W dodatku kiedy $i=j$

$$H'_{n,i}(x_i) = -2L'_{n,i}(x_i)\cdot L^2_{n,i}(x_i) + [1 - 2(x_i - x_i)L'_{n,i}(x_i)]2L_{n,i}(x_i)L'_{n,i}(x_i)$$
$$= -2L'_{n,i}(x_i) + 2L'_{n,i}(x_i) = 0.$$

Więc $H'_{nj}(x_i) = 0 \quad \forall\ i,j$

Mamy też

$$\hat{H}'_{n,j}(x_i) = L^2_{n,j}(x_i) + (x_i - x_j)2L_{n,j}(x_i)L'_{n,j}(x_i)$$
$$= L_{n,j}(x_i)[L_{n,j}(x_i) + 2(x_i - x_j)L'_{n,j}(x_i)],$$

Czyli $\hat{H}'_{nj}(x_i) = 0$ gdy $i \neq j$ $(L_{n,j}(x_i) = 0)$

$\hat{H}'_{ni}(x_i) = 1 \Leftarrow (x_i - x_i) = 0,\ L_{ni}(x_i) = 1$

Więc

$$H'_{2n+1}(x_i) = \sum_{j=0}^{n} f(x_j)\cdot 0 + \sum_{\substack{j=0\\ j\neq i}}^{n} f'(x_j)\cdot 0 + f'(x_i)\cdot 1 = f'(x_i).$$