CASE STUDY USING DATA COLLECTED VIA THE EMPATHY QUESTIONNAIRE OF YOUTH TALKS

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There follows an analysis of the answers to the questions in the validated research questionnaire on empathy (independent of the analysis of the open questions) conducted by Rodolphe Desbordes, researcher at SKEMA and member of the Youth Talks Scientific Committee. The analysis is provided in the hope that it will inspire other researchers to use the data collected via this questionnaire. Its results concur with existing research.

Introduction

There's a lot of talk in this country about the federal deficit. But I think we should talk more about our empathy deficit – the ability to put ourselves in someone else's shoes; to see the world through those who are different from us – the child who's hungry, the laid-off steelworker, the immigrant woman cleaning your dorm room (Barack Obama, 2006).

Empathy can be broadly defined as the psychological tendencies to be in tune with other's feelings and perspectives (Decety, 2006; Chopik et al., 2017). It involves feelings others' emotions (affective empathy) and understanding others' emotions (cognitive empathy). Davis (1996), Preston & De Waal (2002), and De Waal (2010) argue that empathy is a perception(action mechanism arising from evolutionary pressures which increased survival likelihood and the emergence of complex social organisations by facilitating cooperation. Konrath & Grynberg (2016) provide a thorough survey of the literature, which confirms that empathic individuals have more prosocial behaviours directed towards strangers, have better romantic and professional relationships and are less likely to engage in antisocial behaviours. The reviews of Derksen et al. (2013), Clark et al., 2019, Aldrup et al. (2022) indicate that empathy may indeed matter for practising medicine, managing people, or teaching.

Baron-Cohen & Wheelwright (2004) argue that empathy is "*the `glue' of the social world, drawing us to help others and stopping us from hurting others*" (p.163). Rifkin (2009), Pinker (2011) and Kzrnaric (2015) thus consider that the expansion of empathic consciousness is possibly the key factor explaining why, over the last two centuries, equal treatment has been progressively granted to all human beings. These authors also believe that a new global surge in empathy is required to face collective challenges such as climate change. In parallel, empathy is also seen as one of the soft skills that graduates need to adapt to the transformations induced by the Fourth Revolution (Edmondson et al., 2020). Worryingly, Konrath et al. (2011) report that empathy among American college students has been declining between 1979 and 2009; a trend that seems to have been noticed by future U.S. President Barack Obama.

Surprisingly, given the importance of the topic, there has been little exploration of the determinants of empathy in a broad sample of countries, at the exception of Chopik et al. (2017) who look at correlations between empathy scores and various measures of cultural values in an Internet sample of 104365 adults from 63 countries. In contrast, using data collected by Youth Talks, we investigate the determinants of both inter-personal differences within countries and inter-national differences across countries through the multilevel modelling of the responses of about 5403 young people located in 112 different countries.

Data

To measure the various dimensions of empathy, we adopt a 16-item version of Davis (1980, 1983) Interpersonal Reactivity Index which assesses four separate aspects of empathy (Ingoglia et al., 2016: empathic concern (EC; other-oriented feelings of sympathy and concern for unfortunate others), perspective-taking (PT; tendency to adopt spontaneously the psychological point of view of others), fantasy (FS; respondents' tendencies to transpose themselves into the feelings and actions of fictitious characters), personal distress (PD; self-oriented feelings of personal anxiety and unease in tense interpersonal settings). This scale is commonly used in the literature (Konrath et al. , 2011) and covers both affective (EC and PD) and cognitive dimensions (PT and FS). For each item, the score can range from 1 (does not describe me well) to 5 (describes me very well). Table 1 provides the list of questions.

Subscale	Question
Empathic Concern	I often have tender, concerned feelings for people less fortunate than me
Empathic Concern	When I see someone being taken advantage of, I feel kind of protective towards them.
Empathic Concern	When I see someone being treated unfairly, I sometimes don't feel very much pity for them *(reverse scale)*.
Empathic Concern	I would describe myself as a pretty soft-hearted person.
Perspective-Taking	When I'm upset at someone, I usually try to put myself in his shoes for a while.
Perspective-Taking	I try to look at everybody's side of a disagreement before I make a decision.
Perspective-Taking	I sometimes try to understand my friends better by imagining how things look from their perspective.
Perspective-Taking	Before criticizing somebody, I try to imagine how I would feel if I were in their place.
Fantasy	I really got involved with the feelings of the characters in a novel.
	After seeing a play or movie, I have felt as though I were one of the characters.

Fantasy	When I watch a good movie, I can very easily put myself in the place of a leading character.
Fantasy	When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.
Personal Distress	In emergency situations, I feel apprehensive and ill-at-ease.
Personal Distress	Being in a tense emotional situation scares me.
Personal Distress	I tend to lose control during emergencies.
Personal Distress	When I see someone who badly needs help in an emergency, I go to pieces.

