INTERCULTURAL CONTACT AND REPRESENTATIONAL FORM

THOM SCOTT-PHILLIPS 1*[1,2], CARMEN GRANITO[2],JEREMY KENDAL[2] & JAMIE TEHRANI[2]

*Corresponding Author: scott-phillipst@ceu.edu
[1] Department of Cognitive Science, Central European University, Budapest, Hungary
[2] Department of Anthropology, Durham University, Durham, UK

1. An intriguing parallel

Pictorial representations are, like words, highly versatile. They can visualise simple physical objects as well as very complex and abstract concepts and situations. They are also ubiquitous in almost all human societies. Cultures around the world have made images to convey information about living kinds, objects and ideas for at least 75,000 years, in forms as diverse as cave paintings, religious icons and emojis.

There are several points of difference between languages and pictorial representations. Modality is one (pictorial representations are by definition limited to one specific modality). Structure is another (languages are by definition highly structured). A third, on which we shall focus here, is style and transparency. While the dogma that linguistic form is wholly arbitrary should be questioned – onomatopoeia is the obvious counter-example, and it is increasingly recognised that many of the component parts of natural languages sometimes do possess a degree of iconicity – it is clearly the case that pictorial representations show variation in their degree of figurativeness more readily and more obviously than the component parts of languages typically do. (By 'figurative', we mean the extent to which an image is inter-subjectively recognisable as a depiction of objects, people, animals, scenes, and so on (see also Healey et al., 2007). This is not the same as 'iconicity', because unlike icons figurative images do not necessarily have a perceptual resemblance to their intended referent. They can, in particular, be inter-subjectively recognisable as one thing, but refer to another.

This is the case, for example, in the way that many emojis are used. The aubergine emoji is often used to refer to sexual genitalia.)

There is however an intriguing parallel between these two domains (languages and pictorial representations) that seems to somewhat transcend their various points of difference. There is in the history and anthropology of art a pattern that instances of intercultural contact often lead to changes in artistic style, and in particular in the degree of figurativeness used (e.g. Morphy & Layton, 1981; Verstegen, 2012; Shatzmiller, 2013; Versluys, 2017; see also Figure 1, below). And there is in sociolinguistics and language evolution the hypothesis, increasingly supported by data, that the degree of contact that a language community has with outsiders can be a factor in shaping linguistic form (Wray & Grace, 2007; Lupyan & Dale, 2010; McWorter, 2011; Trudgill, 2011). In short, these two fields have independently hit on the idea that intercultural contact can causally affect form and structure.

Figure 1: ***Aboriginal art as a real world example of how intercultural contact can affect forms of pictorial representation***. Left: Example of Yolngu art, which increased figurativeness after extensive exchange with Europeans. Narritjim Maymuru, Bamabama, 1976. Right: Two examples of Papunya art from Central Australia, which targeted an isolated audience of initiates and developed an increasingly abstract style of representation. Charlie Eagle Tjapaltjari, Wallaby Dreaming in the Sandhills, 1977 (top); Tim Leutra Tjapaltjarri, Possum Dreaming at Kurningka, 1977 (bottom).

2. Objectives

Building on the observations above, this presentation has two goals.

First we will present an experimental study that shows, clearly and unambiguously, that pictorial styles can be causally shaped by intercultural contact. More specifically, we use experimental methods borrowed from language

evolution (and cultural evolution more generally), to show that drawings produced by connected groups tend to retain a degree of figurativeness that ensures that they are – at least somewhat – transparent to outsiders, whereas in isolated groups drawings tend to become abstract and highly opaque. (See below for an abridged description of the methods.) This pattern is, as we said, also observed in the corpus data of natural languages, but its existence and causality is far clearer to see in the case of pictorial representation, because of features particular to that domain.

We will then, second, discuss how the various features of different communicative modalities, such as spoken language and pictorial representation, constrain and enable different means of human communication. We will draw in particular on recent developments and insights in cognitive pragmatics, which emphasise how the various differences of relevance here – between, for instance, linguistic and non-linguistic communication, between the iconic and the symbolic, and between meaning and showing – are mostly matters of degree, rather than differences of kind (see in particular Sperber & Wilson, 2015). We will, time allowing, present an elementary conceptualisation of this multi-dimensional space.

3. Experimental methods & results (abridged to avoid prior publication)

The study is composed of two phases. In Phase 1 (Data production) laboratory micro-societies played a Pictionary-like task in one of three conditions: isolation, contact or a control condition, which were simulated by manipulating the degree and structure of interaction between participants. The drawings produced at this stage were then used as stimuli in two surveys run in Phase 2: in one, naïve participants were asked to match the drawings with their meanings; in the other, other naïve participants had to say whether the drawings contained recognisable figures or not. Results clearly show that figurativeness and transparency are much higher exactly and only when the need for communication with outsiders is present.

References

Lupyan, G., & Dale, R. (2010). Language structure is partly determined by social structure. *PLoS One*, *5*(1), e8559.

Healey, P. G., Swoboda, N., Umata, I., & King, J. (2007). Graphical language games: Interactional constraints on representational form. *Cognitive Science*, *31*(2), 285-309.

McWhorter, J. H. (2011). *Linguistic Simplicity and Complexity: Why Do Languages Undress?* Walter de Gruyter.

Morphy, H., & Layton, R. (1981). Choosing among alternatives: Cultural transformation and social change in Aboriginal Australia and the French Jura. *Mankind, 13*, 56–73.

Shatzmiller, J. (2013). *Cultural Exchange: Jews, Christians, and Art in the Medieval Marketplace*. PUP.

Sperber, D., & Wilson, D. (2015). Beyond speaker's meaning. *Croatian Journal of Philosophy, 15*(44), 117-149.

Trudgill, P. (2011). *Sociolinguistic Typology*. OUP.

Versluys, M. J. (2017). *Visual Style and Constructing Identity in the Hellenistic World: Nemrud Dağ and Commagene under Antiochos I*. CUP.

Verstegen, U. (2012). Adjusting the image–processes of hybridization in visual culture: A perspective from early Christian and Byzantine archaeology. In: P. W. Stockhammer (Ed.), *Conceptualizing Cultural Hybridization* (pp. 67-93). Springer.

Wray, A., & Grace, G. (2007). The consequences of talking to strangers: Evolutionary corollaries of socio-cultural influences on linguistic form. *Lingua, 117*, 543–578.