. These examples highlight a general pattern in autonomous activities, of which 40% of total observation time is made up of supervisory activities and 23% each documentation and intermediary actions, with the remainder being general administrative duties.

Perhaps surprisingly, shared activities, such as the selection of beneficiaries for schemes and participation in distribution activities, make up only 9% of total observation time. One explanation for this may be that engaging in these kinds of actions requires that there be a particular program requiring attention. For example, when Prakash Yadav<sup>27</sup> participated in public meetings to distribute drought relief packages, this accounted for more than seven hours of observation time over two days. And when Raj Singh and Jaideep Dwivedi<sup>28</sup> were each charged with assisting to make a list of houses for inclusion in a central government toilet construction scheme, this occupied substantial parts of their day with visits to homes and attending to other aspects of the process.

Even taking into account the uneven nature of program implementation activities, it is striking that autonomous activities make up more than double the observation time of shared actions. This offers considerable evidence, in line with the findings from the text analysis,

<sup>&</sup>lt;sup>24</sup>Shadowing subject P(I)

<sup>&</sup>lt;sup>25</sup>Shadowing subject P(H)

<sup>&</sup>lt;sup>26</sup>Shadowing subject P(B)

<sup>&</sup>lt;sup>27</sup>Shadowing subject P(E)

<sup>&</sup>lt;sup>28</sup>Shadowing subjects P(B) and P(D), respectively

that village council presidents allocate substantial personal resources, at the very least in terms of time, to those actions over which they are more likely to have individual control. Rather than shared activities, for which other council members and the council secretary might also reasonably claim credit, presidents emphasize those autonomous actions with which they can directly build their personal reputation.

It is also worth reiterating here that it is primarily during the creation of beneficiary lists that we observed presidents spending considerable time with other council members, as indicated in the topic analysis. Most of their other activities instead involved friends, family, and assistants, in addition to the general public. This observation accords with the conceptual distinction between shared and autonomous tasks, the former of which involve more official duties of the council as a whole, while the latter require only the president herself.

Overall, the findings from the qualitative coding reinforce and provide detail to those from the topic model: local council presidents are predominantly engaged in general and autonomous actions as a part of their professional life. If we discount time allocated to travel, given that this is not a citizen-facing activity, the time allocated to other general and autonomous activities is 46% of total observation time, or 86% of time not allocated to personal, shadowing, or travel activities. Thus, the evidence from shadowing suggests that local council presidents are significantly more likely to spend their time on autonomous and general activities than on those shared actions most closely associated with the formal responsibilities of the village council.

#### Conclusions

India has placed substantial responsibility in the hands of the approximately 250,000 elected village councils that are now the lead institutions of rural local governance. Yet, we are only beginning to understand how the particular character of these local bodies, their electoral

rules, and the responsibilities with which they have been tasked do, or do not, result in improvements in local social and economic outcomes.<sup>29</sup> Does delegation of responsibility for governance to local elected bodies improve development outcomes for the population as a whole? Or do entrenched loyalties and social ties, as well as emerging political allegiances, interact with new institutional structures to replicate existing inequalities?

In this paper, I have attempted to shed light on these questions through attention to a single actor, the village council president, in one state, Uttar Pradesh. The subjects of the study engaged in a wide range of activities over the time in which we observed them at work, and they frequently offered evidence of the quite busy and difficult jobs that they have taken on as local representatives. Presidents are important entities in local village life and they are frequently called upon to engage in a multitude of different tasks.

Yet, the analysis offered here also shows that there are patterns to these activities and the degree to which council presidents are willing to dedicate their time to particular kinds of tasks. These actors spend a substantial portion of their time engaged in informal discussions and public events with their fellow villagers. In these activities, they are frequently playing a leading role, guiding discussions to specific topics and structuring the flow of events. They are also regularly engaged in autonomous actions associated with overseeing government programs, providing official documents, and intermediating with various actors on behalf of other citizens. In contrast, presidents seem to exert more limited, or at least intermittent, attention to shared actions of the council.

What are the implications of this predominant focus on general and autonomous actions over those tasks more closely tied to the shared roles and responsibilities of the local council? The most potentially problematic aspect of this pattern, I posit, lies in the relative importance placed on autonomous tasks. When presidents emphasize those actions where they have more discretion, this means, on the one hand, that they are available to the community as needed when there are failures in the implementation of programs or other issues. But, on

<sup>&</sup>lt;sup>29</sup>See, for example, Mullen (2012)

the other hand, this also means that presidents can use discretion to favor certain individuals over others, as has been shown in other work (Dunning and Nilekani (2013), Bussell (2019a)). Where there is frequently a demand for intermediation, as is often the case in rural India, this can feasibly lead to highly unequal access to government services, depending on personal relationships with the local president (Kruks-Wisner (2018), Bussell (2019a)).

