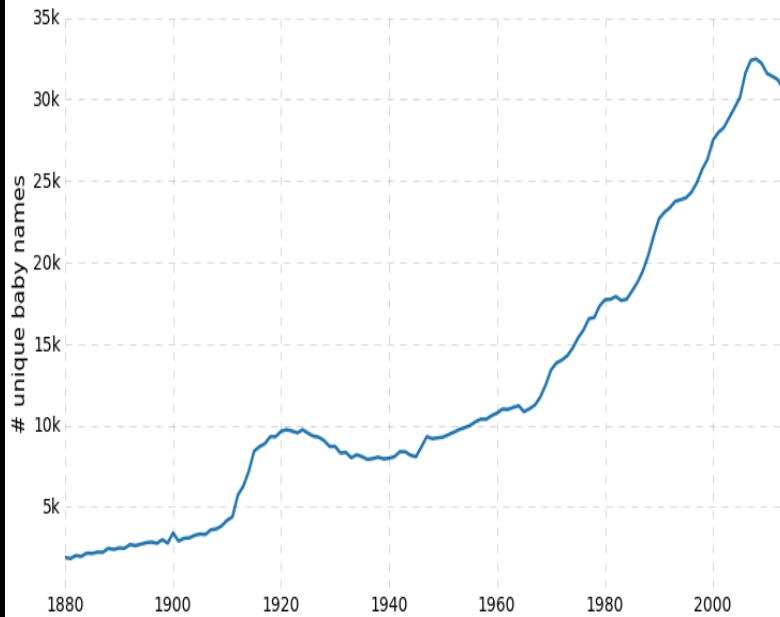


# Tightness-Looseness: A Fractal Pattern of Cultural Variation

Michele J. Gelfand  
University of Maryland, College Park

Unique baby names in the U.S.



Data source: [ssa.gov/oact/babynames/limits.html](http://ssa.gov/oact/babynames/limits.html) | Author: Randy Olson ([randalolson.com](http://randalolson.com) / [@randal\\_olson](https://twitter.com/randal_olson))

Prevalence of Obesity Among U.S. Adults Aged 20-74



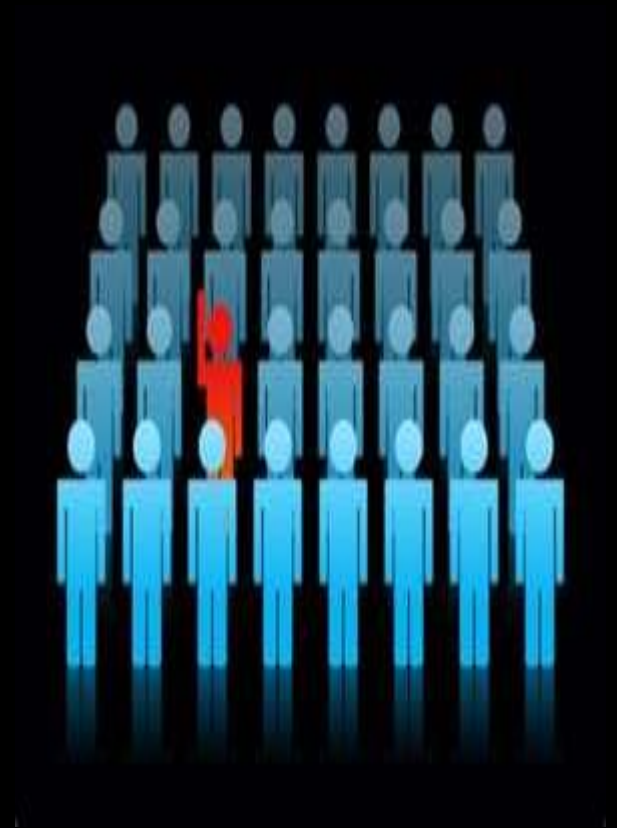
Derived from NHANES data

What ties these examples together?



# Social Norms

- Humans ability to develop, maintain and enforce social norms
- The *glue* that keep us together



# **Tightness**



Strong norms and  
punishments for deviance

Narrow range of behavior

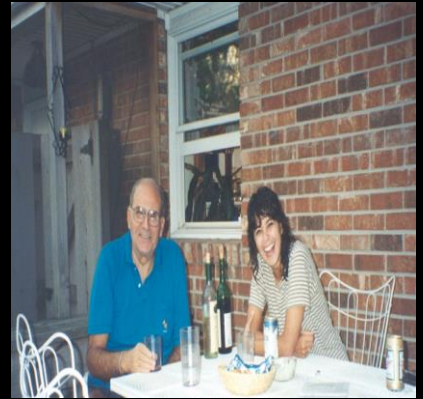
# **Looseness**



Weak norms and high  
degree of permissiveness

Large range of behavior

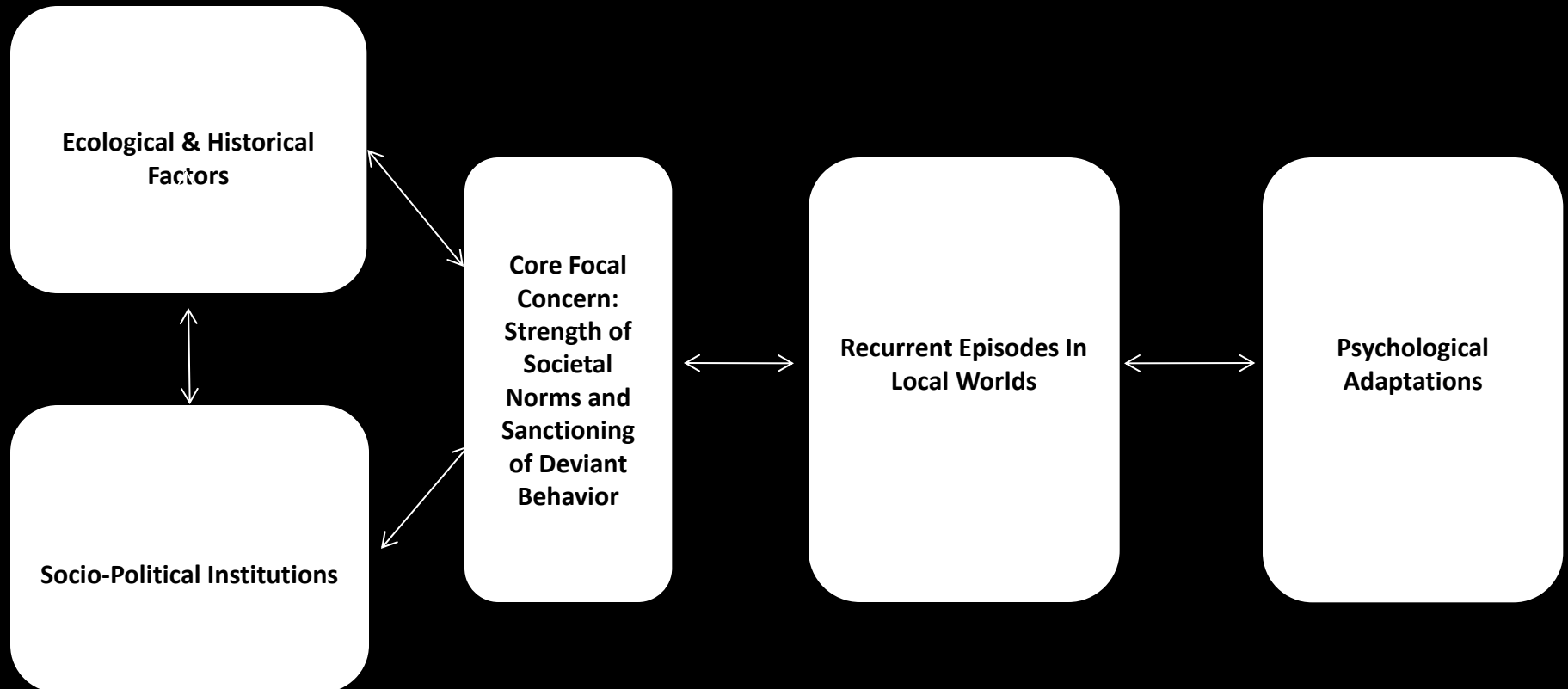
**Ecological factors** and historical events influence the social organization of a country, which in turn affects the characteristics of **social situations** and associated **psychological processes** (Triandis, 1972)



