

Handout 2

Linking Concepts in Welfare Theory

I. Alternative Social Goals (SW, P, PP) Independent of Private Action

A. Selecting a best state (optimizing)

1. $SW \max \begin{matrix} \xRightarrow{\text{(Thm III)}} \\ \not\Leftarrow \end{matrix} PO$ (Presumably, there is but one SW function)
2. For PPO, there are ∞ variants (over all utility bases where a single utility basis is $\underline{U} = (\bar{U}^1, \bar{U}^2, \dots, \bar{U}^H)$, a vector of constants).
Let **PPO** denote the family of all possible PPO.
3. a $PPO \subset PO$, so $PPO \Rightarrow PO$, but $PO \not\Rightarrow PPO$.
4. **PPO** \equiv PO
5. Each PP criterion performs like a SW function (similarly sharp), but: $PPO \neq SW \max$ because the embedded interpersonal weights are likely different.

B. Comparing two states (improvement criteria)

1. The PI criterion cannot judge if there is at least one winner and one loser in the move.
2. The PPI can judge if there are winners and losers in the move.
3. The SWF can judge if there are winners and losers in the move.

Let **PPI** denote the family of all possible PPI.

4. **PPI** \equiv PI in that some PPI will make one choice between two states, but other PPI will make the opposite choice.

II. Social Goals in Relation to Idealized Private Action

