

New York Academy of Sciences Prof. Osborn, in arguing that the environment is one of the causes of adaptations, stated that lime is the cause of teeth, because teeth depend on the existence of lime and vary with its abundance. It is true that there could be no teeth if there were no lime, but teeth do not result from the mere presence of lime in the environment. Lime is one of the material causes and occasions of teeth, but it has not been shown that it is their efficient cause. It would seem that the environment is more often the cause of the destruction of life than the cause of its development.

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INSTINCT.

IN Prof. Mills' communications on 'Instinct' he seems to have missed the point in the case of each of those criticised—the 'writer of the note,' Prof. Morgan and myself. In the case of the fowl's drinking, it is not the mere fact that drinking and eating may differ in the degree to which the performance is congenital; the reports seem to show that this varies in different fowl; but that instincts (in this case drinking) may be only half congenital, and may have to be supplemented by imitation, accident, intelligence, instruction, etc., in order to act, even when the actions are so necessary to life that the creature would certainly die if the function were not performed. That is the interesting point.

Then, in criticising me, Prof. Mills accuses me of ignoring the 'effects of environment and of use.' On the contrary, these are just the facts which I appeal to. By adaptations to the environment and by use the creature manages to keep alive; other creatures die off; so certain determinate directions of congenital variation are singled out and inherited. Thus phylogenetic variations become determinate, just through these ontogenetic adaptations. This takes the place of the Lamarckian factor. Lamarckism is an 'obvious' resort in all cases, of course, but it seems to me so easy that in many cases it is shallow in the extreme.

But my view is very far from being Weismannism. I reach determinate variations by means of new functions or adaptations which

keep certain animals alive to propagate. It is really a new theory, as Prof. Osborn, who has reached about the same point of view, declares. This is also just the value which Prof. Morgan attaches to his observations.

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PRINCETON, April 17, 1896.

STUDIES IN THE MORAL DEVELOPMENT OF CHILDREN.

The Relation of the Child to Authority.

IT is desired to obtain data for a study of the attitude of young children toward parental authority, with a view to determining what sort of discipline, instruction and appeal is best calculated to develop in children a proper recognition of the parent's authority and a readiness to submit to it.

Parents who are willing to aid in the investigation are requested to carry out the following experiments, and to report the results.

1. Try different punishments for the same offence, as follows:

(a) *For Naughtiness at Table*: (1) Corporal punishment, though not necessarily severe. (2) Sending the child away from the table, with permission to return as soon as he is ready to be good. (3) Having the child eat by himself in the kitchen.

(b) *For Sauciness to Parents*: (1) Corporal punishment. (2) Sending the child into the bedroom to stay till he is ready to take back what he said. (3) Refusing to caress the child or to be caressed by him until he is ready to make up and say he is sorry. Of course, it may sometimes be hours after the offence before occasion is given for applying this last penalty, the parent meanwhile seeming to have ignored the offence. If the child has not made up before bedtime, then put him to bed without his usual kiss, explaining why you do so.

(c) *For Taking a Toy Belonging to a Playmate* (whether by force or stealth), with a resulting outcry on the part of the playmate: (1) Compelling the child by corporal punishment, or the threat of it, to return the toy to the playmate. (2) Taking the toy away by force and returning it to the playmate, and sending the child into the bedroom for five minutes. (3) Giving one of the child's favorite toys (not