

# Unfolding Reproductive Preferences

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## Traditional Approaches of Measuring Reproductive Desires

Reproductive desires are traditionally measured as single numbers: the number of children one likes to have in an ideal case or expects to have in reality. This approach, however, is facing substantial problems: It is not able to cover changing desires, it has a low predictive ability, and the measurement is not on an ordinal scale.

## An Alternative Approach

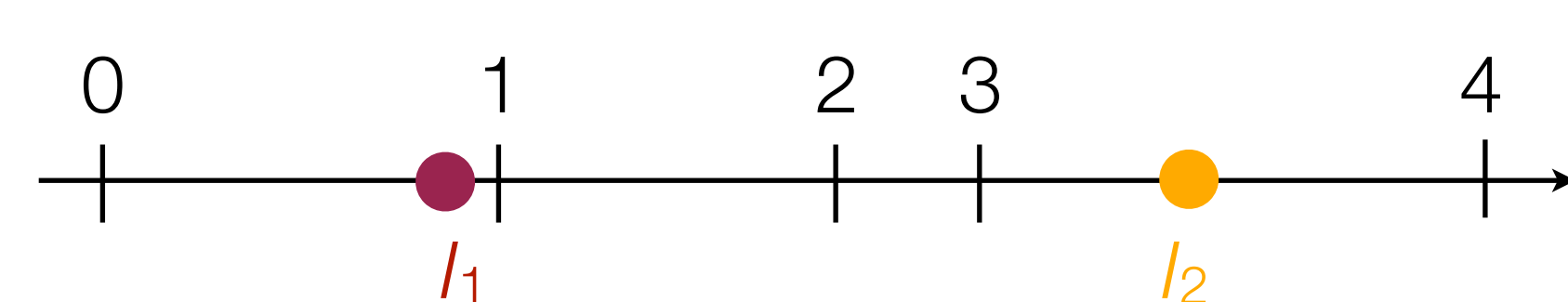
Alternatively, reproductive desires can be measured as preference orders. I.e. individuals report both their ideal family sizes and the numbers of children they prefer as first, second, etc. alternative. Complete preference orders inform about latent desires for having larger or smaller families. Thus, if individuals cannot fulfill their ideal family sizes, the directions of latent desires indicate the alternative reproductive goals that will probably be chosen.

## Analyzing Reproductive Preferences

The scaling-technique of unfolding by COOMBS is one way to analyze latent desires. The outcome is a scale that jointly reports the locations of family sizes and individual preferences (*J*-scale).

Individual preferences are represented by ideal points, which rest on the information of complete preference orders. Their locations inform both about the mostly preferred family sizes and the direction and strength of latent desires.

Figure 1: Ideal points on a hypothetical *J*-scale

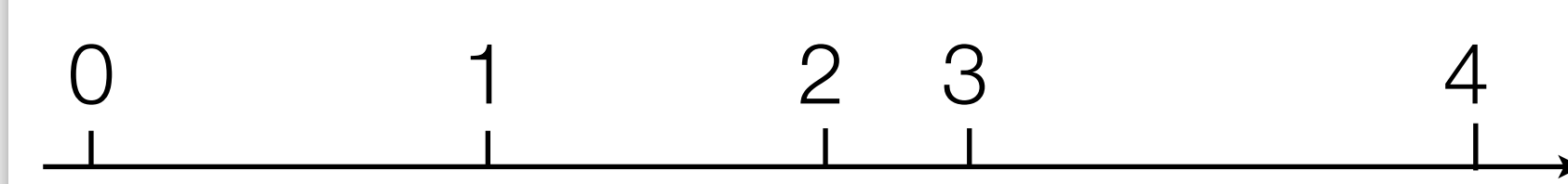


The ideal point  $I_1$  documents a first preference for having one child and a weak latent desire for being childless. In the case of ideal point  $I_2$ , three children are mostly preferred with a stronger latent desire for having four children.

On a population level, the *J*-scale also reports to what extent particular family sizes are similarly or differently preferred:

the closer the more similar, the more distant the more different.