# The Multilevel System of Tightness-Looseness (Gelfand et al. 2011)

## Distal Ecological and Historical Factors and Societal Processes

## Proximal/Contemporaneous Processes



# International Investigation



6 Continents

22 Languages

33 Nations

6823 Participants

Ecological & Historical Data

Surveys

Unobtrusive observations





# Tight-Loose Trade-Off

- **Tight: Greater Order**
  - Less crime
  - More security personnel
  - More cleaning personnel
  - Less Graffiti
  - Less parking out of the lines
  - More uniforms, more uniformity in cars
  - More synchronous clocks



# Tight-Loose Trade-Off

- **Loose: Greater Openness**

- Less cultural superiority and ethnocentrism
- More acceptance of immigrants
- More positive reactions to stigmatized identities



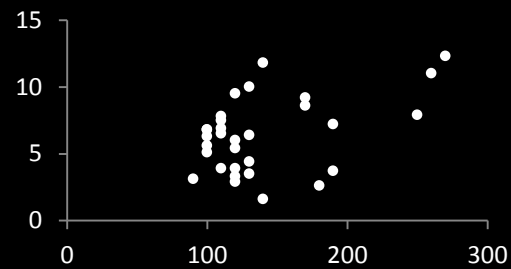
# What predicts TL?

- No effect of GDP
- No common language
- No common religion
- No common geographical location

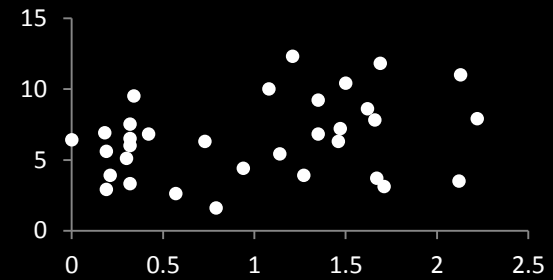


Evidence

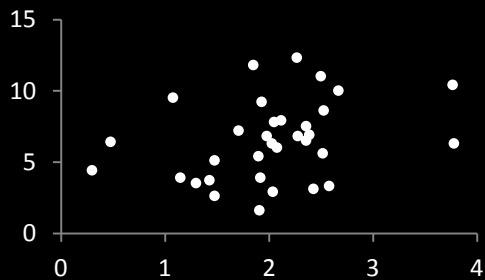
**Food Deprivation**



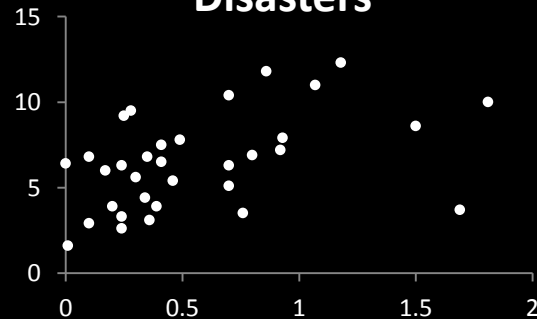
**Pathogen Prevalence**



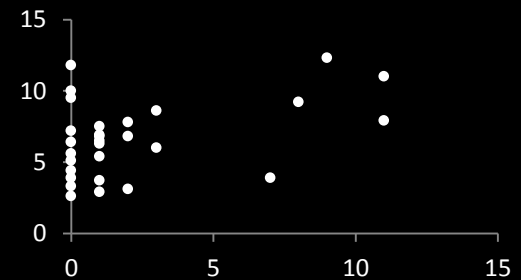
**Pop Density**



**Disasters**



**Territorial Threat**



# Situational Affordances

Ecological and Historical events influence the social organization of a country, which in turn affects the characteristics of social situations and associated psychological processes

## Strong situations

Library



Funeral



NAS Lecture



## Weak situations

Public Park



Own Room

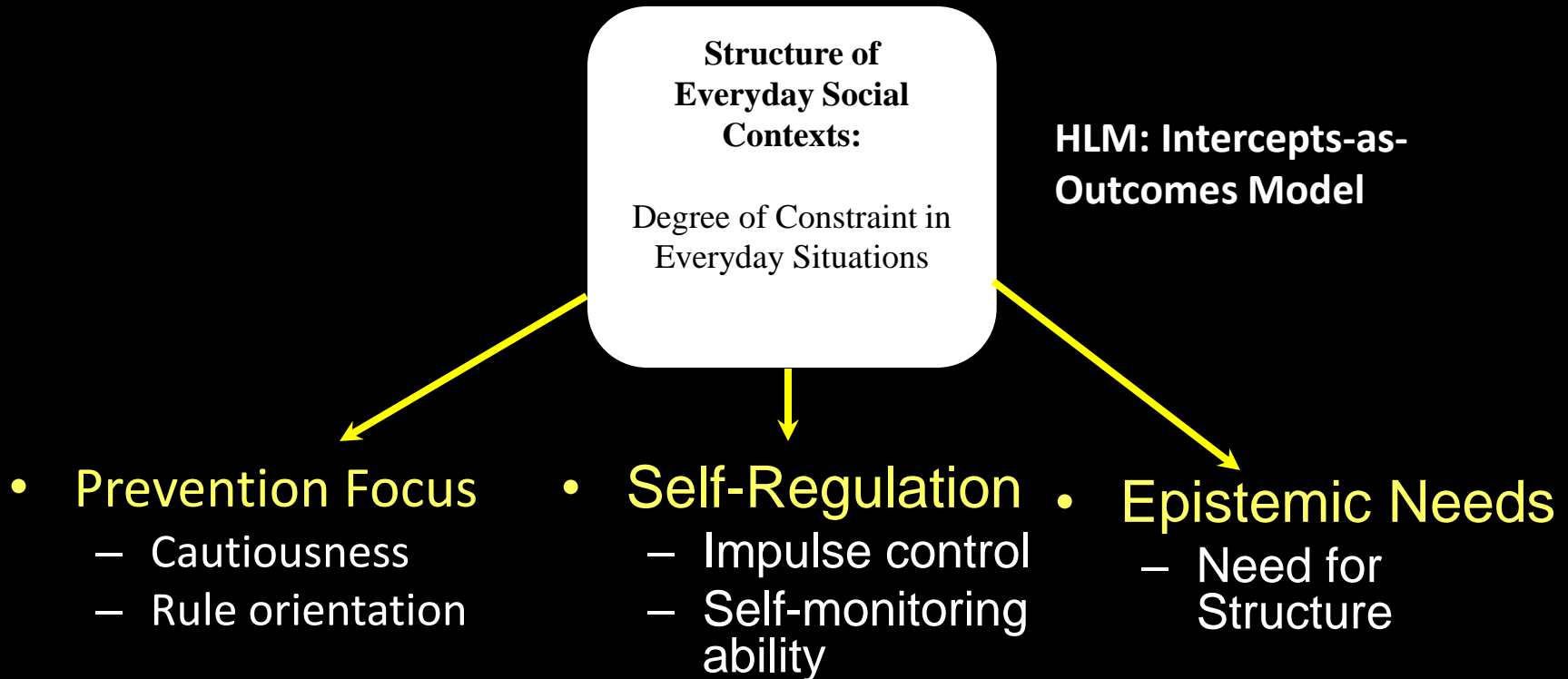


Drinks in DC



Historical events influence the social organization of a country, which in turn affects the characteristics of social situations and associated psychological processes

