

# Social interactions and self-perceived health and well-being

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It is normal in a way that the type of society is correlated with our health and well-being.

Maybe the big surprise would have been if the two were not related.

Correlation could come from the characteristics of the **society** (health-care system, public goods etc.)

Or it could be because of the **type of people** who live there.

I am interested in the second of these channels of influence, whereby what you do affects me.

In this case there are potential spillovers.

So I ask:

— Do you make me sick,

— Or do you make me happy?

This is a great question!

But like many great questions, it is not so easy to answer...

There is the well-known reflection problem.

Individuals' health/well-being may be **correlated**, but that does not show that they **influence** each other.

They may instead share the same health environment (prices, health supply), or choose to live in a certain area because they are similar to each other (birds of a feather)

What we'd like to know is: If I exogenously change an individual's behaviour, how does that affect the health and well-being of others in her peer group?

If there is an impact, then there may be a snowball effect of health interventions (I am able to make A stop smoking, which then encourages B to stop, which then leads C to stop, which then...).

How can we show that people are inter-related in this way? Many approaches:

- Observed Behaviour
- Hypothetical Choices
- Experimental
- Neuro

In recent years these have been complemented with the direct analysis of subjective well-being data.

Economists are interested in money.

So my first question with respect to social interactions, is not only “*Does your money buy you happiness?*”, but also “*Does your money make other people unhappy?*”

Research seems to suggest that money **does** make me happy, as long as I have it and you do not.

# To whom do we compare?

- Peer group/people like me
- Others in the same household
- Spouse/partner
- Myself in the past
- Friends
- Neighbours
- Work colleagues
- “Expectations”



Mostly we just impose a reference group, such as people like me, neighbours or family.

I use the British Household Panel Study (BHPS) to look at the relationship between job satisfaction and labour income. Main findings:

There is some evidence that job satisfaction is an increasing function of income. However, job satisfaction falls as others' income rises. This holds for:

- The income of “people like you” (same characteristics, same type of job).
- Partner's income.
- The income of other adults in the same household.
- The income that you yourself earned in the same job one year ago.

# Clark and Oswald (1996). BHPS Data on 5000 Employees

Log income (y)	-0.02 (0.039)	0.11 (0.050)	-0.001 (0.04)
Log comparison income (y*)	---	-0.20 (0.062)	---
Log NES comparison income (y**)	---	---	-0.26 (0.073)

“Comparison Income” predicted from a Mincer Earnings equation (note: requires exclusion restrictions to avoid multicollinearity);

“NES comparison income” matched in from another data set by hours of work, and thus avoids identification problems (but assumes reference group defined by hours of work).

