I. INTRODUCTION

The recently discovered ψ and ψ' resonances[1] have been widely interpreted as evidence for new ingredients of hadronic matter, going beyond the "usual" SU(3) triplet of p, n and λ quarks. The possibility of such a proliferation of quarks had already suggested itself on the basis of other, earlier considerations. A fourth, charmed quark[2] had been introduced to resolve certain problems in the weak interactions (suppression of $\Delta S = 2$ nonleptonic transitions and of $\Delta S = 1$ neutral currents); and a color tripling of quarks had been proposed to deal with various issues in the strong interactions (restoration of the connection of spin and statistics for the quark model of hadrons, implementation of the ideas of asymptotic freedom, etc.) The four quark scheme (with color tripling) emerged as the simplest picture which, qualitatively at least, incorporates the standard phenomenology of weak interactions involving ordinary hadrons. In this framework the ψ resonances have been described, alternatively, as color singlets formed of charmed quark-antiquark pairs, or as color octets. It is by no means clear yet that either interpretation will prove to be tenable; and indeed the new discoveries have already spawned various schemes involving still more quarks.[3] Further progress awaits the discovery of hadronic states which more directly suggest the existence of new quantum numbers and correspondingly, on the quark picture, of new quark types.