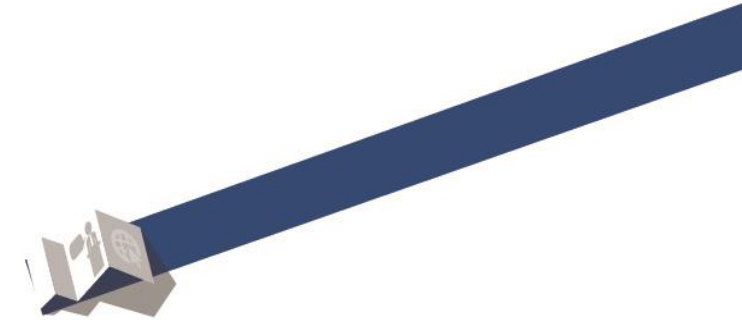




***Life is More Than Having Bread:  
Graduate Education-job Mismatch and Subjective  
Well-being***

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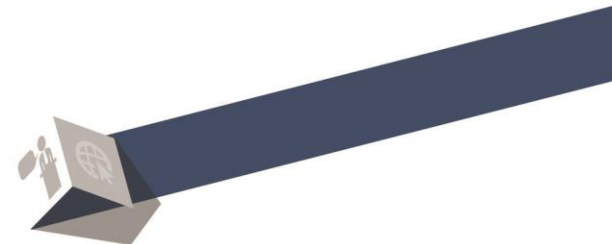
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# Outline

- Introduction
- Previous research
- Theoretical considerations
- Data and methodology
- Results
- Discussion
- Conclusion





# Introduction (1)

## Background

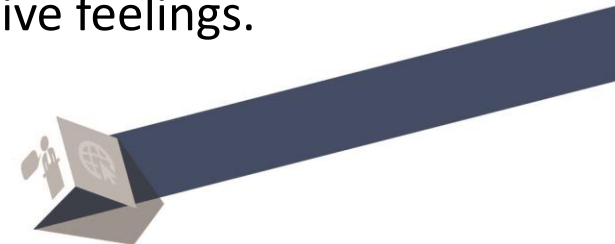
- ❑ It is widely assumed that highly educated people are better integrated into the labour market and enjoy a higher quality of life due to their lower rates of unemployment compared to groups with lower levels of education.

### However,

- ✓ this assumption neglects the widespread tendency in recent years for graduates to be employed in jobs which very often do not require a tertiary degree (eg. the over-qualification rate among graduates aged 25–34 in the European Union (EU) in 2019 was estimated at 24.1%, ranging from 9.7% in Luxembourg to 48% in Greece (CEDEFOP 2019)).
- ❑ The acceptance of jobs that are below one's level of education can be perceived as a means to overcome unemployment and find 'shelter' from difficult social situations on the labour market.

### However,

- ✓ this strategy has its price, and, as a rule, it is at the expense of lower income, partial loss of human capital, and some negative subjective feelings.



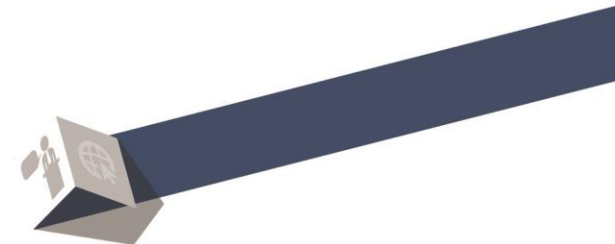


## Introduction (2)

This presentation is inspired by the understanding that **“life is more than a set of commercial relations”** (Nussbaum & Sen 1993, p. 9) and, because of that, any adequate assessment of individual and societal well-being requires taking into account different dimensions of life that are irreducible to one another.