# The TL Mindset: Felt Accountability





# Multilevel SEM

## Distal Ecological and Historical Factors

### Ecological & Historical Threats

Population Density in 1500  
Food Deprivation Index  
Communicable Disease  
Natural Disasters,  
Territorial Conflicts

21 (.07)\*\*

### Socio-Political Institutions

Autocracy  
Media Openness (Reversed)  
Challenges to Institutions

12 (.06)\*

### Strength of Societal Norms

.30 (.08)\*\*

### Structure of Social Situations

Degree of  
Situational  
Constraint

1.43 (.15)\*\*

2.65 (.49)\*\*

1.16 (.17)\*\*

1.04 (.23)\*\*

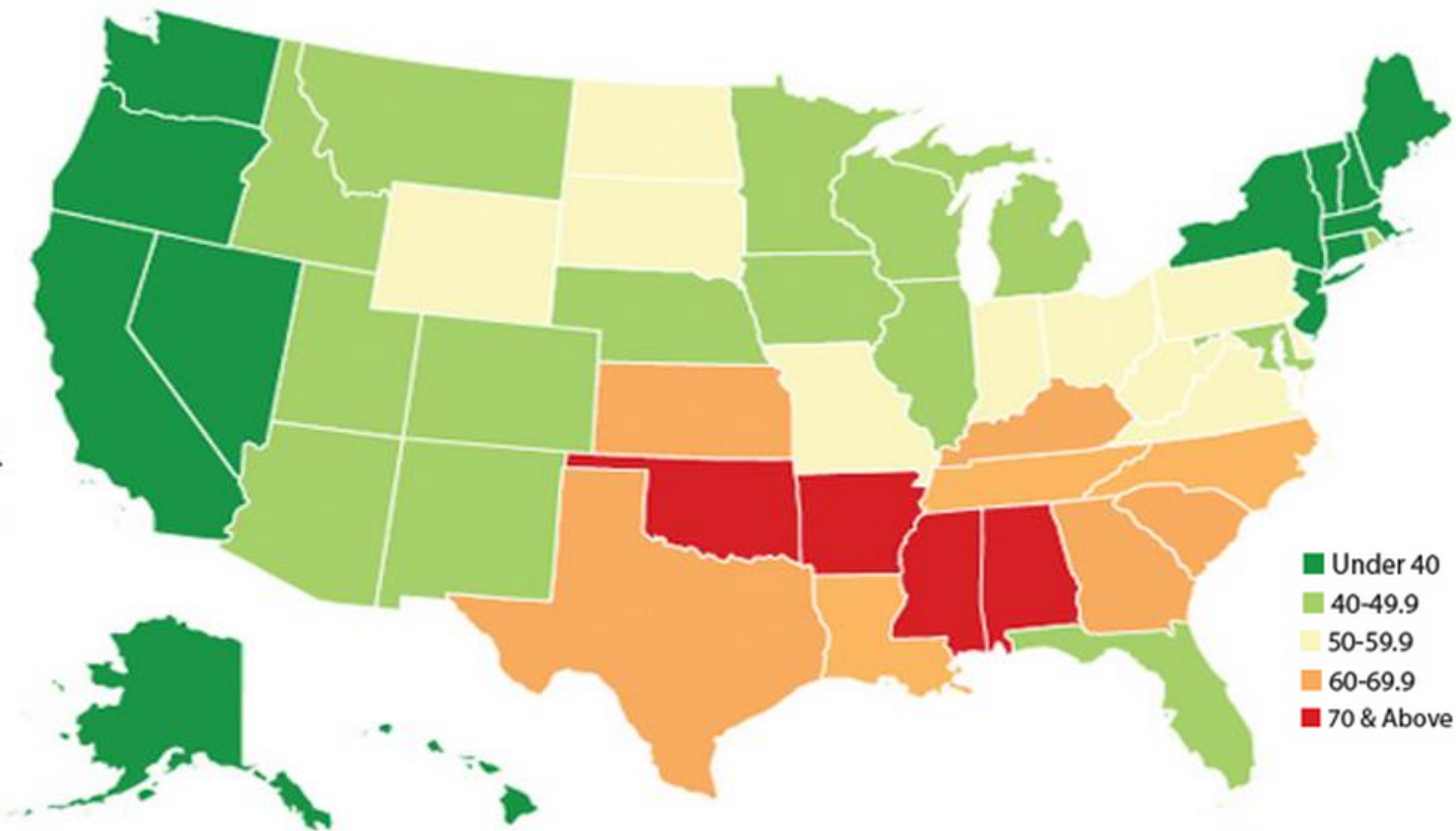
.86 (.25)\*\*

### Psychological Adaptations

Prevention  
Focus  
Self-  
Regulation  
Epistemic  
eeds

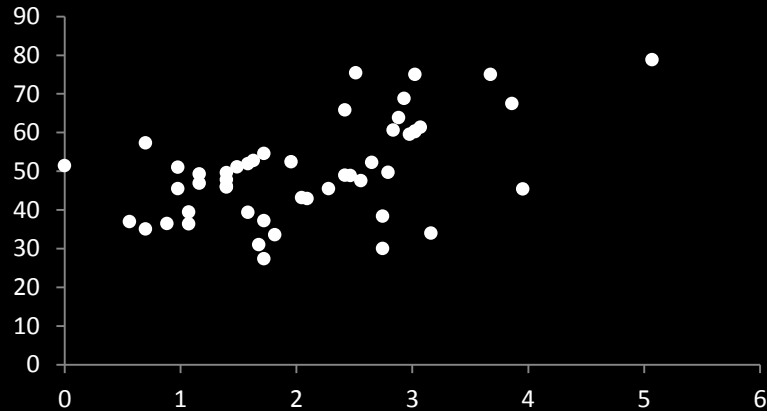
## II. Other Levels

# Tightness-Looseness in the US

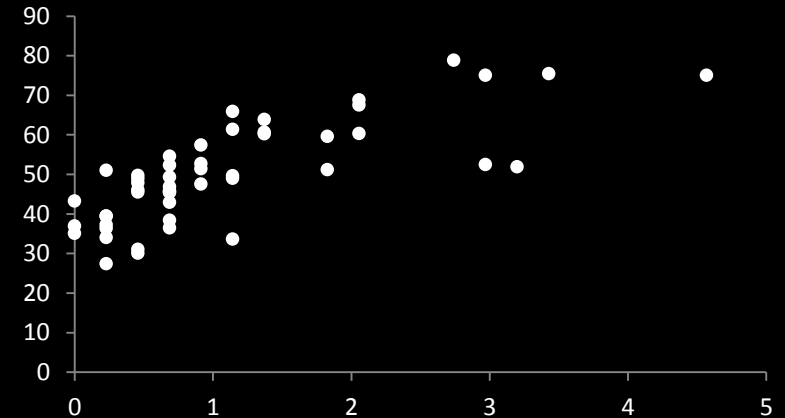


# State Tightness-Looseness and Ecological Threat

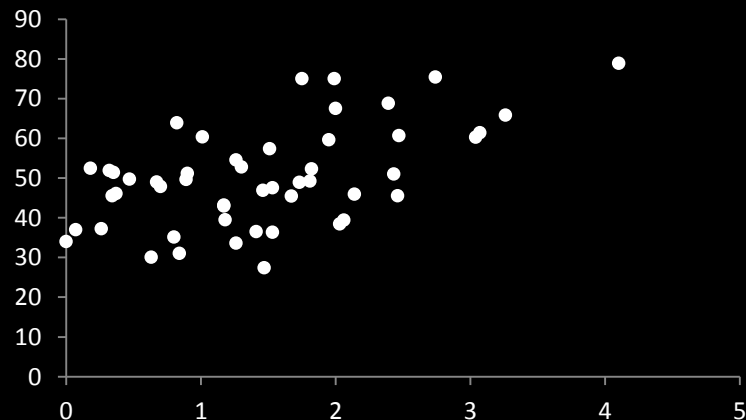
## Food Insecurity



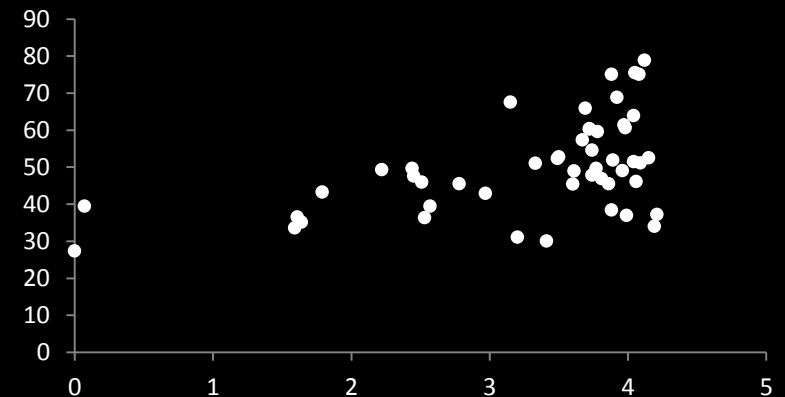
## Storms and Floods



## Disease Stress



## Rural to Urban



## State Tightness



### Personality Conscientiousness

#### **Social Organization**

- More Law Enforcement
- Less Homelessness
- Less Divorce

#### **Self Control**

- Lower Drug Use
- Less Debt



## State Looseness



### Personality Openness

#### **Creativity**

- More Patents
- More Fine Artists

#### **Equality**

- Fewer EEOC claims
- More Minority-owned Businesses

SES:  
Working and Upper Class

- Survey of 300 Working and Upper Class
