



## Fashion versus reason – then and now

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Analogies between modern practice and prehistoric material culture are becoming increasingly useful for archaeologists, including those interested in branding studies, for example (e.g. Wengrow, in press) and at formal research centres such as the AHRC Centre for the Evolution of Cultural Diversity and the Santa Fe Institute. Studies of modern cultural change – at a level of detail that most archaeologists can only dream about – can lead to related insights about prehistoric culture change through time. Modern fashion analysis can be methodologically similar to testing, for example, the degree to which certain prehistoric transitions reflect demographic change (e.g. Shennan 2000; Henrich 2004). How much of the Upper Palaeolithic ‘revolution’ in cave art is due to increases in population in western Europe? Although the data are trickier to obtain, the goal is basically the same – subtract what is considered background (e.g. population size) from what is of interest to the researcher (e.g. instances of particular art motifs). In Neolithic Germany, for example, pottery designs can be treated as the ‘fashions’ and numbers of longhouses are used to estimate population size (e.g. Shennan & Wilkinson 2001; Bentley & Shennan 2003).

Conceptualised this way, the study of material culture popularity can take advantage of sophisticated tools from network theory (e.g. Watts 2003) and population genetics (e.g. Cavalli-Sforza & Feldman 1981; Ammerman & Cavalli-Sforza 1984; Bentley *et al.* 2004). The resulting culture evolution models, in all their variety (e.g. Mesoudi *et al.* 2006; Shennan 2002 for reviews) can generally be divided into two camps. The first treats individuals as independent decision-makers who weigh the costs and benefits of their options, while subject to various biases of influence (e.g. Winterhalder & Smith 2000; Henrich & Gil-White 2001; Gintis 2007; McElreath & Boyd 2007). This applies well to behaviours or technology that serve some adaptive purpose, i.e. that *matter* to human survival, such as the conversion from foraging to farming (e.g. Renfrew 1978), or the spread of a useful technology (e.g. Rogers 1962; Henrich 2001). Even art, if it imparts some meaningful signal (e.g. mating potential), can be governed by cost/benefit decisions (e.g. Bliege Bird & Smith 2005; Geher & Miller 2007).

At the other end of the spectrum are behaviours that do not inherently ‘matter’, and for which there is often a large, maybe infinite, variety of options – decorative designs, musical motifs, and word forms, for example. These choices can be considered ‘neutral’ traits, in that what is chosen has no *inherent* value relative to other available options (Binford 1963; Koerper & Stickel 1980; Gillespie 1998). It assumes that whether a mother names her girl ‘Jane’ or ‘Jamelia’ depends on the current usage of the name, rather than the name itself. This is formalised as the random copying or neutral model, akin to the neutral-trait model of population genetics, for popular culture change (e.g. Neiman 1995; Lipo *et al.* 1997; Shennan & Wilkinson 2001; Bentley & Shennan 2003; Hahn & Bentley 2003).

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Crucially, it is not proposed that people act randomly, but that the statistics of all their choices, at the *population* level, are comparable to random copying. It is in deliberate contrast to independent decisions – actions under random copying depend entirely on what *others* are doing. Applied to prehistoric studies, the model simply allows us to ask, what if everyone simply copied each other, with occasional innovation? Against this background ‘canvas’, more interesting phenomena become visible (e.g. Herzog *et al.* 2004; Eerkens & Lipo 2005). Shennan and Wilkinson (2001), for example, observed that pottery design frequencies fit neutral model predictions for the Early but not the Late Linearbandkeramik (LBK), which in turn suggests that either people were becoming more creative or they were receiving new ideas from outside communities. In any case, these new insights about Late LBK society were made possible by use of the neutral (random copying) model, just through analysing the frequencies of pottery designs in one location.

Given the two extremes – random copying versus independent decisions – often the question is where behaviours lie on the spectrum between them (e.g. Collard *et al.* 2006). For example, with independent, rational thinking, behaviours should converge upon the collective priorities of individuals (Dunnell 1978; Surowiecki 2004). On the other hand, random copying with occasional innovation leads our collective tastes to drift continually, in directions that are unpredictable (Salganik *et al.* 2006), but at a rate that is steady and predicted by the level of innovation (Bentley *et al.* 2007). Crucially, we need not decide beforehand what is subject to drift, as this is just what we aim to find out empirically, using these contrasting models for the patterns of change through time.

These observations apply equally to the debate about academic writing, and were prompted by Stephen Chrisomalis (2007), who raises an excellent point in response to Bentley (2006): in evaluating fashion trends, one must take the background into account. In the case of academic publishing today, the appearances of *all* keywords have increased since 1990, due to a roughly fourfold increase in recorded journal pages during that period (cf. Chrisomalis 2007: Figure 1). However, both ‘agency’ and ‘nuanced’ still qualify as buzzwords against this rising background: ‘agency’ increasing tenfold since 1990 (Bentley 2006: Figure 1), and ‘nuanced’ increasing fourfold since 1997, after the expansion of journals had already levelled off (cf. Chrisomalis 2007: Figure 1). There are other ways to demonstrate this language copying – a quick Google search for ‘a more nuanced understanding of’ (exact phrase) receives fully a third as many hits as ‘nuanced understanding’ and twice as many hits as anything ‘less nuanced’ at all. Orwell (1946) was absolutely right about the copying of strips of words. I have fretted about academic jargon because it demonstrates the continual flux and empirical patterns of random copying (Simkin & Roychowdhury 2003; Bentley 2006), which implies that buzzwords do *not* matter in a meaningful, scientific sense. This is a natural part of human interaction, however. The language copying that Orwell (1946) was bemoaning reflects, for better or worse, our remarkable ability to imitate – a prerequisite for culture itself.

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