Thus, the implementation of India's local village councils may well not be associated with the improved governance outcomes anticipated by many at the time of the reform. Institutional structures that constrain presidents' behaviors in certain areas may then encourage those presidents to look elsewhere for ways to gain from their position. Because council institutions also allocate autonomous powers to presidents, a shift toward these activities is to be expected. But, structures that create incentives for individuals to leverage their autonomous power can contribute, intentionally or inadvertently, to dynamics that result in inequality of access for individual citizens. Where politicians have incentives to favor certain individuals, due to their interest in building a political support base or out of a desire to build other professional ties, the chances are good that they will use whatever tools are available to pursue these interests. When those tools are tied to the implementation of government programs, we should not be surprised when only certain parties benefit from their local representative's efforts.

### Bibliography

Bussell, Jennifer. 2019a. Clients and Constituents: Political Responsiveness in Patronage Democracies. Modern South Asia. Oxford University Press.

———. 2019b. "Shadowing as a Tool for Studying Political Elites."

Chauchard, Simon. 2017. Why Representation Matters: The Meaning of Ethnic Quotas in Rural India. Cambridge University Press. doi:10.1017/9781316421864.

Dunning, Thad, and Janhavi Nilekani. 2013. "Ethnic Quotas and Political Mobilization: Caste, Parties, and Distribution in Indian Village Councils." *American Political Science* 

Review 107 (1). Cambridge University Press: 35–56. doi:10.1017/S0003055412000573.

Kruks-Wisner, Gabrielle. 2018. Claiming the State: Active Citizenship and Social Welfare in Rural India. Cambridge University Press. doi:10.1017/9781108185899.

McDonald, Seonaidh. 2005. "Studying Actions in Context: A Qualitative Shadowing Method for Organizational Research." Qualitative Research 5 (4): 455–73. doi:10.1177/1468794105056923.

Mullen, Rani D. 2012. Decentralization, Local Governance, and Social Wellbeing in India: Do Local Governments Matter? Routledge.

Roberts, Margaret, Brandon Stewart, and Dustin Tingley. 2019. "Stm: R Package for Structural Topic Models." *Journal of Statistical Software* 91 (2): 1–40. https://www.jstatsoft.org/index.php/jss/article/view/v091i02.

Schneider, Mark. 2019. "Do Local Leaders Know Their Voters? A Test of Guessability in India." *Electoral Studies* 61: 102049. doi:https://doi.org/10.1016/j.electstud.2019.102049.

Stokes, Susan C., Thad Dunning, Marcelo Nazareno, and Valeria Brusco. 2013. *Brokers, Voters, and Clientelism: The Puzzle of Distributive Politics*. Cambridge Studies in Comparative Politics. Cambridge University Press. doi:10.1017/CBO9781107324909.

# Appendix to VCP Study

Jennifer Bussell

March 10, 2020

## Contents

- 1. Additional comments on Topics List
- 2. Results for all structural topic models
- 3. Anonymized Fieldnotes (in separate Excel file)

#### 1. Additional Comments on Topics List

- 1. Intention to act words seems related to upcoming activities and actions, e.g. start, soon, participate, elect, get
- 2. Distribution words concern activities related to distributing of benefits (e.g. drought relief packets) and the travel required to get to these distribution events.
- 3. At home Most common words relate to the subjects being at their home
- 4. The Pradhan mainly focused on observations of the Pradhan without other linking subjects
- 5. Paperwork primarily words related to paper, submissions, money and government programs (NREGA)
- 6. Education/School associations with schools, including the teachers, type of school, and distribution of materials
- 7. Asking questions Seems to related to the shadower asking questions of the subject, particularly with regard to other people
- 8. Secretary associated with the council secretary and related work
- 9. At a house words related to being at someone else's house and activities there
- 10. Discussions in village Seems associated with talking to others out in the villages
- 11. Phone calls all related to observations of the subject on phone calls
- 12. Travel and meals concerns movement of the subject, travel and participation in meals
- 13. Meetings and gas connections words related to discussions with people about the ongoing government-sponsored cooking gas tank distribution program.
- 14. Construction words related to construction projects
- 15. Tea breaks All related to breaks for tea in various locations
- 16. Public meetings Seem associated with public meetings and speeches occurring during the shadowing period
- 17. Rations words related to the public distribution system and cards required for access
- 18. Block office visits Associated with going to the local administrative office and meetings

with primary bureaucrat there

- 19. Beneficiary Lists words related to the making of beneficiary lists for inclusion in government programs
- 20. Visits primarily associated with visitors to the VCP

