ON THE Hr FACTOR AND THE Rh GENETIC THEORY

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In the recent discussions on the genetics of the Rh multiple alleles, no provision is, as yet, made for the role of a gene determining the Hr factor.\(^1\,^2\) This agglutinatable property was described very early in the course of the studies on the pathogenesis of erythroblastosis fetalis.\(^3\) It was advisedly designated by Levine\(^4\) as Hr (reversal of the letters Rh) because of peculiar relationship to a special variety of anti-Rh sera, now designated anti-Rh'. This is indicated in Table 1, which gives, at the same time, the four subtypes of Rh and their frequencies resulting from the reactions of anti-Rh\(_{o}\) and anti-Rh' sera.

From the beginning of the studies on erythroblastosis fetalis, Levine has held to the view that the relationship of the anti-Hr and anti-Rh' sera is analogous to that of anti-M and anti-N sera. In other words, only three types of reactions are observed, and in both systems bloods failing to react with both anti-sera were never found. It was only after hundreds of bloods were tested that the term Hr and anti-Hr were designated. These results were not published more fully because it was clear that the first anti-Hr serum was of weak activity and gave too many negative reactions.

Subsequently, Race and Taylor described a similar