



# Subjective social class has a bad name, but predicts life chances well

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## ABSTRACT

Over the last decades, the study of subjective class has been eclipsed by research on objective class. The recurrent mismatch between subjective and objective class has led to the common wisdom that self-reported class is a poor measure of people's life chances. This article questions this common wisdom. Based on ISSP 2009 and 2019, it shows for 55 country surveys that a pre-coded question on subjective class accounts for more variance in life chances – income and wealth – than various measures of objective class. Subjective class predicts individual income equally well as does objective class, but is a much better predictor of household income and wealth. It takes the two measures of respondents' and partners' objective class to match the variance explained in household income by a single measure of subjective class. In contexts of limited survey space and interview time, subjective class is an excellent indicator of people's material situation.

## 1. Introduction

Over much of the post-war decades, the concept of subjective social class held centre stage in research on social stratification (Centers, 1953, Hodge and Treiman 1968, Jackman & Jackman, 1973, Wright, 1989). Yet after the 1980 s, the study of subjective class became dormant and was eclipsed by the focus on objective class. The recurrent mismatch between individuals' perception of their own class and researchers' assessment of the same individuals' class had brought subjective class into disrepute (Savage et al., 2010). Today, it is common wisdom among sociologists that self-reported social class is a poor measure of individuals' life chances (Andersen & Curtis, 2012: 130). As laypeople appear to have distorted views of their class location, it falls on the skilful researcher to determine their class.

Our article questions this common wisdom. With the help of survey data, we empirically examine whether subjective class accounts for less variance in life chances than does objective class. Our interest does not lie on the links between subjective class and class awareness or class identity. Rather, we analyse whether the answers provided by individuals to pre-structured questions about their class position predict their life chances – and we measure life chances with two key indicators of economic opportunities in market societies, namely income and wealth (Breen, 2005; DiPrete & McManus, 1996). As a benchmark, we use various indicators of objective class and compare the predictive power of subjective class with, among others, the European Socio-Economic Classification based on the class schema devised by

Erikson, Goldthorpe and Portocarero (EGP) (Erikson & Goldthorpe, 1992).

Several reasons explain why most stratification researchers have turned their backs on subjective class – with the possible exception of sociologists analysing cultural consumption (e.g. Chan, 2019, Reeves, 2019) and self-rated health (e.g. Bačák, 2018, Präg, 2020). Historically, the strongest sceptics were found among Marxist sociologists, who considered subjective class to be prone to false class consciousness as workers were lured into identifying with the interests of the ruling class (Lukács, 1972[1923][1923]). Reference group theory provides another account of why large sways of the working class would see themselves as middle class (Merton & Kitt, 1950). If people compare their material situation with a homophilous circle of family and friends who occupy similar class positions, they may consider their own class location as unexceptional and middling – regardless of whether their occupations situate them at the upper or lower end of the class structure (Evans & Kelley, 2004).

When subjective and objective measures of social class diverge, researchers tend to invoke cognitive dissonance (D'Hooge et al., 2018) and interpret the diverging class assessments as “inflated” and “deflated” subjective class perceptions (Sosnaud et al., 2013). However, the error may well be with the objective measure. The hierarchy of occupations seems clearly visible to laypeople (Treiman, 1977), and laypeople have much more information on their own material situation than do survey researchers who primarily rely on coarse information about respondents' stated occupations when constructing class

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measures. Moreover, while objective class is usually measured at the individual level, laypeople may base their subjective class to a greater extent on their household's economic situation – and we would argue that life chances primarily depend on the economic situation of the household, not the sole individual.

We test these arguments by comparing how well objective and subjective class indicators predict people's economic resources as measured by income and wealth. We use individual-level data from the International Social Survey Programme (ISSP) and analyse the two survey rounds 2009 and 2019 that include a detailed pre-coded question about subjective class, providing us with results for 38 countries and 55 country-survey rounds.

This article first presents the concepts of subjective class and life chances. It then discusses why subjective class may – or may not – be a good indicator of individuals' life chances. The ensuing sections present the data and methods, and then show results for the predictive power of subjective and objective class for different definitions of income and wealth. The conclusion discusses the implications of our results for research on social stratification and survey methods.

## 2. Subjective class and life chances

This article focusses on subjective social class, understood as individuals' perception of their own position within the class hierarchy. The concept of class perception involves much weaker assumptions in terms of people's identification with a given class than do the more ambitious concepts of class awareness and class consciousness (Jackman & Jackman, 1973; Vanneman, 1980). For the purpose of our study, it is irrelevant whether individuals who perceive themselves as being in a given class also identify with their class or share interests with other members of the same class. Rather, our aim simply is to find out whether the assessment that people provide of their own class location is predictive of their material situation (Walsh et al., 2004).

Subjective social class can be measured in several ways – and it makes a crucial difference whether individuals are confronted with an open-ended question about their class location or a pre-coded question that asks them to tick the class they feel closest to. Although most Western respondents identify with the middle class in open-ended questions, a different response pattern emerges from pre-coded questions in which respondents choose from a set of detailed classes (Hodge & Treiman, 1968).

Our study uses such a pre-coded question that postulates, as in the analysis of objective class, the existence of a class structure defined *ex ante* by the researcher (Breen, 2005; Haddon, 2015). The quality of pre-coded class indicators then depends on the models of social stratification that underlie the question. Surveys that simply ask respondents whether they belong to the working or the middle class will provide a less fine-grained measure than surveys presenting respondents with the choice of six hierarchical classes as in the ISSP that asks respondents to choose from lower class, working class, lower middle class, middle class, upper middle class, and upper class. Only the latter indicator of subjective class is comparable to the detailed measures of objective class commonly used in stratification research, and it is this kind of subjective indicator that our analysis relies on.

The next question arising is on what basis an individual's subjective class can be considered as either adequate or distorted. One possibility is to assess how well a measure of subjective class corresponds to a measure of objective class. On this account, subjective class often falls short (e.g. D'Hooge et al., 2018; Evans & Mellon, 2016; Sosnaud et al., 2013). However, measures of objective class are proxies based on occupational titles and may not be the gold standard. To begin with, occupations are surprisingly difficult to measure: the comparison of different coding strategies shows large divergences in how the same occupations are coded in surveys (Belloni et al., 2016). A panel-data analysis shows that the *same* job held by the same respondent is often miscoded as a *different* occupation in ensuing survey waves (Perales, 2014). Moreover,

occupational titles may hide large within-occupation variance. A chef in a five-star hotel and a hamburger-flipper in a fast-food joint have the same occupation of cook, but their material situation varies widely – and they may (correctly) see themselves as being in different class locations.

For this reason, a more promising assessment strategy is to see whether subjective class predicts what social classes are expected to predict, namely life chances (Weber, 2005[1922]). In the Weberian tradition, life chances have been defined as the chances an individual has for sharing a society's economic and cultural goods (Giddens, 1973). They can thus be understood as the opportunities and constraints people face in order to live the kind of life they find rewarding. These opportunities and constraints are closely correlated with people's position on markets, and life chances have thus been commonly measured with income (Breen, 2005; DiPrete & McManus, 1996; Wright, 2005). We follow this tradition and evaluate different class indicators in terms of their ability to account for economic resources as measured by income and wealth.

While life chances and economic opportunities form the core of class analysis and are the focus of this study, we hasten to add that class position may also crucially affect non-economic outcomes such as people's attitudes and worldviews, political participation and cultural consumption. Recent research notably shows that subjective class is a strong predictor of self-rated health (Bačák 2018, Präg, 2020). These non-economic outcomes are, however, beyond the scope of this article.

## 3. Why subjective class has been discarded

Several reasons explain why indicators of subjective class have fallen into disrepute over the last decades. The strongest opposition to subjective class has come from Marxists who doubted that laypeople were able to discern the workings of capitalist societies. For Karl Marx, class was determined by the objective relations of production, not by what individuals believed their class was (Houtman, 2003). Workers were seen as prone to identify with the interests of their employers and thus fall victim to "false class consciousness" (Lukács, 1972[1923]).

While the concept of false class consciousness has gone out of fashion, elites continue to be crucial in making class categories more or less salient. Examples abound for Britain where Margaret Thatcher dismissed class identities altogether when writing in 1992 that "class is a Communist concept [that] groups people as bundles and sets them against one another", while Tony Blair invited Labour supporters in 1999 to join his shift from "the old establishment to a new, larger, more meritocratic middle class". Sceptics of subjective class thus argue that it is no wonder people misconstrue their own class position if they are constantly told by the elites that "we're all middle class now".<sup>1</sup>

Possibly the strongest argument against the use of subjective class has come from research showing a disparity between the objective class people are allocated to and the class they think they are part of (Andersen & Curtis, 2012; D'Hooge et al., 2018). In Britain, almost half of respondents that were considered "objectively" to be middle class identified in 2015 as working class (Evans & Mellon, 2016: 7). It has thus been argued that "the mismatch between objective life chances and people's subjective awareness of class ... now forms the current orthodoxy in the UK" (Savage et al., 2010: 118).