### 2. Structural Topic Model Results (20 models)

```
##
## Call:
## estimateEffect(formula = 1:20 ~ subject + sday + weekend + morning,
##
      stmobj = PradPrevFit, metadata = out$meta, uncertainty = "Global")
##
##
## Topic 1:
##
## Coefficients:
               Estimate Std. Error t value Pr(>|t|)
##
## (Intercept)
               0.007646
                          0.009954
                                     0.768 0.442591
## subjectpb
                          0.012766 2.298 0.021757 *
               0.029337
## subjectpd
               0.021560
                          ## subjectpe
              -0.005482
                          0.012175 -0.450 0.652612
## subjectpf
               0.012854
                          0.011540
                                     1.114 0.265603
## subjectpg
               0.052542
                          0.017812
                                     2.950 0.003253 **
                          0.011450 0.163 0.870684
## subjectph
               0.001864
               0.019973
                          0.013090
                                     1.526 0.127362
## subjectpi
## subjectpj
               0.006876
                          0.011697
                                     0.588 0.556786
## subjectpk
              -0.007582
                          0.012264 -0.618 0.536534
## subjectpl
               0.024390
                          0.013620 1.791 0.073640 .
               0.050864
                                     2.814 0.004981 **
## subjectpm
                          0.018073
              -0.003520
                          0.011251 -0.313 0.754455
## subjectpn
## subjectpo
               0.056221
                          0.016774
                                     3.352 0.000833 ***
## sday
              -0.001564
                          0.005967 - 0.262 \ 0.793254
## weekend
              -0.009309
                          0.007301 -1.275 0.202571
```

```
## morning1
               0.010959
                          0.005544
                                     1.977 0.048317 *
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 2:
##
## Coefficients:
               Estimate Std. Error t value Pr(>|t|)
##
## (Intercept) 0.138277
                          0.020092
                                   6.882 1.03e-11 ***
## subjectpb
              -0.135181
                          0.022867 -5.912 4.62e-09 ***
                          0.021740 -5.115 3.74e-07 ***
## subjectpd
              -0.111204
## subjectpe
              0.020158
                          0.029413
                                   0.685 0.49328
## subjectpf
              -0.107672
                          0.023130 -4.655 3.67e-06 ***
## subjectpg
              -0.036410
                          0.024523 -1.485 0.13793
## subjectph
              -0.123209
                          0.022717 -5.424 7.29e-08 ***
## subjectpi
              -0.122328
                          0.023096 -5.296 1.45e-07 ***
## subjectpj
                          0.022176 -5.792 9.27e-09 ***
              -0.128437
## subjectpk
              -0.071829
                          0.023646 -3.038 0.00244 **
                          0.022191 -5.076 4.58e-07 ***
## subjectpl
              -0.112639
## subjectpm
              -0.139694
                          0.025421 -5.495 4.93e-08 ***
## subjectpn
              -0.129467
                          0.021949 -5.899 4.98e-09 ***
## subjectpo
              -0.130822
                          0.023122 -5.658 1.99e-08 ***
## sday
              -0.013962
                          0.007309 -1.910 0.05637 .
## weekend
                          0.009214 1.143 0.25312
               0.010536
## morning1
              -0.014441
                          0.006741 - 2.142 0.03241 *
## ---
```

```
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 3:
##
## Coefficients:
##
               Estimate Std. Error t value Pr(>|t|)
## (Intercept) 0.084923
                          0.015865
                                    5.353 1.07e-07 ***
## subjectpb
               0.011210
                          0.019491 0.575 0.565332
## subjectpd
              0.031042
                          0.019433 1.597 0.110480
## subjectpe
              0.014123
                          0.023594 0.599 0.549601
## subjectpf
              -0.007276
                          0.020265 -0.359 0.719625
## subjectpg
              -0.026688
                          0.018945 -1.409 0.159214
## subjectph
              -0.003710
                          0.020367 -0.182 0.855497
## subjectpi
              -0.017626
                          0.020274 -0.869 0.384843
## subjectpj
              -0.032217
                          0.019271 -1.672 0.094875 .
## subjectpk
              -0.019513
                          0.020120 -0.970 0.332370
## subjectpl
              -0.004858
                          0.020340 -0.239 0.811279
## subjectpm
              -0.054191
                          0.024571 -2.205 0.027643 *
## subjectpn
               0.061963
                          0.021135
                                    2.932 0.003445 **
## subjectpo
              -0.052840
                          0.020153 -2.622 0.008874 **
## sday
               0.017272
                          0.008162 2.116 0.034581 *
## weekend
               0.005510
                          0.010972 0.502 0.615597
## morning1
              -0.025595
                          0.007745 -3.305 0.000984 ***
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
```

```
##
## Topic 4:
##
## Coefficients:
##
               Estimate Std. Error t value Pr(>|t|)
## (Intercept)
               0.262123
                                    21.207 < 2e-16 ***
                          0.012360
## subjectpb
              -0.161156
                          0.014092 -11.436
                                            < 2e-16 ***
## subjectpd
              -0.139187
                          0.013553 -10.270 < 2e-16 ***
## subjectpe
              -0.149305
                          0.015354 -9.724 < 2e-16 ***
                          0.013477 -11.032 < 2e-16 ***
## subjectpf
              -0.148680
## subjectpg
              -0.177086
                          0.014049 -12.605 < 2e-16 ***
## subjectph
              -0.166167
                          0.013942 -11.918 < 2e-16 ***
## subjectpi
              -0.138350
                          0.015464 -8.946 < 2e-16 ***
## subjectpj
              -0.167681
                          0.014401 -11.644 < 2e-16 ***
## subjectpk
              -0.168077
                          0.014180 -11.853 < 2e-16 ***
## subjectpl
              -0.134440
                          0.014878 -9.036 < 2e-16 ***
## subjectpm
              -0.202281
                          0.016115 -12.552 < 2e-16 ***
## subjectpn
                          0.015893 -5.794 9.18e-09 ***
              -0.092074
## subjectpo
              -0.185589
                          0.015882 -11.686 < 2e-16 ***
## sday
               0.013656
                          0.004617
                                     2.958 0.003168 **
## weekend
               0.016966
                          0.006524
                                     2.600 0.009448 **
              -0.018463
                          0.005030 -3.670 0.000255 ***
## morning1
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 5:
```

```
##
## Coefficients:
##
                 Estimate Std. Error t value Pr(>|t|)
## (Intercept)
                0.0006923
                           0.0111756
                                        0.062 0.95061
## subjectpb
                0.0053251
                           0.0144114
