

Conception, Perception and the Control of Action: Response to Majid

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The difference between conception and perception is murky. When I perceive an object to lie to the right of the sagittal plane of my head, do I necessarily conceive it to occupy that position in that frame of reference? Is it possible that I perceive it in that frame but conceive of it in another frame? The answer depends on what one understands concepts to be and how one imagines that they relate to percepts. That is murky and contentious ground. Somewhat less murky and contentious are the following questions: (1) Do different spatial frames of reference govern our actions under different (non-linguistic) circumstances? (2) Can the frequency with which a given frame of reference is invoked in our daily language determine which frame of reference we base our actions on, in some circumstances? (3) Are any such effects greater than the effects of the general usefulness of a given frame of reference where one happens to be acting. (4) Which way does causality flow? Do people living mostly outdoors on the side of a hill orient objects with respect to the hill because they so often refer to its slope in their everyday speech? Or do they so often refer to its slope because it is so often the relevant frame for their actions, including the actions of placing polarized (orientable) objects like hoes and rakes?

It seems likely that the answer to (2) is yes. However, I take the answer to (1) to be, yes, also, and that is what Li and Gleitman (2002) demonstrated. Different frames of reference govern the actions of ourselves and non-linguistic animals under different circumstances. That seems clear and certain. It would take more than another experiment to convince me that Dutch mariners are so conceptually imprisoned by their frequent use of egocentric spatial locutions that they cannot orient their ship in an absolute frame of

reference. In short, the claim that "no environmental manipulation made Dutch speakers change to an absolute coding of space" cannot be taken to imply that no environmental manipulation could make them do so.

The well-established fact that non-linguistic circumstances can determine the frame of reference that governs animal and human actions suggests non-Whorfian answers to questions (3) and (4). It also makes me skeptical of the empirical validity of the claim that "some languages use only one of these [frames of reference]." If English or Dutch speakers used only an egocentric frame of reference, then we should have to rename the East River "the River In Front of You When You Stand on Manhattan Facing Brooklyn." Before I believe that Tzeltal speakers use only absolute spatial terms (and, moreover, do not distinguish the two ends of the transverse axis), I want to read transcripts of Tzeltal travelers phoning home to tell their mothers which leg they have broken. If, as I believe, there are words or simple locutions in every language for every spatial frame of reference relevant to the daily actions of its speakers, then the direction-of-causality question becomes central. Mariners the world over, whatever their native language, talk and act in accordance with a ship-based frame (fore-aft, starboard-port), but the rest of us do not. Such is the power of circumstance.

References

Li, P. W. and L. R. Gleitman (2002). "Turning the tables: language and spatial reasoning." *Cognition* 83(3): 265-294.