Hey! Cities! Leave them kids alone!

Sunday 10th December, 2023 15:25

strong effects! on the whole, 0.5 on 1-10 scale, and for some countries close to 1!

We know that adults tend to be less happy in cities across the world (except in the poorest nations such as Sub-Saharan Africa) (Okulicz-Kozaryn and Valente 2021). But we do not know about the children.

1 Happiness in Kids

TODO: write sth about happness in kids; btw looks like they used normal happiness question; not smileys

2 Data

We use 2018 pisa from `https://www.oecd.org/pisa/data/2018database/`. Age is 15 to 16.3, so not kids kids but more like little adolescents.

Urbanicity is recorded in School questionnaire administered to school principals:

Which of the following definitions best describes the community in which your school is located?

- A village, hamlet or ruralarea (fewer than 3 000 people)
- A small town (3 000 to about 15 000 people)
- A town (15 000 to about 100 000 people)
- A city (100000 to about 1 000 000 people)
- A large city (with over 1 000 000 people)

A nice feature of PISA data is that there are large cities, lt1m, in wvs for instacne the top bin is only 500k. And it is missing for only 6 percent of observations.

a limitation is that we do not see a good health variable–exisiting ones are missing for vast majroity. Health is of course a key happiness predictor, but arguably less imoportant for kids as they are healthier than adults.

PISA 2018 defines meaning in life as the extent to which 15-year-olds comprehend, make sense of, or find significance in their lives (pis ????). PISA 2018 asked students whether they agree or disagree ("strongly disagree", "disagree", "agree", "strongly agree") with the following statements: "My life has clear meaning or purpose"; "I have discovered a satisfactory meaning in life"; and "I have a clear sense of what gives meaning to my life". These statements were combined to create the index of meaning in life

TODO varDes

3 Results

The differences are large–about .5 on 0-10 SWB scale. It needs to be remembered that ecological variables have small effects on SWB as expected–most SWB is explained by genes (Schnittker 2008) and person level predictors (Veenhoven 2014)). And in a1-a3[1] there is a big difference between the largest cities (gt1m) and everything else just as for adults (Okulicz-Kozaryn 2016). But interestingly, not necessarily like adults, there is also a large gap between lt3k and 3-15k, again especially in models a1-a3, perhaps in the open country there are best outdoor play opportunities for the kids.

As in adults (Okulicz-Kozaryn and Valente 2021), addition of income/wealth makes results stronger–income/wealth confounds with urbanicity.

In full model a4 results are strong, beta (fully standardized; not shown) for gt1m is 65 percent of wealth.

Finally we split by gender in a4m and a4f–interestingly city penaly higher for female; arguably because fem more affected by urban crime

Table 1: OLS regressions of life satisfaction.

	a1	a2	a3	a4	a4f	a4m
lt3k	0.00	0.00	0.00	0.00	0.00	0.00
3-15k	-0.34***	-0.38***	-0.37***	-0.19***	-0.21***	-0.16***
15-100k	-0.37***	-0.41***	-0.41***	-0.25***	-0.30***	-0.20***
100k-1m	-0.44***	-0.47***	-0.49***	-0.40***	-0.45***	-0.34***
gt1m	-0.61***	-0.65***	-0.67***	-0.46***	-0.53***	-0.37***
Family wealth (WLE)		0.07***	0.05***	0.21***	0.20***	0.21***
female			-0.40***	-0.39***	0.00	0.00
What is the ¡highest level of schooling¿ completed by your father?			-0.03***	-0.02***	-0.02***	-0.02**
constant	7.63***	7.70***	7.97***	9.34***	9.15***	9.14***
country dummies	no	no	no	yes	yes	yes
N	471551	470216	452931	452931	228834	224097

*p<0.05 **p<0.01 ***p<0.001

[1]Not in a4 controling for country dummies.

