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## Intellectual Performance as a Function of Repression and Menstrual Cycle

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# Intellectual Performance as a Function of Repression and Menstrual Cycle

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Pages 195–196 [*infra*], from Dr. Sherman’s “Annotated Bibliography,” reprint the authors’ abstract for the paper presented at the convention of the American Psychology Association, Washington, D.C., 1976: *Intellectual performance as a function of repression and menstrual cycle*.

Pages 31–32 [also *infra*], from “Chapter 2: Conceptual, Methodological, and Design Problems,” present Dr. Sherman’s assessment and comments on the results presented in that paper.

Englander-Golden, P.; Willis, K. A.; and Dienstbier, R. A.: Intellectual performance as a function of repression and menstrual cycle. Paper presented at the convention of the American Psychology Association, Washington, D. C., 1976.

Performance on complex (Space Relations and Verbal Reasoning) and simple (Digit Symbol) tests was investigated as a function of Byrne's Repression-Sensitization (RS) dimension, phase of menstrual cycle and premenstrual-menstrual (PM) symptomatology in a group of females not taking oral contraceptives. Two control groups, consisting of males and females taking oral contraceptives, were included. Equivalent tests were given at two sessions two weeks apart. Analysis of the Space Relations Test as a function of menstrual phase and Repression-Sensitization indicated the predicted interaction effect of phase by RS with poorest performance for the menstruating repressor group ( $p < .02$ ), but the predicted deterioration by the premenstrual repressor group was not observed.

Similar analysis for the Verbal Reasoning Test yielded an interaction effect of phase by RS ( $p < .03$ ) and a main effect for phase ( $p < .05$ ). As predicted, differences on the Digit Symbol test did not reach significance. Substituting PM symptomatology for RS, a significant effect was obtained only for phase on Verbal Reasoning Test ( $p < .05$ ). Results were interpreted as indicating a reactive nature of repression, so that during menstruation, repression may interfere particularly with performance on complex tasks. The three subject groups did not differ significantly on any of the three tests; however, trends in the present data corroborated those quoted in the literature (author abstract).

### **Cyclic Phenomena**

Englander-Golden et al. (1976) hypothesized that some apparent performance differences between the sexes might be artifactual in the sense that after adolescence, the possibility exists that an unstressed male group could be compared with a female group containing variable numbers of women under menstrual stress. They hypothesized that some women react to stress stemming from menstruation phenomena with decrements in performance on complex tasks. They formulated their hypothesis focusing particularly on the performance of complex spatial

tasks, since a difference between the sexes in the performance of such tasks has been thought to emerge at adolescence. They did not predict any main effects of phase of the menstrual cycle on intellectual performance since there is very little evidence of such effects (Sherman, 1971; Sommer, 1972).

Englander-Golden et al. (1976) demonstrated that women who are repressors, as measured by Byrne's (1961) Repression-Sensitization scale, showed a performance decrement during the menstrual phase of the cycle but not during the premenstrual or mid-cycle phase (days seven to thirteen). Performance decrements were found on both a complex spatial task and a complex verbal task (Space Relations test and Verbal Reasoning test of the Differential Aptitude Test, Bennett et al., 1952). They did not find such effects for a simple repetitive task (Digit Symbol subtest from the Wechsler Adult Intelligence Scale, Wechsler, 1955). These results raise the possibility that some or all of the performance differences between the sexes in postpubertal groups can be attributed to the presence among the females of greater numbers of persons coping poorly with stress related to menstruation. Replication of these findings and careful comparison of the sexes with larger samples, controlling for menstrual cycle phase, will be needed to shed further light on this possibility.