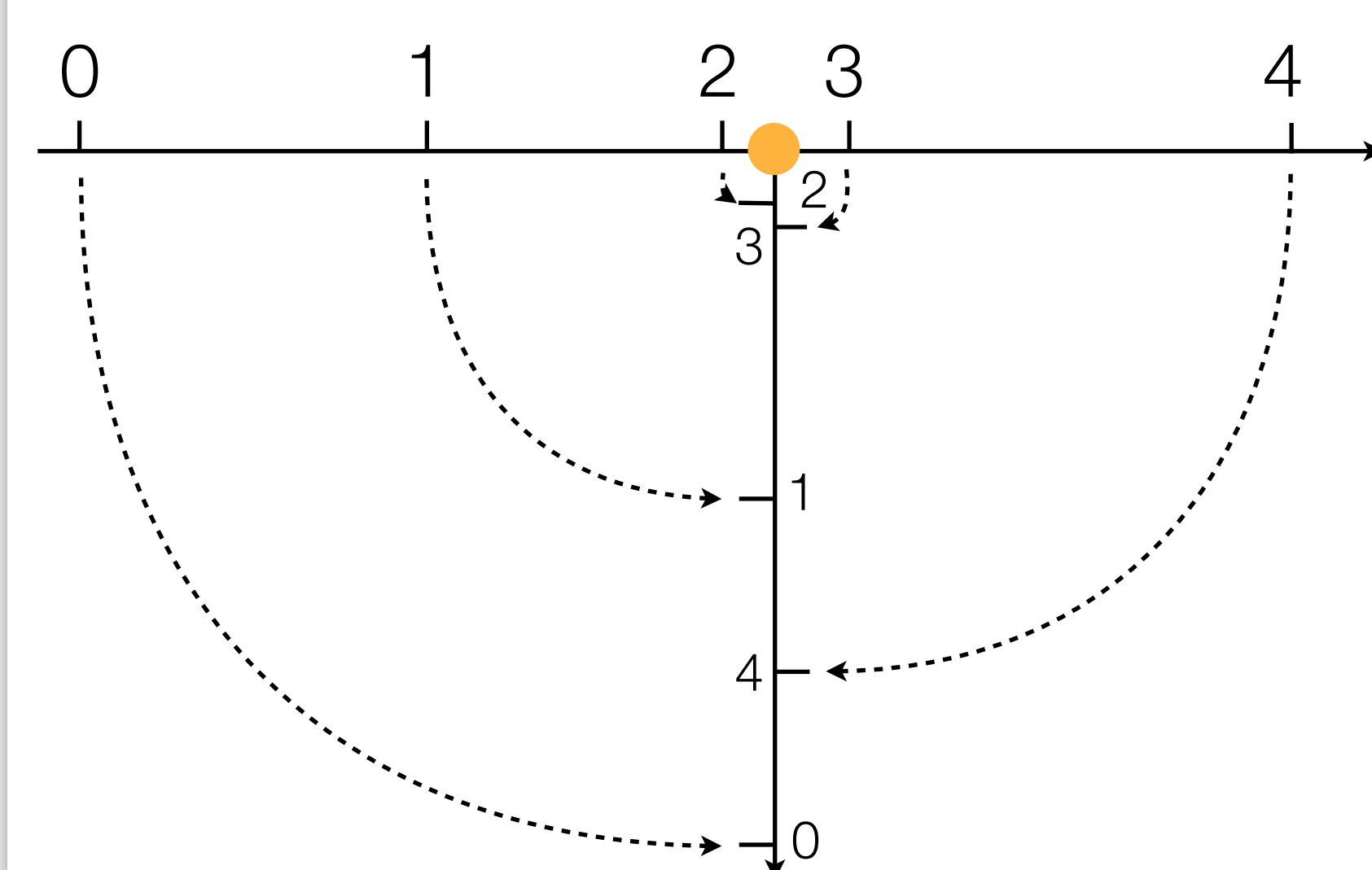
Figure 2: Family sizes on a hypothetical *J*-scale



A family size of two or three children is quite similarly preferred. It makes a difference, however, to be childless or to have a large family with four or more children.

An *I*-scale is generated by folding the *J*-scale at an ideal point. The emerging scale informs about individual preference orders and the utility of particular family sizes relative to the ideal point.

