1025-49-196   **Doug E. Ward*** (`wardde@muohio.edu`), Dept. of Mathematics and Statistics, Miami University, Oxford, OH 45056. *On an inclusion of Tanino in multiobjective optimization.* Preliminary report.

Let E and Z be real normed spaces and F a set-valued mapping from E to Z. Let P be a closed convex pointed cone in Z with a compact base. Define the mapping $F + P$ from E to Z by setting

$$(F + P)(x) = F(x) + P \quad \forall x \in E.$$

For $S \subset Z$, define the set of *P-minimal points* of S by

$$\text{Min}_P S := \{z \in S \mid (S - z) \cap (-P) = \{0\}\}.$$

In a 1988 study of sensitivity analysis in multiobjective optimization, T. Tanino derived an inclusion relating the contingent derivative of F and the set of minimal points of the contingent derivative of $F + P$. In this talk, we look at the question of whether Tanino's inclusion has analogues for other types of generalized derivatives. We also establish a corresponding inclusion for second-order generalized derivatives. (Received January 22, 2007)