# Clark (1996). BHPS Data on 5000 Employees

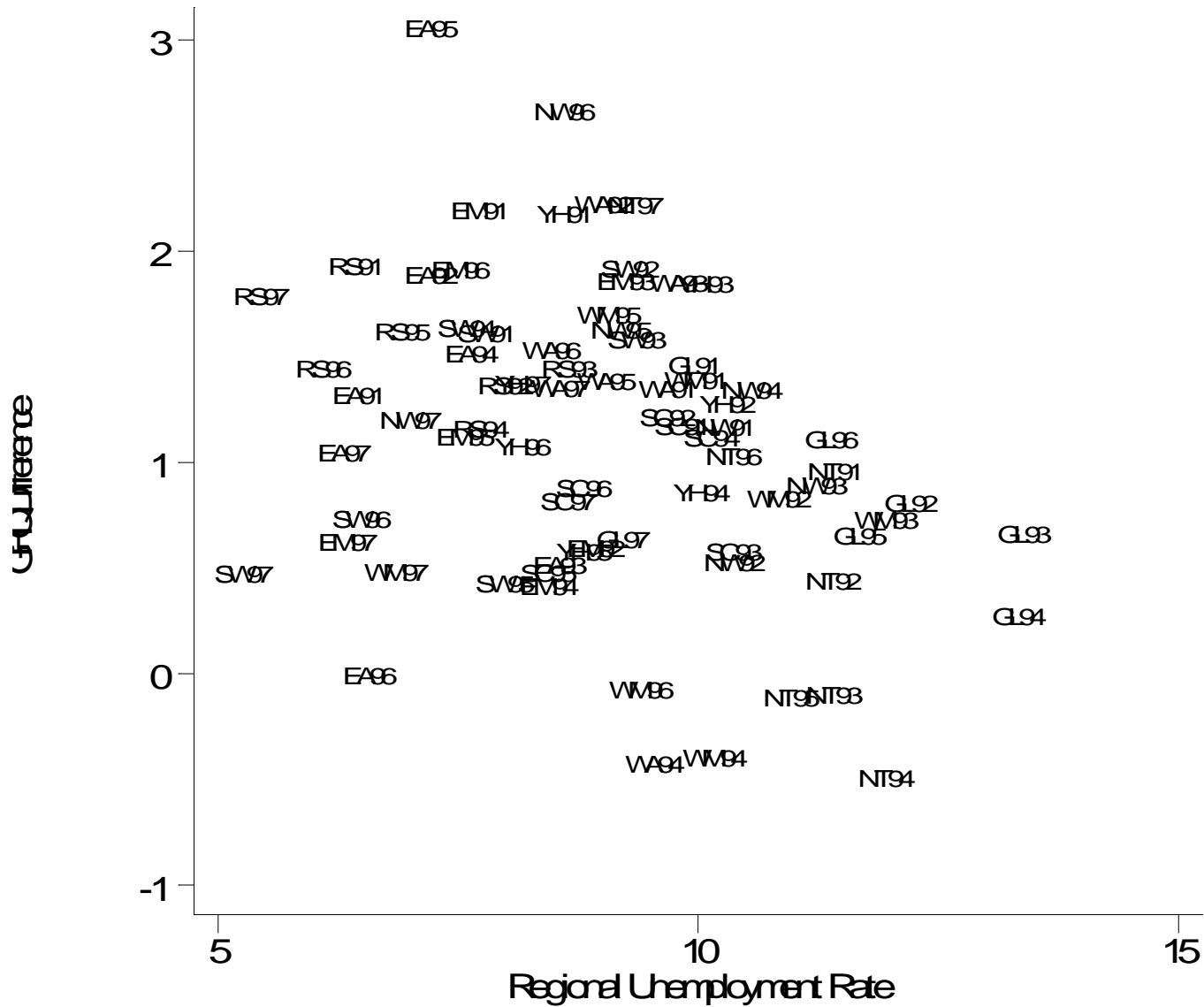
Log hourly pay: $\ln(\text{HP}_i)$	0.111 (0.060)	0.039 (0.068)	0.060 (0.066)
Log Hours	-0.251 (0.061)	-0.246 (0.061)	-0.250 (0.061)
Log spouse's hourly pay: $(\ln(\text{HP}_s))$	-0.121 (0.044)	-0.056 (0.052)	-0.047 (0.059)
Dummy: $\text{HP}_i > \text{HP}_s$	---	0.171 (0.074)	---
Log spouse's hourly pay (when $\text{HP}_s > \text{HP}_i$ )	---	---	-0.069 (0.037)

Estimated only on couples where both partners are in work. Includes other standard control variables.

