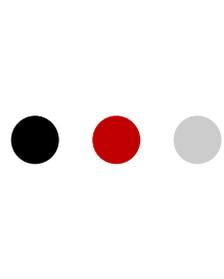# What the eye doesn't see ...

Income effects on children's life satisfaction

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Priorities for life satisfaction

○ Life satisfaction as policy goal

- Utilitarianism: the best society is that which maximises the utility of its people (Bentham/Mill)

○ Happiness research provides insights into factors that are important:

- financial resources, family and children salient to adult's well-being
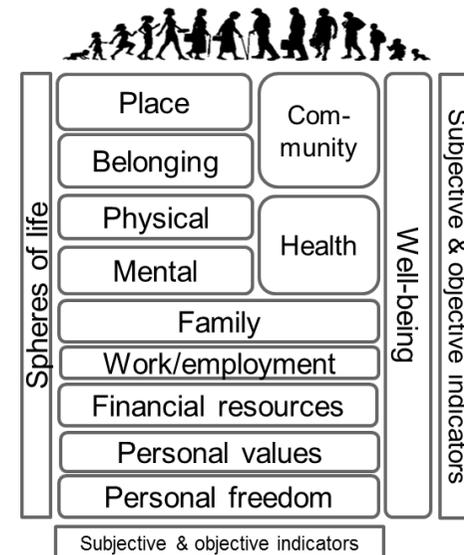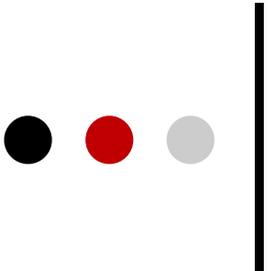
Effects of childhood income: objective vs subjective

o Family income affects structural outcomes in adulthood:

- Income effects are greater the lower the income
- outcomes worse the more time has been spent in low-income households and the earlier in life the income shortfalls occurred (e.g., Blau 1999; Mayer 1997)

o Childhood economic circumstances don't matter for life satisfaction in adulthood (Layard et al. 2014; Stafford et al. 2016)

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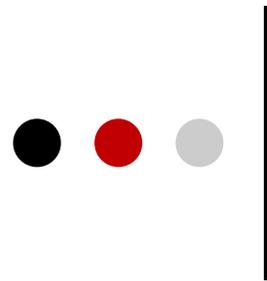
Previous empirical research

- Cross-sectional analyses of consequences of growing up in poverty (Breadline Britain; Hurrelmann; Andresen)

- Reviews don't consider family income (see Proctor et al. 2009; Holder 2012)

  - Surveys with children do not observe family income (e.g. Gross-Manos/Ben-Arieh 2016; Gudmundsgottur et al. 2016; Holder & Coleman 2008; Sarriera et al. 2015)

  - Cohort studies have not measured child happiness (cf. MCS6 2015)

- Associations do not reach conventional levels of statistical significance (Burton/Phipps 2010; Knies 2012; Gadermann et al. 2016)

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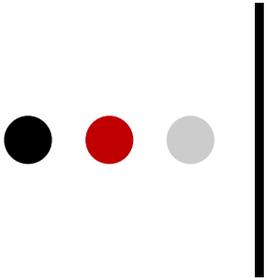
Why is there no effect?

○ True value of money is not clear in homogenous contexts (Holder, 2012; cf. Holder & Coleman, 2008)

○ Children do not regard their parent's income as a personal failure/success (Burton & Phillips, 2010)

○ Financial situation ist invisible / unknown because parents protect children (Pahl, 1989; Middleton et al., 1997)

- Older children may be more able to recognise the financial situation?

- effects of material deprivation as this is visible?