                                        0.370
                                               0.71183
                           0.0136127
## subjectpd
                                              0.28207
                0.0146508
                                        1.076
## subjectpe
                0.0009996
                           0.0138240
                                        0.072
                                               0.94237
## subjectpf
                0.0484851
                           0.0171007
                                        2.835
                                              0.00467 **
                                        4.154 3.55e-05 ***
## subjectpg
                0.0689509
                           0.0166001
                           0.0149475
## subjectph
                0.0281884
                                        1.886
                                               0.05960 .
## subjectpi
                0.0325593
                           0.0166147
                                        1.960
                                               0.05031 .
## subjectpj
                0.0476574
                                        2.769
                           0.0172095
                                               0.00572 **
## subjectpk
                0.0016801
                           0.0140871
                                        0.119
                                               0.90509
## subjectpl
                0.0244367
                           0.0147811
                                        1.653
                                               0.09859 .
## subjectpm
                0.0227184
                           0.0202571
                                        1.122
                                               0.26234
## subjectpn
                0.0142381
                           0.0136275
                                        1.045
                                               0.29636
## subjectpo
                0.0244454
                           0.0161954
                                        1.509
                                               0.13150
## sday
               -0.0032050 0.0065037
                                       -0.493
                                               0.62227
## weekend
                0.0097083
                           0.0084476
                                        1.149
                                               0.25073
## morning1
                0.0051010
                           0.0063011
                                        0.810
                                               0.41839
## ---
## Signif. codes:
                   0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 6:
##
## Coefficients:
```

```
Estimate Std. Error t value Pr(>|t|)
##
               0.111932
                           0.019362
                                      5.781 9.86e-09 ***
## (Intercept)
## subjectpb
               -0.011235
                           0.023148 -0.485 0.627515
## subjectpd
               -0.051061
                           0.021879
                                    -2.334 0.019801 *
## subjectpe
               -0.059352
                           0.023050
                                    -2.575 0.010168 *
## subjectpf
               -0.041118
                           0.021777 -1.888 0.059296 .
## subjectpg
               -0.049663
                           0.023294 -2.132 0.033246 *
## subjectph
               0.024680
                           0.024997
                                      0.987 0.323723
                           0.022986 -4.258 2.26e-05 ***
## subjectpi
               -0.097866
## subjectpj
               -0.063316
                           0.020904 -3.029 0.002516 **
## subjectpk
               -0.080453
                           0.022820 -3.525 0.000442 ***
## subjectpl
                                    -2.096 0.036335 *
               -0.052067
                           0.024842
## subjectpm
               -0.062506
                           0.025338 - 2.467 \ 0.013793 *
## subjectpn
                0.001992
                           0.026808
                                      0.074 0.940785
## subjectpo
               -0.041669
                           0.023873
                                    -1.745 0.081203 .
## sday
               -0.027772
                           0.008922
                                    -3.113 0.001906 **
## weekend
               -0.040261
                           0.011663 -3.452 0.000579 ***
## morning1
                0.009375
                           0.008466
                                      1.107 0.268410
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 7:
##
## Coefficients:
##
                Estimate Std. Error t value Pr(>|t|)
## (Intercept)
                0.030841
                           0.010807
                                      2.854 0.004409 **
```

```
## subjectpb
                0.073751
                           0.014541
                                      5.072 4.67e-07 ***
## subjectpd
               0.074048
                           0.014839
                                     4.990 7.09e-07 ***
## subjectpe
               0.024312
                           0.013710 1.773 0.076484 .
## subjectpf
                0.012950
                           0.012396
                                      1.045 0.296414
## subjectpg
               -0.013374
                           0.012466
                                    -1.073 0.283605
## subjectph
                                     4.601 4.74e-06 ***
                0.064619
                           0.014045
## subjectpi
                0.083895
                           0.016015
                                      5.239 1.97e-07 ***
## subjectpj
                0.082594
                           0.014917
                                      5.537 3.91e-08 ***
## subjectpk
               0.004483
                           0.013710
                                      0.327 0.743765
## subjectpl
               0.033260
                           0.016126
                                     2.063 0.039409 *
## subjectpm
               0.110903
                           0.022781 4.868 1.30e-06 ***
## subjectpn
                                     2.994 0.002820 **
                0.039787
                           0.013289
## subjectpo
               0.091283
                           0.016772
                                      5.443 6.57e-08 ***
## sday
              -0.017599
                           0.006135 -2.869 0.004206 **
## weekend
              -0.024345
                           0.008123 -2.997 0.002792 **
## morning1
                0.023864
                           0.006245
                                      3.821 0.000141 ***
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 8:
##
## Coefficients:
                Estimate Std. Error t value Pr(>|t|)
##
## (Intercept) 0.004220
                           0.011376
                                    0.371 0.710722
## subjectpb
              -0.017228
                          0.014363 -1.199 0.230615
## subjectpd
                0.021042
                           0.014273
                                      1.474 0.140729
```

```
## subjectpe
                0.023799
                           0.014423
                                      1.650 0.099225 .
## subjectpf
                0.024897
                           0.014823
                                      1.680 0.093336 .
## subjectpg
                0.048882
                           0.015053
