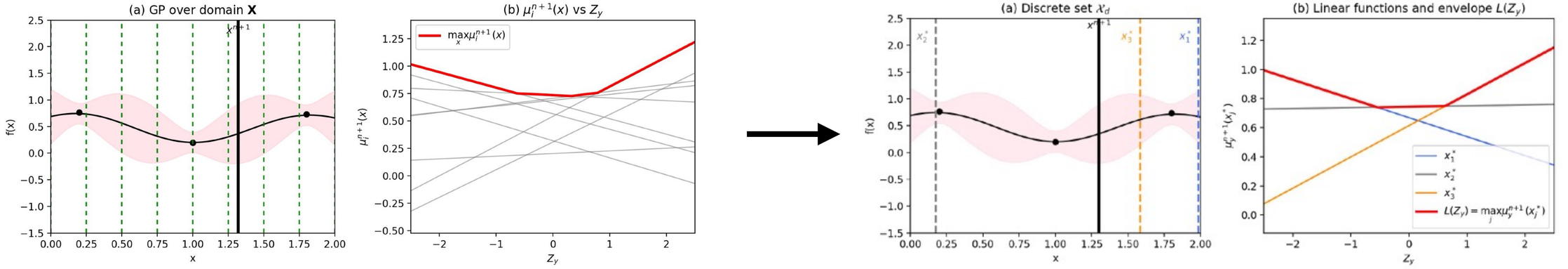
High Value Linear Envelope -1

Pearce et al. [2020]

- Fixed discretization grows with number of dimensions
- Many of the points don't contribute to the max
- Pearce et al. propose a different way of discretazing the domain where all discretization points contribute to the max and number of points don't grow with number of dimensions



High Value Linear Envelope - 2

Pearce et al. [2020]

- Select a few quantiles of the standard normal variable Z_y, for example $Z_y \in \{-1,0,1\}$. These correspond to possible realizations of the future observation y^{n+1}
- For each sampled value of Z_y, update the GP posterior and obtain the point x_j that maximizes this updated mean