

TITLE: The impacts of three dimensions of (dis)similarities on water quality benefit transfer errors

AUTHORS: Johannes Carolus, Jette Bredahl Jacobsen, Søren Bøye Olsen; University of Copenhagen

ABSTRACT:

Benefit Transfer is often applied when carrying out a primary valuation study is considered too costly or will take too long time. It is commonly assumed that Benefit Transfer performance improves with increasing similarity of sites and goods. However, no common criteria for defining similarity exist. By drawing on value estimates for water quality improvements from 17 Choice Experiments in Europe, we propose a framework for distinguishing between similarity and dissimilarity in a structured manner. In particular we distinguish between three dimensions: commodity, population and attribute similarity. We then test unit value transfer applications along a similarity-dissimilarity gradient. The results confirm that increasing similarity of sites and goods generally improve value transfer performance, whereas income adjusted value transfer surprisingly leads to reduced performance. Defined as whether or not the same ecosystem service categories are emphasised in the valuation studies, attribute similarity may improve benefit transfer performance.