                                      3.247 0.001203 **
## subjectph
                                      2.337 0.019634 *
                0.037421
                           0.016013
## subjectpi
                0.010304
                           0.015489
                                      0.665 0.506049
## subjectpj
                           0.012778 -1.328 0.184494
               -0.016968
## subjectpk
                0.060394
                           0.017539
                                      3.443 0.000598 ***
## subjectpl
                0.022162
                           0.014404
                                      1.539 0.124215
## subjectpm
               -0.020815
                           0.016330 -1.275 0.202713
## subjectpn
                0.013858
                           0.013730
                                      1.009 0.313057
## subjectpo
                0.064395
                           0.020134
                                      3.198 0.001425 **
## sday
                                      3.731 0.000201 ***
                0.023745
                           0.006364
## weekend
                0.021079
                           0.008426
                                      2.502 0.012516 *
## morning1
               -0.018823
                           0.006007
                                     -3.134 0.001776 **
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 9:
##
## Coefficients:
##
                Estimate Std. Error t value Pr(>|t|)
## (Intercept)
                                             0.00164 **
                0.036188
                           0.011463
                                      3.157
## subjectpb
                                      0.516
                                             0.60585
                0.007701
                           0.014919
## subjectpd
                           0.014295 -0.572 0.56753
               -0.008175
## subjectpe
               -0.034881
                           0.013464
                                    -2.591 0.00971 **
## subjectpf
               -0.041008
                           0.012972
                                    -3.161 0.00162 **
```

```
## subjectpg
               -0.041916
                           0.013082
                                    -3.204 0.00140 **
## subjectph
               -0.032948
                           0.014175
                                     -2.324
                                            0.02030 *
## subjectpi
               -0.006169
                                    -0.393
                                             0.69434
                           0.015694
## subjectpj
               -0.011431
                           0.014108
                                     -0.810
                                             0.41797
## subjectpk
                0.017390
                           0.016458
                                      1.057
                                             0.29093
## subjectpl
                0.043183
                                             0.01217 *
                           0.017194
                                      2.512
## subjectpm
                                     -2.687
                                             0.00732 **
               -0.047570
                           0.017703
## subjectpn
                0.013642
                           0.014684
                                      0.929
                                             0.35310
## subjectpo
               -0.031170
                           0.014276
                                     -2.183
                                             0.02924 *
## sday
                0.009717
                           0.005858
                                      1.659
                                             0.09750 .
## weekend
                0.021089
                           0.007404
                                      2.848
                                             0.00448 **
## morning1
                0.010042
                           0.006193
                                      1.621
                                             0.10523
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 10:
##
## Coefficients:
##
                Estimate Std. Error t value Pr(>|t|)
## (Intercept)
                0.034734
                           0.013968
                                      2.487
                                             0.01305 *
## subjectpb
                0.020162
                           0.017170
                                      1.174
                                             0.24056
## subjectpd
                0.012510
                           0.015884
                                      0.788
                                             0.43110
## subjectpe
                                             0.00652 **
                0.052144
                           0.019129
                                      2.726
## subjectpf
                0.001314
                           0.016992
                                      0.077
                                             0.93836
## subjectpg
               -0.011721
                           0.016095
                                     -0.728
                                             0.46661
## subjectph
                0.015732
                           0.016243
                                      0.969
                                            0.33300
```

```
## subjectpi
               -0.001345
                           0.016841 -0.080 0.93634
## subjectpj
                0.027223
                           0.016344
                                            0.09609 .
                                      1.666
## subjectpk
               -0.023513
                           0.016378
                                    -1.436
                                            0.15142
## subjectpl
               -0.015451
                           0.016920
                                     -0.913
                                            0.36135
               -0.032338
## subjectpm
                           0.019184
                                     -1.686
                                             0.09216 .
## subjectpn
               -0.006457
                           0.016837
                                     -0.383
                                            0.70145
               -0.003890
## subjectpo
                                            0.82100
                           0.017187
                                     -0.226
## sday
               -0.003927
                           0.006276 - 0.626
                                            0.53162
## weekend
                0.017229
                           0.009010
                                      1.912
                                             0.05614 .
## morning1
                0.002374
                           0.006737
                                      0.352 0.72462
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 11:
##
## Coefficients:
                Estimate Std. Error t value Pr(>|t|)
##
## (Intercept)
               0.036570
                           0.014866
                                      2.460 0.01406 *
## subjectpb
                0.003300
                           0.021782
                                      0.152
                                            0.87960
## subjectpd
                0.007173
                           0.018827
                                      0.381
                                            0.70328