	lt3k	3-15k	15-100k	100k-1m	gt1m	N
ALB	0.0	-0.0	-0.2*	-0.3*	-0.2	5916
ARE	0.0	-0.4*	-0.7*	-0.8*	-1.2*	16145
ARG	0.0	-0.1	-0.2	-0.3*	-0.2	9409
AUT	0.0	-0.1	0.0	-0.0	-0.4*	6090
BGR	0.0	-0.4	-0.4	-0.7*	-0.7*	4215
BIH	0.0	-0.0	-0.1	-0.3+		5901
BLR	0.0	-0.2*	-0.0	-0.4*	-0.7*	5404
BRA	0.0	-0.0	-0.2	-0.5*	-0.4+	7851
BRN	0.0	-0.1	-0.1	-0.2+		6360
CHE	0.0	-0.1	-0.1	-0.1		5114
CHL	0.0	0.8*	0.3	0.2	0.2	6009
COL	0.0	0.2	-0.1	-0.3*	-0.5*	6460
CRI	0.0	-0.2+	-0.2*	-0.5*	-0.9*	6049
CZE	0.0	0.0	0.1	-0.0	-0.5*	6198
DEU	0.0	-0.0	0.0	-0.0	0.2	3322
DOM	0.0	0.1	0.1	-0.2	-0.2	3528
ESP	0.0	-0.3*	-0.3*	-0.5*	-0.3*	31904
EST	0.0	-0.2+	0.0	-0.1		4942
FIN	0.0	-0.1	-0.0	0.1		5203
FRA	0.0	-0.0	0.1	-0.0	0.4	5007
GBR	0.0	-0.1	-0.1	-0.2	0.1	9546
GEO	0.0	0.1	-0.1	-0.3*	-0.4*	4784
GRC	0.0	-0.1	-0.4*	-0.3*	-0.4*	5948
HKG	0.0	0.4	0.4	0.1	0.2	4078
HRV	0.0	0.6	0.7+	0.5	0.3	6289
HUN	0.0	-0.3	-0.5	-0.5	-0.6*	4801
IDN	0.0	-0.1	-0.2+	-0.3*	0.2+	9950
IRL	0.0	-0.3*	-0.3*	-0.1	-0.4*	5182
ISL	0.0	-0.0	0.0	-0.1		2915
ITA	0.0	-0.1	-0.3*	-0.3*	-0.5*	10478
JOR	0.0	-0.3*	-0.5*	-0.6*	-0.4*	8090
JPN		0.0	0.2	0.1	0.1	5669
KAZ	0.0	-0.2*	-0.4*	-0.9*	-0.7*	17919
KOR	0.0	-0.9*	-0.4	-0.6*	-0.6*	6450
KSV	0.0	-0.4*	-0.4*	-0.7*		4468
LBN	0.0	0.5*	0.4*	0.5*	1.0*	3999
LTU	0.0	-0.3*	-0.1	-0.4*		6084
LUX		0.0	-0.2+	-0.2*		4465
LVA	0.0	0.1	0.1	-0.0		4675
MAC	0.0			0.1		3707
MAR	0.0	-0.2	-0.5*	-0.4*	-0.6*	4846
MDA	0.0	-0.1	-0.1	-0.4*	-0.6*	4892
MEX	0.0	-0.1	-0.2+	-0.2+	-0.3*	5811
MKD	0.0	-0.5*	-0.7*	-0.7*	-0.8*	4391
MLT	0.0	0.1	-0.1			3030
MNE	0.0	-1.3*	-1.3*	-1.4*		6138
MYS	0.0	-0.0	-0.1	-0.5*	-0.5*	5853
NLD	0.0	-0.2	-0.1	-0.2		3514
PAN	0.0	0.3+	0.1	-0.2	-0.5*	3505
PER	0.0	-0.2+	-0.1	-0.3*	-0.5*	4855
PHL	0.0	0.3*	0.1	-0.1	-0.0	6142
POL	0.0	-0.2+	-0.2*	-0.2+	0.0	5274
PRT	0.0	-0.6*	-0.6*	-0.6*	-0.6*	5265
QAT	0.0	0.0	-0.1	-0.1	-0.3+	11765
QAZ	0.0	0.5	0.6	0.2	0.6	3664
QCI	0.0	-0.2	-0.1	-0.2+	-0.1	11923
QMR	0.0	-0.7*	-0.6*	-0.7*	0.1	1885
QRT	0.0	-0.4*	-1.0*	-1.0*	-1.0*	5293
ROU	0.0	0.3	0.2	0.1	0.1	4817
RUS	0.0	-0.5*	-0.7*	-0.7*	-1.0*	6587
SAU	0.0	-0.5*	-0.4*	-0.7*	-0.8*	5452
SRB	0.0	0.3	0.6	0.4	0.2	5832
SVK	0.0	0.0	-0.1	-0.4*		5162
SVN	0.0	-0.3	-0.2	-0.2		5473
TAP	0.0	-0.1	-0.1	-0.1	-0.2	6887
THA	0.0	-0.1+	-0.3*	-0.4*	-0.6*	8279
TUR	0.0	1.2*	0.7*	0.5	0.4	6598
UKR	0.0	-0.3*	-0.5*	-0.6*	-0.9*	5632
URY	0.0	-0.1	-0.2	-0.2	-0.5*	4330
USA	0.0	-0.0	-0.2	-0.5*	-0.2	4121
VNM	0.0	-0.0	-0.2+	-0.3*	-0.6*	5191

