structural analogs of one another, hippuryl-L-phenylalanine and hippuryl-L-β-phenyllactic acid, offer a more suitable comparison. When carboxypeptidase A was acetylated, the k_{cat} of the peptidase reaction went down about 7-fold whereas the k_{cat} of the esterase reaction went up about 2.5-fold (and the substrate inhibition disappeared). The effect of enzyme acetylation is slightly greater with hippuryl-L-phenylalanine than with benzyloxycarbonylglycyl-L-phenylalanine. On the other hand, on acetylation of the enzyme, the K_m(app) of the esterase reaction went up by about 40-fold while that for the peptidase reaction did not change. Thus, for this apparently comparable set of substrates, the behavior produced by acetylation of the enzyme is not easily rationalized.

In general, no clear-cut mechanistic implications may be drawn from these kinetic results. The structural requirements of the active site have been changed by the extensive acetylation, presumably of two tyrosine residues (Simpson *et al.*, 1963), as reflected in the increase in K_m(app) of two of the three substrates tested. This increase in K_m(app) could indicate either that the tyrosines are involved in the binding of the substrate to the active site or that acetylation simply introduces steric hindrance to the site. The small effects of acetylation on k_{cat} are also difficult to interpret mechanistically.

Enzyme 2, with an intermediate degree of acetylation, gave changes in k_{cat} and K_m(app) which were intermediate between the results obtained with the unmodified enzyme and the more extensively acetylated enzyme 3. These results indicate that an enzyme more extensively acetylated than enzyme 3 should show even more extensive changes in k_{cat} and K_m(app) than those changes reported here.

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CORRECTION

In the paper entitled Catalysis of the H_2–HTO Exchange by Hydrogenase. A New Assay for Hydrogenase, by S. R. Anand and Alvin I. Krasna, in Volume 4, No. 12, p 2747, December 1965, the following corrections should be made: *All* tritium activities in units of mv reported in the text, Figures 2, 3, and 4, and Table I are to be decreased by a factor of 100. This does *not* cause any change in any other values reported in the paper.