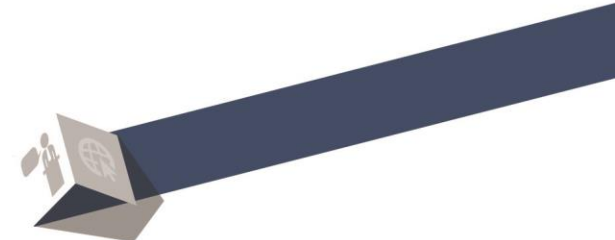
Using the capability approach as a general theoretical framework, it *aims* to:

- 1) explore how subjective individual well-being differs among higher education (HE) graduates and especially to what extent it is associated with graduates’ vertical education-job mismatches;*
- 2) reveal the embeddedness of the link between graduates’ vertical education-job mismatches and subjective well-being in different socio-economic contexts; and*
- 3) outline some policy implications of the analysis undertaken.*





## Previous research (1)

- ❑ There is a substantial body of literature on overeducation and skills mismatch. The research falls into **three groups**:
    - 1) discussions of theoretical approaches and concepts;
    - 2) research on the determinants of overeducation; and
    - 3) studies on the consequences of overeducation.
  
  - ❑ There are some reviews of this literature which summarise the concepts and methods of measurement used as well as provide international evidence on trends in overeducation, their determinants, and their consequences—especially in relation to earnings (e.g., McGuinness 2006; Delaney et al. 2020).
- 



## Previous research (2)

### Objective consequences

- ❑ “One of the most studied aspects of overeducation is its **effect on wages** - “overeducated individuals earn 13.6% less than matched individuals” (McGuinness et al. 2018, p. 11).

### Subjective consequences

- ❑ The most studied are **job satisfaction** and **level of happiness**. However, the results are mixed:
  - overeducation leads to lower job and life satisfaction (Peiró et al. 2010; Diem 2015)
  - this is only the case when overeducation is also accompanied by overskilling (e.g., Green & Zhu 2010; Sloane 2014) or refers only to females (McGuinness & Byrne 2015).
- ❑ We think that **there is a need for further research on the link between education-job mismatch and individual subjective well-being** which applies a more sophisticated understanding of subjective well-being and pays attention to the embeddedness of education-job mismatch and its association with well-being in different socio-economic contexts.



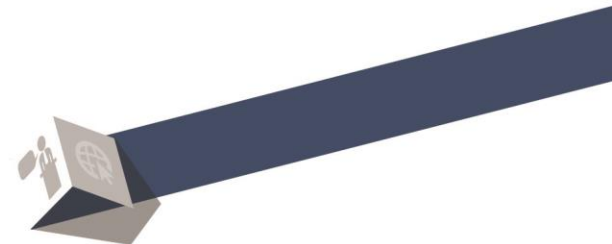


# Theoretical considerations (1)

Støren and Arnesen (2011, p. 200) propose different forms of education–job mismatch:

- 1) *Unemployment*, assumed to be the most severe form of mismatch;
- 2) *Vertical educational mismatch* (usually defined as overeducation) - refers to a lack of correspondence between one's level of education acquired and the level required in a job;
- 3) *Horizontal educational mismatch* - captures working in a job matching one's own level but not field of education; and
- 4) *Horizontal and vertical educational mismatch* - refers to those both vertically and horizontally mismatched.

**We will focus only on vertical mismatch with regard to HE.**



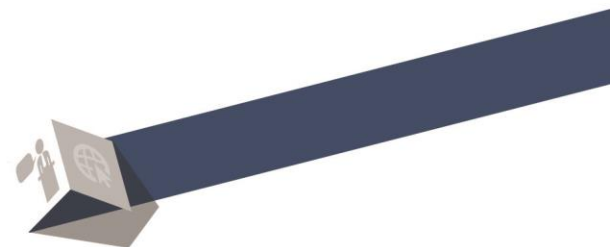




## Theoretical considerations (2)

### Overeducation

- ❑ **Human capital approach** and **job competition model** focus exclusively on the economic benefits that come from education. Overeducation, which is associated with worker under-utilization and wage rates below the marginal product, appear to a great extent inconsistent with these approaches (McGuinness (2006)).
- ❑ In search of another theoretical perspective which could provide a more comprehensive view on the roles of education and individuals' behaviour towards it, we will turn our attention to **the capability approach**.