* p<0.05, + p<0.1; robust std err

Table 2: OLS regressions of life satisfaction on place size for each country separately includiOBng covariates from a4 (not shown). Only LBN and HUN marginally happier in cities lt1m

3.1 Eudamonia

in table 3 different from lifests, biggest hit from lt3k to 3-15k in b1-b3, and in b4 controllig for countruy dummies rather smooth gradient. females aboy 2x less eudamonia than males in urb v rural

Table 3: OLS regressions of Eudamonia.

	b1	b2	b3	b4	b4f	b4m
lt3k	0.00	0.00	0.00	0.00	0.00	0.00
3-15k	-0.09***	-0.08***	-0.08***	-0.05***	-0.06***	-0.03***
15-100k	-0.13***	-0.12***	-0.12***	-0.06***	-0.09***	-0.03***
100k-1m	-0.14***	-0.13***	-0.13***	-0.10***	-0.14***	-0.07***
gt1m	-0.15***	-0.13***	-0.13***	-0.13***	-0.17***	-0.08***
Family wealth (WLE)		-0.02***	-0.02***	0.06***	0.05***	0.06***
female			-0.07***	-0.07***	0.00	0.00
What is the ¡highest level of schooling¿ completed by your father?			0.01***	0.01***	0.01***	0.00
constant	0.27***	0.24***	0.27***	0.74***	0.71***	0.69***
country dummies	no	no	no	yes	yes	yes
N	483844	482944	465568	465568	236002	229566

*p<0.05 **p<0.01 ***p<0.001

in atble 4 urban eudamia penalty is less clear than life satisfaction–while most countries do have urban penalty, there is a handful with urban eudamonic premium

