

game here is to see what can be done without invoking such possibilities. There is an alternative possibility, which is in the spirit of the present discussion and which could preserve the otherwise attractive features of the model; namely, one can imagine a substantial increase in the number n of color triplets of quarks that enter into the strong interactions. This would intensify octet enhancement; yet other effects on present weak interaction phenomenology would be negligible if the new quarks were not coupled with the light ones in the weak interactions.

Model B: In this model⁹ octet enhancement has a chance to be quite substantial. The point is that a right-handed current appears in the model, hence an operator θ_{LR}^+ associated with a large logarithmic enhancement, as we see from Table 1. Moreover, the Wilson coefficient which multiplies this operator does not contain the Cabibbo factor $\sin \theta_c$ that appears in the coefficient of θ_{LL}^- . The net enhancement (for $n = 4$) is therefore of order $12.5 / \sin \theta_c \approx 60$. Unfortunately, as we've already noticed, this model runs into trouble with the $K_L - K_S$ mass difference.

In Sec. II we also commented on a variant of model B, obtained by replacing the right-handed doublet (p'_R, n_R) with (p'_R, λ_R) . This produces the enhancement factor 12.5 and does not involve any obvious difficulties for the $K_L - K_S$ mass difference.

Model C: This model is identical with the variant of model B just discussed as far as octet enhancement is concerned, except now $n = 6$.