

30 c.c. without food they were increased by 2.9. In order to determine more exactly when the food influence disappeared, I subsequently made systematic observations at various times after a substantial meal had been taken.* In every case 45 c.c. of alcohol were drunk (during a period of 6 minutes) in the form of a whisky mixture, one series of observations being made with an alcoholic concentration of 10 per cent., and the other with one of 28.6 per cent. The means of the two sets of observations are reproduced in Fig. 7, and it will be seen that though in every instance the consumption of the alcohol was followed by a gradual waxing and waning in the number of mistakes made, the magnitude of the effect varied greatly. If we take as a measure of the alcohol effect the increase in the number of "corrected mistakes" made at the height of the effect over those made in the pre-alcohol typing tests, we find that alcohol drunk immediately after a meal caused an increase of 1.7. Taken 1 and 2 hours later it caused an increase of 2.5 and 2.9 respectively; but when taken $3\frac{1}{2}$ hours later, it caused an increase of no less than 7.6. This sudden jump in the toxic action of the alcohol which ensued about 3 hours after food was taken is well shown in Fig. 8, for here we see that the rise of toxicity was slow in the 7 to 20 hours after the meal just as it was slow in the first 2 hours after. Only at the one point, which coincides with the time when the stomach rapidly ejects into the intestine all the food which still remains in it, was it very quick.

The influence of food on the toxic action of alcohol depends on several factors. The food dilutes the alcohol considerably; but more important than this, it

* H. M. Vernon, *Brit. Journ. Inebriety*, 1921, p. 109.