	lt3k	3-15k	15-100k	100k-1m	gt1m	N
ALB	0.0	-0.0	-0.1	-0.1*	-0.1*	5940
ARE	0.0	-0.1*	-0.3*	-0.3*	-0.5*	16256
ARG	0.0	0.0	0.0	0.0	0.0	9071
AUS	0.0	-0.1	-0.0	-0.1	-0.0	10845
AUT	0.0	0.1+	0.1+	-0.0	-0.0	5946
BEL		0.0	0.0	-0.1	0.2*	4134
BGR	0.0	-0.0	0.1	-0.0	-0.1	4065
BIH	0.0	-0.0	0.0	-0.0		5836
BLR	0.0	-0.0	-0.0	-0.1*	-0.2*	5347
BRA	0.0	0.2*	0.1+	0.1	0.1+	7662
BRN	0.0	-0.1*	-0.1*	-0.1*		6195
CHE	0.0	0.0	-0.1+	-0.1		4867
CHL	0.0	0.1	-0.0	-0.1	-0.2+	5741
COL	0.0	0.0	0.0	0.0	-0.1+	6469
CRI	0.0	-0.0	-0.1+	-0.1*	-0.3*	6039
CZE	0.0	-0.1	-0.1+	-0.2*	-0.2*	6066
DEU	0.0	-0.1	-0.1	-0.1	-0.0	3127
DNK	0.0	0.1*	0.2*	0.2*	0.2*	5026
DOM	0.0	-0.1	0.0	-0.0	-0.1	3016
ESP	0.0	-0.0	-0.0	-0.1*	-0.0	30916
EST	0.0	0.0	0.1*	0.0		4923
FIN	0.0	0.0	0.0	0.1		5103
FRA	0.0	-0.1	-0.2*	-0.2*	-0.3*	4871
GBR	0.0	-0.0	-0.0	-0.1	0.2*	9358
GEO	0.0	-0.0	0.1+	-0.1	-0.1*	4524
GRC	0.0	0.0	-0.1	-0.1*	-0.1+	5911
HKG	0.0	-0.2	-0.2	-0.2*	-0.2*	4087
HRV	0.0	0.0	0.1	-0.1	-0.1	6179
HUN	0.0	0.0	-0.1	-0.1	-0.2*	4761
IDN	0.0	0.0	0.0	-0.0	0.1*	10289
IRL	0.0	-0.1*	-0.1*	-0.0	-0.1*	5090
ISL	0.0	-0.1+	0.0	-0.1		2854
ITA	0.0	-0.2*	-0.2*	-0.2*	-0.2*	10203
JOR	0.0	-0.1	-0.1	-0.1+	-0.1*	8095
JPN		0.0	-0.1	-0.1	-0.1	5636
KAZ	0.0	-0.1*	-0.2*	-0.2*	-0.2*	17553
KOR	0.0	-0.5*	-0.4*	-0.4*	-0.3*	6444
KSV	0.0	-0.0	-0.0	-0.1+		4349
LBN	0.0	0.1+	0.1+	0.1	0.1+	4069
LTU	0.0	-0.1*	-0.1*	-0.2*		5986
LUX		0.0	0.0	-0.1+		4348
LVA	0.0	-0.1+	-0.1*	-0.1*		4590
MAC	0.0			0.3		3718
MAR	0.0	-0.0	0.0	0.0	-0.0	4489
MDA	0.0	-0.1+	-0.2*	-0.2*	-0.3*	4886
MEX	0.0	0.1*	0.1	0.1*	0.1	5525
MKD	0.0	0.1	0.1	0.1	0.2	4399
MLT	0.0	0.1	0.0			2978
MNE	0.0	0.7	0.7	0.6		6025
MYS	0.0	-0.0	0.1+	-0.1*	-0.2*	5952
NLD	0.0	0.1	0.1	0.2		3480
PAN	0.0	0.2*	0.2*	0.1	-0.0	3052
PER	0.0	-0.1	-0.0	-0.1	-0.1	4484
PHL	0.0	-0.1	-0.0	-0.0	-0.0	6788
POL	0.0	-0.1	-0.1*	-0.1*	-0.0	5282
PRT	0.0	-0.0	-0.0	-0.1	-0.2	5200
QAT	0.0	0.0	-0.1*	-0.1*	-0.2*	11656
QAZ	0.0	-0.4+	-0.3	-0.5*	-0.3+	3516
QCI	0.0	-0.1+	-0.1+	-0.1*	-0.1*	11938
QMR	0.0	-0.1	-0.1	-0.1	0.4*	1827
QRT	0.0	-0.2*	-0.2*	-0.3*	-0.3*	5206
ROU	0.0	-0.1	-0.1*	-0.2*	-0.1+	4771
RUS	0.0	-0.2*	-0.3*	-0.2*	-0.3*	6410
SAU	0.0	-0.1	0.0	0.0	0.0	5268
SRB	0.0	-0.2*	-0.1*	-0.1*	-0.2*	5632
SVK	0.0	-0.1+	-0.1*	-0.3*		5066
SVN	0.0	-0.0	-0.0	-0.0		5432
TAP	0.0	0.0	0.0	-0.1	-0.1	6959
THA	0.0	-0.0	-0.1*	-0.1*	-0.1*	8389
TUR	0.0	0.2	0.1	0.1	0.1	6706
UKR	0.0	-0.1*	-0.2*	-0.2*	-0.3*	5546
URY	0.0	0.0	0.0	0.2+	-0.0	3899
USA	0.0	0.1	-0.0	-0.1	0.0	4086
VNM	0.0	0.0	-0.1	-0.1*	-0.1*	5216

* p<0.05, + p<0.1; robust std err

Table 4: OLS regressions of Eudamonia on place size for each country separately including covariates from b4 (not shown). Most countries eudamoinc urban penalty, but a handful of countries have premium

4 Conclusion and discussion

Future research: Arguably after the pandemic cities became even more unhappy just as adults did **??blind for peer-review**

TODO: have separate som-r.tex as opposed to having it below; and in paper say see supplemetary material as opposed to see

appendix!

ONLINE APPENDIX

[note: this section will NOT be a part of the final version of the manuscript, but will be available online instead]

