ing period. Analysis of variance yielded significant main effects of treatment conditions ($F = 7.58$, d.f. 2/18, $P < .01$) and blocks of days ($F = 5.06$, d.f. 3/27, $P < .01$). As the interaction was insignificant ($F < 1.0$ overall treatment means were compared by the Newman-Keuls procedure (3). The E trials were significantly slower ($P < .05$) than N or R trials. Figure 2 shows the running speeds were slower on extinction as were again slower than trials on new paper after the first three test days. Trials on reward paper displayed a more aberrant trend measured by running speed than by starting speed. The R trials were slower than E and N trials over the first half of testing. However, from day 7 until the end of the testing period, performance on reward paper was coincident with trials on new paper; both were faster than trials on extinction paper. Analysis of variance yielded only a significant main effect of treatment conditions ($F = 3.66$, d.f. 2/18, $P < .05$). Again the interaction was insignificant ($F = 1.74$, d.f. 6/54, $P > .10$) and comparison of the overall treatment means was made by the Newman-Keuls procedure. The E trials were significantly slower ($P < .05$ than N, but not R trials.

These results indicate that the odor trace of a rat undergoing experimental extinction can significantly disrupt the performance of a subsequently run animal that was continuously reinforced. This disruption has previously been termed the "pseudo-extinction" effect and was evidenced as slower starting speeds on E as compared to N and R trials and slower running speeds on E as compared to N trials. This suggests that the mere traversal of another subject is not sufficient to disrupt the succeeding animal's performance. Rather, the state of the animal laying the trace seems to be critical in the elicitation of competing behaviors within the experimental animals. The pattern of results evidenced by the two dependent variables was different. There is the possibility that the repeated testing procedure had differential effects on running than on starting times, this influencing the time course of the observed effects.

Our experiment does not discriminate between qualitative and quantitative odor effects since experimentally extinguished animals were on the paper floor longer than rewarded animals. Nor does it identify the olfactory stimuli involved, particularly whether these olfactory stimuli are isolable from those

of the excretory products deposited by the ET animals. The experiment does, nonetheless, demonstrate the importance of olfactory stimuli to the "pseudo-extinction" effect.

Rats can discriminate odors from animals of the same species put under stress by electric shock (4). Experimental extinction is apparently a situation capable of producing the emission of some olfactory stimulus which, when present on the paper floor of a subsequently run animal, elicits some behavior which interferes with running for food reward. Such odor effects appear to be an important, potential confounding variable in studies where learning rather than the transmission of information between conspecifics by chemical means is investigated (5). Results from situations involving noxious stimulation, such as electric shock or nonreward, which seem likely to increase the probability of odor emission, should be reevaluated because of such

confounding. Control for odor effects would seem desirable if interpretation of experimental outcomes is to be unambiguous.

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Occurrences of CaCO₃ • H₂O and Its Naming

In the report by Marschner (1) of the formation of the compound $CaCO_3 \cdot H_2O$ ("hydrocalcite") in scales deposited from cold waters, the statement that "it has hitherto not been observed in nature" is incorrect; the compound was first observed in 1959 in bottom sediments from Lake Issyk-Kul, Kirgizia, by Sapozhnikov and Tsvetkov (2), whose analysis gave $CaCO_3 \cdot 0.65H_2O$. In 1964, Semenov (3) showed that the optical and x-ray data for the material corresponded to those for the well-known synthetic compound, hexagonal $CaCO_3 \cdot H_2O$. The x-ray powder diffraction data differ slightly in spacings and intensities from those of Marschner but undoubtedly refer to the same compound.

A second occurrence of $CaCO_3 \cdot H_2O$ was reported in 1963 by Carlström (4), who found it in trigonal crystals ($a = 6.100$ Å, $c = 7.553$ Å) among the statoconia of the tiger shark Galeocerdo cuvier.

Semenov (3) named the material

monohydrocalcite, and this name has priority over Marschner's "hydrocalcite." The latter name is doubly unacceptable, because it had already been used by Kosman in 1892 to designate material that was perhaps $CaCO_3 \cdot 2H_2O$ or $CaCO_3 \cdot 3H_2O$ (5). This is an excellent example of unnecessary confusion in the mineralogical nomenclature that could easily have been avoided if the proposed new name had been referred to the Commission on New Minerals and Mineral Names, International Mineralogical Association.

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Hard Clam Pumping Rates: Energy Requirement

The paper by Hamwi and Haskin (1) on oxygen consumption and pumping rates in Mercenaria mercenaria seems to draw a conclusion not warranted by the data they presented. I have reproduced their Fig. 2, from which they conclude that pumping rate may be regulated by oxygen require-