

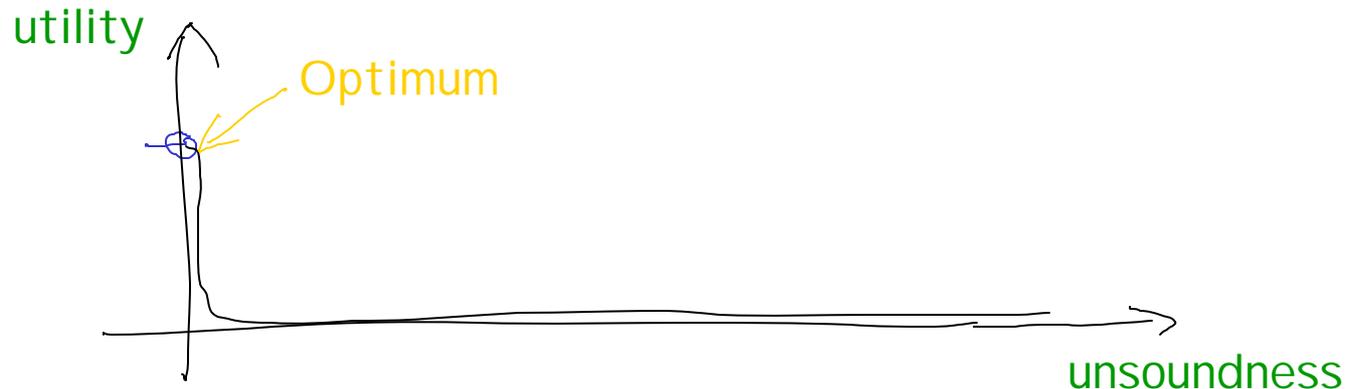
Soundness and Its Role in Bug Detection Systems

-- An Economic Perspective

Yichen Xie
Mayur Naik
Brian Hackett
Alex Aiken
Stanford University

Soundness has a cost

- Compilers
 - cost: missed optimization opportunity
 - alternative: wrong program!!
 - “utility curve”:



Soundness has a cost (cont'd)

- Bug detection
 - cost: false positives
 - alternative: missed errors
- ... but, they're there anyways