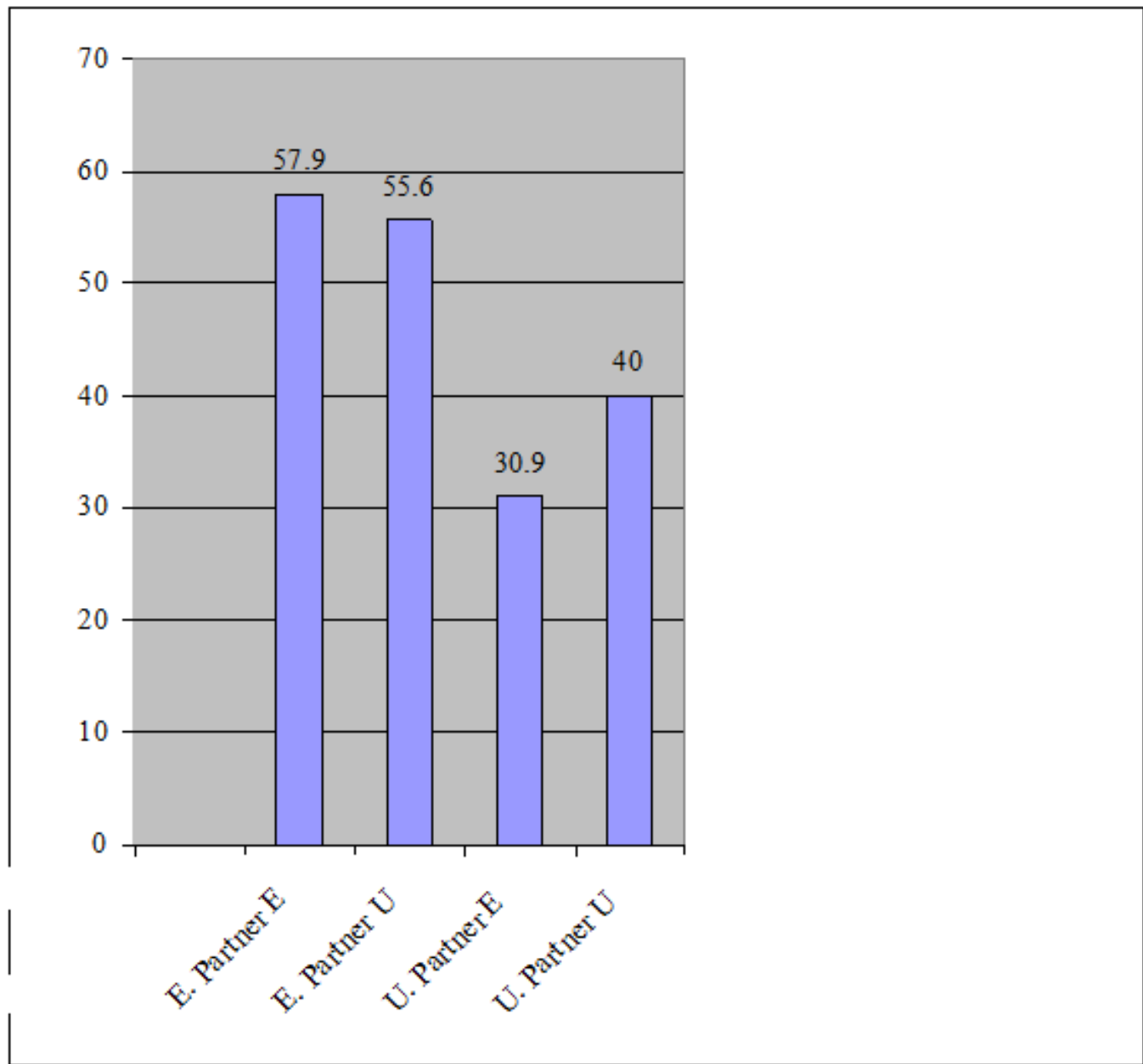
The happiness produced by income then seems to be dependent on the social context.

Is income somehow special in this way, or is this rather a common finding across many aspects of economic and social life?

With respect to **unemployment**:  
the well-being gap between employees and the unemployed is smaller in regions with greater unemployment.



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Unemployment hurts less when I share it with my partner

