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Commentary on J. Queiroz, L. Rodrigues & S. Ribeiro:

The semiotic evolution of toolmaking: the role of symbols for work towards delayed reward.

Chris Sinha, Lund University

Toolmaking and symbolization have long been linked in theories of human evolution, but substantiating and specifying the nature of this putative link (other than as simply co-emergence) is a challenging undertaking. I applaud the authors for their efforts in this direction. However, I would suggest widening the scope of discussion, in relation both to the category under examination and to the theoretical apparatus for its analysis. Regarding the first, I propose that the relevant category is not *tools*, but *artefacts*, a category that overlaps with tools. Regarding the second, I suggest that the notion of “counting as”, introduced by Searle (1995), can help in elucidating the semiotic properties of artefacts.

Artefacts are made, not found. Although found objects may be used as tools—as with, for example, the sticks that chimpanzees use for “fishing” termites—or as constituents of artefacts—as with stones used by humans to construct dwellings and walls—artefacts (including artefactual tools) are produced by labour. Artefacts embody intentionality, conceptualization and imagination. An artefact is made according to a plan or design that involves the conceptual or imaginative representation by the maker of the finished article. Artefacts have canonical functions (Sinha, 1988) that are physically realized in the design features (or culturally produced affordances) of the artefact. The canonical function of an artefact is equivalent to the use value for which it was designed: *its socially-standard function*. Non-artefactual (natural) objects or materials (such as wood or stone) may have use-values, but only artefacts have canonical functions. The canonical function of the artefact is embodied in the artefact. For example, the canonical function of a knife is to cut, the canonical function of a cup is to contain. The artefact can therefore be seen as embodying functional or relational concepts, such as CUTTING or CONTAINMENT, and these concepts are precisely those that are the objects of the design intentions of the maker.

Artefacts signify their canonical function to a user who has the cognitive capacity to recognize the artefact as a token of a particular type (Tummolini and Castelfranchi, 2006). The mode of

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signification that is intrinsic to the artefact is that of “counting as” (Searle, 1995). For example, a particular object (token) *counts as* a cup (type) if the perceiving subject recognizes the design features of the object (being a solid of a certain size and shape, having a cavity affording containment) as being those of a cup. This recognition of the signification relationship of *counting as* is a case of *perceiving as* – the subject *perceives* the object *as* a cup. If the object is not perceived as a token of a type having a canonical function, then it cannot be said to *count as* that type for the subject.

To *count as* a type of artefact it is necessary for an object not only to afford the canonical function of the type (eg containment), but for this to be the *intentionally designed* canonical function of the token. For example, a half coconut shell can be used as a cup, but that does not make it a cup, unless it is *intended to count as* a cup, by virtue either of context or of baptismal naming. Both the *counting as* relationship, and the canonical function that defines the artefactual type, are *normative, social* and *cognitive*. They are aspects of normative and socially complex cognition. Canonical function depends upon, but is not reducible to, the physical properties of the object, since it is only by virtue of *some subset of* its physical characteristics (those that enable the object to be *perceived as* and *used as* a token of the artefactual type), and of their signifying value for the subject/agent, that the object counts as that artefact. We can thus compare artefacts with “institutional facts” (Searle, 1995), such as that a person is someone else’s sister-in-law, a social relationship that is also irreducible to the properties of the person’s physical body.

References

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