  - MC: Higher general, childhood, and workplace tightness, situational constraint and desired tightness
  - Meaning of Rules
    - 5 words for: “rules”, “following rules”, “breaking rules”:
    - MC more positive valence, UP more negative valence
  - Threat
    - MC live in more threatening environments (zip code data, poverty and unemployment) and have higher self-reported threat
  - Individual Differences
    - MC higher conscientiousness and higher need for structure; lower creativity
  
- DDB Survey (N=31,104 from 1985-1998)
  - Perceptions of threat, strong norm enforcement, conscientiousness and ethnocentrism
  
- Children
  - 30 MC and UP brought to the lab
  - Reaction to “Max the Norm Violating Puppet”
  - MC greater amount of protest greater amount of protest No common language

Neural Level



Are there cultural differences in ERPs related to social norm violations?

Do they predict the TL trade-off (self control, ethnocentrism, creativity)?

Are they distinct from semantic violations



Mu, Kitayama, Han, Gelfand , 2015,  
*Proceedings of the National  
Academy of Sciences*

# Social Norm Violation Task

Amanda is at the  
Art Museum

+

She is

Dancing

Strongly inapp-Strongly  
app  
1---2---3---4

**Strong**

Amanda is at the  
Park

+

She is

Dancing

Strongly inapp-Strongly  
app  
1---2---3---4

**Weak**

Amanda is at a  
Tango Lesson

+

She is

Dancing

Strongly inapp-Strongly  
app  
1---2---3---4

**Appropriate**

1500ms

500-1000ms

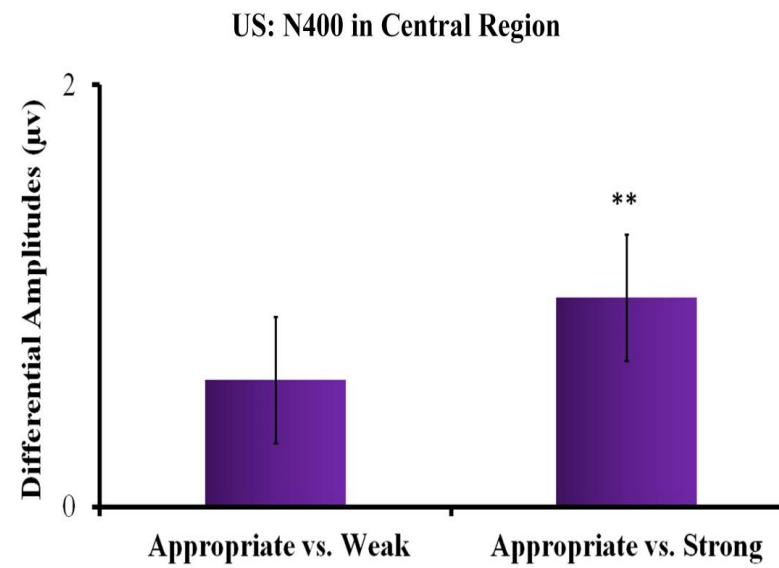
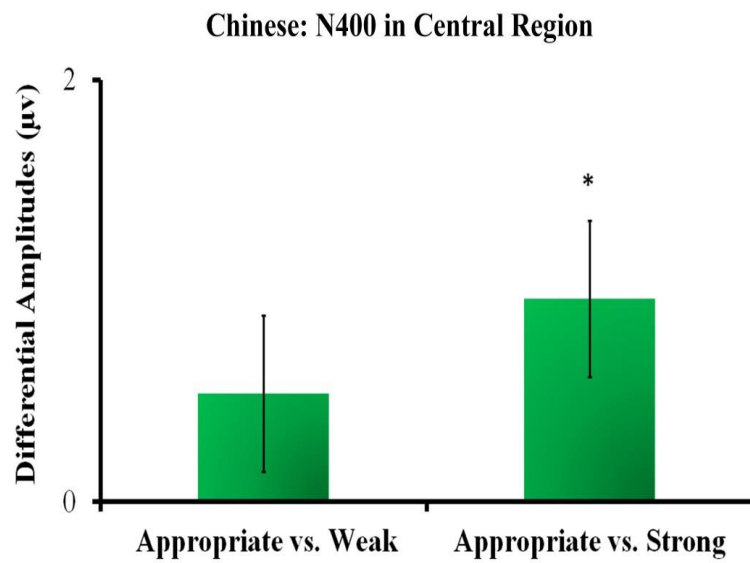
350ms +50ms blank