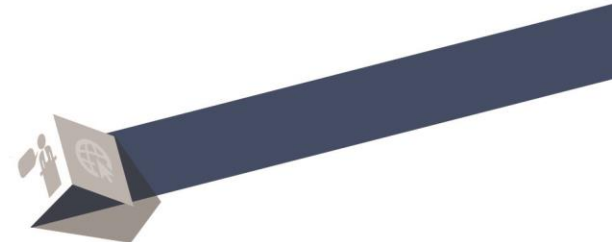




# Theoretical considerations (3)

## The capability approach perspective towards overeducation

- ❑ According to the capability approach (Sen, Nussbaum), it is not so much the achieved outcomes (functionings) that matter but the real opportunities (capabilities) that one has for achieving those outcomes.
- ❑ The capability approach adopts a much richer vision of education (HE included) and acknowledges not only its instrumental value, but its intrinsic and transformative role as well.
- ❑ This comprehensive view of the roles of HE allows us to argue that individuals could have motives and expect benefits from HE that go beyond purely economic and instrumental considerations. From this perspective, not only can we explain the massification of HE, but we can also claim that the very term “overeducation” is not correct, as it reduces the complexity of benefits from HE to the labour market.





# Theoretical considerations (4)

## Graduates' education-job mismatch

- ❑ That is why, in order to account for education–job discrepancies, we will use the term “education–job mismatch” instead of “overeducation”.
- ❑ Unemployment as a “capability deprivation” with far-reaching effects, which go beyond income deficiency (Sen 1999).
- ❑ We define **graduates' education–job mismatches** as a lack of **correspondence between level of acquired education and the level required for a job, which leads to capability deprivation with wider consequences for individual well-being than reduced economic benefits alone.**





# Theoretical considerations (5)

## *Subjective well-being*

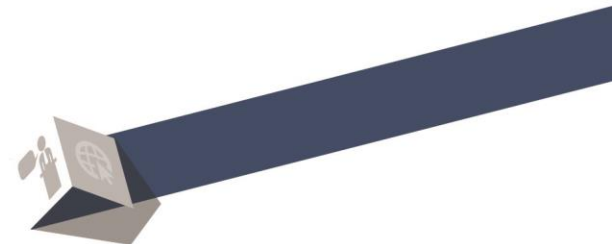
- ❑ It is of central concern within the capability approach. According to Sen (1999), the understanding of well-being should focus on what people can be and can do, rather than simply on what they have.
- ❑ Both objective and subjective perceptions of well-being are indispensable. Sen (1992) states that “[t]he well-being of a person can be seen in terms of quality (the ‘well-ness’) of the person’s being” (p. 39).
- ❑ The capability approach engages with a more sophisticated understanding of subjective **well-being which does not reduce it to happiness**. Such an understanding may “imply a cognitive exercise by each person and an effort to take stock of and summarize the full range of elements that people value (e.g., their sense of purpose, the fulfilment of their goals and how they are perceived by others)” (Stiglitz et al. 2010, p. 65).



