A bounded subset $M$ of the Banach space $X$ is said to be a Dunford-Pettis ($DP$) subset of $X$ if $T(M)$ is relatively compact in $Y$ whenever $T : X \to Y$ is weakly compact, and $M$ is said to be a strong (or hereditary) $DP$ set if $U$ is a $DP$ subset of the closed linear span $[U]$ of $U$ for each non-empty subset $U$ of $M$. Note that the unit ball of any infinite dimensional separable reflexive space is a $DP$ subset of $C[0, 1]$ and is not a strong $DP$ set.

**Theorem.** The Banach space $X$ does not contain a copy of $c_0$ if and only if every strong $DP$ subset of $X$ is relatively compact.

As a corollary of this theorem, we give an elementary and self-contained proof of a generalization of J. Elton’s trichotomy.

**Corollary** If $X$ is an infinite dimensional Banach space, then $c_0$ embeds in $X$, $\ell_1$ embeds in $X$, or $X$ contains a weakly null Schauder basis $(y_n)$ so that $\{y_n : n \in \mathbb{N}\}$ is not a $DP$ subset of $[y_n : n \in \mathbb{N}]$ and thus $[y_n : n \in \mathbb{N}]$ does not have the DPP. (Received August 07, 2004)