

REMINISCENCE AND POST-REST INCREMENT AFTER MASSED PRACTICE¹

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In studies of the effects of rest pauses after massed practice, the measurement of reminiscence has often been complicated by a rapid upswing in performance during the first minute or so of post-rest practice. This has been called "warm-up decrement" by Ammons (1946), on the hypothesis that the phenomenon in question is caused by recovery of "set" lost during rest. The writer has provided some evidence in favour of an alternative theory, according to which the explanation lies rather in the extinction of conditioned inhibition due to the absence of the reinforcement normally provided by the involuntary rest pauses consequent upon the accumulation of reactive inhibition to the point where $I_R = D$. I_R having been dissipated during the rest pause, time is required for it to build up to this point again, and during this time extinction of sI_R takes place. The experiments carried out to test this hypothesis suggested that on the pursuit rotor this time was approximately 90"; this is of course only a rough estimate, and there are likely to be considerable individual differences (Eysenck, 1956).

In the previous experiment, very marked post-rest increments in performance were observed when 11 2-min. practice periods were separated by 5-min. rests; such an increment may be defined as a rapid rise in performance continued for 45" or more, following a rest period, and having a slope greatly in excess of that of the preceding 45" pre-rest period. It would seem to follow from this theory that, if practice periods were reduced from 2 min. to 1 min., thus stopping short of the point where involuntary rest pauses occur, no (or little) sI_R should be generated; consequently no extinction of this (non-existing) sI_R should take place during the after-rest practice period, and no post-rest increment should be found. Forty-five male engineering apprentices, approximately 18 yr. of age, were therefore tested on the pursuit rotor in an experiment duplicating the previous one, except for the substitution of 1-min. work periods for 2-min. work periods. The results are shown in Fig. 1; it will be seen that as predicted *all post-rest increments as defined above have been eliminated*. This result strongly supports the theory under investigation, as Ammons' warm-up hypothesis would not seem to lead to a prediction of this type. The reminiscence phenomenon, unobscured by post-rest extinction,

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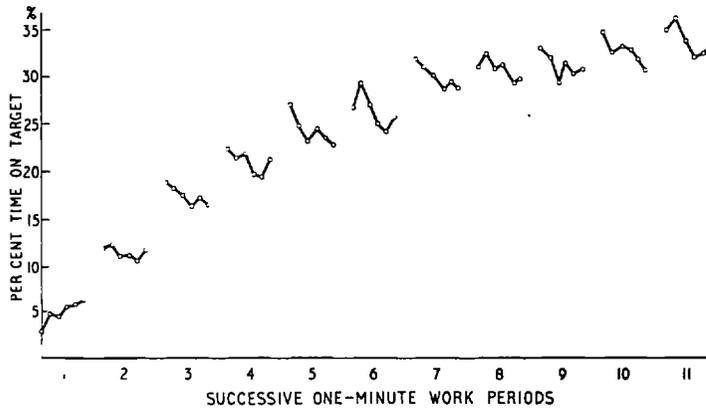


FIG. 1. Pursuit rotor performance as a function of successive 1-min. work periods ($N = 45$)

is much more prominent and much more clearly marked than in the previous experiment. Reminiscence is largest in the first few trials, smaller toward the end. This decline is not statistically significant, and may simply indicate failure to transform the measuring scale appropriately.

Summary.—Pursuit rotor data based on 11 1-min. practice periods separated by 5-min. rests support the notion that little or no sI_R is generated under these conditions ($N = 45$).

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