

drop. Partial castration, beyond a critical range, delays the maturation of sexuality.

There is a group of activity patterns which cluster around and intercorrelate with primary sexual activity; these patterns have been termed "secondary sex behaviour". Partial castration to some extent, and complete castration to a greater degree, tend to dissociate temporarily the concomitance of the two forms of activity. There is a compensatory aggressiveness of the females associated with some partial and all completely castrated males. It is suggested that the cyclic character of the reproductive activities of the male pigeon is largely determined by the changing behaviour of his female mate.

Histologically, there is evidence that reorganization and growth may occur after partial abolition of the male primary sex-organ. M. HAMBLIN SMITH.

*The Responses of Horses to the Situation of a Closed Feed-box.* (*Journ. Comp. Psychol.*, vol. xv, p. 445, June, 1933.) Gardner, L. P.

The problem which confronted the horses was to open a covered feed-box containing grain. Sixty-eight subjects of various ages and breeds were used. The rate of learning was very rapid; three or four trials perfected the opening technique. Retention of this learning lasted, in some cases, for six to twelve months. Younger horses were somewhat slower than older subjects. Sex differences were not great. In first trials draft horses and farm horses opened the boxes more quickly than did military horses. M. HAMBLIN SMITH.

*Delayed Reactions in Primates in Horizontal and Vertical Planes.* (*Journ. Comp. Psychol.*, vol. xvi, p. 143, Aug., 1933.) Yudin, H. C., and Harlow, H. F.

It is more than conceivable that differences in rate of acquisition of horizontal as opposed to vertical spatial orientation might influence mnemonic ability of these fields. If such tendency exists, it should be exaggerated in the monkey as compared with the child, for the monkey is a vertically-minded creature as contrasted with the horizontally-minded infant. Four monkeys were tested. No evidence was obtained to indicate that monkeys show superior ability in making delayed reactions to containers placed in vertical planes than to those in horizontal planes. M. HAMBLIN SMITH.

*Social Behaviour of Primates. I: Social Facilities of Feeding in the Monkey and Its Relation to Attitudes of Ascendance and Submission.* (*Journ. Comp. Psychol.*, vol. xvi, p. 171, Oct., 1933.) Harlow, H. F., and Yudin, H. C.

Social behaviour arises out of simpler individual functions, of which it is probable that the most important are the primary drives of sex, hunger, thirst, etc. These primary drives set up a condition of excited and emotional behaviour which is not specific to the particular tension, thus predisposing response to factors in the environment. Social factors, acting through imitation, tend to increase this non-specific behaviour; this condition is described as social facilitation. Such facilitation may be demonstrated experimentally in the monkey. The degree of facilitation depends upon many factors, of which active competition is probably the most important. Feeding behaviour leads to the formation of many important forms of social behaviour, such as attitudes of ascendance-submission, and to emotional behaviour, which may be described, anthropomorphically, as greed, envy and fury. It is suggested that social facilitation of feeding responses may play an important part in the formation of more complicated social attitudes. M. HAMBLIN SMITH.

*Comparative Behaviour of Primates. VI: Food Preferences.* (*Journ. Comp. Psychol.*, vol. xvi, p. 187, Oct., 1933.) Maslow, A. H.

Ten primates were tested for food preferences, as regards bananas, oranges, apples, carrots and bread. The preferences varied from day to day, in the same