

**Notes from Geospatial/GIS Meetup  
January 16, 2024**

**Rivera Library, Room 140 and Zoom**

**Attendees:** Janet Reyes, facilitator;

**In person:** Emily Esposito, Kayla Chaplin, Liz Wilson

**Via Zoom:** Andrew Haglund, Bolu Daodu, Cristina Gonzalez, Deja Simon-Jennings, Gerald Winkel, Luis Barrios, Mike Cohen, Siddarth Kishore, Worku

**Announcements**

This meeting was recorded; video is available [here](#). The passcode to view is 2Ku.tBEp

Sign up for the remaining **Winter 2024 meetups** using [Eventbrite](#). The presenter slot for February 13 is currently open; let Janet know soon if you would like to present or have a discussion topic to propose. If nothing else comes up, Janet can talk about data in a GIS.

On Tuesday, January 23 from 9:00 am - 3:00 pm, Orbach Science Library, Room 122 will be the site of **[Planet Imagery Day](#)**, coordinated by the [Artificial Intelligence for Sustainable Agriculture](#) program. The event will feature presentations by UCR researchers who use Planet imagery as well as instructional sessions from Planet staff. Lunch will be provided; space is limited.

Anyone who'd like some tips about coordinating a mapping project that uses aerial imagery is welcome to the [Aerial Photo Interpretation Project Planning](#) workshop, to be held on Tuesday, February 6 at 2:00 pm in Orbach 122 and on Zoom.

**[UC Love Data Week](#)**, February 12-16, features at least two events with a geospatial aspect: On February 12 at 1:00, Susan Powell from UCB Library will present on "GIS and Mapping: where to start"; and on February 14 at 1:00, staff from UC ANR will present on "Drone Data 101: The Data Pipeline."

**UC ANR Informatics and GIS** will be presenting three [workshops](#) this quarter. Recordings of previous workshops are also available.

The [Los Angeles Geospatial Summit](#) will be held at the USC Hotel on Friday, February 23, 2024. This is a great opportunity for students in particular to network. Registration is \$25 for students and is affordably priced for others as well.

Kayla asked **if ArcGIS is free**. UCR affiliates do get free access. Esri, the company that makes ArcGIS products, allows anyone to create a free public account for ArcGIS Online or ArcGIS StoryMaps, but public accounts have more limited functionality.

Janet mentioned there are students who are working on **reviving the GIS club**. It's open to all students, although only undergraduates can be club officers. Anyone interested can contact Janet for more information.

## **Presentation**

Liz Wilson, a 5th year PhD Psychology candidate at UCR, spoke about how **Cultural Tightness Predicts Regional Personality, Beliefs, and Values**. Liz is interested in personality psychology, which is usually thought of at the individual level but can also be considered in a regional context.

Aggregating individual level responses to a regional level has a consequence of reducing measurement error and canceling out unsystematic variance. The result surfaces shared beliefs, ideas, values and structures in the region.

Past research has established that there are meaningful regional personality differences; furthermore, they predict consequential outcomes regarding crime, social involvement, and other factors. Social influence has been proposed as one mechanism underlying geographic variation. In other words, the social traits of the surrounding community (such as altruism) begin to rub off on an individual.

The term "cultural tightness" refers to the strength of social norms. The relative range of acceptable behaviors, and the degree of tolerance of norm violations, are also part of this concept. Countries such as Japan and South Korea have a reputation for cultural tightness, while the US is viewed as more moderate.

In her research, Liz looked for correlations between cultural tightness and personality traits as well as beliefs and values. Her research question was, does cultural tightness explain regional variation in these constructs across the United States? Her data sources were: cultural tightness scores from a 2014 study by Harrington & Gelfand; regional personality, beliefs and values summarized from self-reported responses in [Project Implicit](#) (2006-2010); and covariates (state-level data for socioeconomic status, gender, age, race, and other factors) from the 2010 [American Community Survey](#).

Liz used regression models to predict, from cultural tightness, each of the regional personality characteristics, beliefs and values, adjusting for covariates. Because regional data is sometimes non-independent ([Tobler's Law](#)), she relied on spatial regression models when nonindependence was observed.

The results showed reliable, positive relationships between cultural tightness and the personality traits of conscientiousness (most notable in Southern states) and extraversion (the Midwest). No relationship was found between tightness and agreeableness, openness, or neuroticism.

For beliefs and values, positive relationships were found between tightness and [right-wing authoritarianism](#) (the South and the Plains states), and [social dominance orientation](#) and [Bayesian racism](#) (South, Midwest, Plains states). A negative relationship was found between tightness and humanitarianism/egalitarianism (Pacific coast and New England).

The findings provide support for social influence as a mechanism underlying geographic variation. Liz also did a study to explore cultural tightness as a predictor of personality traits cross nationally, using data from the [International Situations Project](#). She selected covariates from United Nations data that were comparable to those used in the first study. Liz only found one reliable relationship: a negative correlation between cultural tightness and extraversion. This was opposite of the extraversion/tightness relationship found in the United States. The main overall takeaway is that cultural tightness is a predictor of many regional differences, but it is less consistent at the nation level.

## **Discussion**

**Siddarth** wondered about the statistical power of just having 50 states to look at in the US study to draw credible interpretations from. Liz adhered to the concept of effective sample size. Within each state, tens of thousands of responses had been aggregated up. Siddarth also asked about the feasibility of aggregating data to the county level. In her research, Liz relied on past studies that presented findings at the state level, and indicators like state laws that don't have parallels at the county level.

**Janet** speculated that future studies could look at the influence of migration from one region to another and what happens to prevailing social traits of the individual and the region. Liz's labmate Emily is spearheading a research study on selective migration.

## **Contact**

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