



# **Income Inequality and Subjective Well-Being in Urban China: Changes in het 2000s**

Discussant remarks

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- **Main finding:** Income inequality relates positively to happiness in 2002 but not in 2007.
- **Author's explanation:** A decreased tolerance for income inequality.
- **Key unanswered question:** Why did tolerance plunge so rapidly?
  - 2002: Positive relation (Jiang et al. 2012 using CHIP)
  - 2005: Negative relation (Wu and Li 2013 using Chinese GSS)
  - 2006: Inverted U-shaped relation (Wang et al. 2015 using Chinese GSS)
  - 2007: Non-positive (or negative) relation (Fu 2017 using CHIP)

**Table 2** Income inequality at city level (2002 & 2007)

Year	Variable	Obs.	Mean
2002	BI	26	1.779
	City-level Gini	26	0.333
2007	BI	15	1.276
	City-level Gini	15	0.322

- Perhaps happiness relates positively to inequality growth but not to the absolute degree of inequality?
- Availability of literature/data that provides evidence for decreasing tolerance?
- Perhaps change in reference groups due to technological advancement?
- Did something significant happen in China in the period 2002-2007?
- Why not explore an inverted U-shaped relation?



# Suggestions literature (1)

- Direct proof of a “tunnel effect” in China (based on 2012 data):
  - Cheung, F. (2016). Can Income Inequality be Associated With Positive Outcomes? Hope Mediates the Positive Inequality–Happiness Link in Rural China. *Social Psychological and Personality Science*, 7(4), 320-330.

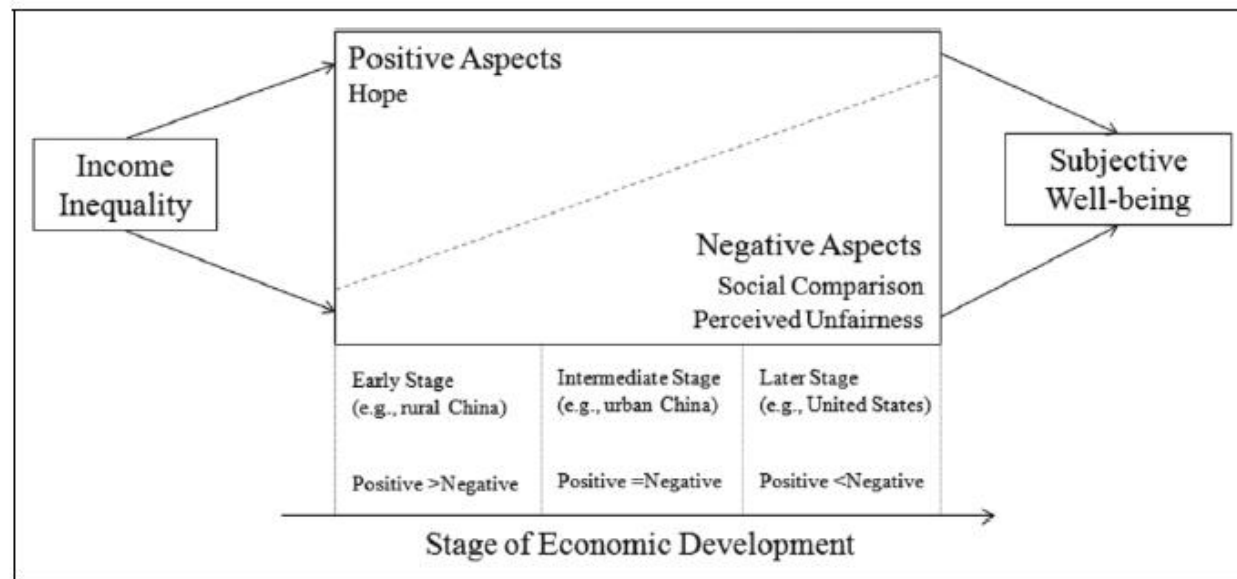


Figure 3. A dual process model of income inequality.



## Suggestions literature (2)

- Positioning the income inequality debate in the broader happiness economics literature:
  - Relative income (micro) – income inequality (macro):
    - Duesenberry's relative income hypothesis
    - Why does relative income but not income inequality relate negatively to happiness?
  - The Easterlin paradox
    - Any implications for explaining the Easterlin paradox in China?  
Perhaps an absent relation between relative income and happiness explains the Easterlin paradox?