# Social Comparisons with respect to Divorce?

Figure 2: Mean GHQ Score by Region

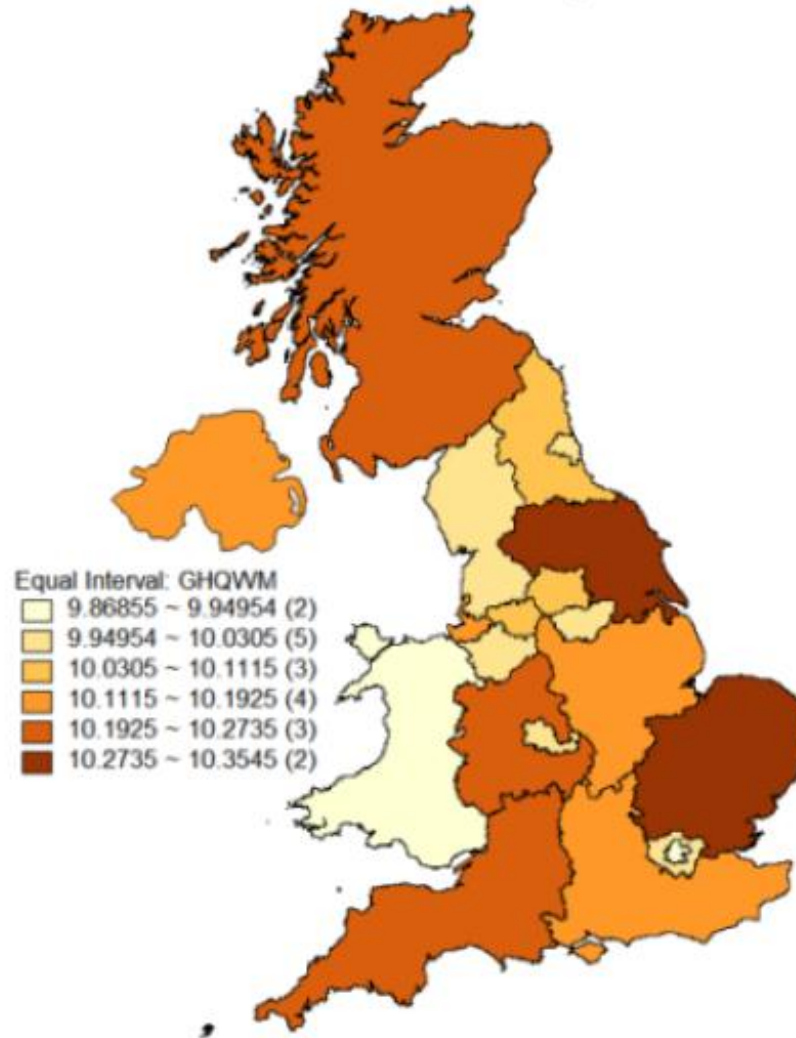
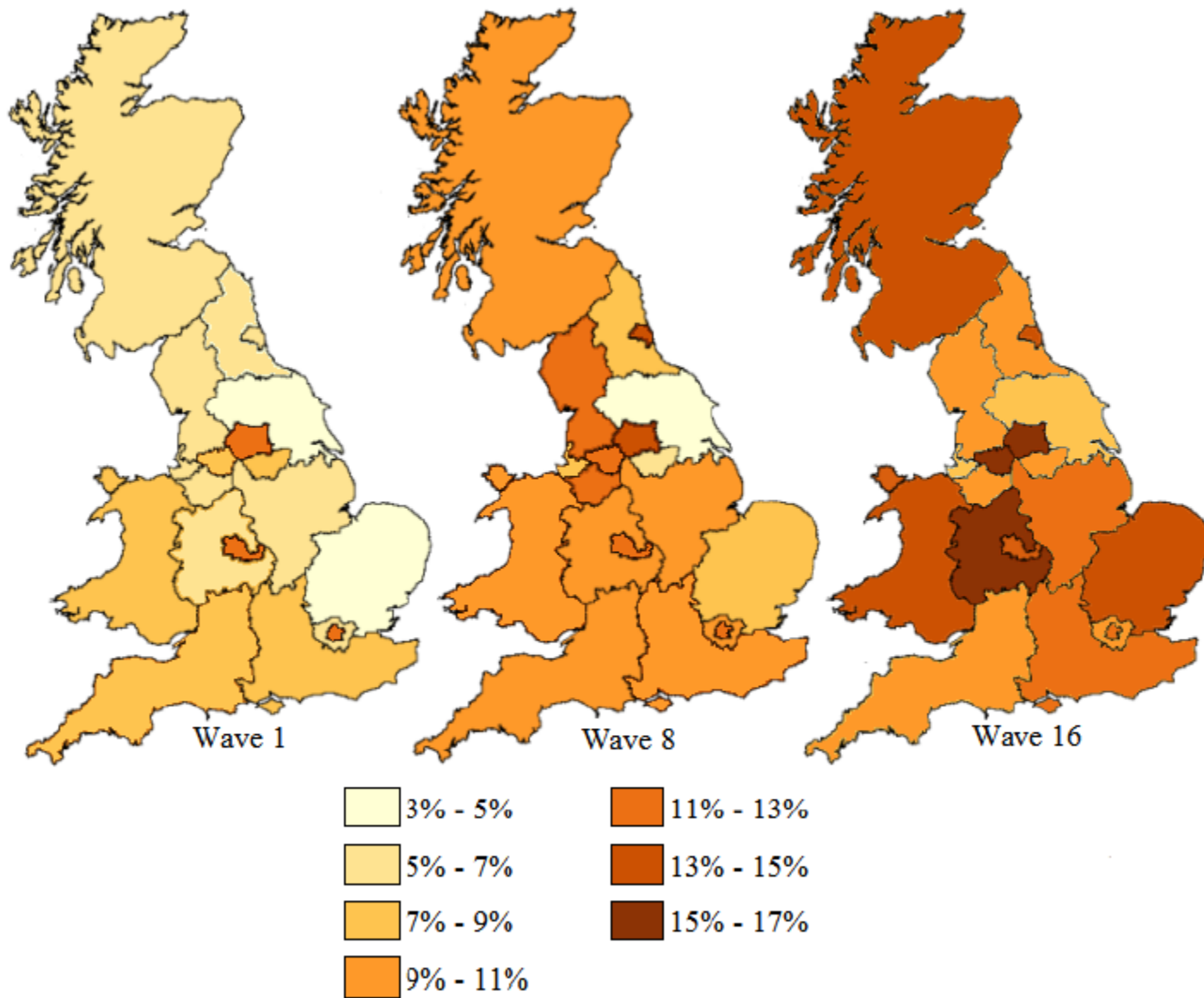


Figure 3: Evolution of the Divorce Rate



Can these two possibly be related?



