



## Studying folktale diffusion needs unbiased dataset

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# Studying folktale diffusion needs unbiased dataset

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Bortolini et al. (1) claim to infer patterns of folktale diffusion using genomic data. What is not said in their paper is that such a proposal is not new. For example, Korotayev and Khaltourina (2) showed statistical correlation between spatial distributions of mythological motifs and genetic markers, considerably above the 4,000 km proposed by Bortolini et al. (1). Such correlations allow us to reconstruct in detail the mythology [including folktales such as Aarne Thompson Uther catalog 402 (ATU402)] brought to the New World from South Siberia by three Paleolithic migration waves. Moreover, phylogenetic trees built on many versions of the same folktale also show strong correlations with documented human migrations, and statistical methods have already shown that ATU400 originated in East Asia and was introduced twice into America (3).

Bortolini et al.'s (1) analysis is based solely on Uther's database (4), where non-European traditions are severely underrepresented (as Uther himself

acknowledges), and is thus inappropriate for statistical comparisons between Eurasian and African folktales. For this kind of approach, it is better to use other catalogs, such as Berezkin's ([ruthenia.ru/folklore/berezkin](http://ruthenia.ru/folklore/berezkin)), which registers 27 African versions of ATU313 [vs. 8 in Uther's database and 3 on the map in figure 3 of Bortolini et al. (1)]. This is all the more important when Bortolini et al. base their calculations on a dataset of only 30 Eurasian populations.

The lack of consistency and the inadequacy of the data of Bortolini et al. (1) explain why the results of this study do not correspond to previously established results: for example, the origin of ATU313, "The Magic Flight" in Paleolithic Eurasia (5, 6) (vs. Eastern Europe); and of ATU670, "The Man Who Understands Animal Language" in India (7) (vs. Africa).

For these kinds of studies, it is therefore extremely important to rely on sources as exhaustive as possible, and to go beyond the ones already translated into English.

- <sup>1</sup> Bortolini E, et al. (2017) Inferring patterns of folktale diffusion using genomic data. *Proc Natl Acad Sci USA* 114:9140–9145.
- <sup>2</sup> Korotayev A, Khaltourina D, Berezkin Y (2011) *Mify i Geny: Glubokaja Istoriceskaja Rekonstrukcija* (Librokom, Moscow).
- <sup>3</sup> d'Huy J (2016) Le motif de la femme-oiseau (T111.2.) et ses origines paléolithiques. *Mythologie française* 265:4–11.
- <sup>4</sup> Uther HJ (2011) *The Types of International Folktales: A Classification and Bibliography. Part 1: Animals Tales, Tales of Magic, Religious Tales, and Realistic Tales, with an Introduction* (Academia Scientiarum Fennica, Helsinki).
- <sup>5</sup> Berezkin YE (2013) *Afrika, Migracii, Mifologija. Arealny Rasprostraneniya Fol'klornykh Motivov v Istoriceskoj Perspektive* (Nauka, St. Petersburg).
- <sup>6</sup> Hatt G (1949) *Asiatic Influences in American Folklore* (I kommission hos ejnar Munksgaard, Copenhagen).
- <sup>7</sup> Aarne A (1914) *Der tiersprachenkundige Mann und seine neugierige Frau, eine vergleichende Märchenstudie* (FF Communications 15, Helsinki).

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