Table 1: the Interpersonal Reactivity Index

For each participant and subscale, we calculate the average value of the four answers. Figure 1 shows that personalities vary across respondent but a large fraction of them demonstrates at least one strong empathic trait, such as EC or PD. These two measures of empathy are those the most associated with prosocial attitudes and behaviours (Konrath et al., 2011); FS is less related to actual social situations and PD mostly involves self-orientation which may inhibit social functioning.

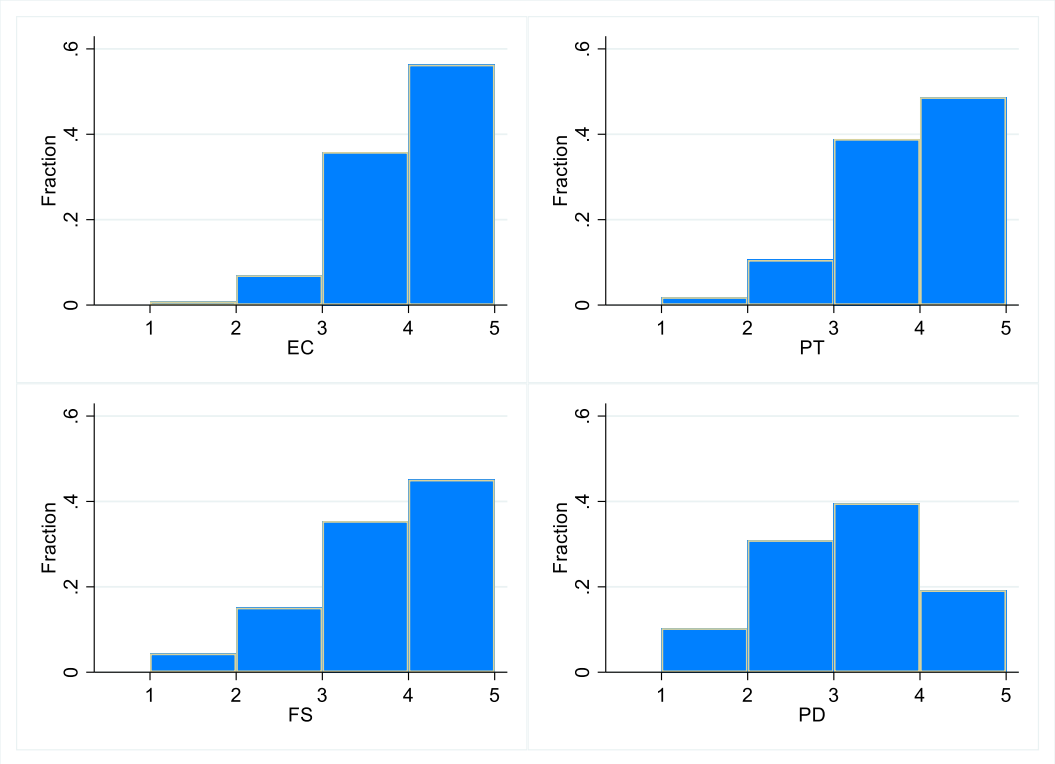

Figure 1: distribution of empathy scores

Table 2 shows that EC and PT are also the empathy dimensions the most correlated, suggesting, as argued by Davis (1983) that one dimension (e.g. PT) may feed the other (e.g. EC).

Variables	(1)	(2)	(3)	(4)
(1) EC	1.000			
(2) PT	0.411*** (0.000)	1.000		
(3) FS	0.360*** (0.000)	0.352*** (0.000)	1.000	
(4) PD	0.152*** (0.000)	0.152*** (0.000)	0.312*** (0.000)	1.000

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 2: correlation coefficients

Table 3 provides the list of individual-level variables included in the regression model. In addition, at the country level, we use the Human Development Index (HDI) as a broad measure of human, social, and economic development; for example, the HDI tends to be highly correlated with high governance values (Worldwide Governance Indicators), low economic inequality (disposable income inequality), and secular-rational/self-expression values (Inglehart–Welzel Cultural Map).

Variables	Explanations	Mean	Std. Dev.	Min	Max
AGE		21.95	3.84	15	30
FEMALE	Only Male/Female considered	0.50	0.50	0	1
HIGHER ED BA	Respondent Education; "other" not considered	0.42	0.49	0	1
HIGHER ED MAS	Respondent Education (Master + above)	0.31	0.46	0	1
P HIGHER ED BA	Parents' Education; "other" not considered	0.26	0.44	0	1
P HIGHER ED MAS	Parents' Education (Master + above)	0.42	0.49	0	1
HIGH INC	Higher than 5 on a 1-10 scale	0.41	0.49	0	1
HDI	Human Development Education	0.73	0.14	0.39	0.96

Table 3: list of explanatory variables

Econometric model

Following Bell et al. (2019), we adopt a within-between random effects (WBRE) model:

$$Empathy_{ij} = \beta_0 + \left(X_{ij} - \overline{X_{ij}}\right)\beta_W + \beta_B HDI_j + \left(\alpha_j + \epsilon_{ij}\right)$$

where $Empathy_{ij}$ is a measure of empathy of respondent *i* in country *j*, *X* are individual characteristics, HDI is the human development index, α_j is a random effect for country *j* and ϵ_{ij} is an error term.