Figure 3: A hypothetical *I*-scale

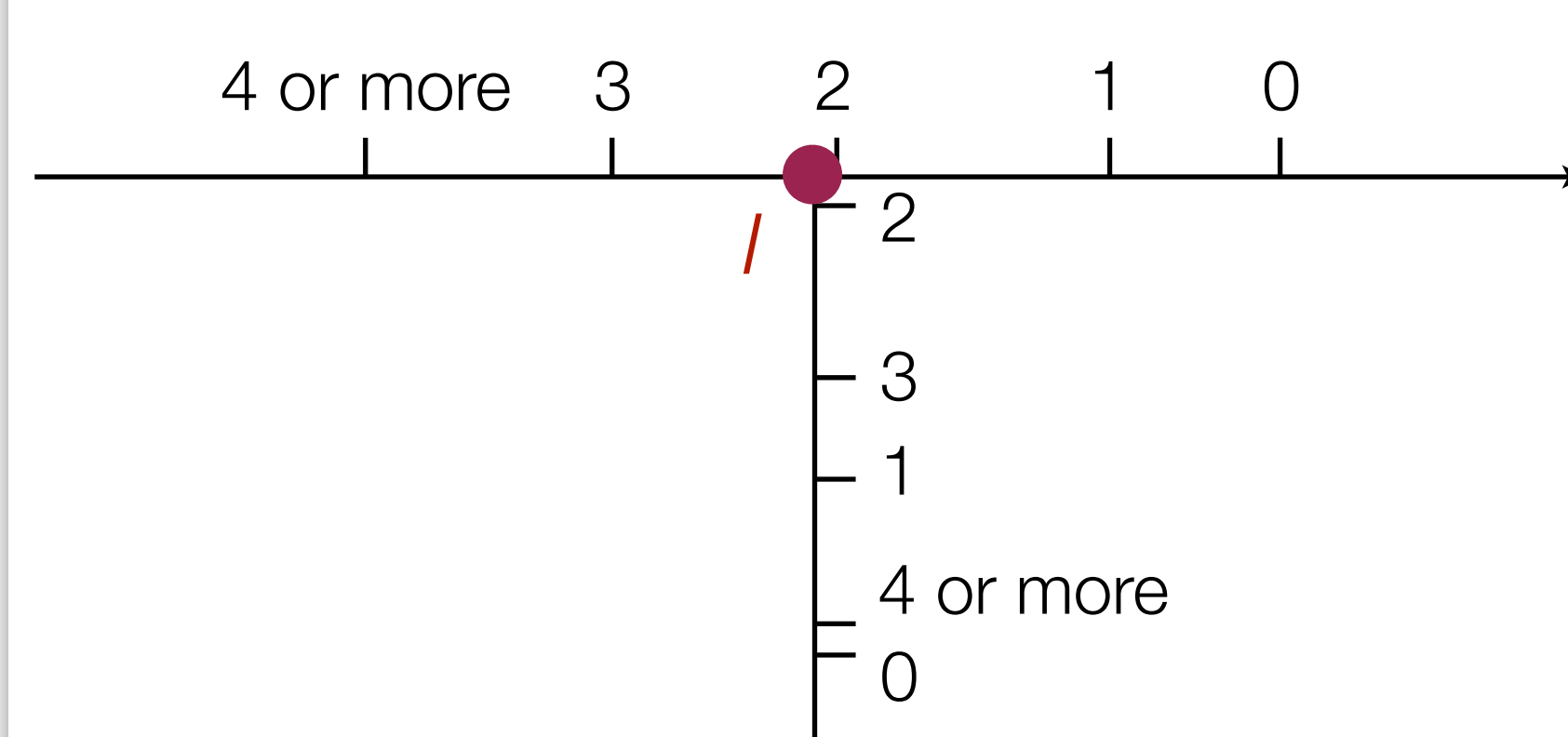


The individual likes to have two children in an ideal case. However, this is closely followed by a preference for three children. All other alternative family sizes are of much smaller utility and are equally distant from each other.

## An Application with Dutch Data

The technique of unfolding was applied to data from 952 respondents who participated in the Dutch LISS-Panel. Preference orders were identified by pair-wise comparison of different family sizes.

