model.

b) Right-handed coupling to p quarks:

This has similar effects in $\bar{\nu}$ scattering at high energy. The dimuons would be produced with a fast μ^+. The apparent breakdown of scaling would be dramatic, since now 1 is competing with $(1-y)^2$ instead of the other way round. $\sigma_\nu / \sigma_{\bar{\nu}}$ would approach 3/4, from 3/1! The y-distribution for dimuon events alone would be flat. There is presently little experimental support for this possibility.

Of course, one can combine a) and b).

c) Production of baryon resonances:

In the ordinary charm picture, production of baryon resonances by neutrino scattering off nucleons is a $\sin^2 \theta_c$ process. If some new quark coupled to a right-handed n quark (again, this probably could not be the usual GIM charmed quark) then one could get substantial resonance production. If some new quark couples to a right-handed p quark, similar remarks apply to $\bar{\nu}$ scattering off nucleons.

d) Diagonal neutral currents:

We consider the effects of adding extra right-handed pieces to the neutral current in the context of the parton model with valence quarks only. In the SU(2) $\times$ U(1) theories under consideration the neutral current involving valence quarks will take the form

$$\bar{p}_L \gamma_\mu p_L - \bar{n}_L \gamma_\mu n_L + \alpha\, \bar{p}_R \gamma_\mu p_R - \beta\, \bar{n}_R \gamma_\mu n_R - 2 \sin^2 \theta_W j_\mu^{e.m.}$$