## Own divorce hurts less in a high-divorce region

	Total Population
	(1)
Separated	-.377 (.022) <sup>***</sup>
Divorced	-.222 (.042) <sup>***</sup>
Regional divorce rate	-.228 (.315)
Above rate × own divorce	.907 (.535) <sup>*</sup>

The estimated effect of divorce is zero in a region with a 25% divorce rate.

Is this a “plenty more fish in the sea” effect?

Not only: the largest effect is from the regional percentage of divorced men on male divorce

	Women			Men
	(1)	(2)	(3)	(4)
Married	.037 (.012)***	.037 (.012)***	-.015 (.014)	-.015 (.014)
Separated	-.355 (.026)***	-.355 (.026)***	-.414 (.033)***	-.414 (.033)***
Divorced	-.202 (.045)***	-.209 (.045)***	-.292 (.070)***	-.290 (.070)***
Regional divorce rate	-.194 (.285)		-.152 (.351)	
Above rate × own divorce	.308 (.401)		1.724 (.661)***	
Regional divorce rate for men		-.288 (.215)		.071 (.229)
Above rate × own divorce		.248 (.462)		1.224 (.667)*
Regional divorce rate for women		.080 (.239)		-.208 (.272)
Above rate × own divorce		.154 (.431)		.600 (.585)

## *Well-Being and Others' Social Capital: ESS Evidence*

	<b>All</b>	<b>All</b>	<b>Women</b>	<b>Men</b>
Meet Friends	0.156** (0.004)	0.158** (0.004)	0.167** (0.006)	0.145** (0.006)
Regional Average Meet Friends		-0.164** (0.037)	-0.210** (0.050)	-0.112* (0.057)
Observations	86555	86555	45700	40855
Log likelihood	-164054.3	-164044.7	-86998.9	-76927.6

# Social Comparisons and Health?

Work on European data has shown that :

- 1) My own health problems have less effect on my own well-being when the problems are shared by others in the same household.
- 2) Individuals feel less overweight as the average weight in the region rises
- 3) Within the household, couples where both are obese have similar mental stress levels to couples where neither is obese

Well-Being and BMI: Household Results.  
BHPS Wave 14

		<b>GHQ</b>	
Obese	-0.101** (0.031)	-0.092* (0.039)	-0.162** (0.045)
Spouse Obese		-0.035 (0.039)	-0.104* (0.045)
Both Obese			0.263** (0.099)
Observations	10648	6035	6035

Note: Plus controls for Age, Sex, Education, Marital Status,  
Labour Force Status, and Income.

# *Spillover effects of specific religious denominations: Life satisfaction regressions*

*Table 8. Spillover effects of specific religious denominations: Life satisfaction regressions*

	<i>Roman Catholics</i>				<i>Protestants</i>			
% Roman Catholics in Region	0.806**		1.068**		0.815*		0.951**	
	(0.188)		(0.247)		(0.359)		(0.333)	
% Protestants in Region		-0.586		0.500		0.385*		0.501**
		(0.323)		(0.360)		(0.184)		(0.193)
% Other Religion in Region				1.095				-0.021
				(0.570)				(0.628)
% No Religion in Region			-1.042**				-1.307**	
			(0.256)				(0.191)	
<i>Observations</i>	26712	26712	26712	26712	14183	14183	14183	14183

# *Spillover effects of specific religious denominations: Life satisfaction regressions*

	<i>Other Religion</i>				<i>No Religion</i>			
% Roman Catholics in Region	0.222 (0.215)		0.606 (0.309)		0.520** (0.178)		0.627** (0.181)	
% Protestants in Region		1.028** (0.365)		1.247** (0.424)		0.418* (0.196)		0.593** (0.207)
% Other Religion in Region			0.625 (0.472)					-0.389 (0.445)
% No Religion in Region			-0.771* (0.358)				-0.668** (0.166)	
<i>Observations</i>	11301	11301	11301	11301	34505	34505	34505	34505

The religious like being with other religious; they don't like being with atheists.

Atheists are more satisfied when they live in more religious regions too.

But atheists don't like living with other atheists either.

## Altruism

Dunn, E., Aknin, L., and Norton, M. (2008). "Spending Money on Others Promotes Happiness". *Science*, 319, 1687-1688.

Spending money on others (gifts or charitable donations) produces greater happiness than spending money on oneself.

People do not realise this *ex ante*.

Does this challenge the hypothesis that well-being is relative in income?

Not necessarily. We can imagine that people's well-being is affected by both envy and altruism. The objects of these two feelings are probably not the same. When individuals buy gifts, they may not buy gifts for those in their reference group.