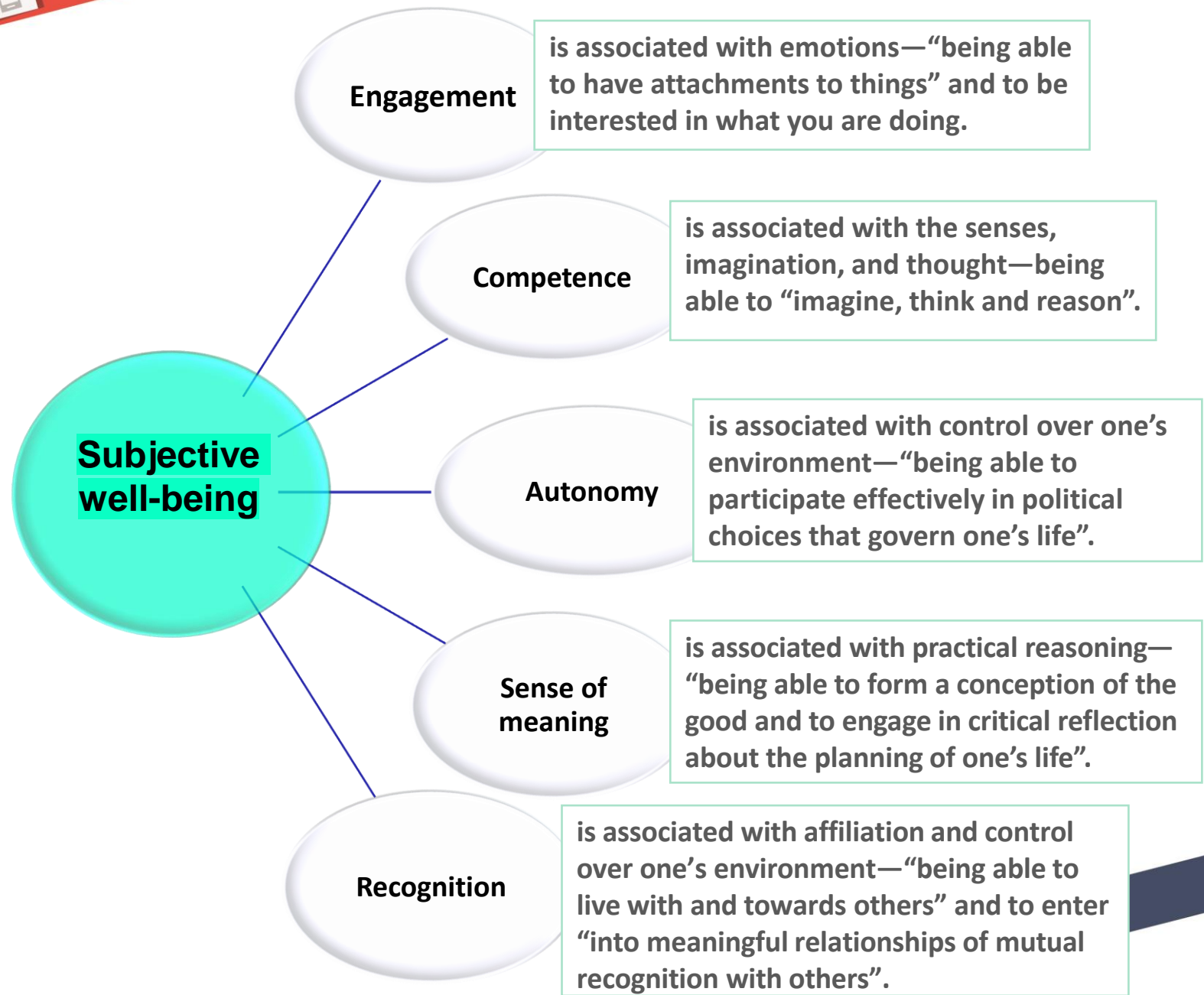


## Theoretical considerations (6)

- ❑ Within the capability approach, the metrics of happiness and satisfaction are not viewed as a sufficient guide for the assessment of people's well-being because of the so-called adaptive preferences. Sen and Nussbaum argue for the need to take into consideration some objective information (e.g., the real opportunities that people have).
- ❑ We claim that **the subjective well-being has a multi-dimensional character.**
- ❑ Other important dimensions of personal well-being: resilience, meaning and purpose, autonomy, engagement, competence, and vitality (European Social Survey 2013).
- ❑ An important dimension of subjective well-being is also the sense of recognition. According to Charles Taylor (1992), receiving recognition is “is not just a courtesy but a vital human need” (p. 25).



# Theoretical considerations (7)





# Hypotheses

**Hypothesis 1 (H1).** *Graduates' vertical mismatch is negatively associated with the defined five dimensions of subjective individual well-being.*

**Hypothesis 2 (H2).** *Better economic and democratic development of a given country is positively associated with the defined five dimensions of the subjective individual well-being of graduates.*

**Hypothesis 3 (H3).** *There is an interaction effect between economic and democratic development and graduates' vertical mismatch, such that better economic and democratic development of a given country is negatively associated with subjective individual well-being among graduates who are employed below their level of education.*





