Notes for chapter 4, sections 4-1, 4-2, & 4-3

Read pp. 81 – 82 (just the top half of p. 82), 85 (the second half of the page), & 89

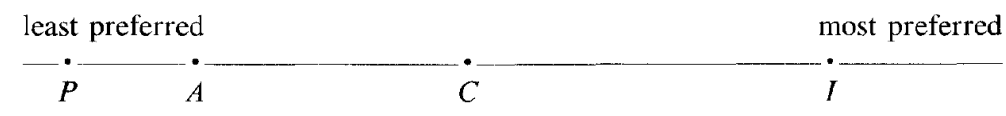
pp. 81 & 82

The utility values that you first encountered on pp. 24 – 25 were on an ***ordinal scale***. An ordinal scale gives us the order, but nothing else. For instance, here are four items and their utility values are on an ordinal scale:

ice cream	4
cola	3
apples	2
popcorn	1

This is part of Resnik's example, and so, let's say that these are utility values for him. Since these utility values are on an ordinal scale, we know that he values ice cream more than cola (i.e., soda), but we don't know how much more he likes ice cream than soda.

So, let's say that we ask him to put his relative preferences for these four items on a line where the distance between each item represents how much more or less he values each item. He produces this (which is also on p. 82):



Now we know that, relative to popcorn and ice cream (which are the highest and lowest), apples are pretty close to popcorn and cola is about exactly in between popcorn and ice cream. And so, if we want to more accurately represent Resnik's preferences, we can look at the line and estimate what his utility values will be on an **interval scale**.

ice cream	10
cola	5
apples	2
popcorn	1

Now we know that (for Resnik), ice cream is twice as valuable as cola and cola is more than twice as valuable as apples.