

# RITUAL ECOLOGY

Jan Krátký<sup>1\*</sup>



<sup>1</sup>LEVYNA Laboratory for the Experimental Research of Religion, Masaryk University  
\*jan.kratky@mail.muni.cz

## ① Background

■ In a classical view of mind, the **cognitive process** consists of interactions among unobservable internal representations and **Cognitive architecture** is a scheme providing merely functional characterization of cognitive task but not a definition of its implementation (Hutchins, 2010). ■ **Cognitive task** can be realized in physically, organizationally and ontologically diverse forms. ■ **Active engagement** of the body with elements of working environment is a form of thinking. **By tracing these interactions we can study much of the thinking setup directly.**

In his *Biocultural Theory of Religion*, Geertz (2010) recognizes extension and situatedness as two critical factors of religious cognition. Likewise, Bulbulia (2010) concerned with cooperation in ancestral communities addresses religious culture as a system of cues that automate behavior (see also Sosis (2017), Alcorta and Sosis (2005).

## ④ Constitutive role of materiality in a ritual ecology. Illustration 1

### The critical role of dimensionality in the prosocial effect of agency cue in a naturalistic setting

■ **Routine sensing** is a critical factor behind the effect of an artificial agency cue in a naturalistic setting. ■ Routine sensing requires agent's **active presence** with a **high degree of immersion**. **Presence** as a phenomenon of normal awareness that requires direct attention is based on the interaction between sensory stimulation and environmental factors providing adequate feedback to the agent. ■ In a naturalistic setting, 2-dimensional flat image lends itself to instant decoding whereas **3-dimensional object** is less often sensed as a representation of a target domain; phenomenally object becomes target domain itself thus elicits the desired prosocial effect. ■ **Contrasting to the laboratory experiments** conducting experiments in a naturalistic setting demands naturalistic experimental stimuli.

Krátký, J., McGraw, J. J., Xygalatas, D., Mitkidis, P., & Reddish, P. (2016). It Depends Who Is Watching You: 3-D Agent Cues Increase Fairness. *Plos One*, 11(2), e0148845.

## ② Ecological Perspective Key Proposals:

■ A **system approach** to description and explanation of rituals in their typical contexts as embodied, embedded practices. ■ A search for the **emergent patterns** of activity that come and dominate the constitutive components. ■ Appreciating **the coupling** – living systems are not separable from their abiotic components. ■ In the **ritual enaction** particular states of mind, patterns of song and dance, aromas, fires or sacrifices, are necessary to accomplish the effects. ■ **Causality** is implicit to complex adaptive systems and characteristic by continuous reciprocal causation. ■ **Agency** refers to the ability to determine action or effect an outcome irrespective of the ontological status of its proponent.

McGraw, J. J., & Krátký, J. (2017). *Ritual Ecology*. *Journal of Material Culture*.



Contrasting to the laboratory experiments experiments in a naturalistic setting demands naturalistic experimental stimuli.