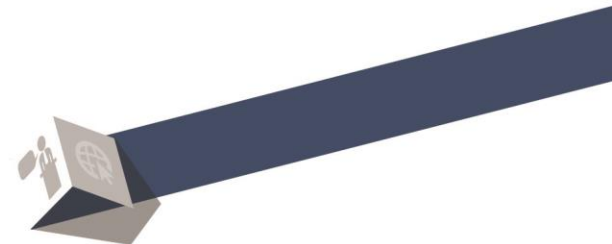
# Data and methodology (1)

## Data

- ❑ European Social Survey (ESS) Round 6, 2012;
- ❑ Macro-level data from Eurostat website and a report from The Economist Intelligence Unit (2012). These data are as of 2012.

## Limitations

- ❑ 24 countries: Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Hungary, Iceland, Ireland, Italy, Lithuania, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and Switzerland.
- ❑ Higher education graduates (25-64 years old).
- ❑ Analytical sample: 9,163 cases.







# Data and methodology (2)

## Variables

### *Dependent variables*

- ❑ To measure **engagement**, we relied on the following question in the ESS: *D32 How much of the time would you generally say you are absorbed in what you are doing?* 1 = feeling absorbed most of the time, which includes scores 7 to 10, and 0 = otherwise.
- ❑ To measure **competence**, we used the following statement in the ESS: *D17 In my daily life, I get very little chance to show how capable I am.* 1 = having a high chance to show how capable I am, covering options 4 and 5, and 0 = otherwise.
- ❑ To measure **autonomy**, we relied on the following statement in the ESS: *D16 I feel I am free to decide for myself how to live my life.* 1 = feeling free to decide how to live my life, which included answers 1 and 2, and 0 = otherwise.
- ❑ To measure **sense of meaning**, we used the following statement in the ESS: *D23 I generally feel that what I do in my life is valuable and worthwhile.* 1 = feeling that what I do in life is valuable and worthwhile, covering options 1 and 2, and 0 = otherwise.
- ❑ To measure **recognition**, we used the following question in the ESS: *D22 To what extent... do you feel that people treat you with respect?* 1 = feeling that people treat me with respect, including responses 4 to 6, and 0 = otherwise.





# Data and methodology (3)

## ***Independent variable at individual level***

- being vertically mismatched (1 = yes). It “refers to the lack of correspondence between the level of the education acquired and the level required in the job” (Støren and Arnesen 2011, p. 200).

## ***Independent variables at country-level***

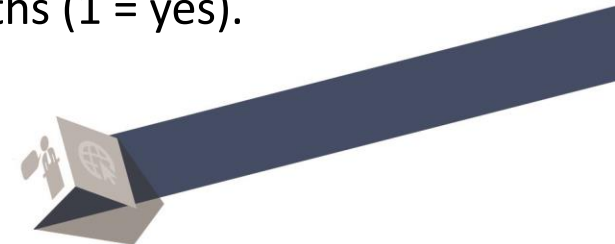
- GDP per capita in PPS (Volume indices of real expenditure per capita [in PPS\_EU27\_2020=100, and
- Democracy regime (1=full democracy ; 0= flawed democracy).

## ***Control variables at individual level***

- gender (1 = female);
- parents’ education as an indicator of social background (1 = high [including persons with at least one parent with higher education]);
- belonging to a minority ethnic background (1 = yes);
- living with a husband/wife/partner (1 = yes); and
- participation in work-related training in the previous 12 months (1 = yes).

## **Methods**

- T-tests and multilevel modelling technique



Statements regarding the five dimensions of subjective well-being among graduates for which a significant difference was detected between those who are mismatched and not. *Source: ESS 2012*

Dimensions of subjective well-being	Statement	Vertically mismatched	Mean	St. dev.	<i>t</i>	<i>df</i>	<i>p</i>
Engagement	Feeling absorbed in what you are doing	No	7.71	1.65	5.64	9,130	0.00
		Yes	<b>7.47</b>	1.80			
Competence	Having a high chance to show how capable I am	No	3.62	1.02	13.97	9,142	0.00
		Yes	<b>3.26</b>	1.08			
Autonomy	Feeling free to decide how to live my life	No	4.10	0.83	4.40	9,156	0.00
		Yes	<b>4.01</b>	0.88			
Sense of meaning	Feeling that what I do in life is valuable and worthwhile	No	4.15	0.67	8.42	9,147	0.00
		Yes	<b>4.00</b>	0.71			
Recognition	Feeling that people treat you with respect	No	4.68	0.96	5.71	9,103	0.00
		Yes	<b>4.53</b>	1.09			