	lt3k	3-15k	15-100k	100k-1m	gt1m	N
ALB	0.0	-0.0	-0.2*	-0.2*	-0.1	6002
ARE	0.0	-0.4*	-0.7*	-0.8*	-1.1*	16355
ARG	0.0	0.0	-0.1	-0.2	-0.1	10442
AUT	0.0	-0.1	0.0	-0.0	-0.5*	6466
BGR	0.0	-0.1	0.0	-0.2	-0.3	4403
BIH	0.0	-0.0	-0.1	-0.2		5982
BLR	0.0	-0.1	0.1	-0.3*	-0.6*	5712
BRA	0.0	-0.1	-0.2	-0.5*	-0.4*	8385
BRN	0.0	-0.1	-0.0	-0.2		6528
CHE	0.0	-0.2+	-0.2	-0.3+		5441
CHL	0.0	0.5*	0.3	0.2	0.3	6442
COL	0.0	0.2	-0.1	-0.3*	-0.6*	6633
CRI	0.0	-0.2*	-0.1+	-0.4*	-0.9*	6420
CZE	0.0	-0.0	-0.1	-0.1	-0.4*	6487
DEU	0.0	0.0	0.0	-0.0	0.1	3839
DOM	0.0	0.1	0.1	-0.1	-0.2	3694
ESP	0.0	-0.3*	-0.3*	-0.4*	-0.4*	33374
EST	0.0	-0.2+	-0.0	-0.0		5129
FIN	0.0	-0.1	0.0	0.1		5384
FRA	0.0	0.1	0.2	0.1	0.4+	5312
GBR	0.0	-0.1	-0.2	-0.2*	-0.2	11090
GEO	0.0	0.2+	0.1	-0.1	-0.2	4929
GRC	0.0	-0.0	-0.3*	-0.3*	-0.3*	5995
HKG	0.0	0.3	0.3	0.1	0.1	4205
HRV	0.0	0.7	0.8+	0.5	0.4	6376
HUN	0.0	-0.2	-0.4	-0.4	-0.4	4926
IDN	0.0	-0.1	-0.1	-0.2*	0.3*	10131
IRL	0.0	-0.3*	-0.3*	-0.1	-0.5*	5422
ISL	0.0	0.0	0.1	-0.0		3011
ITA	0.0	-0.1	-0.3*	-0.4*	-0.6*	10745
JOR	0.0	-0.1	-0.2	-0.2	0.0	8395
JPN		0.0	0.3+	0.2	0.2	6030
KAZ	0.0	-0.2*	-0.5*	-0.9*	-1.1*	18736
KOR	0.0	-0.9*	-0.3	-0.6*	-0.5+	6511
KSV	0.0	-0.3*	-0.3*	-0.6*		4522
LBN	0.0	0.6*	0.6*	0.6*	1.5*	4390
LTU	0.0	-0.2*	-0.1	-0.4*		6568
LUX		0.0	-0.1	-0.0		5010
LVA	0.0	0.1	0.2	0.1		4928
MAC	0.0			0.3		3746
MAR	0.0	-0.2	-0.4*	-0.3*	-0.4*	5116
MDA	0.0	0.1	0.1	-0.0	0.1	5232
MEX	0.0	-0.0	-0.1	0.1	-0.0	5961
MKD	0.0	-0.5*	-0.6*	-0.6*	-0.8*	4652
MLT	0.0	0.0	-0.2			3142
MNE	0.0	-1.3*	-1.3*	-1.4*		6253
MYS	0.0	-0.0	-0.0	-0.4*	-0.4*	5880
NLD	0.0	-0.1	-0.1	-0.2		3617
PAN	0.0	0.3+	0.1	-0.1	-0.5*	3775
PER	0.0	-0.2*	-0.2*	-0.3*	-0.6*	4926
PHL	0.0	0.5*	0.2+	0.1	0.2	6299
POL	0.0	-0.2+	-0.2*	-0.2	-0.0	5463
PRT	0.0	-0.6*	-0.6*	-0.6*	-0.6*	5477
QAT	0.0	0.0	-0.0	-0.1	-0.1	12127
QAZ	0.0	0.6	0.8	0.4	0.9	3719
QCI	0.0	-0.2	-0.1	-0.2	-0.0	11943
QMR	0.0	-0.8*	-0.6*	-0.7*	0.0	1942
QRT	0.0	-0.3*	-0.9*	-0.9*	-0.9*	5525
ROU	0.0	0.4*	0.4*	0.4*	0.4+	4948
RUS	0.0	-0.5*	-0.6*	-0.6*	-0.8*	6866
SAU	0.0	-0.5*	-0.4*	-0.7*	-0.8*	5794
SRB	0.0	0.4	0.7	0.6	0.4	5918
SVK	0.0	0.1	-0.1	-0.3*		5275
SVN	0.0	-0.3	-0.2	-0.2		5550
TAP	0.0	-0.1	-0.1	-0.1	-0.3	6962
THA	0.0	-0.1+	-0.3*	-0.4*	-0.6*	8357
TUR	0.0	1.1*	0.7*	0.5+	0.6+	6643
UKR	0.0	-0.2+	-0.3*	-0.4*	-0.6*	5898
URY	0.0	0.0	-0.1	-0.0	-0.2	4652
USA	0.0	0.0	-0.1	-0.4*	-0.2	4252
VNM	0.0	0.0	-0.2	-0.2*	-0.6*	5291

* p<0.05, + p<0.1; robust std err

Table 5: OLS regressions of SWB on place size only (bivariate; a1) for each country separately. barely anything like france and 2 more

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