### GENERAL REFERENCES

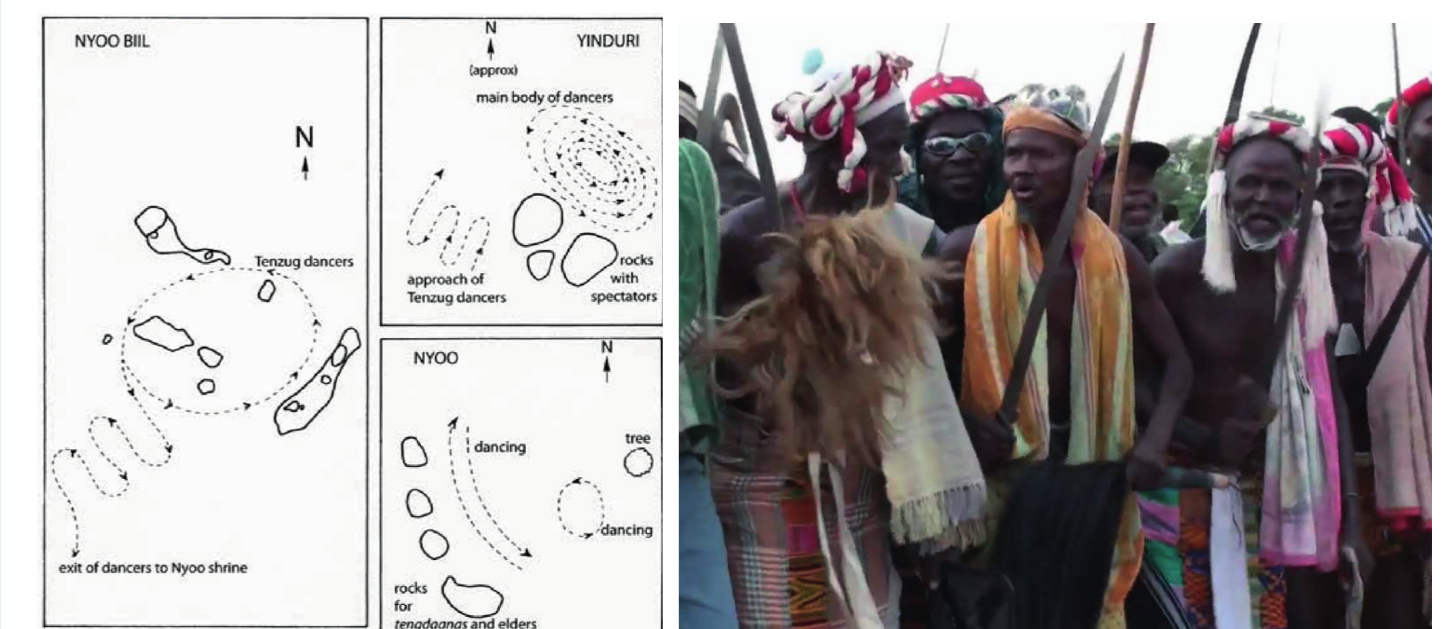
- Alcorta, C. S., & Sosis, R. (2005). Ritual, Emotion and Sacred Symbols. *Human Nature*, 16(4), 323–359.
- Bell, C. (1992). *Ritual Theory, Ritual Practice*. Oxford University Press.
- Bulbulia, J. (2010). Charismatic Signalling. *Journal for the Study of Religion, Nature and Culture*, 3(4), 518–551.
- Geertz, A. W. (2010). Brain, Body and Culture: A Biocultural Theory of Religion. *Method & Theory in the Study of Religion*, 22(4), 304–321.
- Hutchins, E. (2010). Imagining the Cognitive Life of Things. In C. Malafouris, Lambros, Renfrew (Ed.), *Cognitive Life of Things: Recasting the Boundaries of the Mind*. Cambridge: McDonald Institute for Archaeological Research.
- Insoll, T. (2012). Europe PMC Funders Group Materializing Performance and Ritual: Decoding the Archaeology of Movement in Tallensi Shrines in Northern Ghana, 5(3).
- Sosis, R. (2017). The Road Not Taken. In L. H. Martin & D. Wiebe (Eds.), *Religion Explained? The Cognitive Science of Religion after twenty-five Years* (pp. 155–167). Bloomsbury.

## ③ Constitutive role of materiality in a ritual ecology. Illustration 1.

### Constraining and enabling role of materiality in the emergence of ritualized behavior.

In a classical conception of ritual, Bell (1992) suggests that ritualization temporally structures a space-time environment through a series of physical movements. Ritual Ecology approach proposes to reverse a causal direction and study ritualization as an emergent effect.

#### (A) Ritualization in its cultural context: A Case of Tallensi Ritual dance



Stone arrangements in the shrine for rather than representing static markers serve to structure movements of a dance (Insoll, 2012). In such a causal scheme material elements of culturally organized environment act as defining and constraining factor shaping limbs and body towards ritualized forms of movements.

#### (B) Ritual micro-Ecology in the lab: A case of spontaneous Ritualized behavior



Material artifact provided a very possibility to isolate and derive those aspects of cultural rituals that were deemed as culturally invariant – ritualistic motor behaviors – and brought these elements into life in the laboratory setting.

Lang, M., Krátký, J., Shaver, J. H., Jerotijević, D., & Xygalatas, D. (2015). Effects of Anxiety on Spontaneous Ritualized Behavior. *Current Biology*, 1–6. ■ Krátký, J., Lang, M., Shaver, J. H., Jerotijević, D., & Xygalatas, D. (2016a). Anxiety and ritualization: Can attention discriminate compulsion from routine? *Communicative & Integrative Biology*, 889 (June), 4–7.

