Biocultural Anthropology: A Museum Exhibit Proposal

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WHAT IS BIOCULTURAL ANTHROPOLOGY?

An·thro·pol·o·gy

[ˌanTHrəˈpäləjē]

noun

•The study of human societies, cultures, and their development throughout space and through time

Biocultural anthropology is a complex subgroup of anthropology, that functionally bridges the gap between cultural anthropology and biological anthropology. It is difficult to give a structural definition of biocultural anthropology as it exists in many forms. Today, biocultural anthropology functionally:

1. Examines interactions of evolutionary biology and environment on health
2. Utilizes an ecological approach to consider how humans and their environment coexist
3. Applies an understanding of history and economy to considerations surrounding health
4. Develops the idea that humans are complex (Hoke and Schell)

The future of biocultural anthropology paves the path to exploring understudied or novel subjects such as religion, human genetics, and climate change, or even adjusting preexisting ideas about topics like adaptation.

It is best to define biocultural anthropology by *what it does* and not *what it is* (Hoke and Schell).

MEET DR. ERIC SHATTUCK

Dr. Eric Shattuck is a current Assistant Professor of Anthropology at Florida State University.

Education:

•University of Georgia with a bachelor's degree in anthropology
•Binghamton University SUNY with a master's degree in biomedical anthropology
•Indiana University with a PhD in biological anthropology

General research interests:

•Health and infectious disease
•How people define health and sickness cross culturally
•How social networks influence immune function, disease susceptibility, and sleep

Current research:

•Impact of social threats and social safety on sleep for the Indigenous Wixária people
•Impact of migration to urban areas (Guadalajara) from rural location (Sierra Madre mountains) on sleep
•Impacts of poor sleep on emotional dysregulation and physical/mental health

He self describes as a biocultural anthropologist, interested in how humans interact with their environment, or each other, and the health ramifications that come with it (Shattuck, *About Dr. Shattuck*).

DR. SHATTUCK'S CURRENT RESEARCH

Overview:

•Ongoing research in Jalisco, Mexico studying the impacts of rural to urban migration on indigenous Wixária sleep health.
•The Wixária live in the highlands of the Sierra Madre mountains, 10 hours away from the urban lowland city of Guadalajara, Mexico (Furst and Schaefer).
•There is a high rate of internal migration from Sierra Madre to Guadalajara within the group.

Main research question: What is migration, short term or long term, doing to peoples sleep?

•Branches off into questions surrounding social threat.
•Exposure to discrimination that comes with being indigenous in an urban area creates a sense of danger, causes emotional dysregulation, and worsens mental health- which all effect sleep.
•Interested if this then leads to a viscous cycle, as poor sleep can create emotional dysregulation.

Background research:

•Sleep is responsive to social and physical threats that lead to an impaired sense of emotional regulation and increased stress (Minkel et al.).
•Indigenous communities, such as the Wixária, are targeted at higher rates in urban areas for being culturally different.
•An individual's social and physical environment can create negative sleep health effects, as well as emotional dysregulation that creates a cycle.

Predictions: Greater social threat will be associated with shorter sleep, greater emotional dysregulation, and worsened physical/mental health.

Methods:

•Working with the University of Guadalajara to kick start off the urban Wixária trial.
•Collected two waves of sleep data using two methods: accelerometry (used to measure human movement) and subjective survey's asking participants how they feel about their quality of sleep and if they face social threats.
•"Do you feel isolated?" "was anyone rude to you today?" and "when I am upset, I become out of control" were answered on a scale to see how much people related to these experiences.

Preliminary results:

• Preliminary results show predictions to be supported.
•Higher rate of poorer sleep in women.
•He is hoping that this will become a long-term research project to help further research on indigenous sleep health and understand why women may be more affected. This may be due to women feeling physically less safe in new, urban areas and additional factors like childcare and anxiety (Shattuck, *Dr. Shattuck's Research*).

COMPARATIVE DATA

•There is a similar published study surrounding the effects of social threats on sleep health due to race/culture:
•In "Extreme racism-related events and poor sleep in African-American women," researchers delve into how different levels of social threat contribute to poor sleep, specifically in African-American women
  • Findings concluded that African American women specifically report poorer sleep health after facing social threats similar to preliminary gender data found by Dr. Shattuck. Results concluded that 95% of racism related events led to poorer sleep, and the more violent the events were, the stronger the associations were too (McKinnon et al.).
  • Overall, addressing social threats due to race/culture should be researched to understand how it effects poor sleep health; differences between gender should also be further studied.

REFERENCES

Furst, P. T., & Schaefer, S. B. (1996). People of the Peyote: Huichol Indian History, Religion, & Survival. In *Ebscohost.com*. University of New Mexico Press. https://web.p.ebscohost.com/ehost/ebookviewer/ebook?sid=43c7afe5-17e4-4fd4-bdf3-5e8131072e0b%40redis&vid=0&format=EB
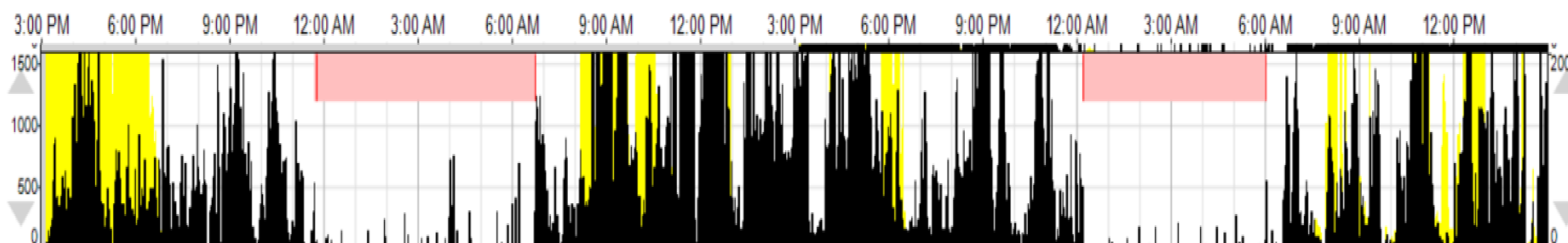
Hoke, M. K., & Schell, L. M. (2020). Doing biocultural anthropology: Continuity and change. *American Journal of Human Biology, 32*(4). https://doi.org/10.1002/ajhb.23471

McKinnon, I. I., Johnson, D. A., Murden, R. J., Erving, C. L., Parker, R., Van Dyke, M. E., Vaccarino, V., Booker, B., Moore, R. H., & Lewis, T. T. (2022). Extreme racism-related events and poor sleep in African-American women. *Social Science & Medicine, 310*, 115269. https://doi.org/10.1016/j.socscimed.2022.115269

Minkel, J. D., Banks, S., Htaik, O., Moreta, M. C., Jones, C. W., McGlinchey, E. L., Simpson, N. S., & Dinges, D. F. (2012). Sleep deprivation and stressors: Evidence for elevated negative affect in response to mild stressors when sleep deprived. *Emotion, 12*(5), 1015–1020. https://doi.org/10.1037/a0026871

Shattuck, E. (2024a, January 19). *About Dr. Shattuck* (S. Landi, Interviewer) [Personal communication].

Shattuck, E. (2024b, January 19). *Dr. Shattuck's Research* (S. Landi, Interviewer) [Personal communication].