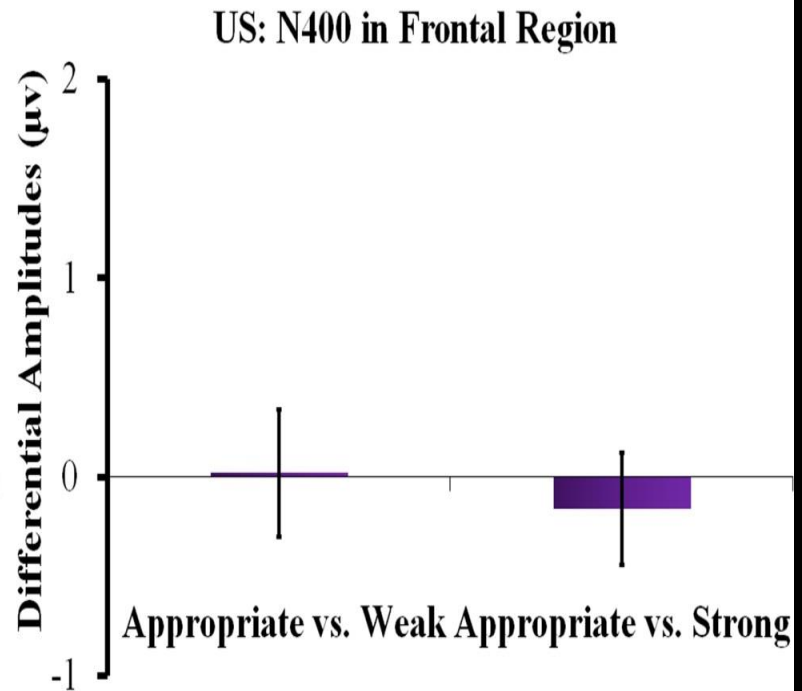
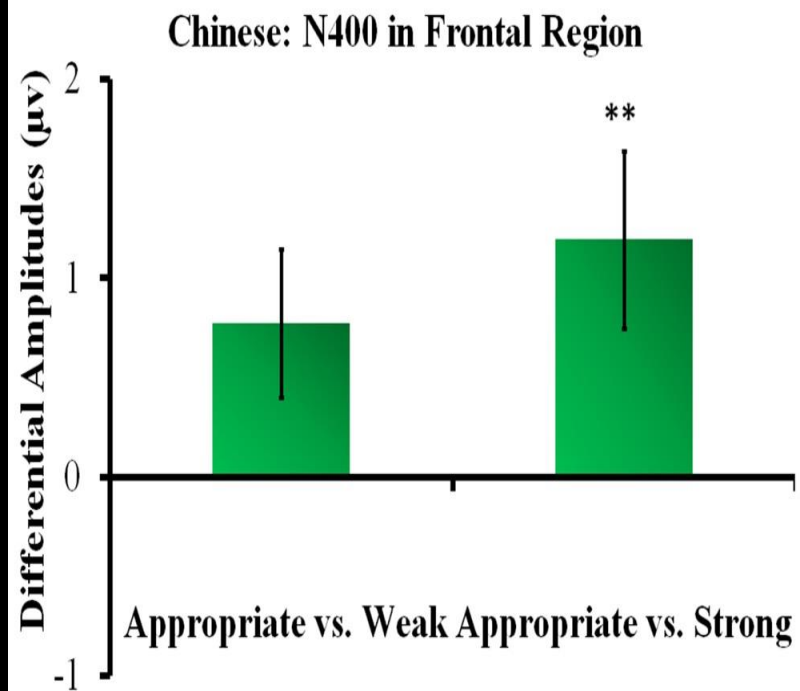
350ms

500ms

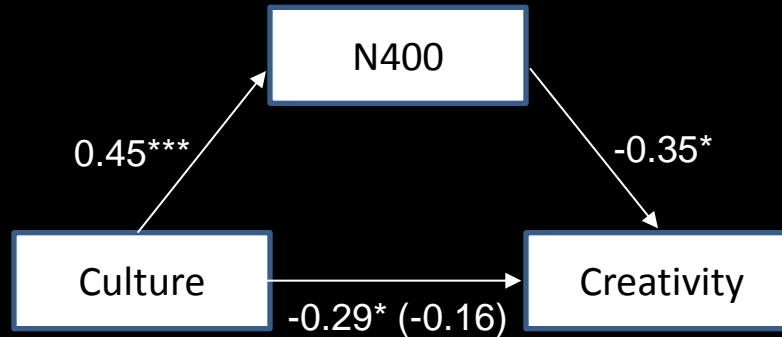
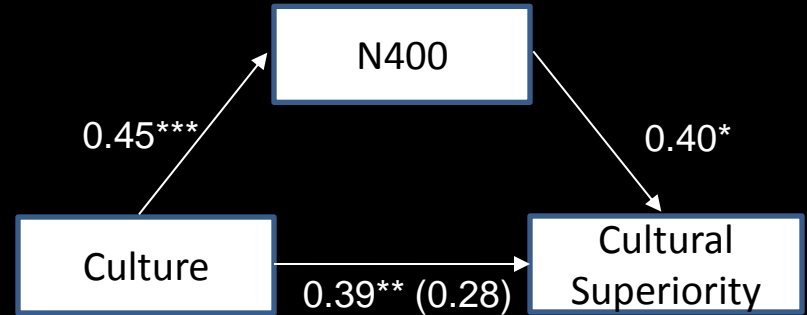
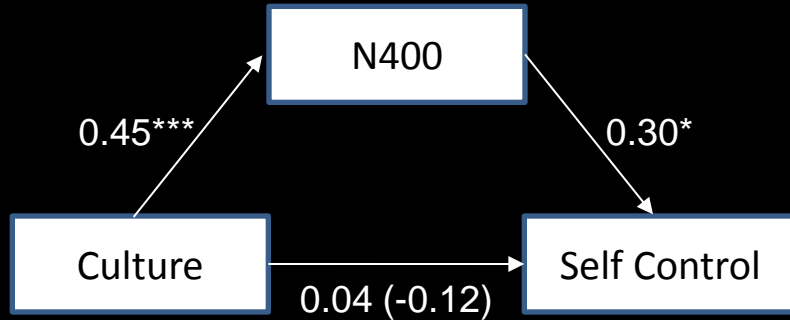
1000ms

11 trials x 3 conditions x 4 blocks





# Mediation Results



# Threat and Brain Synchrony

Do societal threats modulate coordination at the behavioral level?

Is interbrain synchronization (i.e. gamma oscillation) a key mechanism that helps humans to coordinate their actions in conditions of high societal threat?