The confidence in subjective class measures has been further undermined by studies asking individuals to place themselves on a social hierarchy from 1 (bottom) to 10 (top). Often interpreted as an indicator of subjective social status, research for Western countries typically finds that "rich and poor, well-educated and poorly educated, high-status and

<sup>1</sup> Margaret Thatcher in: *Newsweek*, "Don't undo my work", 27. 4. 1992. Tony Blair in: *Guardian*, "Blair hails middle class revolution", 15. 1. 1999. "We're all middle class now": A remark allegedly made in 1997 by Labour's Deputy Prime Minister John Prescott in BBC Radio 4's Today programme (see Evans & Mellon, 2016: 2).

low-status, all see themselves near the middle of the subjective status ranking” (Kelley & Evans, 1995: 166, see also Oesch & Vigna, 2022).

This massing in the middle has been explained with reference group theory and the argument that individuals evaluate their own class position by comparing it not to society as a whole, but to people around them such as family, friends and colleagues (Merton & Kitt, 1950). As most social networks are defined by homophily (McPherson et al., 2001), people determine their own class with reference to acquaintances holding similar occupations. This leads people both in the upper and lower reaches of society to perceive themselves as somewhere in the middle of the social hierarchy (Evans & Kelley, 2004). Yet one may argue in defence of subjective class measures that it is easier to choose a class label such as working class or upper-middle class than to assign oneself a number on a status scale.

#### 4. Why subjective class holds promise

Despite widespread scepticism towards subjective class, two arguments suggest it may deserve more credit than it currently receives in research on social stratification: The class hierarchy in most countries is clearly visible to laypeople, and laypeople possess much more information about their material situation than do researchers when measuring objective class.

What leads us to argue that the class hierarchy is easy to discern? Regardless of whether stratification theories emphasize employment relations (Erikson & Goldthorpe, 1992), marketable skills (Tåhlin, 2007), friendship networks (Chan & Goldthorpe, 2007) or types of capital (Bourdieu, 1979), the different class and status measures end up being strongly correlated (Bihagen & Lambert, 2018; Lambert & Bihagen, 2014). One reason is that the underlying hierarchical dimensions are also closely associated. Another reason is that, in practice, the stratification order is very visible. Most scholars and laypeople agree that judges and medical doctors occupy more advantaged class positions than bookkeepers and secretaries who, in turn, are better off than cleaners and farmhands.

Laypeople’s ability to discern the contours of the class structure is acknowledged in the construction of prestige scales where random samples of individuals are asked to rank-order a set of occupations from the lowest to the highest. These prestige scales look surprisingly similar over time and across countries. Correlations of above 0.8 (Pearson’s R) suggest that people strongly agree on the shape of the occupational hierarchy (Treiman, 1977: 166). A similar conclusion was reached by two classic studies that asked Americans to allocate occupations to pre-coded classes (Centers, 1953; Jackman & Jackman, 1983). The authors of the second survey study reported “a striking amount of popular agreement about how occupations are associated with classes” (Jackman & Jackman, 1983: 25). Moreover, their interviewers noted that close to 90 per cent of respondents had no difficulty in understanding the class terms – a finding confirmed by the interviewers of an Icelandic survey study three decades later (Oddsson, 2010).

In a similar vein, survey research in the United States finds subjective class to be strongly associated with family income, current occupation, and education, concluding that “Americans ... express identities that are quite congruent with their objective circumstances” (Hout, 2008: 12, see also Speer, 2016). Based on these arguments, our study expects that subjective class provides more information on households’ economic resources than objective class and we formulate the following hypothesis:

**Hypothesis 1.** : subjective class accounts for more variance in household income and wealth than does objective class.

A further argument pleading in favour of subjective class is that individuals, when assessing their own class, have not only their individual material situation in mind, but probably also take into account their household (Präg, 2020). Most families pool their resources among household members, and the household is thus the decisive unit of

consumption, notably in terms of housing and food. For this reason, household class appears more consequential for life chances than individual class. A secretary married to a medical doctor faces very different economic opportunities and constraints than a secretary married to a sales assistant.

This points to a crucial difference between subjective and objective class. If both are measured at the individual level, objective class is likely to reflect the degree of advantage in the individual’s employment relationship, whereas subjective class may partly reflect the household’s material situation. As a consequence, subjective class may not be superior to objective class in explaining variance in *individual* income, but in *household* income. This difference is not trivial as life chances are not solely determined by the sole individual’s situation, but crucially affected by the family. The household thus represents the key unit of stratification that influences material well-being and interests (Goldthorpe, 1983; Paskov & Weisstanner, 2022). This leads us to formulate our second hypothesis:

**Hypothesis 2.** : the advantage of subjective class over objective class is greater in predicting household income than individual income.

#### 5. Data, measures and method

##### 5.1. Data

Our analysis is based on individual-level data from the ISSP, an academically driven cross-country collaboration that produces nationally representative surveys for several dozen countries. In the last decade, the question on subjective social class was included in the ISSP Social Inequality modules of 2009 and 2019, and our analysis uses these two rounds. For lack of a good criterion about which countries to include, we keep all countries with valid class and income variables, which provides us with 34 country-rounds in 2009 and 21 country-rounds available for 2019 at the time of writing. Given that the most widely used indicator of objective class was developed with “modern industrial societies” in mind (Erikson & Goldthorpe, 1992: 35), we disaggregate results by country regions and discuss results for Western countries in greater detail. Note that our primary interest is not in country differences, but in replicating the same analysis over several dozen surveys in order to gauge the robustness of findings across time and space.

Our analysis uses the adult population aged 18 and older and only excludes individuals with missing information. This provides us with analytical samples of a minimum of 486 respondents (Spain 2009) and a maximum of 3687 respondents (Philippines 2019). As ISSP only provides weights for a minority of years and countries, our results are unweighted. In order to ease the interpretation of results, we show the country averages for six country groups: Continental Western European countries, English-speaking countries, Scandinavian countries, Eastern European countries, and all other countries (Africa, Asia and South America). Table A.1 in the appendix provides the countries and survey rounds included and shows the income measures of the different surveys (monthly or yearly, gross or net) as well as the number of complete observations in each survey round.

##### 5.2. Measures of economic outcomes

Our key dependent variable is income. ISSP asks respondents about their income stemming from all sources – at the individual level and the level of the household. Responses are coded in national currencies and categories differ across countries. Since most countries distinguish between at least 12–15 income categories (and over 30 categories in countries such as the Czech Republic, Germany or Sweden), we treat income as a country-specific continuous variable by taking the mid-point of each category. There is no need to equalize household income as we compare the influence of either objective or subjective class on the

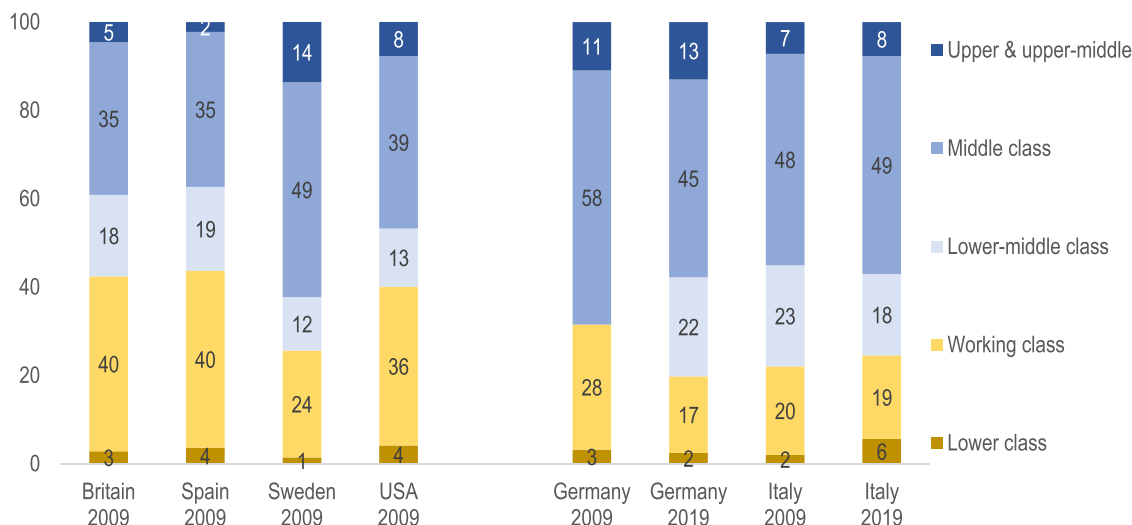


Fig. 1. Distribution of the adult population across 5 subjective social classes (ISSP).

same income measure. In our main analysis, we leave away individuals who declare having zero income. However, robustness tests show that including these incomes (by setting them at zero) has no effect on our findings.

