Language, Thought and the Hybrid Animacy;
Experimental Studies of Hybrids in Hebrew,
Indonesian and Minangkabau

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The Animacy Hierarchy (AH) is part of our ontological knowledge, pertaining to the basic categories of existence. According to the AH, *humans > animals > plants > non-animate objects* (where the sign - ">" stands for 'higher than'). Languages encode animacy in a variety of ways. For example, in many languages, such as English, subjects of transitive sentence exhibit a very strong statistical tendency to be animate, whereas direct objects may be either animate or inanimate,   Moreover, in some languages, such as Navajo, this statistical tendency becomes a categorial one: if the agent of a transitive sentence is lower on the AH than its patient, the agent cannot occupy the subject position, and instead, the sentence is recast in "inverse" or ""passive" form, so that the patient occupies the subject position.

In this paper we address the following question: *is the AH a conceptual or a linguistic phenomenon?* If the AH is a conceptual, rather than a linguistic phenomenon, ie. if language merely reflects the pre-existing hierarchy rather than determining it, then one might expect that the AH will surface equally in both linguistic and in non-linguistic contexts. In contrast, if the AH is inherently a linguistic phenomenon, then one might expect to find different patterns obtaining in linguistic and non-linguistic contexts.

To examine these possibilities, we tested subjects responses to *pictorial hybrids*, images that combine parts of two objects belonging to two different ontological categories, for example the top half of a human plus the bottom half of a horse. We constructed a set of 24 such pictorial hybrids, representing all possible combinations of images belonging to different categories (human-animal, human-plant, animal-plant, and so forth). Factors such as size, color, and spatial orientation were controlled for.   We used two tasks to elicit subjects' intuitions regarding the ways in which they conceptualize hybrids: linguistic and non-linguistic. In the linguistic tasks subjects were asked to provide a short description or a short name for each of the hybrids. In the non-linguistic task subjects were presented with each hybrid followed by a slide showing sets of typical members of each of its two constituent categories. (For example, a part-man part-horse hybrid would be followed by a slide showing a set of humans and a set of animals.) The subject's task was to assign the hybrid to an ontological category by non-verbally pointing to one of the two sets of items.

In order to examine possible differences between languages and cultures, we examined speakers of three very different languages, Hebrew, Indonesian and Minangkabau. Our results revealed a clear difference between the linguistic and the non-linguistic tasks. The linguistic tasks tended to follow the AH; for example, subjects were more likely to describe a hybrid as "a man with the body and legs of a horse" than "a horse with the head and arms of a man". In contrast, the non-linguistic classification task did not follow the AH but, rather, yielded apparently random results. This suggests that the AH is a linguistic rather than a conceptual phenomenon.

Comparison of the results of linguistic task in Hebrew and Indonesian reveals that the AH bias is stronger in Hebrew than in Indonesian. This difference can be explained in terms of the stronger encoding of the AH in Hebrew as compared to Indonesian. Thus, the difference in results between Hebrew and Indonesian provides further support for the conclusion that the AH is a linguistic rather than a conceptual phenomenon.