Justin Edward Sukiennik* (jsukienn@umn.edu), 4 Vincent Hall, 206 Church St. SE, Minneapolis, MN 55455. Height variations with change of variables.

We will look at two strict, or "best possible", upper bounds for the differences in the height of a point and its affine linear image over a number field. From these results, we can demonstrate an asymmetry when we interchange the difference terms, which seems to run counter-intuitive to a result in a paper by C. Petsche, L. Szpiro, and T. Tucker. The proof the bounds are in fact strict follows mainly from Artin and Whaples Approximation Theorem. (Received September 22, 2010)