In addition to focusing on the flow of economic resources – income –, we also measure households' material situation with the stock of economic resources: wealth. Information on wealth is only available in ISSP 2009 and based on two items: net wealth stemming from housing, and net wealth stemming from savings, stocks and bonds. Both wealth variables are measured in country-specific currencies and categories, and allow respondents to tick the box "just debts". We impute a numerical value for debts by taking the negative value of a country's lowest wealth category. The top-coded wealth category is open-ended ("more than X") and we impute numerical values by adding 40% to the top category's value. These wealth variables are admittedly coarse, but they nonetheless show clear associations with social class.

The ISSP is a general social survey and its self-reported measures of income and wealth are prone to much more measurement error than register data. While this limitation needs to be kept in mind, it is of lesser relevance for our analysis that seeks to compare the predictive power of different class indicators on the same (imperfect) income measure. Given that there is the same amount of measurement error in income in a given country survey regardless of whether we estimate a model including objective or subjective class, only the level of predictive power should be affected, but not the difference in predictive power between objective and subjective class.

Still, we make sure that our results are not due to peculiarities of the ISSP and replicate our analysis for a second data source, the World Value Survey (WVS) wave 7 (collected 2017–2020). WVS is one of the few international surveys that contain a detailed pre-coded question on subjective social class.

### 5.3. Measures of social class

Our two key independent variables are subjective and objective class. Subjective class is measured based on the following question: "Most people see themselves as belonging to a particular class. Please tell me which social class you would say you belong to: (1) Lower class; (2) Working class; (3) Lower-middle class; (4) Middle class; (5) Upper-middle class; (6) Upper class." This question appears to be well understood by respondents, with only a very few percent of invalid answers (such as "does not know" or "refuses to answer").

In the great majority of countries, less than one percent of respondents consider themselves to belong to the upper class. We

therefore merge this category with the more sizeable upper-middle class. This provides us with the five-class model shown in Fig. 1. The Figure's left-hand presents the distribution of subjective classes in Britain, Spain, Sweden and the US in 2009 (at the time of writing, no 2019 data were available for these countries), whereas the Figure's right-hand shows the class distribution for Germany and Italy in 2009 and 2019.

The class structures of Britain and Spain look surprisingly similar, with 40% seeing themselves as working class and 35% as middle class. While the working class is also sizeable in the US with 36%, it is substantially smaller in Germany, Sweden and Italy where only a quarter of all respondents see themselves as working class, but half as middle class. In Germany and Sweden, also the upper-middle class is disproportionately large with 12–14% of all respondents, as compared to 5–8% in Britain, Italy or the US. In all countries, a sizeable share of adults consider themselves to be in the lower-middle class: about 20% in Britain, Germany, Italy and Spain, and about 12% in Sweden and the US. Finally, the lower class tends everywhere to be the smallest category, with a few percent only. However, this is a Western particularity. In poorer countries included in the ISSP such as the Philippines or South Africa, the lower class is the largest category, comprising 35–40% of respondents.

The comparison over time shows that the Italian class structure looks very similar between 2009 and 2019, suggesting that the distribution of respondents across subjective classes is not arbitrary. In Germany, the class distribution looks less skewed in 2019 than in 2009 when the pre-coded question did not offer a response option for the lower-middle class, forcing a fifth of respondents to instead choose middle or working class. This observation reminds us that subjective class measures are only as good as the underlying survey questions.

We measure objective class with the European version of the widely used EGP-model of Erikson and Goldthorpe (1992), known as the European Socio-Economic Classification (ESEC). ESEC uses differences in employment relationships as an indicator of individuals' relations within labour markets and production units which, in turn, determine their life chances (Harrison & Rose, 2006). ESEC requires information on four variables: employment status (employee vs. self-employed); number of employees (self-employed vs. small and large employers); supervisory status (nobody, 1–9, 10 and more workers) and, most importantly, present or past occupation (as measured with ISCO 4-digit). Following Rose and Harrison (2010), we distinguish a detailed 9-class

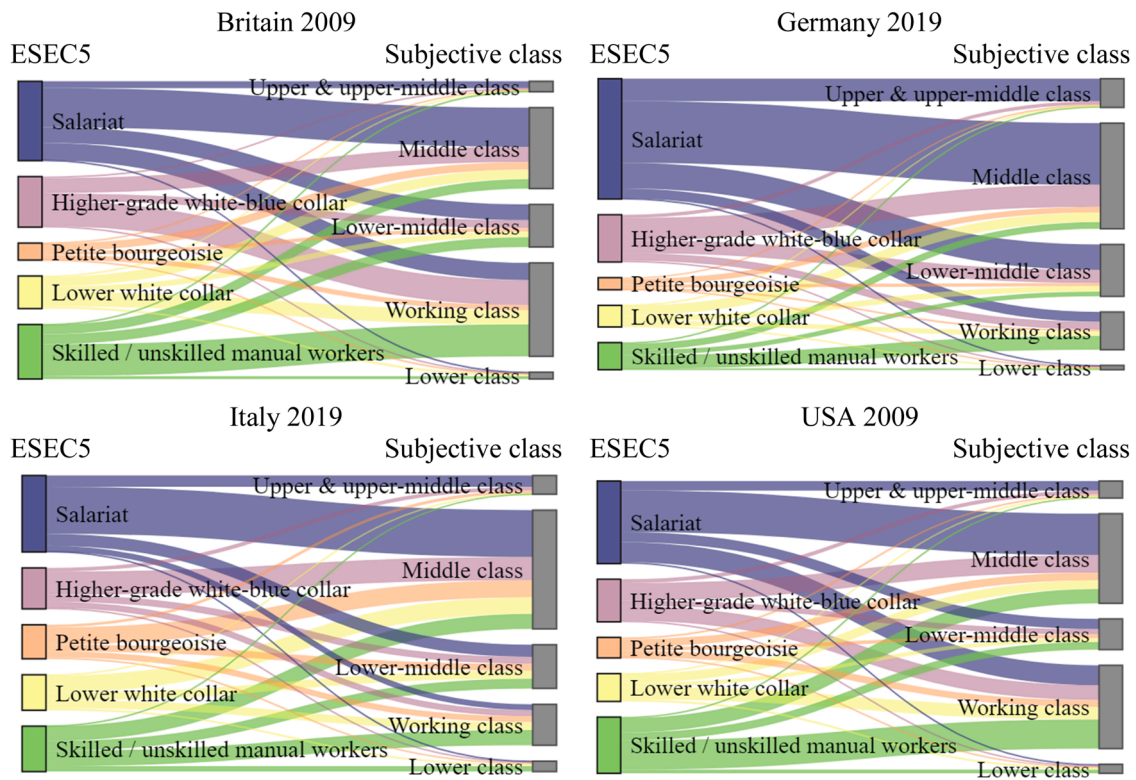


Fig. 2. Correspondence between 5 objective classes (ESEC5) and 5 subjective classes.

