

## Quantification and Preference of Facial Asymmetry of the Sub-Saharan Africans' 3D Facial Models

**Authors :** Anas Ibrahim Yahaya, Christophe Soligo

**Abstract :** A substantial body of literature has reported on facial symmetry and asymmetry and their role in human mate choice. However, major gaps persist, with nearly all data originating from the WEIRD (Western, Educated, Industrialised, Rich and Developed) populations, and results remaining largely equivocal when compared across studies. This study is aimed at quantifying facial asymmetry from the 3D faces of the Hausa of northern Nigeria and also aimed at determining their (Hausa) perceptions and judgements of standardised facial images with different levels of asymmetry using questionnaires. Data were analysed using R-studio software and results indicated that individuals with lower levels of facial asymmetry (near facial symmetry) were perceived as more attractive, more suitable as marriage partners and more caring, whereas individuals with higher levels of facial asymmetry were perceived as more aggressive. The study conclusively asserts that all faces are asymmetric including the most beautiful ones, and the preference of less asymmetric faces was not just dependent on single facial trait, but rather on multiple facial traits; thus the study supports that physical attractiveness is not just an arbitrary social construct, but at least in part a cue to general health and possibly related to environmental context.

**Keywords :** face, asymmetry, symmetry, Hausa, preference

**Conference Title :** ICHAP 2017 : International Conference on Human Anatomy and Physiology

**Conference Location :** Kuala Lumpur, Malaysia

**Conference Dates :** December 11-12, 2017