## subjectpe
               -0.008646
                           0.019525
                                    -0.443
                                            0.65800
## subjectpf
                0.029707
                           0.020687
                                      1.436
                                            0.15132
## subjectpg
                0.034075
                           0.020080
                                      1.697
                                             0.09001 .
## subjectph
                                      0.762 0.44616
                0.015221
                           0.019972
## subjectpi
                0.012656
                           0.023191
                                      0.546
                                            0.58538
## subjectpj
                0.041507
                           0.020950
                                      1.981 0.04784 *
```

```
## subjectpk
              -0.004859
                          0.019376 -0.251 0.80205
                                     0.874 0.38230
## subjectpl
               0.019512
                          0.022324
## subjectpm
               0.073845
                          0.030097
                                     2.454 0.01431 *
## subjectpn
               0.013179
                          0.018418
                                     0.716 0.47442
## subjectpo
               0.031593
                          0.021027
                                     1.503
                                           0.13327
                          0.008131
                                           0.85099
## sday
               0.001528
                                     0.188
## weekend
              -0.006838
                                   -0.590
                                           0.55522
                          0.011586
## morning1
               0.023896
                          0.008604
                                     2.777
                                           0.00558 **
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 12:
##
## Coefficients:
##
                Estimate Std. Error t value Pr(>|t|)
## (Intercept) 0.0500406 0.0113179
                                      4.421 1.09e-05 ***
## subjectpb
               0.0049119 0.0151822
                                      0.324 0.74636
## subjectpd
               0.0177498 0.0142659
                                      1.244 0.21371
## subjectpe
               0.0105581
                          0.0147274
                                      0.717 0.47360
## subjectpf
               0.0773555
                         0.0166129
                                      4.656 3.64e-06 ***
## subjectpg
               0.0465770 0.0154065
                                      3.023 0.00256 **
## subjectph
               0.0069623 0.0152794
                                      0.456 0.64873
## subjectpi
               0.0499194
                          0.0163928
                                      3.045 0.00238 **
## subjectpj
                                      2.902 0.00378 **
               0.0474360 0.0163440
## subjectpk
              -0.0005150 0.0150682
                                     -0.034 0.97274
## subjectpl
              -0.0008516 0.0141300
                                     -0.060 0.95195
```

```
## subjectpm
              ## subjectpn
               0.0076281
                         0.0138166
                                     0.552 0.58100
## subjectpo
               0.0215201
                         0.0162539
                                     1.324 0.18580
## sday
               0.0161748 0.0063667
                                     2.541 0.01122 *
## weekend
              -0.0065170
                         0.0085896
                                    -0.759
                                           0.44821
                                    -5.857 6.33e-09 ***
## morning1
              -0.0374487
                         0.0063933
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 13:
##
## Coefficients:
##
               Estimate Std. Error t value Pr(>|t|)
## (Intercept)
               0.061192
                         0.013698
                                    4.467 8.81e-06 ***
## subjectpb
              -0.022050
                         0.017338 -1.272 0.20375
## subjectpd
              -0.019869
                         0.016069 -1.236 0.21656
## subjectpe
              -0.037220
                         0.015606 -2.385 0.01726 *
## subjectpf
              -0.036712
                         0.014988
                                  -2.449
                                         0.01447 *
## subjectpg
              -0.023186
                         0.015171
                                   -1.528
                                          0.12676
## subjectph
               0.058300
                         0.017952
                                    3.248
                                          0.00120 **
## subjectpi
              -0.038579
                         0.016216
                                  -2.379
                                           0.01754 *
## subjectpj
              -0.027142
                         0.015413 -1.761 0.07853 .
## subjectpk
               0.173456
                         0.025775
                                    6.730 2.83e-11 ***
## subjectpl
              -0.039934
                         0.015325 -2.606 0.00930 **
## subjectpm
              -0.034126
                         0.019875
                                  -1.717
                                          0.08627 .
## subjectpn
              -0.031492
                         0.014896
                                   -2.114 0.03474 *
```

```
## subjectpo
               -0.036107
                           0.016933 -2.132 0.03322 *
               -0.012193
                                    -1.771
                                             0.07678 .
## sday
                           0.006883
## weekend
                0.006964
                           0.009528
                                      0.731
                                             0.46501
                                    -3.079
## morning1
               -0.021888
                           0.007108
                                            0.00213 **
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 14:
##
## Coefficients:
                 Estimate Std. Error t value Pr(>|t|)
##
## (Intercept)
                0.0005472
                           0.0131686
                                       0.042 0.966861
## subjectpb
                0.0165967
                           0.0171935
                                       0.965 0.334629
## subjectpd
                0.0171097
                           0.0158611
                                       1.079 0.280966
## subjectpe
                0.0047624
                           0.0160348
                                       0.297 0.766526
## subjectpf
                           0.0192631
                                       3.308 0.000974 ***
                0.0637147
## subjectpg
                0.0473730 0.0160881
                                       2.945 0.003307 **
## subjectph
                0.0143130
                           0.0154358
                                       0.927 0.354010
## subjectpi
                0.0508551
                           0.0200912
                                       2.531 0.011516 *
## subjectpj
                0.0313621
                           0.0167155
                                       1.876 0.060910 .
## subjectpk
                0.0037833