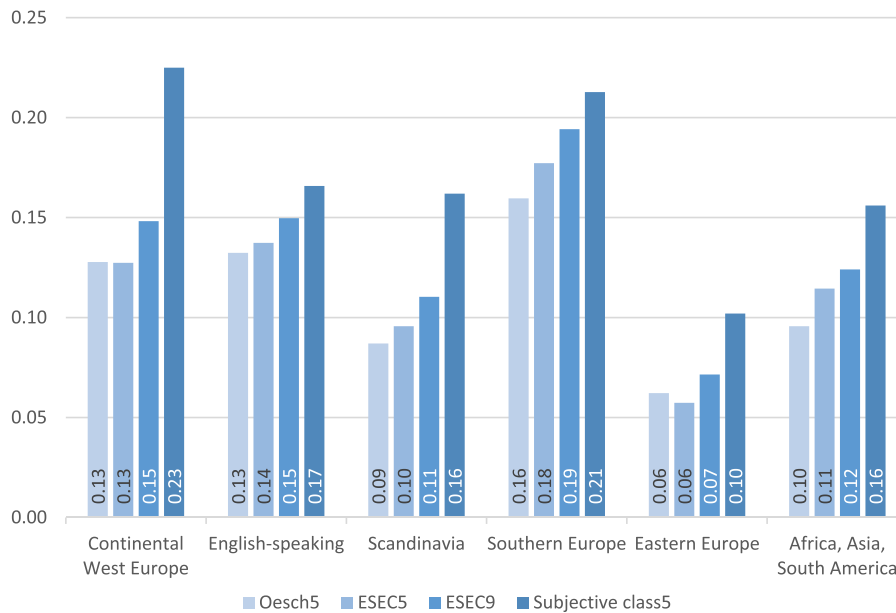


Fig. 3. Variance in household income that is accounted for by class (ISSP 2009, 2019).

model (ESEC9) as well as a more parsimonious 5-class model (ESEC5).<sup>2</sup>

<sup>2</sup> ESEC9 distinguishes these 9 classes: Semi- and non-skilled workers; skilled workers; lower grade white-collar workers; higher grade blue-collar workers; independents (self-employed occupations); petite bourgeoisie (small employers); higher grade white-collar workers; lower salariat; higher salariat. ESEC5 distinguishes these 5 classes: Skilled/unskilled manual; Lower white collar; Petite bourgeoisie; Higher-grade white/blue collar; Salariat. We used Stata's ISCOGEN module to construct ESEC9 and ESEC5 (Jann, 2019).

In addition, we use an alternative 5-class scheme developed by Oesch (2006) that only requires three sets of information (employment status; number of employees; present or past occupation). Unlike for ESEC, this class measure can also be constructed for the partners of respondents for whom ISSP provides no information on supervisory status. Five classes are distinguished: (1) the upper-middle class of managers, professionals and large employers; (2) the lower middle class of associate managers, semi-professionals and technicians; (3) small business owners such as artisans, shop owners and farmers; (4) the skilled working class of craftsmen, office clerks, sales and service workers; (5) the unskilled

working class of operatives, farmhands and unskilled service workers.<sup>3</sup>

Fig. 2 shows how the five objective ESEC classes map onto the five subjective classes in Britain, Germany, Italy and the United States. In all four countries, the salariat of higher-grade professional, administrative and managerial occupations is the largest category, most clearly so in Germany with over half of all respondents – and most of these respondents perceive themselves to be middle class, with small shares seeing themselves as upper-middle, lower-middle and working class. The two ESEC classes of higher-grade white/blue collar employees and lower-grade white collar employees are roughly divided in half between those seeing themselves as either middle or working class. Finally, ESEC's skilled and unskilled manual workers mostly consider themselves to be working class, whereas ESEC's petite bourgeoisie feeds into all five subjective classes.

#### 5.4. Empirical strategy

We choose an empirical strategy that is as straightforward and simple as possible by comparing the variance in income and wealth that is accounted for by the different class indicators. We estimate linear regressions on income and wealth, both with and without controls for age, gender and household size (for household outcomes). The substantial conclusions remain unchanged by the control variables – and we therefore follow the design of earlier studies (Brady et al., 2018; Shahbazian & Bihagen, 2022) and concentrate on the models without controls in the main text (for results with controls, see Figs. B1–B4 in Appendix B).

For each country, we report the adjusted R2 for either subjective or objective class. R2 is a widely used summary measure of predictive power in models accounting for income (Brady et al., 2018; Shahbazian & Bihagen, 2022). While there are more sophisticated measures of explained variation, these measures tend to be closely correlated with R2 (Cantoni et al., 2021), and R2 has the advantage of easy interpretation. Values of 0.15–0.25 tell us that class accounts for 15–25% of the variance in people's incomes in a given country.

For our empirical strategy, it is useful to outline the difference between causal analysis and predictive modelling (Young, 2019). To identify a causal effect or to assess the predictive accuracy of an indicator are two different kinds of questions. In causal analysis, the goal is to isolate an estimated effect that is as close as possible to the true treatment effect. In predictive modeling, the objective is to find a prediction of an outcome that is as close as possible to the true outcome. A good predictor is thus highly correlated with the outcome, without necessarily causing it. Hence, loss of smell is a good predictor of an infection with COVID-19, although it does not cause the infection. In this sense, our analysis aims at assessing as to whether subjective class provides a good predictor of economic resources – without arguing that subjective class “causes” differences in income and wealth.

Still, a legitimate concern is reverse prediction if respondents are prompted to answer the question about their subjective class based on the income category in which they placed themselves in the same survey. However, ISSP excludes such a question-order bias: the question on subjective class is situated in the middle and the question on income at the end of the questionnaire. Respondents thus had to choose their subjective class before being prompted by the ISSP to think about their income.

## 6. Variance in household income

We first compare the variance in household income that is accounted for by different class measures across country groups. Fig. 3 shows that

<sup>3</sup> The Stata code used to construct this class measure in ISSP can be downloaded from one of the author's website: <https://people.unil.ch/danieloesch/scripts/>

subjective class systematically accounts for more variance than do the three indicators of objective class. The difference is particularly large for Continental Western Europe where the sole indicator of subjective class accounts for 23% of variance in household income, as compared with 13–15% accounted for by the three objective class measures. Interestingly, it makes little difference which one of the three objective class measures we use. The two 5-class measures account for almost the same amount of variance – and they perform only slightly worse than ESEC9.

We try to make sense of results by disaggregating them for Western countries (see Figure A1 in appendix). Subjective class predicts household income better than the different indicators of objective class in every available survey round for every available Continental Western European or Scandinavian country. There is only one country where indicators of objective social class – and notably ESEC – prove to be clearly superior to subjective class in accounting for income differences: Britain. This is interesting because Britain's society provided the empirical backdrop for the development of the EGP-class schema (Goldthorpe, 1987[1980]) which, in turn, was refined into ESEC (Rose & Harrison, 2010). Yet in the other English-speaking countries of Australia, New Zealand and the United States, subjective class accounts for substantially more variance in household income than do the objective class indicators.

Subjective class not only performs better in relative terms, its predictive power is also substantial in absolute terms. In 2019 in Germany, Finland or Switzerland, the sole measure of subjective class accounts for over a fourth of variance in household income. Adding the three basic demographic controls of gender, age and household size further increases the explained variance to a third (see Figure B.1 in the Appendix B).

Not only explained variance, but also effect size is larger if household income is regressed against subjective rather than objective class. Fig. 4 compares the effect size for Britain, Germany, Italy and the US for subjective class and ESEC5, using the working class (left-hand panel) or lower-grade white collar workers (right-hand panel) as the reference group set at 0 (for the full regression, see Table A.2 in the appendix).

The left-hand panel shows that household income shows a very similar pattern across subjective classes in the four Western countries. Respondents perceiving themselves to be in the middle class earn about 60–70% more and respondents in the upper-middle class about 140% more than respondents seeing themselves as working class. Members of the working class, in turn, earn about 35–50% more than people in the lower class. The right-hand panel shows that the expected income hierarchy also holds for objective classes as measured by ESEC5. However, these class contrasts are much smaller than those observed between subjective classes, and they are less systematic across the four Western countries.

If we wish to attain the predictive power that subjective class has for household income, we need to use two indicators of objective class: one measuring respondents' class and another measuring their partners' class. Indeed, once we enter into the same model both respondents' and their partners' class, we obtain values of adjusted R2 that closely match those seen for a single measure of subjective class (see Figure A2 in the appendix). In all country groups, using information on both partners' occupational class strongly increases the explained variance in household income. However, while the two variables of objective class account for as much variance as subjective class, they rely on six survey questions (on both respondents' and partners' occupation, employment status and number of employees), whereas subjective class only requires one single and very simple, pre-coded question. Note that subjective class also accounts for more variance in household income in all six country groups if the analytical sample is limited to respondents without a steady partner (see Figure A3 in the appendix).