The empathy measures vary *within* countries and *between* countries as individuals (level 1), diverging in their characteristics, are located in different countries (level 2). The WBRE simultaneously accounts for both levels. Differences within countries are purely explained by individual-specific characteristics associated with the vector of coefficients β_W (the *X* variables are demeaned to remove any cross-country information), whereas differences across countries are explained by differences in HDI across countries associated with coefficient β_B. Note that, by construction, the estimation of β_W cannot be affected by any omitted variable varying at the country-level since identification is based on within-country information. On the other hand, β_B may not reflect the `true' effect of HDI but the relationship of the latter with another unobserved country-specific factor. The random part of the model corresponds to the sum of the random effect for country *j* and the error term.

Results

Table 4 presents the econometric results. At the individual level, only gender and age appear to be systematically related to empathy. Female and older respondents are more likely to exhibit empathic personalities. These results are consistent with previous studies (Chopik et al., 2017). Like Depow et al. (2021), and in contrast to Stellar et al. (2012), we do not find that respondents from relatively more favourable backgrounds (i.e. high education and high income) are less likely to be empathic; parents' education may even reduce feelings of personal distress (column 4).

At the country-level, higher HDI tends to reduce empathy, possibly because economic development is associated with an atomistic and self-centred culture, leading to an "empathy deficit". Indeed, Jami et al. (2023) highlight that studies tend to find that empathy tends be higher in collectivist cultures than in individualistic cultures, the latter being more prevalent in high HDI countries according to the Inglehart-Welzel cultural map. While a high HDI may reduce `other-orientation', its larger negative effect, four times larger in column (4) than in other columns, is on self-oriented feelings of personal distress. Hence, the net effect of HDI on empathy is ambiguous and possibly positive overall.

The effects of age, gender, HDI are, in qualitative terms, modest. Being female, 12 years older, or moving on the HDI scale from 0.2 to 1 would, at best, only increase EC or PT by 0.24 points.

Furthermore, the total variation in empathy explained by the model (R^2) is less than 7%. Hence, empathy appears to be highly specific to the background of each individual.

	(1) EC	(2) PT	(3) FS	(4) PD
Individual-level				
FEMALE	0.23***	0.020	0.28***	0.34***
	(0.037)	(0.029)	(0.049)	(0.063)
AGE	0.021***	0.020***	0.00026	-0.0067
	(0.0039)	(0.0034)	(0.0059)	(0.0062)
HIGHER_ED_BA	0.020	-0.0060	-0.015	-0.032
	(0.035)	(0.039)	(0.048)	(0.042)
HIGHER_ED_MAS	0.010	-0.0041	0.024	-0.042
	(0.043)	(0.043)	(0.065)	(0.047)
P_HIGHER_ED_BA	0.026	0.033	0.0063	-0.085**
	(0.035)	(0.031)	(0.036)	(0.043)
P_HIGHER_ED_MAS	0.061**	0.0059	0.025	-0.086**
	(0.025)	(0.032)	(0.036)	(0.044)
HIGH_INC	-0.0052	0.030	0.025	-0.011
	(0.020)	(0.024)	(0.038)	(0.023)
Country-level				
HDI	-0.32**	-0.37***	-0.38**	-1.23***
	(0.14)	(0.14)	(0.19)	(0.21)
Constant	4.21***	4.05***	3.90***	3.89***
	(0.11)	(0.11)	(0.13)	(0.14)
Observations	5,403	5,403	5,403	5,403
Number of countries	112	112	112	112
Overall R^2 (%)	3	1	3	6

Cluster-robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4: the determinants of empathy

Conclusion

Using Youth Talks data, we have shown that young people in our sample tend to exhibit empathic features associated with prosocial attitudes and behaviours. These empathic traits cannot be easily explained by common individual and country-level characteristics. Most notably, higher education does not appear to contribute systematically to the development of empathy.

As acknowledged by the *global citizenship education* movement (Goren & Yemini, 2017; Risberg, 2021), If collective empathy is truly the driver of revolutionary changes in human history, there is an urgent need to foster, through pedagogical activities, the affective and cognitive connections of young people with humankind, and more broadly, the biosphere. This may be especially important in societies who put a high value on self-development.

Lastly, our results can be interpreted as supporting the view that promoting gender quality and group diversity in decision-making is important (Van Knippenberg et al., 2020): women exhibit higher affective empathy and individuals vary strongly in their empathic traits in non-easily identifiable ways.

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