Influence of vertical mismatch on different aspects of subjective well-being and cross-level interactions between vertical mismatch and GDP per capita in PPS, Odds ratios (standard errors in parentheses). *Source: ESS 2012*

	Engagement	Competence	Autonomy	Sense of meaning	Recognition
<b>Fixed parameters</b>					
Vertically mismatched vs. Not	0.505** (0.108)	0.874 (0.170)	0.674+ (0.159)	0.429** (0.110)	1.304 (0.353)
GDP per capita in PPS	0.997 (0.004)	1.013** (0.003)	1.008** (0.002)	1.004** (0.001)	1.015** (0.003)
GDP per capita in PPS X Vertically mismatched	1.004* (0.002)	0.996* (0.002)	1.002 (0.002)	1.004 (0.002)	0.995* (0.003)
Constant	4.795** (2.355)	0.336** (0.108)	3.816** (1.014)	3.640** (0.753)	1.212 (0.450)
<b>Random parameters</b>					
Intercept	0.686*	0.432**	0.304**	0.095**	0.458**
Country-level variance	0.470*	0.187**	0.093**	0.009**	0.209**
Intraclass correlation	0.125	0.054	0.027	0.003	0.060
BIC	8560.2	11187.9	8265.8	6293.5	6305.7
N (individuals)	9,132	9,144	9,158	9,149	9,105





**Influence of vertical mismatch on different aspects of subjective well-being and cross-level interactions between vertical mismatch and democracy regime, Odds ratios (standard errors in parentheses). *Source: ESS 2012***

Fixed parameters	Engagement	Competence	Autonomy	Sense of meaning	Recognition
<b>Vertically mismatched vs. Not</b>	0.789* (0.081)	0.676** (0.059)	0.842+ (0.086)	0.604** (0.070)	1.013 (0.117)
<b>Full democracy vs. Flawed democracy</b>	1.095 (0.321)	2.190** (0.434)	1.520** (0.242)	1.195 (0.141)	2.180** (0.551)
<b>Full democracy X Vertically mismatched</b>	0.982 (0.129)	0.778* (0.087)	1.010 (0.136)	1.069 (0.161)	0.602** (0.093)
<b>Constant</b>	3.215** (0.807)	0.839 (0.152)	6.763** (1.207)	5.153** (0.908)	3.906** (0.939)
<b>Random parameters</b>					
<b>Intercept</b>	0.694*	0.463**	0.351**	0.198**	0.576**
<b>Country-level variance</b>	0.481*	0.215**	0.123**	0.039**	0.332**
<b>Intraclass correlation</b>	0.128	0.061	0.036	0.012	0.092
<b>BIC</b>	8564.9	11191.0	8272.0	6304.3	6307.6
<b>N (individuals)</b>	9,132	9,144	9,158	9,149	9,105





# Discussion (1)

Our paper contributes to the literature in three main ways by:

- 1) applying the capability approach to studying the influence of graduates' vertical education-job mismatches on subjective well-being using data from a large-scale international survey;
- 2) adopting a more differentiated multi-dimensional understanding of subjective well-being which goes beyond its reduction to satisfaction and happiness; and
- 3) revealing that the effects of graduates' vertical education-job mismatches on subjective well-being are socially embedded.





## Discussion (2)

### Our analyses show that:

- ❑ Graduates who experience vertical mismatch are less absorbed in what they are doing, feel less autonomous and competent, and are less confident in having a meaningful life or being treated with respect by others in comparison to those graduates who are employed in jobs which correspond to their level of education. These findings demonstrate that graduates' education job-mismatch is associated with capability deprivation, as it has negative consequences on individual subjective well-being **(H1)**.
- ❑ High levels of GDP per capita are associated with higher response levels in four of the dimensions of subjective well-being; among those living in a country with full democracies—in three dimensions. This means that societies with high levels of economic and democratic development provide a more favourable environment for subjective well-being among all graduates **(H2)**.