Although our results are based on 55 different national surveys assembled in the ISSP, all these surveys follow a similar protocol. We therefore test the robustness of our results by replicating our analysis with the World Value Survey 2017–2020 (WVS). WVS only provides

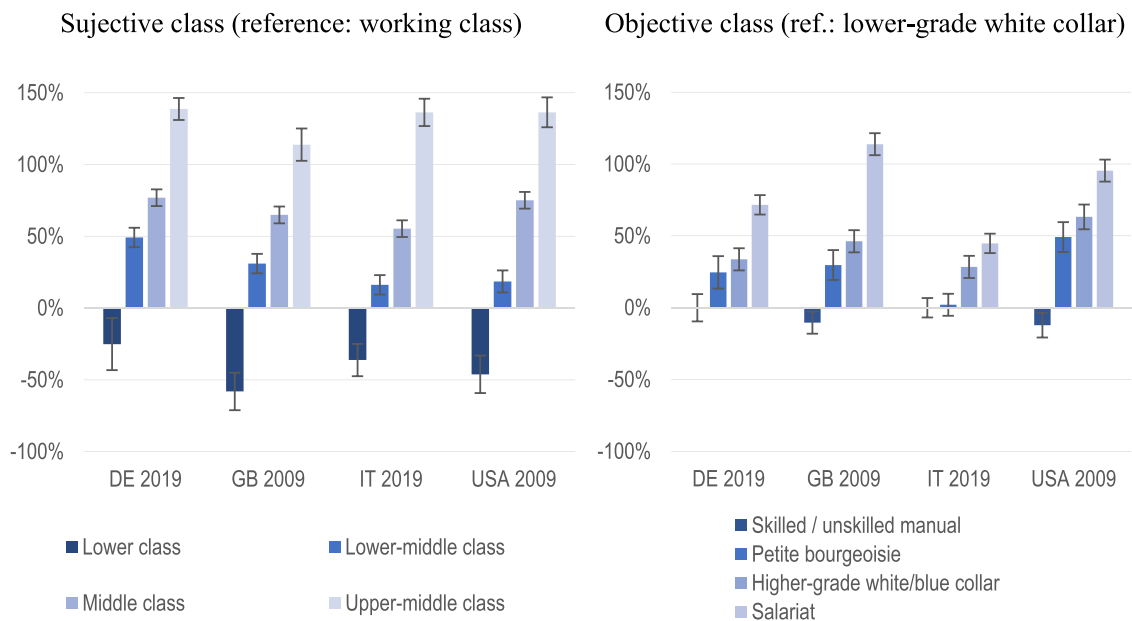


Fig. 4. differences in household income by subjective and objective class. Note: log coefficients were transformed into percent differences using this formula:  $[(EXP(\log\_coeff) - 1) * 100]$ .

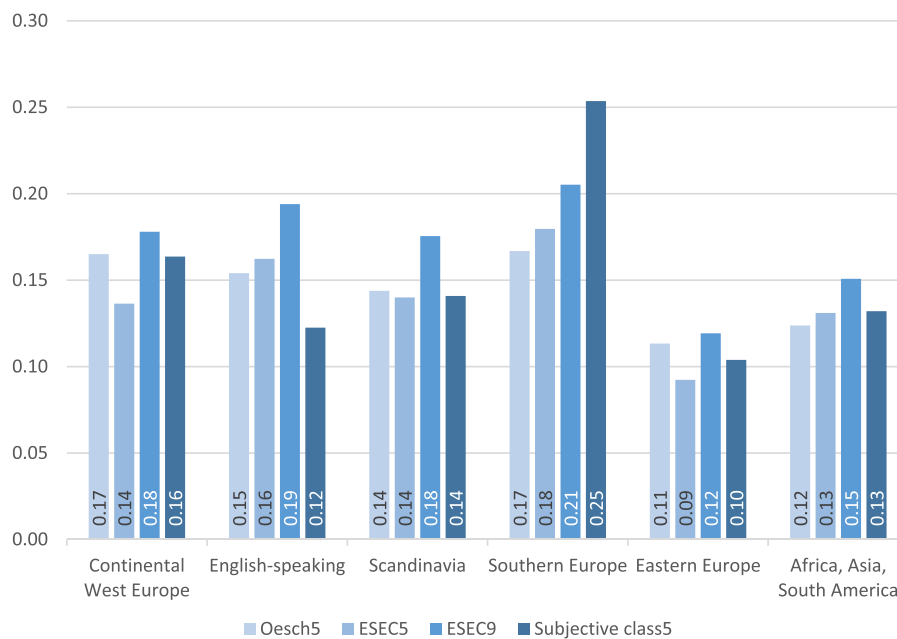


Fig. 5. Variance in individual income that is accounted for by class (ISSP 2009, 2019).

information about individuals' employment status, occupational groups and subjective class for five Western countries: Australia, Canada, Germany, New Zealand and the United States. Figure A4 in the appendix shows that, averaged over these countries, subjective class accounts for 35% of variance in household incomes as compared to 12% for our objective class measure.<sup>4</sup> This suggests that our results are not due to any

idiosyncrasies of the ISSP, but also hold when using another dataset.

### 7. Variance in individual income

Our second hypothesis expected the advantage of subjective over objective class to be larger in predicting household rather than individual income. Fig. 5 suggests that this is the case. Unlike for household income, our three indicators of objective class account for as much variance in individual income as does subjective class. Only for Southern Europe does subjective class outperform objective class in predicting individual income. In all the other country groups, ESEC9 is (at least) as good a predictor and notably outdoes subjective class in the English-speaking country group.

<sup>4</sup> Contrary to ISSP, WVS only distinguishes between ten occupational categories and two types of employment status (employer/self-employed or employed). We thus construct a 12-category measure of objective class that separates ten employee classes from small business owners on the one hand and large employers on the other.

Overall, objective class indicators account for more variance in individual than household income, whereas the opposite is the case for subjective class (see Figure A5 in the appendix). This suggests that objective class does the job it is meant to do, namely account for individuals' positions in labour markets and production units which, in turn, affect their individual income. While subjective class also provides a reasonable proxy for individual income, it is a better predictor for resources at the household level than objective class.

A concern with objective class indicators is that they are difficult to measure for the population outside of the labour market. We therefore compare the predictive power of different class indicators for individual income by limiting the analytical sample to adults who declare being in paid employment. Results (presented in Figure A6 in the appendix) remain unchanged and suggest that objective and subjective class measures account everywhere for about the same amount of variance in individual incomes except in English-Speaking countries where objective class performs better and in Southern Europe where subjective class performs better.

A further question arising is how subjective class fares in comparison with two other subjective indicators of economic standing. A first indicator measures subjective social status by asking respondents to locate themselves on a hierarchical ladder that represents society and that ranges from 1 (bottom) to 10 (top) (Evans & Kelley, 2004). A second subjective indicator taps directly into households' income and asks respondents how difficult it is for their household to make ends meet, answers being coded on a five-point scale (from very difficult to very easy) (Bedük, 2020). Since this second indicator is only available in ISSP 2019, our comparison is limited to the country-surveys available for this year.

Fig. 6 shows the variance explained in household and individual income by these three subjective indicators. In Continental Western Europe, Scandinavia and Africa, Asia, South America, subjective class accounts for more variance in both household and individual income than the question about making ends meet. In contrast, this latter question asking directly about household finances has more predictive power in the English-speaking countries for both household and individual income. The two questions about subjective class and about making ends meet fare better in predicting household income rather than individual income – and they account for more variance in income than does subjective social status measured with a 10-point ladder. However, even the latter indicator accounts by itself for about 10–12% of variance in both household and individual income – values of adjusted R2 that are not negligible.

### 8. Variance in wealth

Critics may argue that the class models of ESEC/EGP and Oesch reflect both differences in kinds and differences in levels. They are thus not fully hierarchical and may struggle to predict a continuous variable such as income. This argument applies in particular to the category of the *petite bourgeoisie* (ESEC) and small business owners (Oesch), whose class position may not relate to specific income ranks. Rather, this self-employed category is distinct because its members are not wage-earners, but small entrepreneurs who own their means of production. Therefore, ESEC may account for more variance in economic stocks (as reflected by wealth) than in economic flows (as captured by income).

We follow up on this lead in Fig. 7 and compare the variance accounted for by subjective and objective class in net wealth. The

