

Can nodding and shaking reveal attitudes?

A preliminary study of embodied social cognition on head movements

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Head nod and shake are meaningful social gestures typically performed in Western culture to communicate agreement and disagreement. A recent study within the embodiment perspective (Moretti & Greco, in press) has found a motor compatibility effect between the two gestures and the truth-value of verbal expressions, such that processing true information automatically activates the simulation of vertical head movements, while processing false information activates the simulation of horizontal head movements. This result was obtained with very simple sentences whose truth-value is objectively established (i.e. “Sugar is sweet”; “Shadow glows”). The present study replicates this experiment, but using as stimuli positive and negative statements about foods whose truth-value is subjectively assessable (i.e. “I love chocolate”; “I hate coffee”). In these cases, evaluating a positive statement as true or a negative statement as false means liking its content, or, vice versa, to dislike it when positive statements are evaluated as false and negative statements as true. Our main goal was to test whether the motor compatibility effect found with truth-values (vertical-true; horizontal-false) could be extended to a more general compatibility with attitudes (vertical-acceptance; horizontal-refusal). 79 participants evaluated as true or false a series of sentences by moving them with the head towards one of the four side of the computer screen, through a software converting head movements into the mouse pointer motion. As expected, a motor compatibility with attitudes resulted: response times were shorter when sentences about liked foods were moved vertically and when those about disliked foods were moved horizontally. This result shed light on the possibility to use head nod (a vertical movement going from up towards the body) as an approach movement, and head shake (going from side to side, away from the body) as an avoidance movement, in social and personality research, in order to measure implicit attitudes.

[head movements; attitudes; embodied social cognition]