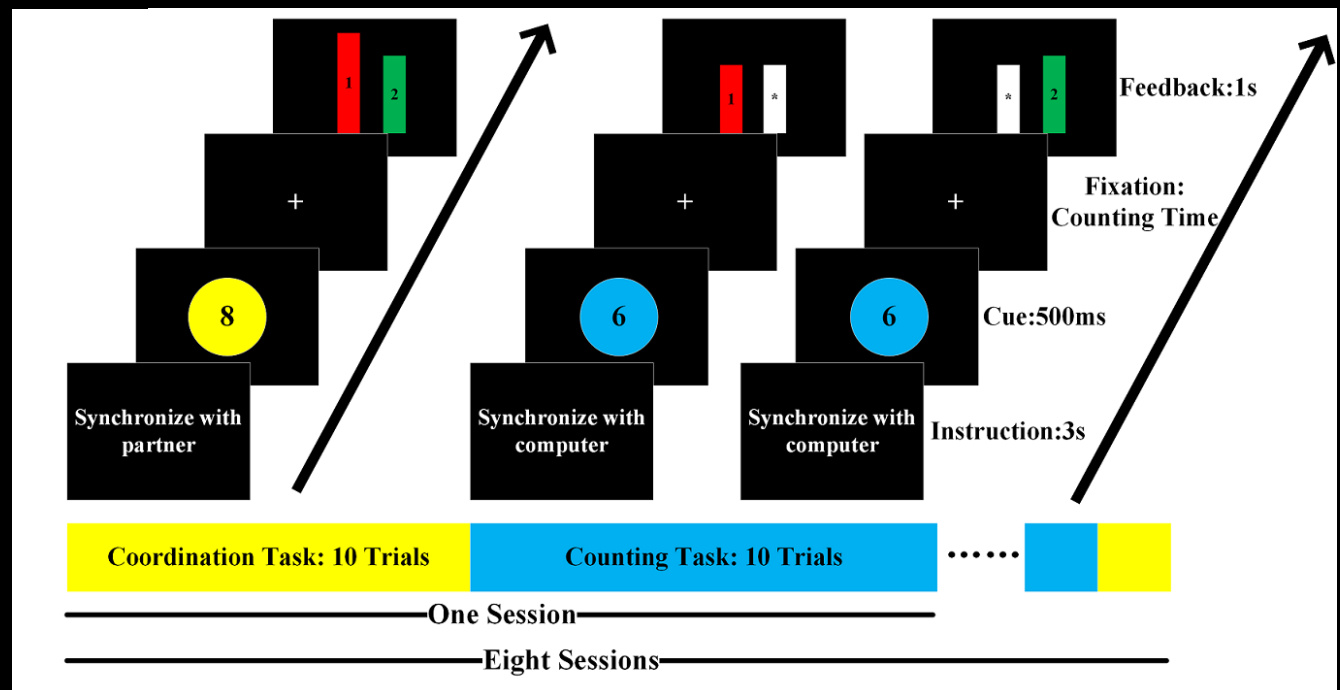
# Priming conditions

Ingroup threat

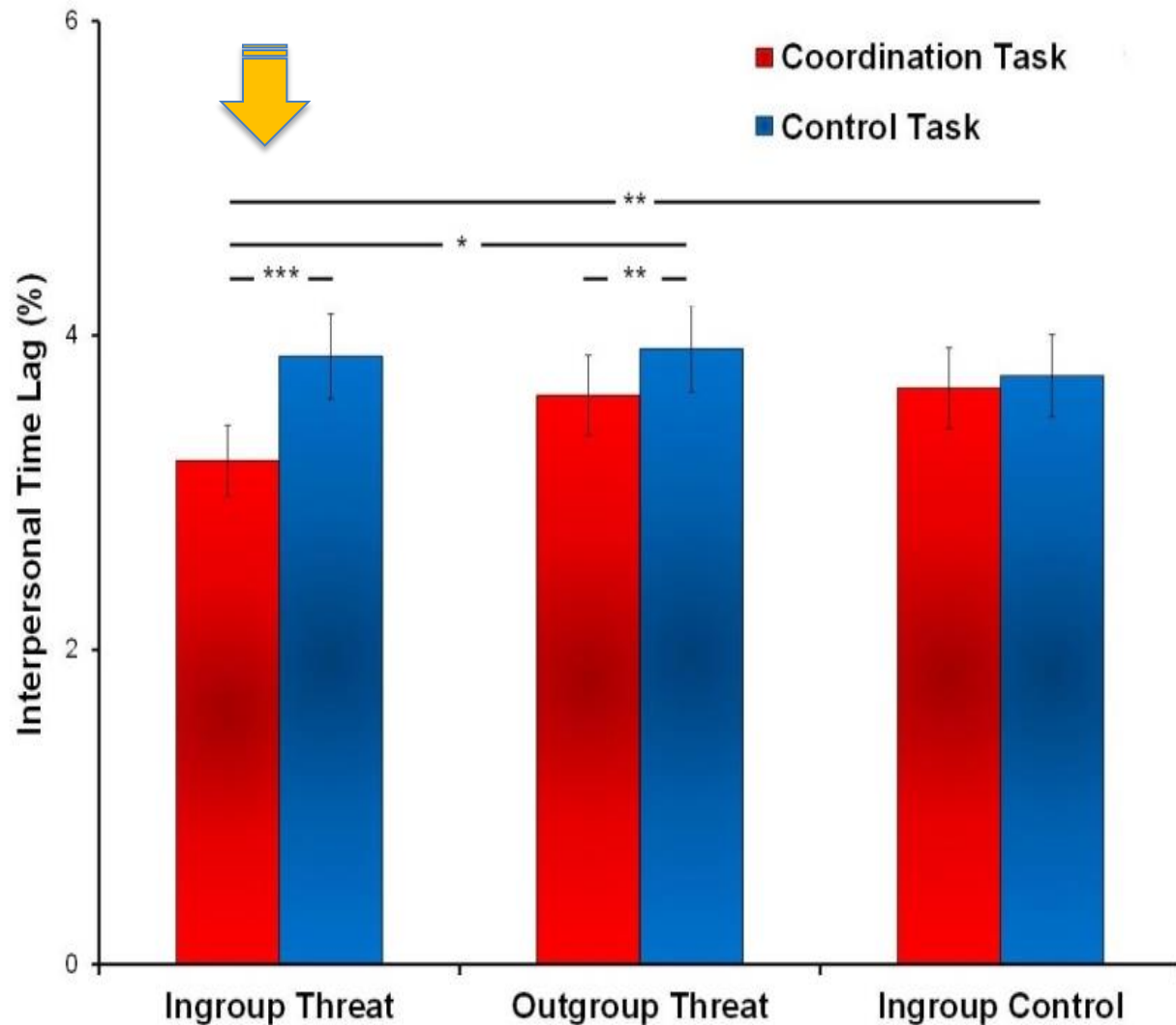
Outgroup threat

Ingroup control

## Coordination Task



# Behavioral Results





**A**

### Interaction of Prime and Task

This brain connectivity map shows two lateral views of a human head with electrode locations marked by blue dots. Red solid lines represent significant interactions between electrodes in the prime network (left) and task network (right). Notable connections include Fz-Fz, Pz-Pz, C3-C3, and O1-O1.

**B**

### Gamma Interbrain PLV

Condition	Synchrony with Partner (Red)	Synchrony with Computer (Blue)
Ingroup Threat	~0.104	~0.098
Outgroup Threat	~0.100	~0.103
Ingroup Control	~0.102	~0.103

The bar chart displays Gamma Interbrain PLV values for three conditions: Ingroup Threat, Outgroup Threat, and Ingroup Control. For each condition, there are two bars: red for 'Synchrony with Partner' and blue for 'Synchrony with Computer'. Error bars represent standard error. Significance markers (\*) indicate differences between the two synchrony conditions for Ingroup Threat and Outgroup Threat.