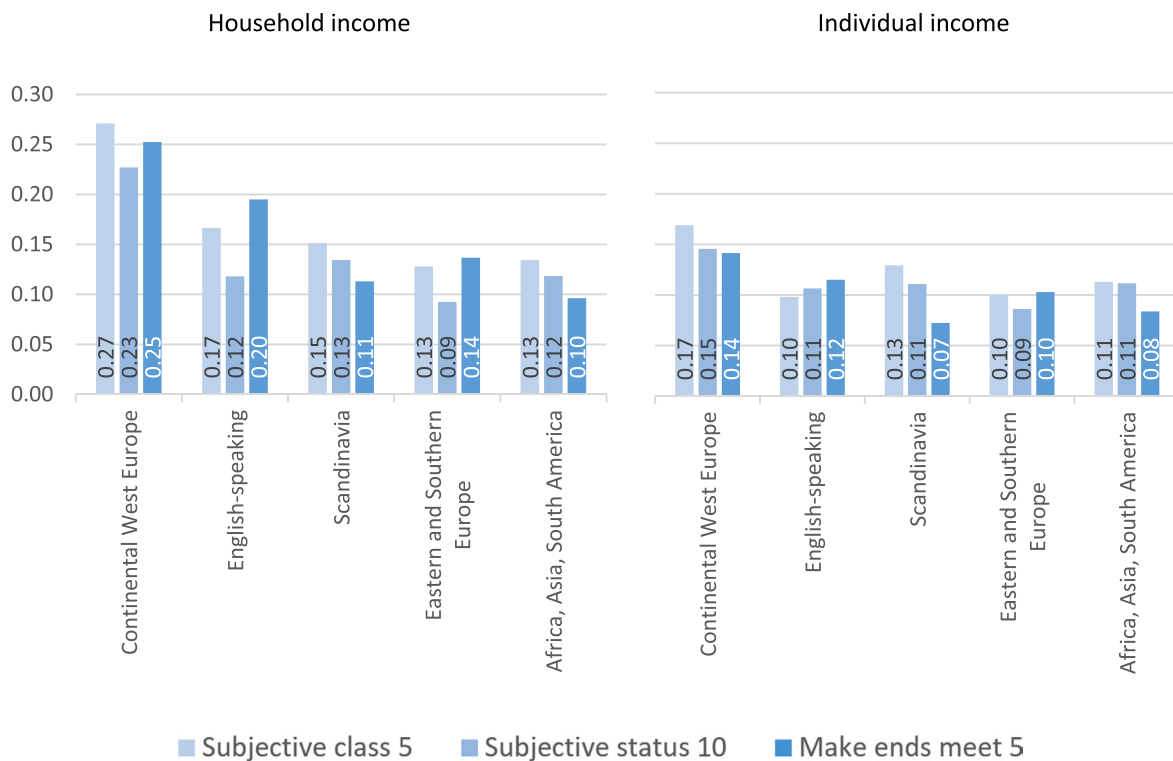


Fig. 6. Variance in income that is accounted for by subjective indicators of class (ISSP 2019).



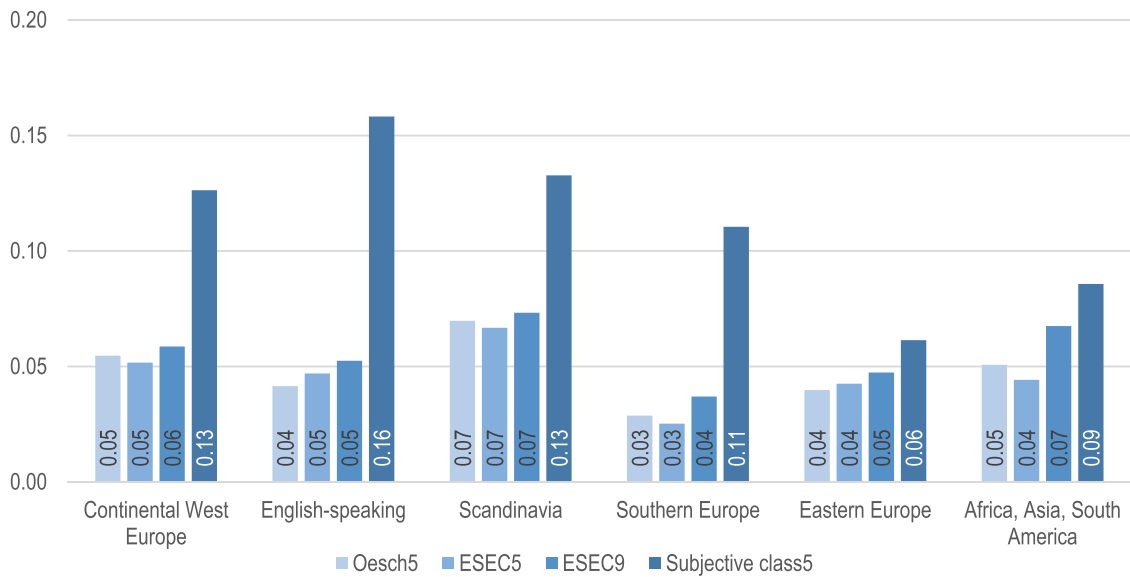


Fig. 7. Variance in net wealth that is accounted for by social class (ISSP 2009).

conclusion remains unchanged: Subjective class also predicts wealth better. The disparity between objective and subjective class is even larger than for household income, with the strongest contrast in the English-speaking countries where subjective class accounts for 16% of variance in wealth as compared to 5% for objective class. But subjective class also accounts for twice as much variance in wealth as objective class in the Scandinavian, Continental and Southern European countries. When disaggregating the results by country, we observe that people's perception of their own class position predicts wealth best in the United States and Finland, and least in Spain and Italy (see Figure A7 in the appendix). Note that subjective class is a better predictor of housing wealth than non-housing wealth.

The effect size is again larger if wealth is regressed against subjective rather than objective class. Table A3 in the appendix shows the regression results for the logarithm of wealth in Britain, Germany, Italy and the US. Individuals seeing themselves as middle class own about 70–100 log points (100–170%) more wealth and individuals in the upper-middle class 150–200 log points (350–600%) more wealth than individuals who see themselves as working class. These contrasts are not only much larger, but also more consistent across countries than those observed between objective classes.

## 9. Conclusion

Over the last two decades, research in social stratification has put much more emphasis on objective than subjective class, based on the view that self-reported class indicators are poor measure of people's material situation. Our study has questioned this notion and analysed whether individuals provide answers about their own class location that are informative of their life chances as measured by income and wealth.

Our findings contradict the idea that laypeople have a distorted view of their class position. Based on 55 country surveys assembled in the ISSP and another 5 surveys of the WVS, we find that a pre-coded measure of subjective class predicts households' income and wealth better than various measures of objective class and notably the dominant class model in European sociology, the European Socio-Economic

Classification (ESEC). With a few country exceptions, an individual's subjective class appears as the better predictor of a household's economic resources than his or her objective class.

The advantage of subjective over objective class is specific to the household level. When individuals think about their subjective class, they seem to also include information on their partner. By contrast, at the individual level, objective class accounts for as much variance in income than subjective class. Yet we would argue that life chances appear to be primarily determined by the household's rather than the sole individual's consumption capacity. In this sense, for the analysis of life chances, it may be preferable to use a control variable based on subjective class that implicitly integrates the household's material situation than a control variable of objective class that is based on the sole individuals' labour market position.

Our results also suggest that when subjective and objective measures of social class diverge, it is not helpful to resort to concepts of cognitive dissonance and to label diverging measures of subjective class as "inflated" and "deflated" class perceptions (Sosnaud et al., 2013). Rather, these divergences appear to be rooted in different, but no less valid, assessments of people's class positions. These assessments are based either on individuals' occupations in the case of objective class or their household's material situation in the case of subjective class.

At first glance, our study may be taken as disappointing news for sociologists who were convinced that only skilful researchers were able to determine individuals' social class, laypeople being incapable of figuring out the class hierarchy and handling class labels. Our results show this to be an illusion. Laypeople not only recognize the class labels, but also seem to use them as sociologists would (Hout, 2008). Of course, this conclusion rests on the condition that subjective class measures are based on pre-coded questions that use adequate and widely comprehensible model of social class – a condition that seems met by the two international surveys ISSP and WVS.

At second glance, our findings are good news, notably for survey research, because they imply that most respondents provide meaningful answers about their class position – as they are commonly expected to do for other subjective indicators such as mental well-being or political

attitudes. A single question on subjective class is more parsimonious than the four questions needed to measure objective class with ESEC (occupation, employment status, number of employees, supervisory status). Moreover, subjective class is less prone to miscoding than people’s past or present occupation, as measuring occupation remains “a laborious and expensive endeavour” (Präg, 2020: 707). Subjective class is also much easier to measure than the phenomenon it predicts, economic resources. Respondents are not only reluctant to reveal their incomes and wealth – resulting in survey items with many missing values –, but they are also not very good at reporting the correct sums, leading to measurement error (Präg, 2020).

In view of our findings, it seems unfortunate that the concept of subjective class has gone out of fashion. Questions measuring it only feature in the older cross-country surveys such as ISSP and WVS, but not in newer and more widely used surveys such as the European Social Survey. To the extent that it performs as well as objective class in predicting individual income and better in predicting household income and wealth, many studies interested in simply controlling for differences in people’s material situation would benefit from its collection.

We wish to conclude with one major limitation. While our results cast a favourable light on subjective social class, we would primarily expect it to predict economic resources at the household level such as

income and wealth – and less so economic and non-economic outcomes at the individual level such as labour market trajectories or political preferences. Here, the traditional use of objective class appears as superior. Our study therefore makes a case for reawakening dormant research on subjective class. However, by no means would we wish to discard objective class. Both concepts provide valuable – and probably complementary – insights into the workings of social stratification.