## Discussion (3)

- ...
- ❑ The association between graduates' education-job mismatches and individual subjective well-being is embedded in different socio-economic contexts:
    - ✓ vertically mismatched graduates who live in more economically developed countries are less likely to show how capable they are or to feel that people treat them with respect and are more likely to be absorbed in what they are doing in comparison to their peers who have education-matched jobs,
    - ✓ vertically mismatched graduates who live in societies with full democracy are less likely to show how capable they are or to feel that people treat them with respect in comparison to their peers in countries with full democracy who have education-matched jobs **(H3)**.



## Discussion (4)

### These results suggest that:

- ❑ subjective well-being is a complex phenomenon; each of its dimensions has specificity deserving special attention,
- ❑ economically developed societies and full democracy are less favourable to the subjective well-being of vertically mismatched graduates,
- ❑ most probably competence is highly valued and recognition is given for high achievements in economically and democratically developed countries, and that is why in them education-jobs mismatches are viewed as capability deprivation.





# Conclusion (1)

## Further research:

- ❑ to further develop the conceptualisation of: a) the multi-dimensional character of subjective well-being and its measurement, including measuring each variable with more than one item; and b) understanding graduates' education-job mismatches through associations with capability deprivation,
- ❑ to study the embeddedness of the association between graduates' vertical education-job mismatches and subjective well-being while taking into account other macro characteristics, for example, the level of social inequality or the dominant cultural norms in a society (e.g., individualism vs. collectivism),
- ❑ to identify the mechanisms through which social environments mediate the association between graduates' vertical education-job mismatches and subjective well-being,
- ❑ to explore how the capability deprivation associated with graduates' education-job mismatches is linked to social inequalities,
- ❑ to test our results with other measures of graduates' education-job mismatches by using both quantitative and qualitative data and especially comparative longitudinal data.

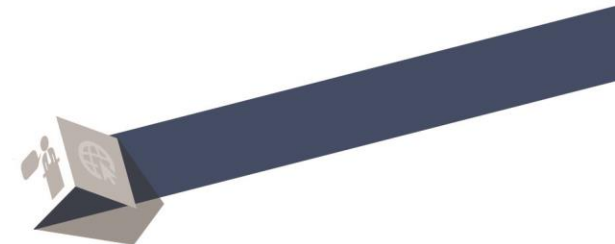




## Conclusion (2)

### Policy implications

- ❑ HE policy should be based on an understanding of the complex nature and plurality of the roles and values of HE.
- ❑ Acknowledgement of the crucial role of HE for individuals' employability and economic benefits has to be given alongside that of the intrinsic and transformative role of HE at both individual and societal levels, both upon entry and in the process of HE, including its role in subjective well-being.
- ❑ Under conditions of massification and diversification, HE increasingly functions as a positional good because a growing number of people graduate from HE institutions, and this intensifies mutual competition between them. This points to the need for active intervention and compensation policies, to be placed simultaneously and in conjunction with both HE and the labour market.





## Conclusion (3)

- Having in mind the global trend towards the expansion of HE (Schofer and Meyer 2005), we can expect that education–job mismatches will continue to be a possible characteristic of graduates’ professional realisation.
- That is why this phenomenon, its effects on graduates’ objective and subjective well-being, and its role in developing HE policies deserve constant attention from both scholars and policymakers.

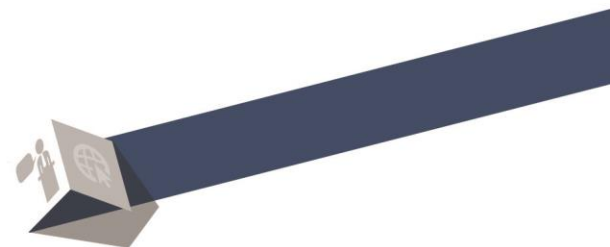




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