Slide Notes to Accompany presentation "Do natural hazards and other ecological threats predict the strength of cultural norms?" Carol R. Ember, Michele J. Gelfand, and Joshua Conrad Jackson. Annual meeting of the American Anthropological Association, November 17, 2018 in San Jose, California.

# Slide 1:

Our talk today is about cultural norms, how they vary from society to society, and how they may be shaped and reshaped over time by environmental forces.

# Slide 2:

All cultures have norms, but some cultures have "tighter" norms than others—meaning that not only are rules more pervasive, but norms are less flexible and norm violators are punished more harshly.

For shorthand, we use the phrase "tight" vs. "loose" cultures. Original concept came from anthropologist Pertti Pelto in an article published in 1968.

Most of the research on tight versus loose cultures has been conducted by Michele Gelfand and colleagues (2011) in current day countries using interviews to assess attitudes about desirability of rules, the importance of following rules, and the desire to punish individuals who deviate from rules.

Comparisons have also been made of states within the U.S. (Harrington and Gelfand 2014) The following slide shows a comparison of countries on the tight/loose scores.

# Slide3:

Based on data from Gelfand et al. (2011), this graph shows the overall scores for 33 countries ranging from Ukraine (the loosest) and Pakistan (the tightest). These ratings came from 6,000 people, who answered questions about their attitudes toward rules and punishment for deviation.

In the study of states in the United States, generally the "tighter" states match up fairly closely with a political map of "red" states versus "blue" states.

# Slide 4:

To explain why cultures vary in their tightness, Gelfand and colleagues (2011) suggest that strong norms and restrictions are valuable for promoting cooperation in the face of acute ecological threat. Strong norms are argued to be more adaptive in such environments.

# Slide 5:

Across these 33 countries, many different forms of threat predicted the strength of cultural norms (shown in the y-axis in each of these figures). All of these threat variables were drawn from international archives.

#### Slide 6: No additional notes.

#### Slide 7:

No past research has tested whether ecological threat is linked to cultural tightness in the anthropological record. Here, we test this possibility using data from 86 societies drawn from the Standard Cross-Cultural Sample (SCCS), a worldwide sample of preindustrial societies. (The total sample contains 186 societies.) Most of our ethnographic data were obtained from eHRAF World Cultures using only those ethnographies that matched the time and place focus listed in the SCCS. We coded 86 societies in random order from the SCCS that were previously reliably measured on resource problems (about ½ the sample).

#### Slide 8:

To assess tightness and looseness we decided to rate a number of different domains of life because we were not sure that the TL construct would be a unitary construct in societies at a very different scale than countries. So we asked coders to separately rate the 6 domains shown in the top part of the slide (law and ethics, gender, socialization, marriage, sexuality, funerals and mourning). Using a 5-point scale, they answered questions relevant to aspects of TL shown in the bottom half of the slide.

# Slide 9:

As this slide shows, while some domains appear to be tighter than others (particularly funerals and mourning), all the different domains are significantly correlated with each other. So is TL a unitary construct? A principal components analysis suggests that there is one major factor explaining 59% of the variance. So the idea that TL is a fairly unitary construct is supported.

But before we turn to those tests, let's look at some of the tightest and loosest societies.

# Slide 10:

The scores shown in the two columns are average scores across domains.

# Slide 11: Read slide.

# Slide 12:

All the stressors shown here--pathogen stress, degree of external warfare, degree of internal warfare and a composite variable of resource scarcity (which considers famine measures from Robert Dirks, famine and chronic scarcity from Ember and Ember 1992, and abundance of animals and plants reversed coded)-- are all positively and significantly correlated with tightness. The betas shown here have been controlled for language family.

# Slide 13:

Just as Pelto (1968) surmised, more complex societies are mostly "tighter." What the mechanism is for this is unclear, but Pelto surmised that when density increases, greater control is required. Also, he pointed out that societies relying on plant cultivation may need

more teamwork. This slide shows a number of different measures of cultural complexity. Agricultural intensification also predicts more tightness.

# Slide 14:

Some of our other results suggest that tightness is associated with more authoritarianism, as indicated by few checks on leaders, more ethnocentrism as indicated by more hostility towards other societies and low contact with other societies. Tighter societies also are more likely to believe in moral high gods.

One of the strongest results we have obtained is the negative relationship between matrilocality and tightness. We constructed a five-point scale that considered the prevailing pattern (with patrilocal and matrilocal at the extreme ends, a dominant pattern and an alternative patterns next, and bilocality in the middle. Why this relationship? We speculate that this may be related to what is referred to as the "matrilineal puzzle" where the line of descent and line of authority do not converge in matrilineal societies in contrast to patrilineal societies. Perhaps as a consequence, matrilineal societies typically have very different social structures from patrilineal societies (Schneider 1961). For example, matrilineal communities (most matrilocal societies have matrilineal descent) are often formed by multiple kin groups, perhaps because men, who exercise authority in their matrilineal kin groups may prefer to move to their wife's house in another kin group in the village rather than move to another village. In contrast, patrilineal (and usually patrilocal) communities are often tightly structured around one lineage or clan. Also, matrilocal societies usually have purely external warfare (Ember and Ember 1971), which may make them feel somewhat safer in their home communities because they will not be attacked close to home.

Slide 15: No additional notes.

Slide 16: No additional notes.

Slide 17: Socialization is clearly a very important time for children to form their representations of the world and the norms around them, and many of our strongest held attitudes are formed in childhood.

Slide 18: We previously presented evidence that more resource stress (Ember et al. 2018) predicts more beyond-household sharing; we also have preliminary evidence that more tightness is associated with greater sharing (such as seasonal food sharing).

Slide 20: No additional notes

Slide 21: No additional notes