**Acknowledgements**

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**Appendix A**

See Appendix Figs. A1–A7 and Tables A1–A3.

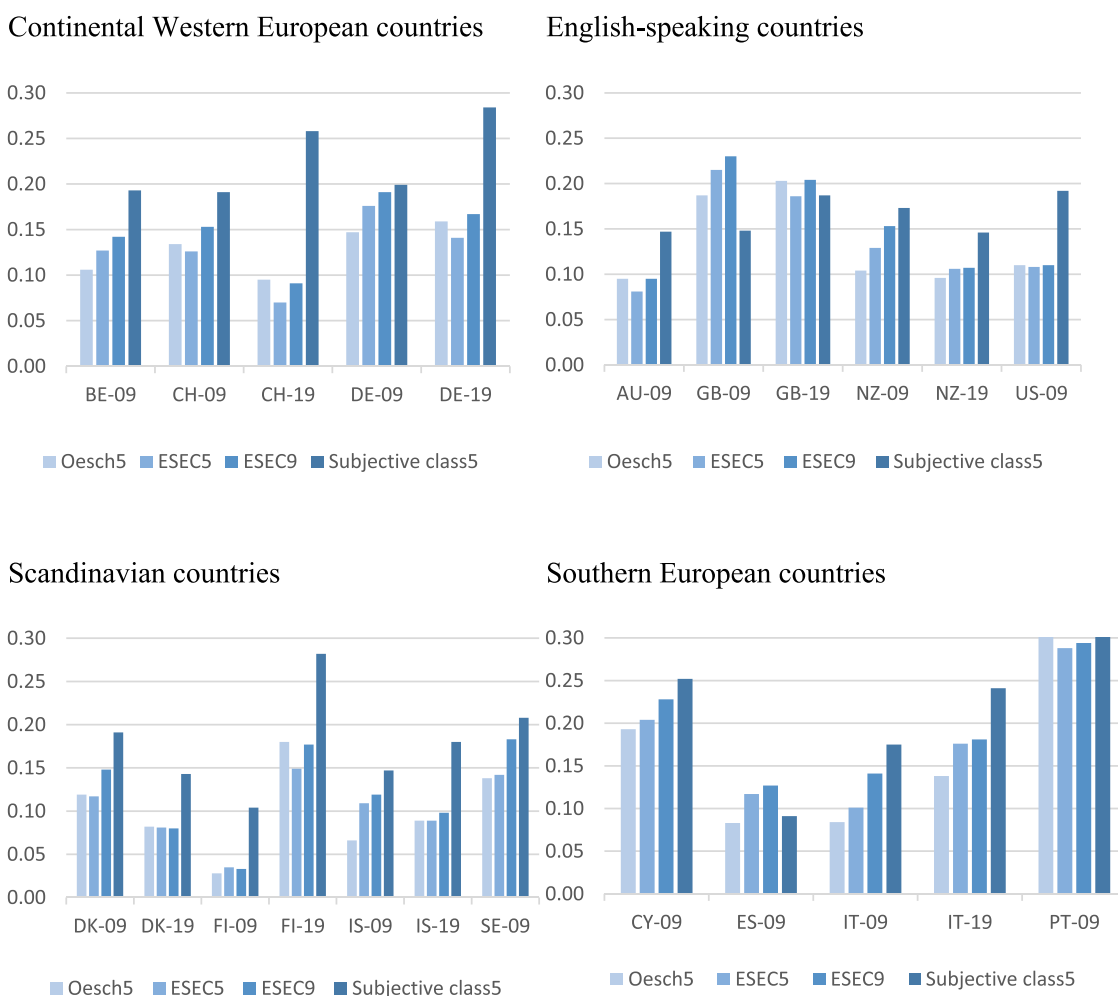
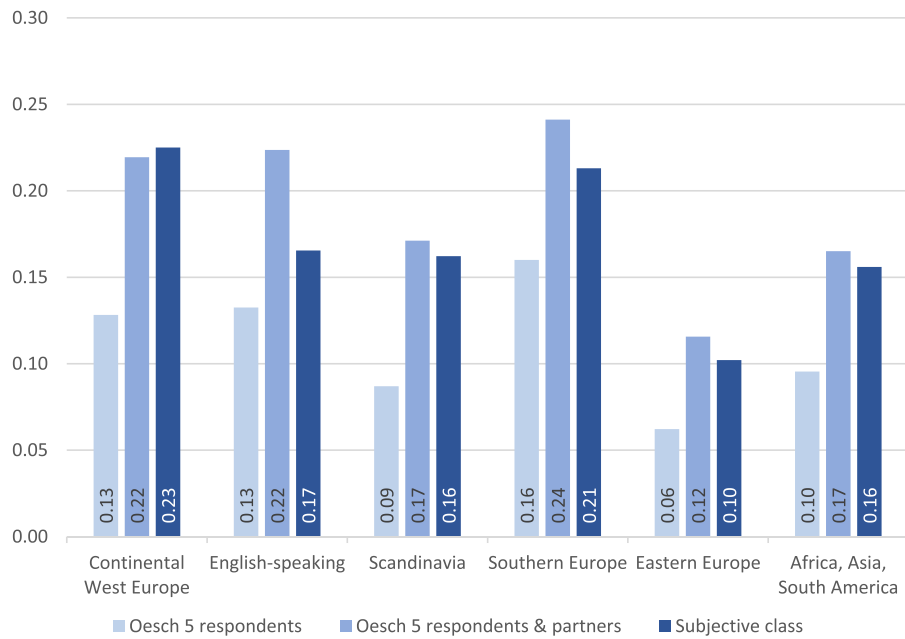
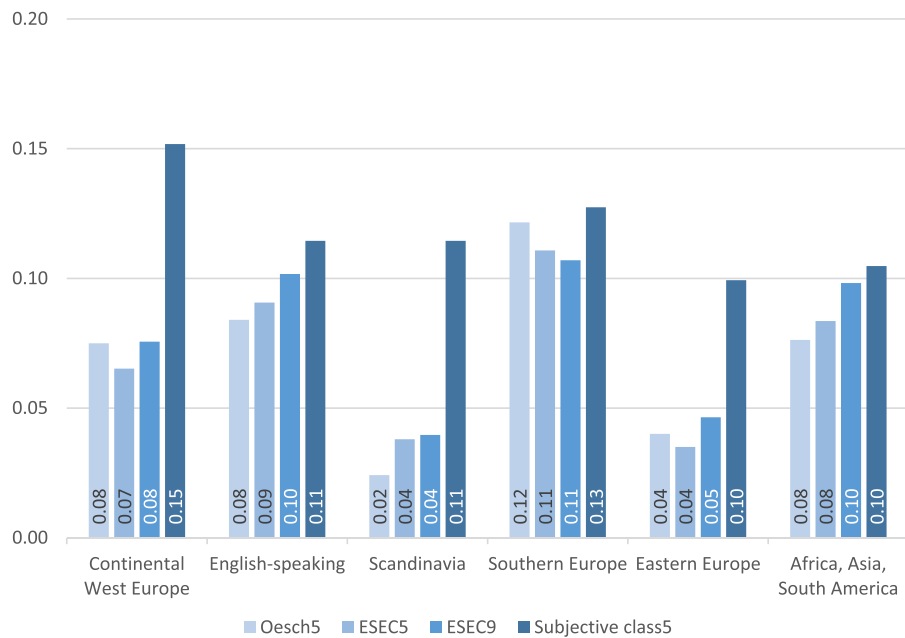


Fig. A1. Variance in household income that is accounted for by social class (ISSP).



**Fig. A2.** variance in household income that is jointly accounted for by the objective class of respondents and partners (ISSP 2009, 2019). Note: the analytical sample includes respondents for whom occupational information is available on themselves and their partners.



**Fig. A3.** variance in household income of respondents without a steady partner that is accounted for by class (ISSP 2009, 2019).

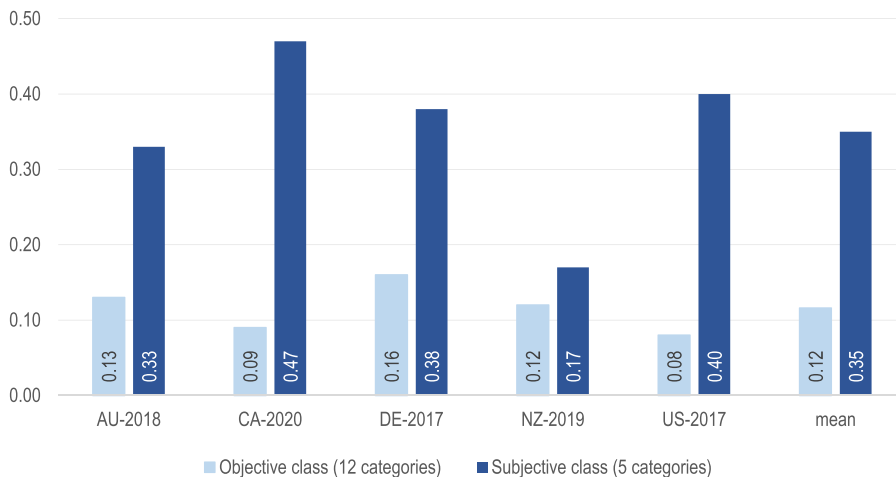


Fig. A4. Variance in household income that is accounted for by class, World Value Survey7.