**C**

### Ingroup Threat vs. Outgroup Threat

This brain connectivity map compares the Ingroup Threat and Outgroup Threat conditions. It shows a dense network of red dashed lines representing potential interactions between electrodes across both hemispheres, with some solid red lines indicating specific significant connections.

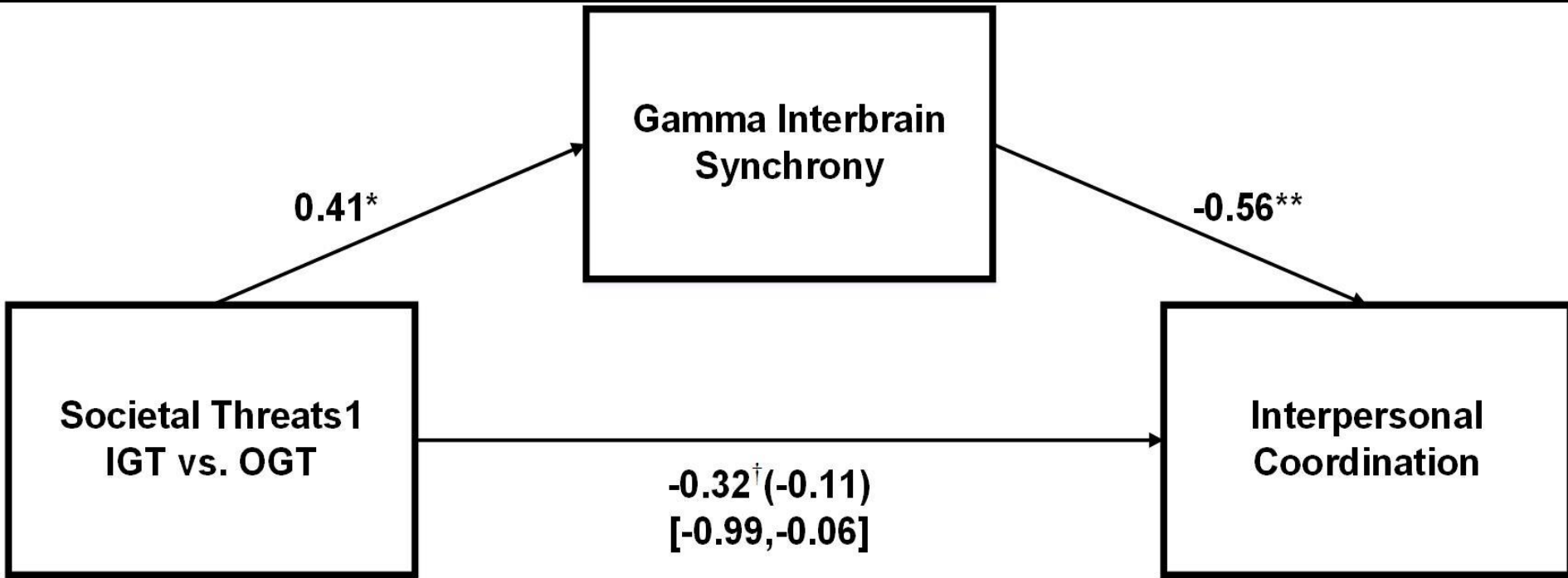
**D**

### Ingroup Threat vs. Ingroup Control

This brain connectivity map compares the Ingroup Threat and Ingroup Control conditions. It shows a network of red dashed lines representing potential interactions between electrodes, with solid red lines highlighting specific significant connections.

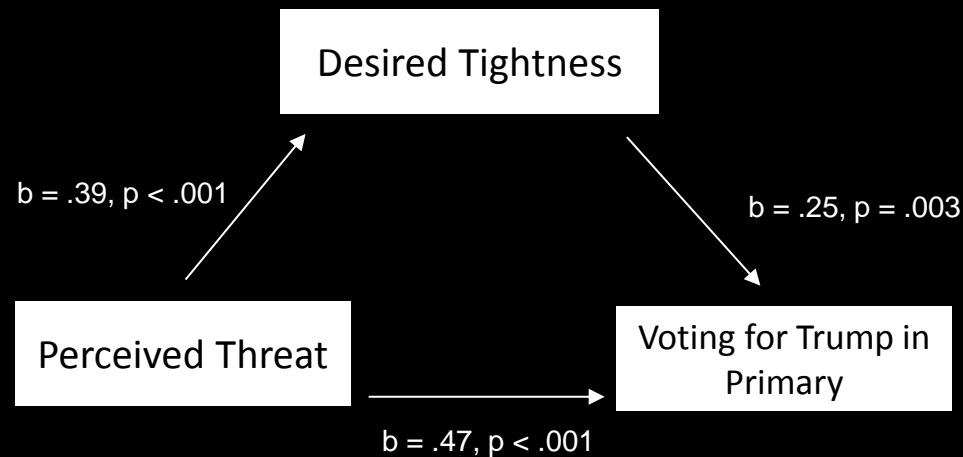
[illegible]

# Mediation Results



# How Leaders Use Threat to Tighten Groups

500 representative Americans about threat, tightness, and Trump.



Gelfand and Jackson, 2016, *Huffington Post*

POLICY & ETHICS

# The Cultural Fault Line That Is Reshaping Global Politics

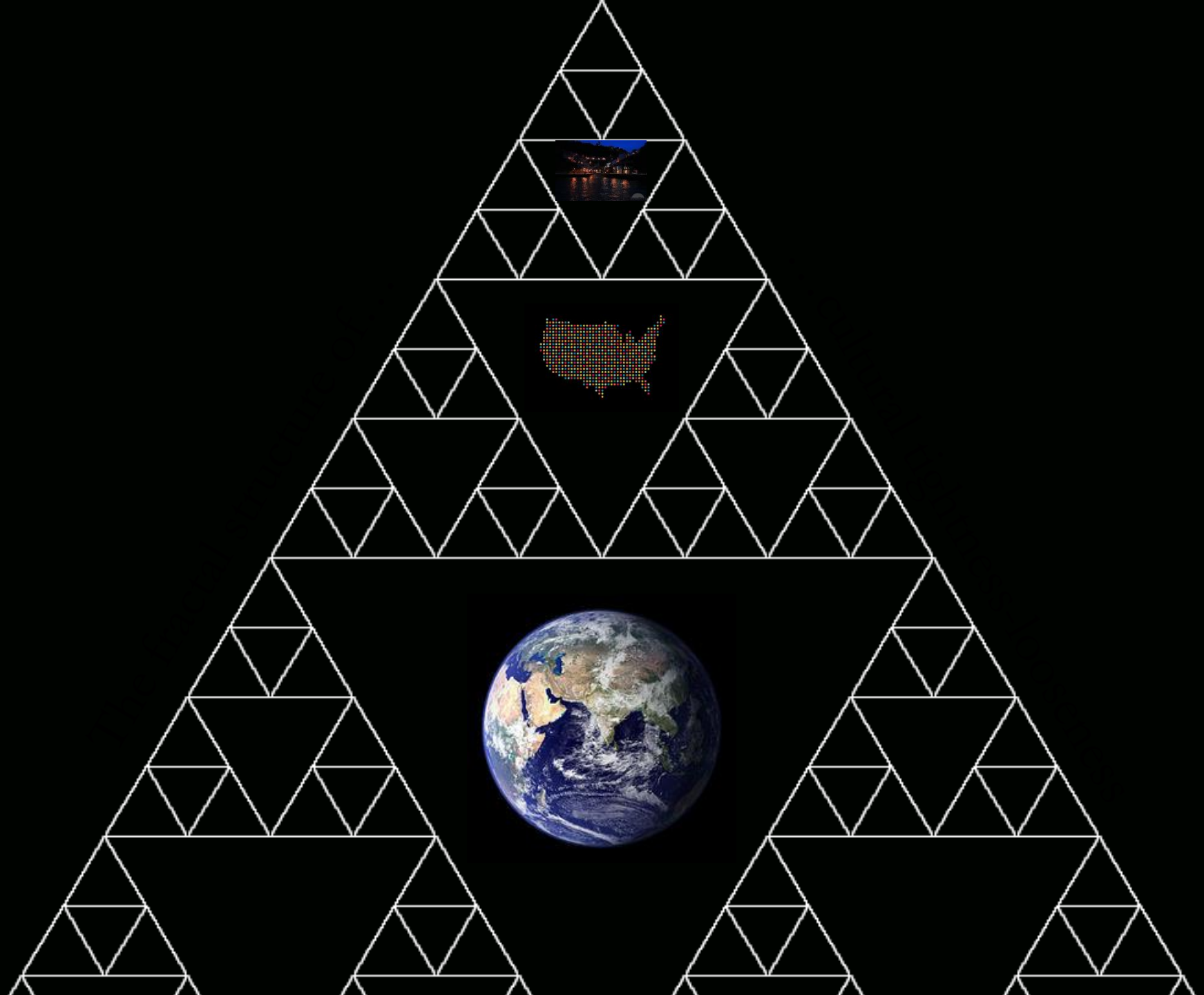
Research shows perceived threats from outside may be the unifying explanation behind Brexit, Trump and the strength of Le Pen in France

