Rethinking body partonymy: From random typologies to relational systems across 48 world languages

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Attempts to identify cross-linguistic patterns in comparative body part studies have so far generated more noise than signal, even within the same language family (Huisman et al. 2021), giving further credence to those who have called the whole enterprise into question, arguing that widespread variation in this domain casts doubt on the possibility that human beings have any substantially shared conceptual system of part-whole relationships (Enfield et al. 2006). But little has been done in the past 45 years to address Roy Ellen's striking critique of the field: viz., "there has been a tendency to stress the function of individual parts rather than the relationships between them, either anatomically or functionally" (1977: 364). Building on earlier work (Pelkey 2017, 2018; Pelkey et al. 2022), this paper proposes a fundamental shift from direct, isolated comparisons of partonyms between languages to comparisons between body partonym systems (BPS), featuring analogous relationships above and below the waistline. Three basic dimensions of transverse contrast can be defined in this regard as diagnostic evidence:

- (1) **Transverse parallel conceptions:** analogous matches in spite of mismatched terms: e.g., if 'feet' are lexicalized separately from 'legs' below the waist, then 'hands' are lexicalized separately from 'arms' above (as in English). If 'feet' are colexified with 'legs' below, 'hands' are colexified with 'arms' above (as in Phowa, Kewa, etc.).
- (2) **Transverse colexifications:** analogous matches using identical terms above and below the waistline (e.g., English *nails* and *limbs*; Kewa *wáraa* 'sole/palm', *kilikili* 'toe/finger'; Phowa tsì 'wrist/ankle', sê 'toenail/fingernail').
- (3) **Transverse paradigm sets**: Two or more instances of (2) mapping onto one or more instances of (1) to form a diagrammatic paradigm set (with patterned, internal iconicity between part-whole relationships) above and below the waistline.

These three levels are not equally diagnostic. Dimension (1) would constitute weak evidence for BPS; dimension (2) would constitute moderate evidence; and dimension (3) strong evidence. Dimension (3) is also the most complex, necessarily containing instances of (1) and (2), while (2) is simultaneously an instance of (1), suggesting an integrated implicational hierarchy of evidence for part-whole membership organization.

Working from the hypothesis that most world languages, regardless of family, feature BPS across all three dimensions of contrast, the paper reports on a pilot study testing these dimensions of contrast across 48 world languages from 33 language families, quota sampled for geographic distribution, genetic diversity, and speaker population. Findings show evidence for BPS at the level of dimension (1) in all languages sampled (the weakest layer of supporting evidence). A full 92% (n=44) of these languages also show evidence of BPS beyond dimension (1). Of this number, 25% (n=11; 23% of total) show evidence of BPS in dimensions (1) and (2) alone, operationalized as moderate supporting evidence; and 75% (n=33; 69% of total) show evidence of BPS in all three dimensions, resulting in transverse paradigm sets (the strongest level of supporting evidence). The implications of these findings not only rehabilitate body partonym studies' relationship to cross-linguistic conceptual modeling, they are also relevant for theorizing the cognitive foundations of grammar and the origins of complex conceptual blending.

References

Huisman, John L. A., Roeland van Hout & Asifa Majid. 2021. Patterns of semantic variation differ across body parts: evidence from the Japonic languages. *Cognitive Linguistics*. De Gruyter Mouton 32(3). 455–486.

Ellen, Roy F. 1977. Anatomical classification and the semiotics of the body. In John Blacking (ed.), *The Anthropology of the Body*, 343–373. New York: Academic Press.

- Enfield, N. J., Asifa Majid & Miriam van Staden. 2006. Cross-linguistic categorisation of the body: Introduction. *Language Sciences* (Parts of the Body: Cross-Linguistic Categorisation) 28(2–3). 137–147.
- Pelkey, Jamin. 2017. *The Semiotics of X: Chiasmus, Cognition, and Extreme Body Memory*. London: Bloomsbury Academic.
- Pelkey, Jamin. 2018. Upright posture and the meaning of meronymy: A synthesis of metaphoric and analytic accounts. *Cognitive Semiotics* 11(1). 1 –18.
- Pelkey, Jamin, Gaaya Srimarthandan & Kai Maurin-Jones. 2022. Toward a world typology of body partonym systems: A comparative corpus approach. Paper presented to the *15th World Congress of Semiotics*, Aristotle University, Thessaloniki, Greece, 1 September 2022.