**Table 3** The impact of income inequality on subjective-wellbeing (2002 & 2007)

Dependent Variable: Happiness Score					
	2002			2007	
	(1)	(2)	(3)	(4)	(5)
BI	-0.0608*** (0.0226)	-0.0546** (0.0230)	-0.0663** (0.0333)	-0.0790*** (0.0227)	-0.0966** (0.0468)
Gini	1.352*** (0.320)	1.488*** (0.330)	1.743*** (0.419)	-0.329 (0.323)	-1.190* (0.630)
Urban <i>hukou</i>		-0.129 (0.0815)	-0.139 (0.0819)	0.0328** (0.0151)	0.0282* (0.0151)
Male	-0.0495** (0.0222)	-0.0302 (0.0226)	-0.0321 (0.0227)	-0.0324*** (0.0109)	-0.0346*** (0.0109)
Age	-0.0261*** (0.00581)	-0.0351*** (0.00582)	-0.0347*** (0.00584)	-0.0178*** (0.00269)	-0.0169*** (0.00269)
Age-squared	0.000326*** (0.0000593)	0.000429*** (0.0000596)	0.000425*** (0.0000598)	0.000197*** (0.0000277)	0.000188*** (0.0000277)
Married	0.0915* (0.0551)	0.0604 (0.0563)	0.0561 (0.0565)	0.173*** (0.0208)	0.167*** (0.0208)
Divorced	-0.247** (0.109)	-0.272** (0.110)	-0.276** (0.110)	-0.171*** (0.0532)	-0.179*** (0.0530)
Widowed	-0.171* (0.0997)	-0.201** (0.102)	-0.207** (0.102)	-0.0595 (0.0502)	-0.0573 (0.0500)
Years of education	0.000492 (0.00373)	0.00493 (0.00377)	0.00454 (0.00376)	0.0116*** (0.00188)	0.0121*** (0.00189)
Good health	0.214*** (0.0251)	0.248*** (0.0258)	0.242*** (0.0259)	0.236*** (0.0132)	0.231*** (0.0132)
Bad health	-0.150*** (0.0533)	-0.164*** (0.0542)	-0.163*** (0.0539)	-0.196*** (0.0369)	-0.203*** (0.0367)
Unemployed	-0.0164 (0.0305)	-0.0936* (0.0504)	-0.0924* (0.0505)	-0.0695** (0.0317)	-0.0627** (0.0317)
Log household income per capita	0.286*** (0.0175)	0.309*** (0.0180)	0.326*** (0.0191)	0.0647*** (0.00975)	0.0798*** (0.0102)
GDP per capita/10 <sup>4</sup>			0.0534 (0.0598)		-0.0191** (0.00891)
Population growth rate			0.00690 (0.0322)		0.00752 (0.00948)
Big city			0.0248 (0.0300)		-0.0436*** (0.0166)
Central			-0.0245 (0.0446)		-0.0150 (0.0260)
Western			-0.0915* (0.0551)		0.0363 (0.0361)
Constant	-0.109 (0.228)	-0.0935 (0.230)	-0.187 (0.234)	2.768*** (0.168)	3.007*** (0.267)
Observations	5,881	5,881	5,881	12,890	12,890
R-squared	0.143	0.103	0.105	0.062	0.066



# Suggestions Methodology

- All models have downward biased standard errors.
  - $N_{\text{cities}} 2002=26$ ;  $N_{\text{cities}} 2007=15$
  - See e.g., The “42” rule described in Angrist, J. D., & Pischke, J. S. (2008). *Mostly harmless econometrics: An empiricist's companion*. Princeton university press.

*Solution:* wild cluster bootstrap method

Cameron, A. C., Gelbach, J. B., & Miller, D. L. (2008). Bootstrap-based improvements for inference with clustered errors. *The Review of Economics and Statistics*, 90(3), 414-427.

- *Extension:* Robustness check with all available cities in 2007 (for urban residents).
- *Extension:* Specification excluding endogenous controls that may block pathways of the income inequality-happiness relation (health condition and employment status).