

# Comments on the papers in this session

Anna Alberini

University of Maryland

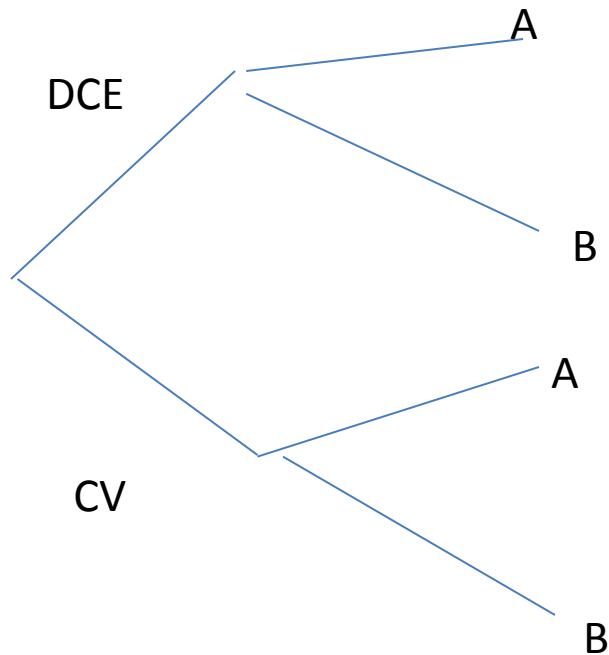
ECHA Workshop, Helsinki, 11-12 January 2016

# Andersson et al. paper

- Scope tests in mortality and morbidity risk valuation using discrete choice experiments and contingent valuation
- ...but
  1. This is a research agenda from 20 years ago
  2. Extreme awareness about the importance of passing the scope test in most SP mortality and morbidity risk studies
  3. Many of them use across-respondent variation to test for scope
  4. The design of the good to be valued is flawed, so no wonder the scope test is failed across split samples

# Why is the good flawed?

## SPLIT SAMPLE DESIGN



B: the numerator of the risk reduction is 100x that in A, but the denominator is unspecified

- $\Delta R$  is 1, 2 or 4 deaths per year (A) or 100, 200 or 400 deaths per year
- Difference in the numerator is two orders of magnitude
- But what is the denominator???
  - Intentionally unspecified  
→ this is unacceptable
  - See Johannesson et al. (1996)—highly criticized for not specifying the denominator

# Other comments

- References are very Hammitt-centric 😊
  - RUM is linear additive in all attributes, but interactions would be more appropriate
  - What is the discount rate?
  - Econometric model from CV responses is log-log
- which is difficult to compare with a linear indirect utility of the DCE responses
- The sample size for each split-sample treatment/version are very small
  - What denominator did you use to compute the VSL?

# McDonald et al. paper

- Very busy paper, with lots of effects to test (premium, latency, etc.)
- General formula intuitively clear:

$$C_{t+j} = R_t \frac{(1+x)}{(1+d)^j}$$

where  $x$  is the cancer premium,  $d$  is the discount rate, and  $j$  is the latency

- Presumably these are VSL

# What's less clear...

- ...expected utility model is single-period.
- It produces the ratio of cancer to road fatality VSL as  $\Delta R(\text{road})/\Delta R(\text{cancer})$
- But...
  - How is that amended when you allow for latency?
  - How important is the assumption that  $U(w, \text{road traffic})=0$  while  $U(w, \text{cancer})\neq 0$
  - If both of these state-dependent utilities are set to zero, do you automatically get that the VSL ratio is 1?

# Even less clear...

- The risk-risk questions ask the respondent to choose between two risk *increases* relative to the baseline.
- Would the results change if you ask people to choose between *decreases* from the baseline?
- From two different powerpoint presentations I received:
  - Discount rate 7.5%
  - Is there a cancer premium after all? Or not?

# Please rescue the faint of heart...

- ....about the “saddle” shown in the figure in the most recent presentation
- About the appropriateness of interpreting the switch point between options A and B in the choice card as a continuous variable (the dep. var. in the regression)
  - technically, the appropriate model is an interval data model
  - An increase from 40 to 60 (in 60 million) is small in absolute value but large in relative terms (a 50% increase)
- How useful is all of this in policy? We typically don't have information about the morbidity period when someone gets cancer...



# Atherton paper

- It would be appropriate to cite Landrigan, Trasande, ... and their work on neurotoxicity
- don't use the expression "non use"—that's irrelevant in valuing environmental health
- Don't assign average income to those that do not report income
  - You have no evidence that income is missing at random
  - (even if income was missing at random) that's an old-fashioned procedure that reduces the variance of income and hinders identification of the effect of income
- Create a missing income dummy and set income to zero if missing; the dummy and recoded income must both be entered in the model
- I am not clear on the initial bid effect..