                           0.0161229
                                       0.235 0.814525
## subjectpl
                0.0607339
                           0.0186927
                                       3.249 0.001196 **
## subjectpm
                                       1.063 0.288028
                0.0218530
                           0.0205576
## subjectpn
                                       2.458 0.014132 *
                0.0418273 0.0170161
## subjectpo
                0.0417589
                           0.0190303
                                       2.194 0.028436 *
## sday
               -0.0018020
                           0.0083690
                                      -0.215 0.829564
```

```
## weekend
               0.0181507 0.0097725
                                      1.857 0.063554 .
## morning1
               0.0105093
                          0.0067928
                                      1.547 0.122145
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 15:
##
## Coefficients:
##
                Estimate Std. Error t value Pr(>|t|)
## (Intercept)
               0.0197810
                          0.0131753
                                      1.501 0.13357
## subjectpb
                          0.0185810
                                      2.736 0.00632 **
               0.0508438
## subjectpd
               0.0314180
                          0.0176232
                                      1.783
                                             0.07492 .
## subjectpe
               0.0044508 0.0175692
                                      0.253 0.80006
## subjectpf
               0.0128722 0.0169253
                                      0.761 0.44712
## subjectpg
               0.0287969
                          0.0171782
                                      1.676
                                             0.09397 .
## subjectph
               0.0107281
                          0.0176966
                                      0.606 0.54450
## subjectpi
               0.0073968 0.0177909
                                      0.416 0.67767
## subjectpj
              -0.0032600 0.0158784
                                     -0.205 0.83737
## subjectpk
              -0.0009599
                          0.0169035
                                     -0.057
                                             0.95473
## subjectpl
               0.0157562
                          0.0183683
                                      0.858 0.39121
## subjectpm
               0.0301222 0.0220746
                                      1.365
                                             0.17269
## subjectpn
               0.0059579
                          0.0165833
                                      0.359
                                             0.71946
## subjectpo
                          0.0208970
                                      2.270
                                             0.02343 *
               0.0474319
               0.0076922 0.0067405
## sday
                                      1.141 0.25406
## weekend
               0.0051692 0.0092514
                                      0.559
                                             0.57646
## morning1
               0.0114923 0.0071165
                                      1.615 0.10665
```

```
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 16:
##
## Coefficients:
##
               Estimate Std. Error t value Pr(>|t|)
## (Intercept)
                                     3.383 0.000746 ***
               0.042265
                          0.012495
## subjectpb
               0.036062
                          0.016198
                                   2.226 0.026212 *
## subjectpd
              -0.006296
                          0.014449 -0.436 0.663130
## subjectpe
                                     7.828 1.24e-14 ***
               0.194639
                          0.024865
## subjectpf
               0.053100
                          0.017240
                                     3.080 0.002125 **
## subjectpg
               0.021328
                          0.015866
                                     1.344 0.179171
## subjectph
               0.018549
                          0.015870
                                     1.169 0.242756
## subjectpi
              -0.020320
                          0.016117 -1.261 0.207683
## subjectpj
               0.033768
                          0.016086
                                     2.099 0.036049 *
## subjectpk
                                     2.780 0.005534 **
              0.049402
                          0.017770
## subjectpl
              -0.019468
                          0.015773 -1.234 0.217381
## subjectpm
               0.005317
                          0.019446
                                     0.273 0.784603
## subjectpn
               0.053345
                          0.017107
                                     3.118 0.001870 **
## subjectpo
               0.019613
                          0.017280
                                     1.135 0.256632
                          0.007217 -2.404 0.016402 *
## sday
              -0.017348
## weekend
              -0.035635
                          0.009842 -3.621 0.000308 ***
## morning1
                                     0.303 0.762136
               0.002232
                          0.007371
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
```

```
##
##
## Topic 17:
##
## Coefficients:
                 Estimate Std. Error t value Pr(>|t|)
##
   (Intercept)
                0.0215304
                           0.0162869
                                        1.322 0.186483
## subjectpb
                0.0214854
                           0.0222442
                                        0.966 0.334328
                                       -0.165 0.869322
## subjectpd
               -0.0031846
                           0.0193523
## subjectpe
               -0.0186160
                           0.0204132 -0.912 0.362005
## subjectpf
                0.0091715
                           0.0205652
                                        0.446 0.655712
## subjectpg
                           0.0201275
                                       -0.031 0.975309
               -0.0006231
## subjectph
               -0.0031893
                           0.0198378
                                       -0.161 0.872306
## subjectpi
                0.0601652
                           0.0247444
                                        2.431 0.015209 *
                                        4.257 2.26e-05 ***
## subjectpj
                0.1062347
                           0.0249543
## subjectpk
               -0.0194819
                           0.0206426
                                       -0.944 0.345511
## subjectpl
                0.0201717
                           0.0222200
                                        0.908 0.364190
## subjectpm
                           0.0370374
                                        6.789 1.91e-11 ***
               0.2514510
## subjectpn
               -0.0118966
                           0.0190462
                                       -0.625 0.532361
                                        2.008 0.044860 *
## subjectpo
                0.0469164
                           0.0233597
## sday
                0.0022964
                           0.0083083
                                        0.276 0.782302
## weekend
               -0.0246897
                           0.0116687
                                       -2.116 0.034596 *
                                        3.447 0.000591 ***