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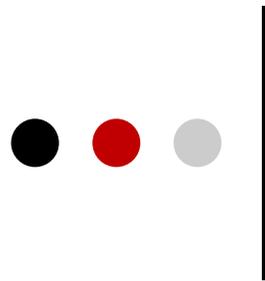
Data (1)

○ Understanding Society: The UK Household Longitudinal Study, Waves 1-5: Interviews children aged 10-15 (N=9,859)

○ Dependent variable:

- Children's self-reported life satisfaction [1;7]

○ Exogenous controls:

- Age, sex, ethnic group, number of children in HH, family type, holidays: Easter, summer, other holidays, version of questionnaire, first interview (y/n)

- family income & deprivation

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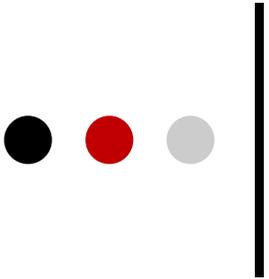
Data (2): Income and deprivation measures

○ **Household income**

- Individual earned incomes and benefit incomes of all household members, including some imputes
- equivalised using new OECD scale
- Adjusted for inflation (2015=100)

○ **Adult Material Deprivation [0;1]**

- An adult in the h/hold is asked whether (all) adults have/do things considered necessary by a majority of the population in order to participate in society
- Answer categories yes; no –cannot afford; no –do not want

$$HMDI = \frac{\sum(Cannot\ afford\ item * \%\ hh\ who\ have\ item)}{Total\ number\ of\ items}$$
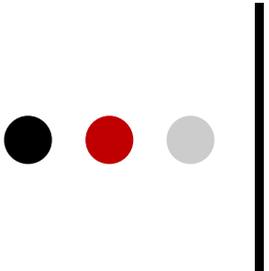
Data (3): Child deprivation measures

- Child Material Deprivation [0;1]
  - An adult responsible for children aged 0-15 in the h/hold is asked whether (all) child(ren) have/do things considered necessary by a majority of the population for children to participate in society
  - Answer categories: (1) Yes (2) No – child wants but we cannot afford (3) No – child does not want

$$CMDI = \frac{\sum(Cannot\ afford\ item * \%\ hh\ who\ have\ item)}{Total\ number\ of\ items}$$
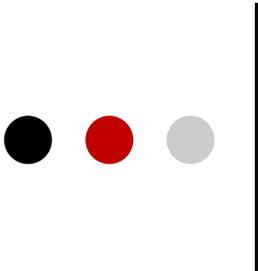
Sample description (1)

Child Material Deprivation (in UK 2009/10)	% of children[1] who		% of HH with children[2] who do have item
	Don't have item	Can't afford item	
Celebrations on special occasions such as birthdays?	0.03	0.03	0.92
Leisure equipment such as sports equipment or a bicycle?	0.08	0.06	0.86
Enough bedrooms for child to have own bedroom?	0.12	0.11	0.83
A hobby or leisure activity?	0.12	0.06	0.76
Have friends around for tea or a snack once a fortnight?	0.23	0.05	0.70
Go on school trips?	0.05	0.04	0.67
A family holiday away from home for at least one week a year?	0.31	0.28	0.63
Go swimming at least once a month?	0.14	0.09	0.60
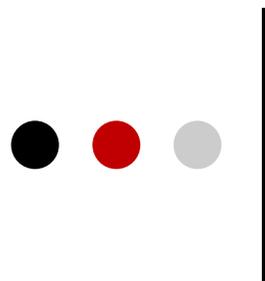
Sample description (2)

Characteristics of children in the analysis sample

Ø Life satisfaction	5.89	Lives with…	
Ø Income	£1,308	...both parents	64%
Ø Material deprivation [0;1]		… step-parent	10%
Adults in hh (unweighted)	0.31	… single parent	26%
Adults in hh (weighted)	0.19	Ø Number of childen in HH	2.17
Children in hh (unweighted)	0.08	No holidays	78%
Children in hh (weighted)	0.06	Easter holidays	4%
Ø Age	12.6	Summer holidays	11%
female	50%	Other holidays	7%
UK British	72%	Number of observations	14,569

Source: Understanding Society (2015), Waves 1-5. Excludes children living in LSOAs that were reshaped between Census 2001 and 2011, that live with neither biological parent, with missing information except for missing material deprivation information in Waves 3 & 5 (the mean observed value in the child's household is imputed).

