way, is the seventh component of a pseudoscalar octet with $\mathcal{C} = +1$. Again $CP = +1$, but the transition between the p-v spurion and K_1^0 is forbidden by SU(3). This fact tends to make alternative (b) above somewhat less attractive than it was without unitary symmetry.

Next, consider the transition from the p-v spurion to $K_1^0 + \pi^+ + \pi^-$ or $K_1^0 + \pi^0 + \pi^0$ in a symmetrical state, which is responsible for the decays $K_1^0 \to 2\pi$. Since the K and π's all belong to the same octet, the unitary spin coupling of the three octets to form the fourth must be totally symmetric. With this coupling, we can form out of $K_1^0 + 2\pi$ the seventh component of a pseudoscalar octet with $\mathcal{C} = +1$ (like K_1^0) but not the sixth component of a pseudoscalar octet with $\mathcal{C} = -1$ (like the p-v spurion). Thus, $K_1^0 \to 2\pi$ is forbidden[8] by SU(3).

Finally, the property $\mathcal{C} = -1$ of the p-v spurion gives one condition on the four independent observable p-v amplitudes A in the weak decay of strange baryons into baryon plus pion:

$$-A(\Lambda \to p + \pi^-) + 2A(\Xi^- \to \Lambda + \pi^-) = \sqrt{3}A(\Sigma^+ \to p + \pi^0).$$

This condition, compatible with experimental evidence, is valid in the limit of unitary symmetry in the model presented here. In references 6 and 7, the same condition is found for both p-v and p-c amplitudes, but on the basis of R invariance, which does not appear to be a good approximation, at any rate for baryons.

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[1]M. Gell-Mann, California Institute of Technology Synchrotron Laboratory Report CTSL-20, 1961 (unpublished); Phys. Rev. 125, 1067 (1962).

[2]Y. Ne'eman, Nucl. Phys. 26, 222 (1961).

[3]M. Gell-Mann and M. Lévy, Nuovo Cimento 16, 705 (1960). See also M. Gell-Mann, Proceedings of the Tenth Annual International Rochester Conference on High-Energy Physics, 1960 (Interscience Publishers, Inc., New York, 1960).

[4]N. Cabibbo, Phys. Rev. Letters 10, 531 (1963).

[5]The current evidence for this rule is reviewed by R. H. Dalitz (to be published).

[6]Benjamin Lee (to be published).

[7]Hirotaka Sugawara (to be published).

[8]The author is much indebted to Professor Cabibbo for a discussion of this matter. N. Cabibbo (to be published) points out that with $K_1^0 \to 2\pi$ forbidden by SU(3), the comparatively high rate of $K^+ \to 2\pi$ need not be an obstacle to a theory of purely electromagnetic violation of the nonleptonic rule $|\Delta\vec{I}| = 1/2$, in accordance with possibility (a) above. One simple theory of type (a) would involve a single neutral current, transforming like $(-F_3 - 3^{-1/2}F_8)\cos\theta + (F_6 + iF_7)\sin\theta$, to accompany the single charged current transforming like $(F_1 + iF_2) \times \cos\theta + (F_4 + iF_5)\sin\theta$. Each would be multiplied by its Hermitian conjugate.

ERRATA

Σ-RADIATIVE DECAY AS A METHOD OF DETERMINING THE ANGULAR MOMENTUM OF THE Σ-PIONIC DECAY. Saul Barshay, Uriel Nauenberg, and Jonas Schultz [Phys. Rev. Letters 12, 76 (1964)].

In Fig. 3 the dashed lines refer to the P-wave case and the solid lines to the S-wave case.

VARIATIONAL PROPERTY OF FREE-ENERGY PERTURBATION THEORY. Harold Falk [Phys. Rev. Letters 12, 93 (1964)].

A printer's error occurred in the last term of Eq. (4). In the upper limit of the $d\lambda_1$ integral, the subscript p should be deleted. In Eq. (7), the exponent of $(-\beta)$ should be $m - 1$.