partially successful vomiting movements—after 6 doses; four after 7 doses; and one after 8 doses.

After its development, or first exhibition, the conditioned reflex was not invariably obtained on succeeding days from all of the birds. In one mature bird it was invariable during the 11 tests. In the mature birds which developed the reflex it was thus present in 63% of the later tests. On several days the immature birds were dosed twice daily; and the 16th to 20th doses (for 3 birds continued beyond the 15th dose) were of double strength. During this latter period only one bird continued to show the reflex before feeding, and only in a few cases was the normal reflex observed after feeding. Omitting this exceptional period of heavy feeding and unusual response, 4 of the immature birds showed the conditioned reflex to the following extent; in 8 of 9 tests; in 8 of 8 tests; in 2 of 8 tests; and again in 2 of 8 tests. One bird sickened early, showed the reflex once, and died 4 days later; another exhibited the conditioned reflex on the 8th day and failed to do so on 8 days thereafter.

Summary. A conditioned emetic reflex was usually, but not always, obtained in mature and immature doves and pigeons after 3 to 8 oral administrations of yohimbine hydrochloride. Individuals vary greatly in their normal emetic response to this drug, in their development of the conditioned emetic reflex, and in the constancy of its exhibition after it is developed. Though emesis is utilized normally to a far greater extent in mature than in immature birds our tests do not show that the conditioned emetic reflex is obtained in one age-group more readily than in the other.

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Serological Tests With the Blood of Cavia porcellus and Cavia rufescens.

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In order to gain further information on the inheritance of serological characters in the hybridization of species,[1] an attempt has been made to find an instance of fertile species hybrids where a serological differentiation of the parent types would be possible. A

[1] Landsteiner, K., and Van der Scheer, J., *J. Immunol.*, 1924, **9**, 213, 221.

material answering these requirements consists of the two sorts of cavies mentioned in the title, the cross of which has been studied extensively by Detlefsen.[2] As established by this author, the F_1 females are fertile when mated with either of the parent species.

When the blood and serum of the two species were allowed to interact, no hemagglutination or hemolysis took place. It was not difficult, however, to obtain hemolytic sera by several intraperitoneal injections of 0.5 cc. washed blood of the wild Brazilian guinea pig into the common domestic guinea pig. An experiment with one of the most active immune sera gave the following results:

TABLE I.

2 drops immune serum, 1 drop 2½% suspension of washed blood; tests kept at 37°.

Blood of											Reading after
10 common guinea pigs	0	0	0	0	0	0	w	0	0	0	5 min.
	0	0	0	0	0	0	d	0	0	0	1 hr.
5 hybrids	w	w	st	w	c						5 min.
	st	st	a.c	st	c						1 hr.
10 wild Brazilian guinea pigs	a.c	c	a.c	a.c	c	c	c	c	a.c	c	5 min.
	c	c	c	c	c	c	c	c	c	c	1 hr.

w=weak; d=distinct; st=strong; a.c=almost complete; c=complete hemolysis.

In all, 20 Brazilian and 23 common guinea pigs were examined. Whereas the cells of all the former reacted positively with varying intensities, the blood of only one common guinea pig gave a distinctly positive reaction, although to a considerably lesser degree than any individual of the other species. The bloods of 6 hybrids (♂ *Cavia rufescens* × ♀ *Cavia porcellus*) showed positive reactions, but with one exception these were weaker than those obtained with the wild type.

On inactivating the sera, similar differences were demonstrable by hemagglutination.

It is proposed to extend these studies to further generations and to search for other reactions differentiating not only the blood cells but, if possible, also the proteins of the two kinds of animals.

[2] Carnegie Institution of Washington, Publication No. 205, 1914.