## morning1
                0.0333823
                           0.0096858
## ---
                  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## Signif. codes:
##
##
```

```
## Topic 18:
##
## Coefficients:
##
                Estimate Std. Error t value Pr(>|t|)
                                              0.0135 *
## (Intercept)
               0.035173
                           0.014218
                                      2.474
## subjectpb
                                    -0.899
                                              0.3691
               -0.015044
                           0.016741
## subjectpd
               0.011555
                           0.016181
                                     0.714
                                              0.4753
## subjectpe
              -0.018580
                           0.016997
                                     -1.093
                                              0.2746
## subjectpf
               0.043589
                           0.020172
                                      2.161
                                              0.0309 *
                           0.017582
## subjectpg
               0.036329
                                      2.066
                                              0.0391 *
## subjectph
              -0.001001
                           0.016745
                                     -0.060
                                              0.9523
## subjectpi
                           0.020099
                                      2.304
                                              0.0214 *
                0.046310
## subjectpj
               0.028859
                           0.018103
                                      1.594
                                              0.1112
## subjectpk
                                      4.823 1.63e-06 ***
               0.101600
                           0.021067
## subjectpl
               0.019072
                           0.017982
                                      1.061
                                              0.2891
## subjectpm
               0.014630
                           0.024385
                                      0.600
                                              0.5487
## subjectpn
              -0.026226
                           0.015641 -1.677
                                              0.0939 .
## subjectpo
               0.026006
                           0.019442
                                     1.338
                                              0.1813
## sday
                0.012759
                           0.007749
                                      1.647
                                              0.0999 .
## weekend
                0.020660
                           0.010502
                                      1.967
                                              0.0494 *
## morning1
              -0.034568
                           0.006960
                                    -4.967 7.98e-07 ***
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 19:
##
```

```
## Coefficients:
##
                Estimate Std. Error t value Pr(>|t|)
## (Intercept) 0.014587
                           0.013890
                                     1.050 0.293857
## subjectpb
                0.072586
                           0.022264 3.260 0.001150 **
                                      3.419 0.000654 ***
## subjectpd
                0.063867
                           0.018681
## subjectpe
                           0.017199 -1.047 0.295148
               -0.018015
## subjectpf
               -0.012364
                           0.016375
                                    -0.755 0.450414
## subjectpg
               -0.019725
                           0.016195
                                    -1.218 0.223536
## subjectph
               0.025910
                           0.016833
                                      1.539 0.124063
## subjectpi
               0.063918
                           0.021656
                                      2.952 0.003234 **
## subjectpj
               -0.001177
                           0.016481
                                    -0.071 0.943081
## subjectpk
                                    -1.065 0.287183
               -0.018325
                           0.017209
## subjectpl
               0.095826
                           0.022856
                                      4.192
                                               3e-05 ***
## subjectpm
               -0.001020
                           0.020997 -0.049 0.961264
## subjectpn
               0.022599
                           0.017122
                                      1.320 0.187167
## subjectpo
               -0.003535
                           0.017907 -0.197 0.843538
## sday
               -0.002414
                           0.007675 -0.315 0.753170
## weekend
               -0.005137
                           0.009845 -0.522 0.601955
## morning1
               0.020113
                           0.007391
                                      2.721 0.006611 **
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
##
## Topic 20:
##
## Coefficients:
                 Estimate Std. Error t value Pr(>|t|)
##
```

```
## (Intercept)
                0.0063409
                           0.0026592
                                       2.385 0.017282 *
## subjectpb
                0.0091361
                           0.0035144
                                       2.600 0.009468 **
## subjectpd
                0.0155505
                           0.0034525
                                       4.504 7.44e-06 ***
## subjectpe
                                       0.150 0.880608
                0.0004677
                           0.0031131
## subjectpf
                0.0050309
                           0.0032614
                                       1.543 0.123248
## subjectpg
                           0.0039576
                                       4.051 5.49e-05 ***
                0.0160315
## subjectph
                0.0079076
                                       2.343 0.019323 *
                           0.0033750
## subjectpi
                0.0052214
                           0.0034481
                                       1.514 0.130258
## subjectpj
               -0.0015219
                           0.0030529
                                      -0.498 0.618240
                           0.0032758
## subjectpk
                0.0027821
                                       0.849 0.395907
## subjectpl
                0.0017661
                           0.0033425
                                       0.528 0.597350
## subjectpm
                0.0301067
                                       4.756 2.26e-06 ***
                           0.0063307
## subjectpn
                0.0116035
                           0.0034063
                                       3.406 0.000684 ***
## subjectpo
                0.0141914
                           0.0038744
                                       3.663 0.000262 ***
## sday
               -0.0029917
                           0.0014318
                                      -2.089 0.036912 *
## weekend
               -0.0001662
                           0.0017753
                                      -0.094 0.925421
## morning1
                0.0079256
                           0.0015460
                                       5.126 3.53e-07 ***
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
```

## 3. Anonymized Fieldnotes

(See associated Excel Spreadsheet "Bussell - VCP Study - Anonymized Field Notes")