Improbable Research: Wrong Walking and Talking

Improbable theories, experiments, and conclusions
compiled by Dirk Manley, Improbable Research staff

Walking: Some Artists Do It Wrong

"Errors in the Making and Perception of Art Images of Human Gait: Psychological Explanations," Julian Meltzoff, *Psychology of Aesthetics, Creativity, and the Arts*, vol. 8, no. 3, 2014, pp. 321 ff. The author, from La Jolla, California, reports:

> In natural human gait the arm and leg on 1 side of the body swing in opposite directions to each other—contralaterally. The error is to depict the arm and leg on the same side of the body as if swinging in the same direction— homolaterally… It has been largely unnoticed by art historians and nonexpert viewers, and has been perpetuated in "how to draw" instructional manuals.

What They Did When the Phone System Failed

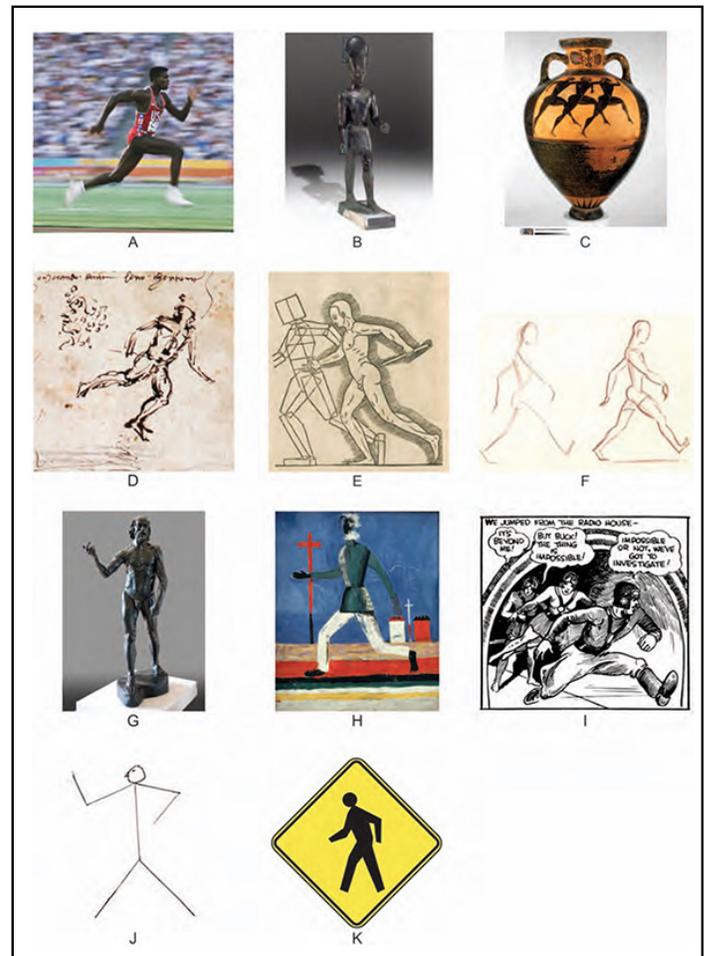"Benevolent Deception in Human Computer Interaction," Eytan Adar, Desney S. Tan, and Jaime Teevan, Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, pp. 1863-1872. ACM, 2013. *(Thanks to Sam Arbesman for bringing this to our attention.)* The authors, at the University of Michigan, Ann Arbor, and Microsoft Research, report:

P.J. Plauger, whose published telephone anecdote is re-told in the study "Benevolent Deception in Human Computer Interaction." Drawing by Nan Swift, Improbable Research staff.

Detail from the study "Errors in the Making and Perception of Art Images of Human Gait: Psychological Explanations."

> [Take] the case of deception in phone systems to mask disruptive failure modes: The connection of two individuals over a phone line is managed by an enormous specialized piece of hardware known as an Electronic Switching System (ESS). The first such system, the 1ESS, was designed to provide reliable phone communication, but given the restrictions of early 1960s hardware, it sometimes had unavoidable, though rare, failures. Although the 1ESS knew when it failed, it was designed to connect the caller to the wrong person rather than react to the error in a more disruptive way (e.g., disconnect, provide some message, etc.). The caller, thinking that she had simply misdialed, would hang up and try again: disruption decreased, and the illusion of an infallible phone system preserved.

[NOTE: That anecdote is cited as being discovered in the paper "Chocolate," P.J. Plauger, *Embedded Systems Programming*, vol. 7, no. 3, March 1994, pp. 81-84.]

We welcome your suggestions for this and other columns. Please include the full citation (no abbreviations!) and, if possible, a copy of the paper.