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By Michele Gelfand, Joshua Conrad Jackson, Jesse R. Harrington, The Conversation US on May 2, 2017



Marine Le Pen. Credit: Clement Mahoudeau Getty Images



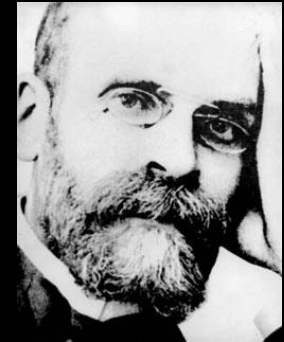
# Societal Well-Being

Does one achieve better outcomes for societies as a whole?

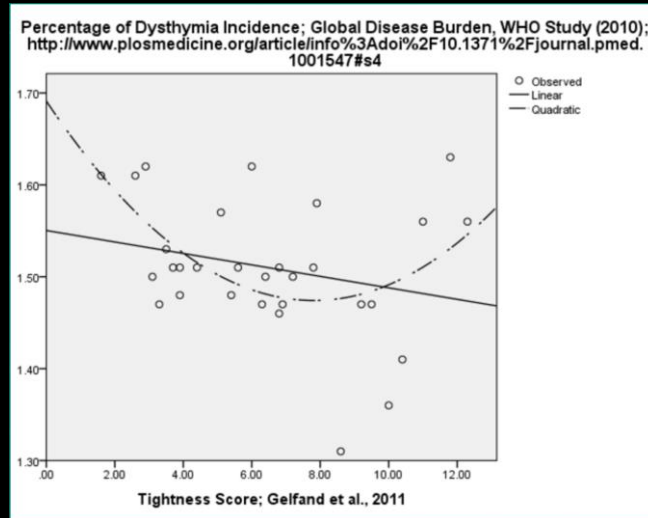
- Fromm: Escape from freedom
- Durkheim: Egoistic versus fatalistic suicide
- Etzioni: Balance between freedom and order

Prediction:

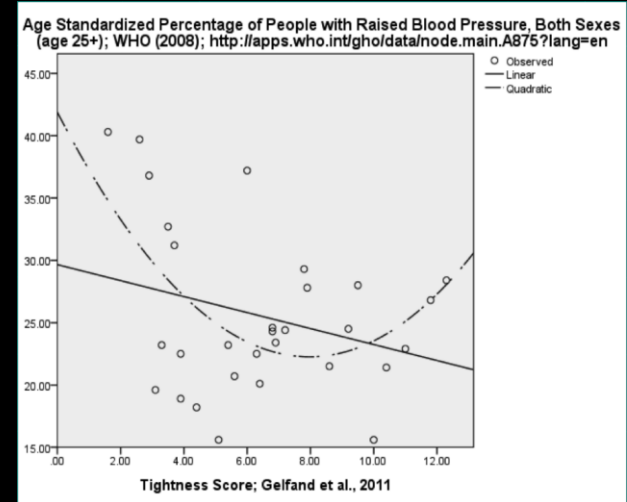
- Curvilinear effects on societal well being: Extreme levels of tightness or looseness are maladaptive (Harrington, Boski, & Gelfand, PLOS1, 2015)



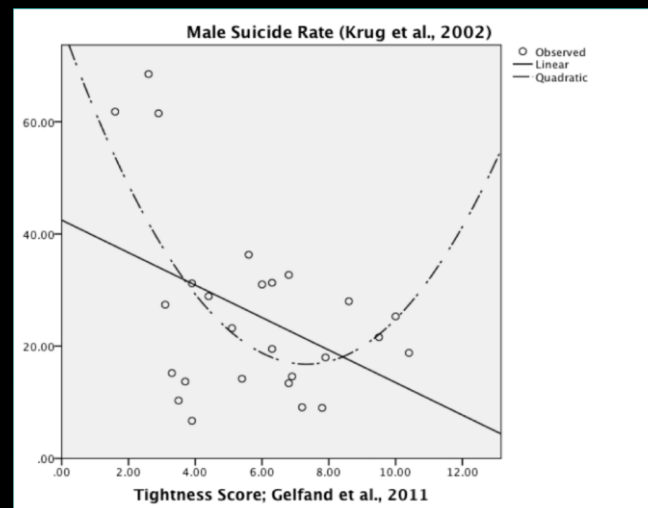
# Depression



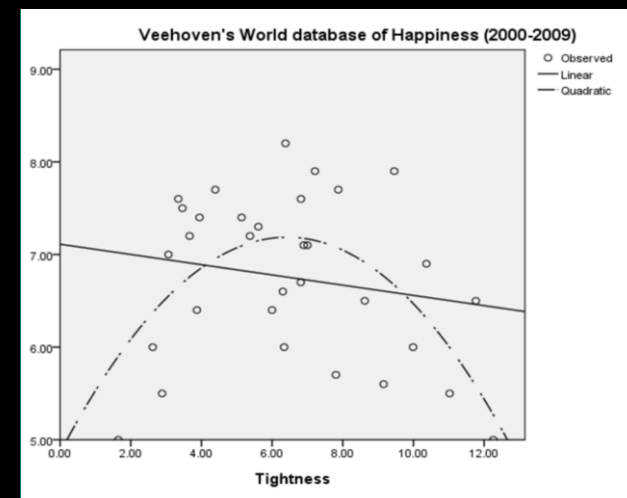
# Blood Pressure



# Suicide



# Happiness



- TL Fractals
  - Religion
  - Work Organizations
  - Domains and Regions
- Developmental
- Clinical
- Culture change
  - Historical record
  - Rate of change
  - Pendulum shifts

