Posthypnotic Amnesia

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Posthypnotic amnesia (PHA) refers to subjects' failure to remember events and experiences that transpired while they were hypnotized. First observed by the Marquis de Puységur in his experiments on artificial somnambulism (Gauld, 1992; Laurence & Perry, 1988), PHA helped give hypnosis its name, by analogy to the amnesia commonly experienced for events that occur while we are asleep. The analogy is imperfect, however, because PHA does not occur spontaneously: it is generally understood that PHA is a product of suggestion. Along with hypnotic analgesia, PHA is the most thoroughly studied of all the phenomena of hypnosis (for references, see Kihlstrom, 2020; also Coe, 1978; Cooper, 1979; Kihlstrom & Barnhardt, 1993; Mazzoni, Laurence, & Heap, 2014; Spanos, 1986).

Much of this research has been conducted in the context of the standardized scales of hypnotizability (Hilgard, 1965), which provide a natural environment for PHA to be experienced and observed. Response to suggestions for PHA, normally tested by free recall, is highly correlated with overall hypnotizability. In the absence of suggestion, posthypnotic recall is uncorrelated with hypnotizability. Suggested, reversible amnesia, but not apparently spontaneous amnesia, belongs in the domain of hypnosis, and the latter is more properly classified as pseudoamnesia.

Subjects showing initial amnesia show improved memory after the suggestion has been cancelled, indicating that PHA is a phenomenon of retrieval, rather than encoding or storage. Reversibility occurs without the re-induction of hypnosis, so PHA is not a form of state-dependent memory. Even when hypnotizable subjects fail the standard criterion for PHA, they often produce only vague recollections, and fail to follow the actual temporal sequence of events in organizing their recall (other forms of organization are not necessarily disrupted). They also show significant reversibility after the amnesia suggestion has been canceled, strengthening the inference that they are experiencing a partial response to the amnesia suggestion.

Amnesia can also be suggested for wordlists studied during hypnosis, allowing researchers to capitalize on the “verbal learning” paradigms employed in the study of episodic memory. For example, cued recall and recognition testing improves memory during PHA, as would be expected in any disorder of memory retrieval; however, they do not abolish the amnesia entirely. Subjects instructed to simulate posthypnotic amnesia show no such improvement. PHA suggestions primarily affect explicit (conscious) memory; it spares various expressions of implicit (unconscious) memory,

including savings in relearning, practice effects, retroactive interference, and both repetition and semantic priming effects. Reliance on a priming-based feeling of familiarity enhances amnesic subjects' performance on recognition tests, but this is not the same as conscious recollection.

The dissociation between explicit and implicit memory links PHA to other memory disorders, including the amnesias observed in the dissociative disorders. Source amnesia, prominent in the neuropsychological literature on the amnesic syndrome, was initially observed in research on PHA. The neural substrates of PHA are similar to other phenomena of retrieval failure such as directed forgetting, although the two paradigms are quite distinct in terms of both procedure and outcome.

References

Coe, W. C. (1978). Credibility of post-hypnotic amnesia -- a contextualist's view. *International Journal of Clinical and Experimental Hypnosis, 26*, 218-245. doi: http://dx.doi.org/10.1080/00207147808411250

Cooper, L. M. (1979). Hypnotic amnesia. In E. Fromm & R. E. Shor (Eds.), *Hypnosis: Developments in research and new perspectives* (pp. 305-350). Chicago: Aldine.

Gauld, A. (1992). *A history of hypnotism*. Cambridge, U.K.: Cambridge University Press.

Hilgard, E. R. (1965). *Hypnotic susceptibility*. New York: Harcourt, Brace, & World.

Kihlstrom, J. F. (2020). Posthypnotic amnesia: Using hypnosis to induce forgetting. In D. Groome & M. Eysenck (Eds.), *Forgetting: Explaining memory failure*. Thousand Oaks, Ca.: SAGE.

Kihlstrom, J. F., & Barnhardt, T. M. (1993). The self-regulation of memory: For better and for worse, with and without hypnosis. In D. M. Wegner & J. W. Pennebaker (Eds.), *Handbook of mental control.* (pp. 88-125). Englewood Cliffs, NJ, USA: Prentice-Hall, Inc.

Laurence, J.-R., & Perry, C. (1988). *Hypnosis, will, and memory: A psycho-legal history*. New York: Guilford Press.

Mazzoni, G., Laurence, J.-R., & Heap, M. (2014). Hypnosis and memory: Two hundred years of adventures and still going! *Psychology of Consciousness: Theory, Research, & Practice, 1*(2), 153-167. doi: http://dx.doi.org/10.1037/cns0000016

Spanos, N. P. (1986). Hypnotic behavior: A social psychological interpretation of amnesia, analgesia, and trance logic. *Behavioral and Brain Sciences, 9*, 449-467. doi: http://dx.doi.org/10.1017/S0140525X00046537