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Hypotheses (1)

Family income

H1   No association: children have no awareness of family income

H1.1   Positive association for older children: they have some awareness, more autonomy

Panel regressions of children's life satisfaction (coefficients[1];N=14,569)

	Pooled OLS	Panel Model[2] Effect not split by child age (H1)	Panel Model[2] Effect split by child age (H1.1)
Income (log)			
Longitudinal 'within' effect	0.07**	0.04	0.08+
Cross-sectional 'between' effect		0.03	0.06
Income#aged 10-12			
Longitudinal effect			-0.06
Cross-sectional effect			-0.07
Lives with step-parent	-0.24**	-0.11	-0.11
Lives with single parent	-0.19**	-0.19+	-0.19+
N of children in HH (log)	0.03	0.09	0.09
Easter holidays	-0.12*	-0.10+	-0.10+
Summer holidays	-0.04	-0.08*	-0.08+
Other holidays	-0.09	-0.07+	-0.07+

[1] Additional controls: Demographics, Year, first interview. [2] Correlated Random Effects model, allows us to split associations into within and between effects. Significance level **99 *95 +90%. Robust standard errors. Source: Understanding Society (2015), Waves 1-5. England only.
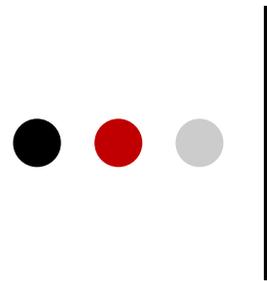
Hypotheses (2)

Material deprivation

H2   negative association: material deprivation is palpable for children of all ages

H2.1   Impact of child deprivation higher than impact of adult's deprivation: own experience versus other's experience

H2.2   Impact higher the more other children have the things that the child needs to go without

Changes in material deprivation affecting children aged 10-15

○ Child deprivation is lower and less persistent than adult deprivation

Characteristic of child's household in year t	Pooled cross-section (N=14,429)	Transitions from year t to t+1 (N=7,523)	
		$x_t = x_{t+1}$	$x_t \neq x_{t+1}$
Adult deprivation [0;1]			
not deprived (<0.25)	53.0	86.2	13.8
deprived	47.0	84.1	15.9
Total	100	85.2	14.8
Child deprivation [0;1]			
not deprived (<0.25)	86.1	94.7	5.3
deprived	13.9	53.4	46.6
Total	100	89.1	10.9

Panel regression of life satisfaction on adult and child material deprivation (b-coeff.)

- Both types of deprivation bad news for child life satisfaction (H2)?

- Effect size larger for child deprivation than for adult deprivation (H2.1)?

- Effect sizes larger when child goes without things more others have (H2.2)?

➔ Yes, but differences not statistically significant!

	Items not weighted	Items weighted by % of population who have it
Adults in the hh		
Within effect	-0.05	-0.06
Between effect	-0.18+	-0.27+
Children in the hh		
Within effect	-0.11	-0.17
Between effect	-0.31	-0.51

Results based on four separate correlated random effects models that swap income for different specifications of deprivation indices: 1: adult deprivation; 2: child deprivation; 3: weighted adult deprivation, 4: weighted child deprivation. All other controls as in previous models.

Panel regression of life satisfaction on material deprivation

○ Does being deprived from any specific item matter?

- Yes, exclusion from holidays, socials with friends!

Child deprivation	RE	cRE	
		L	Q
Family holiday	-0.18**	-0.12+	
Own room	0.11+		
Celebrations	-0.18*		
A hobby	-0.21*		
Invite friends			-0.38*
School trips			
Leisure equipment			

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Conclusion

- (older) children happier at times when they have more money than when they have less ('within' effect); poor children are less happy than richer children ('between' effect)

- Deprivation indices offer deeper insights into aspects that feed into children's well-being:
  - Social vs. Material

- Income does matter most at the bottom of the income distribution. What will happen to child happiness as child poverty rises?

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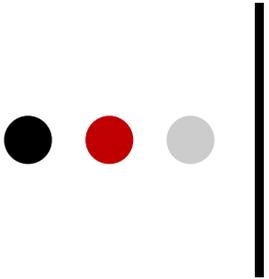
Acknowledgements

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- Knies, G (2017): Income effects on children's life satisfaction: Longitudinal evidence for England, ISER Working Paper 2017-02.

Follow me on Twitter @GundiKnies