

**Lemma.** Let  $f : \mathbf{P} \times \mathbf{Q} \rightarrow \mathbf{Q}$  be Scott continuous. For each  $x \in \mathbf{P}$ , define  $f_x : y \mapsto f(x, y)$ . Then  $f^\dagger : x \mapsto \text{lfp}(f_x)$  is Scott continuous.