

Unconscious Pig Latin: What it reveals about the conscious mind

Most things that one is aware of usually "just happen" to one. We open our eyes and see, for free, an external world, replete with objects, sights, and sounds. (This also occurs every night in the dream world.) During the day, even high-level thoughts, such as an "ear worm" playing incessantly in one's head, can arise involuntarily. (An ear worm is the involuntary mental imagery of a song, as when someone says "I can't get that tune out of my head.") Where do these conscious thoughts come from?

The great scientist and thinker Helmholtz proposed that conscious contents arise from the workings of sophisticated, 'unconscious inferences,' which are involuntary.

These inferences can arise even during complicated processes such as automatic word reading, in which a visual stimulus (e.g., the word HOUSE) automatically activates a conscious, sound-based phonological representation (e.g., /haus/) in one's mind. Some might argue that such thoughts can occur from processes such as perception or the retrieval of information from memory, which often happen automatically. However, such thoughts might not be able to arise from high-level processes involving, say, "executive control" and symbol manipulation. The latter occurs when one rotates a visual object in the mind's eye, as when one mentally rotates a letter 180 degrees). Can such a process, too, occur involuntarily? If so, this would be noteworthy, for symbol manipulation is held to be a very high-level form of executive control, involving the frontal cortex.

CAR = AR-CAY

Fig. 1. In the childhood game of Pig Latin, "CAR" yields "AR-CAY." If such a transformation can transpire involuntarily, then what does this say about the nature of the mind?

Consistent with the notions put forth by Helmholtz, new research reveals that even high-level processes involving symbol manipulation can arise involuntarily from processes resembling those of unconscious inferences. In an experiment, the involuntary symbol manipulation resembled that which is carried out in the childhood game of Pig Latin (e.g., "CAR" is transformed into "AR-CAY"). This research supports the new theoretical framework Passive Frame Theory, which proposes,

among many things, that the vast majority of conscious contents (e.g., an ear worm or sight of the sun) arise involuntarily.

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