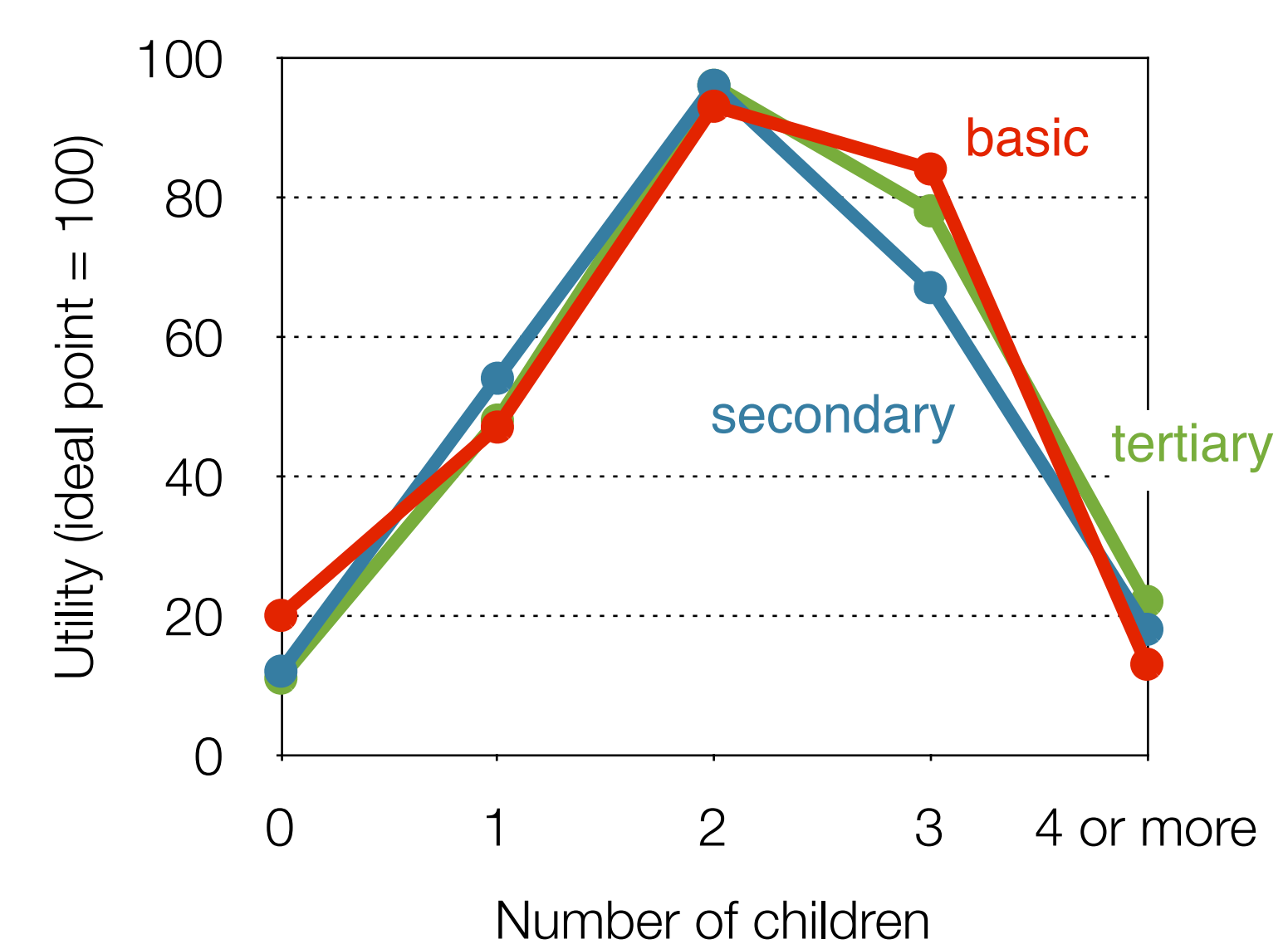
Figure 4: *J*- and *I*-scale for all respondents



According to the *J*-scale, respondents' ideal family size is two children with a weak latent desire for a larger family of three children. According to the *I*-scale,

however, the distance to the first alternative of three children is quite large. Childlessness or a larger family of at least four children are found at the end of the scale with similar low levels of utility.

Figure 5: *I*-scale separated by level of education



Respondents with secondary education show an *I*-scale that is mostly peaked to an ideal family size of two children. However, respondents with basic or tertiary education also perceive three children as a valuable alternative.

Table 1: Reported and computed ideal family size

Computed ideal family size	Reported deal family size				
	0	1	2	3	4 or more
0	81.1 (77)	--	--	--	--
1	15.8 (15)	64.2 (43)	1.3 (6)	--	--
2	3.2 (3)	35.8 (24)	81.9 (390)	33.3 (77)	--
3	--	--	16.8 (80)	66.7 (154)	6.1 (5)
4 or more	--	--	--	--	93.9 (77)
Total	100.0 (95)	100.0 (67)	100.0 (476)	100.0 (231)	100.0 (82)

For many respondents the ideal family size identified by the ideal point on the *J*-scale deviates from the reported ideal number of children. According to their latent desires, 12.8% like to have a larger and 9.3% like to have a smaller family.

## Conclusion

The technique of unfolding is a promising approach to gain more detailed insights in reproductive desires and their determinants.