Hey! Cities! Leave them kids alone!

Adam Okulicz-Kozaryn*
Rutgers - Camden

Sunday 10th December, 2023 15:12

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

XXX TODO ADD TO EBIB AS KEYWORD PAPER-CODE-NAME AND TAG WITH EBIB KEYWORDS

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 (**?**). 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

*EMAIL: adam.okulicz.kozaryn@gmail.com

I thank XXX. All mistakes are mine.

3 Results

The differences are large–about .5 on 0-10 SWB scale

¿¿¿boilerplate from UAR genetic being half then personal and only littyle left for environmental etc

. 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 SWB 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 life satisfaction.

	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 SWB on place size for each country separately includiOBng covariates from a4 (not shown). Only LBN and HUN marginally happier in cities lt1m

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 for each country separately. barely anything like france and 2 more

References

Okulicz-Kozaryn, A. (2016): "Unhappy metropolis (when American city is too big)," *Cities*.

Okulicz-Kozaryn, A. and R. R. Valente (2021): "Urban unhappiness is common," *Cities*, 103368.