Handedness and Hand Used Differentially Affect Object Facing

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Abstract: When producing line drawings of common objects with an intrinsic front, directional biases are observed in starting location, stroke direction, and figure orientation, Previous studies of drawing directionality have predominantly examined right handers and/or have considered dominant hand drawing performance only. By contrast, the present study compared drawing directionality of right vs. left handers drawing objects with their dominant and non-dominant hands. Object facing direction was found to differ significantly as a function of handedness and hand used. Whereas right handers' orientation preference was generally unaffected by hand used to draw, left handers tended to show a stronger right-facing bias when drawing with their left hand than when drawing with their right hand. The latter finding is consistent with a biomechanical account in terms of hand movement asymmetries. Additional accounts of drawing asymmetries are addressed and their implications explored for current views on the relationship between perception, cognition, and action.