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ORIGIN OF VOLITION IN CHILDHOOD.¹

BY J. MARK BALDWIN.

In earlier articles of this series² I have endeavored to trace the development of the child's active life up to the rise of volition. The transition from the involuntary class of muscular reactions to which the general word "suggestion" applies, to the performance of actions foreseen and intended occurs, as I have before intimated, through the persistence and repetition of imitative suggestions. The distinction between simple imitation and persistent imitation has already been made and illustrated in an earlier article. Now, in saying that volition—the conscious phenomenon of will—arises historically on the basis of persistent imitation, what I mean is this: that *the child's first exhibition of will is its repeated effort to imitate movements seen and noises heard*.

An adequate analysis of will with reference to the fiat of volition reveals three great factors for which a theory of the origin of this function must provide. These three elements of the voluntary process are desire, deliberation, and effort. Desire is distinguished from impulse by its intellectual quality, i. e., the fact that it always has reference to a presentation or pictured object. Organic impulses may pass into desires, when their objects become conscious. Further, desire implies lack of satisfaction of the impulse on which it rests—a degree of inhibition, thwarting, unfulfilment. Put more generally, these two characteristics of desire are: (1) a pictured object suggesting a satisfaction which it does not give, and (2) an incipient motor reaction which the imaged object stimulates but does not discharge.³

The first clear cases of desire—as thus understood—in the life of the child are seen in the movements of its hands in grasping after objects seen. As soon as there is clear visual presentation of objects we find impulsive muscular reactions directed toward them, at first in an excessively crude fashion, but becoming rapidly refined. These movements are free and uninhibited—simple sensori-motor suggestive reactions. But I find, in experiments with my children, that the vain grasping at distant objects,

which prevailed up to about the sixth month, tended to disappear rapidly in the two subsequent months—just about the time of the rise of imitation. During the eighth month, my child, H., would not grasp at highly-colored objects more than sixteen inches distant, her reaching distance being ten to twelve inches.⁴ This training of impulse is evidently an association of muscular (arm) sensations with visual experiences of distance. The suggested reaction becomes inhibited in a growing degree by a counteracting nervous process; and here are the conditions necessary to the rise of desire. It is safe, therefore, I think, to say, that *desire takes its rise in visual suggestion and develops under its lead*.

The two further requisites to the process of volition are deliberation and effort. The word "deliberation" characterizes the content of consciousness, and may be best described as a state of polyideism, or relatively unreduced plurality of presentations, with a corresponding plurality of motor tendencies (motives). The feeling of effort seems to accompany the passage of consciousness into a monoidestic state after deliberation. It arises just when an end is put to the motor plurality by synthesis or co-ordination. Deliberation may exist without effort, as is seen in deliberative suggestion already described and in pathological *aboulia*, in which a man is a prey to un-coordinated impulses.

Now these further conditions of the rise of will are present first in childhood in persistent imitation, the try-try-again experience. In the pre-imitative period, the so-called efforts of infants are suggestive reflexes. My child, E., strained to lift her head in the second month when any one entered the room; and in her fourth month, after being lifted by the clasping of both her hands around her mother's fingers, the mere sight of fingers extended before her made her grasp at them and attempt to raise herself. Such cases—on which many writers rely, e. g., Preyer—fall easily under sensori-motor suggestion as it borders on physiological habit. The nearest it comes to will is that it may involve faint glimmerings of desire, but it certainly lacks all deliberation. Further, simple imitation, as has already been said, can be readily accounted for without any appeal to deliberation or effort and even without an appeal to desire.

In persistent imitation we have an advance on simple imitation in two ways: (1) A comparison of the first result produced by the child (movement, sound) with the suggesting image or "copy" imitated, i. e., deliberation. This gives rise to the state of dissatisfaction, motor restlessness, which is desire, best described as "will-stimulus;" (2) the outburst of this complex motor condition in a new reaction, accompanied in consciousness by the attainment of a monoidestic state (end) and the feeling of effort. Here, then, in persistent imitation we have, thus briefly put, the necessary elements of the voluntary psychosis for the first time present.

The reason that in imitation the material for will is found is seen to be that here the "circular process" already described maintains itself. In reactions which are not imitative (for example, an ordinary pain-movement reaction) this circular process, whereby the result of the first movement becomes itself a stimulus to the second, etc., is not brought about; or, if it do arise, it consists simply in a repetition of the same motor event fixed by association—as the repetition of the *ma* sound so common with very young infants. Consciousness remains monoidestic. But in imitation the reaction performed comes in by eye or ear as a new and different stimulus; here is the state of motor polyideism necessary for the supervention of the feeling of effort.

From this and other lines of evidence,⁵ we are able to see more clearly the conditions under which effort arises. It seems clear that (1) the muscular sensations arising from a suggestive reaction do not present all the conditions; in young children, just as in habitual adult performances, muscular sensations simply give a repetition of the muscular event. The kinæsthetic centre empties into a lower motor centre in some such way as that described by James (*Psychology*, II., p. 582) along the diagonal line *mc*, *mp* in

¹ The theory of the rise of volition here announced was presented in detail at the International Congress for Experimental Psychology which met in London in August; a full abstract is to be found in the Proceedings of the Congress. The entire paper with further elaboration is to appear in an early issue of *Brain* (London).

² "Suggestion in Infancy," *Science*, Feb. 27, 1891; "Infants' Movements," *Science*, Jan. 8, 1892.

³ Cf. my "Handbook of Psychology," Vol. II., Chap. XIV., § 2, for a fuller development.

⁴ See *Science*, XVI., 1890, p. 247.

⁵ Other evidence is (a) a research on students, called "Persistent Imitation Experiment," and (b) evidence from the pathology of speech; for both of which see the detailed article to appear in *Brain*.