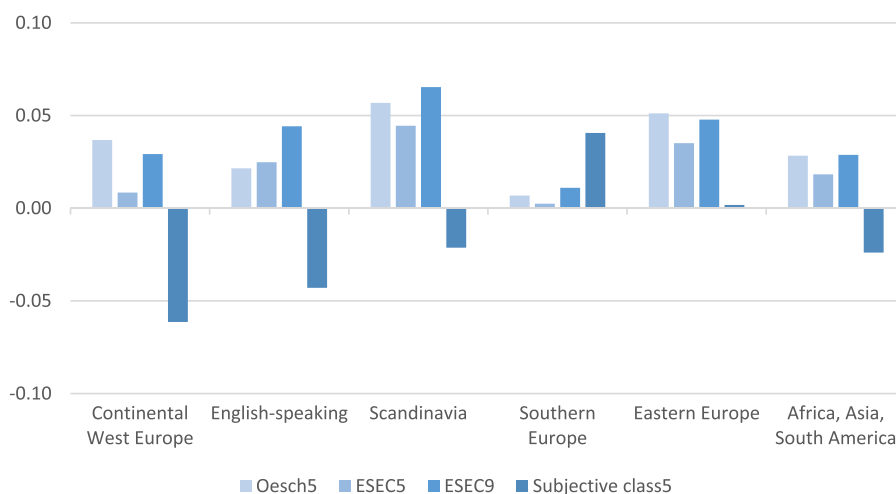


Fig. A5. Difference in adj. R2 between individual and household income by class indicators, (ISSP 2009, 2019). Reading example: “Oesch5” explains 4 points (0.04) more variance in individual than household income in Continental Western Europe (adj. R2 of 0.17 for individual income and 0.13 for household income).

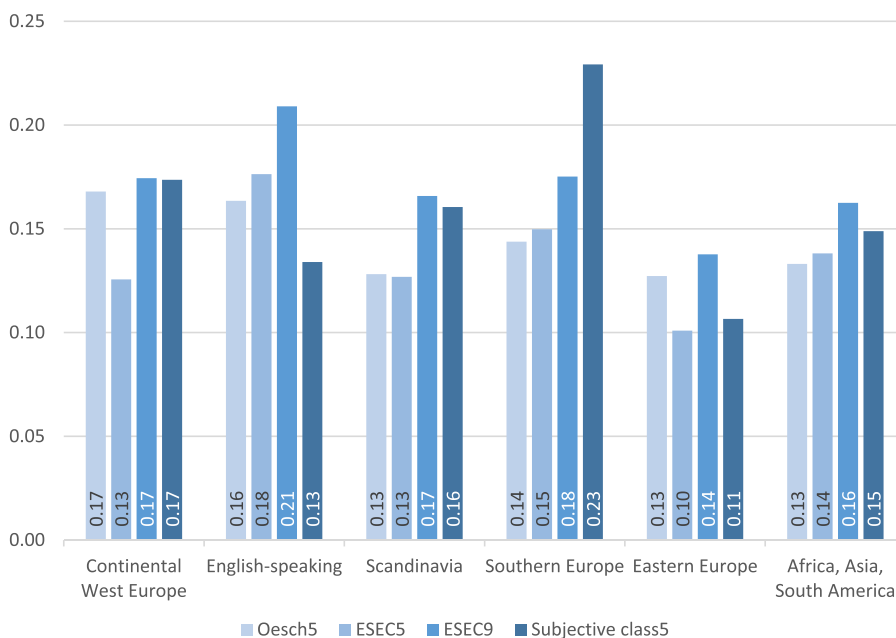
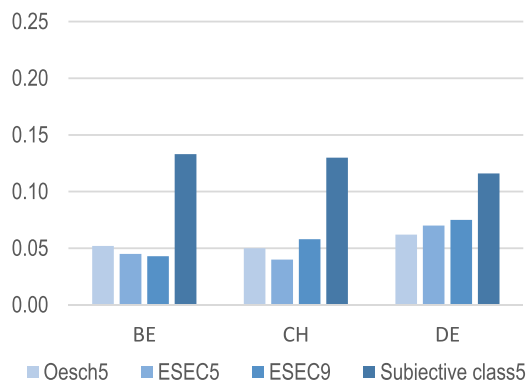
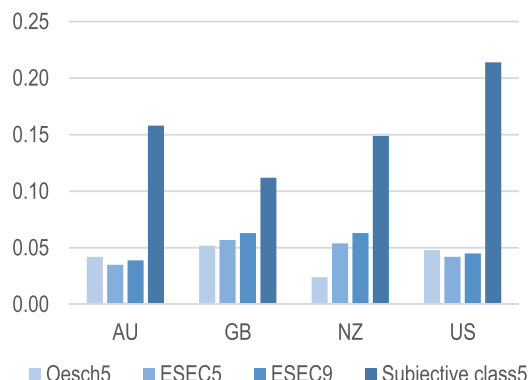


Fig. A6. variance in individual income that is accounted for by class – only people in paid employment (ISSP 2009, 2019).

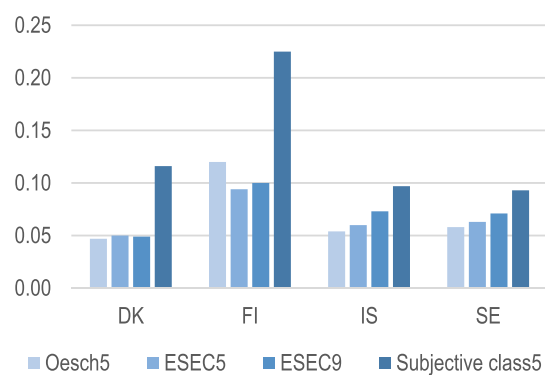
Continental Western European countries



English-speaking countries



Scandinavian countries



Southern European countries

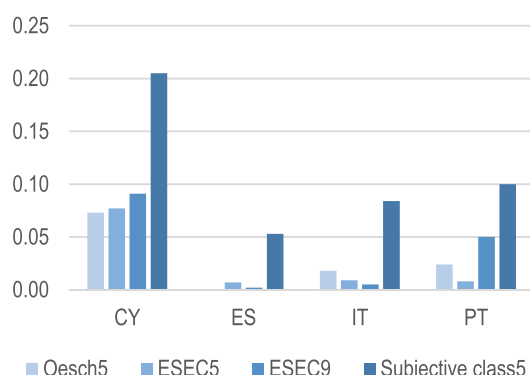


Fig. A7. Variance in wealth that is accounted for by social class (ISSP 2009).

Table A1

Number of observations (adults aged 18 and older with non-missing values for household income and class measures) and income variable in each country survey.

Country group	Country	2009 adults 18 +	2009 adults 18 + with non-missing values	2019 adults 18 +	2019 adults 18 + with non-missing values	Income measure		Currency
Continental West Europe	BE	1115	911	.	.	Monthly	After taxes	EUR
	CH	1229	776	2578	2217	Monthly	After taxes	CHF
	DE	1395	1045	1132	1020	Monthly	Before taxes	DE
English-speaking countries	AU	1522	1206	.	.	Yearly	Before taxes	AUD
	GB	958	795	1386	1278	Yearly	Before taxes	GBP
	NZ	935	549	1074	981	Yearly	Before taxes	NZD
	US	1581	1362	.	.	Yearly	Before taxes	USD
Scandinavia	DK	1518	1282	817	721	Yearly	Before taxes	DKK
	FI	846	682	854	789	Monthly	Before taxes	EUR
	IS	947	794	1055	1034	Monthly	Before taxes	ISK
	SE	1131	959	.	.	Monthly	Before taxes	SEK
Southern Europe	CY	1000	725	.	.	Monthly	Before taxes	EUR
	ES	1215	486	.	.	Monthly	After taxes	EUR
	IT	1065	759	635	508	Monthly	After taxes	EUR
	PT	1000	499	.	.	Monthly	After taxes	EUR
Eastern Europe	BG	1000	519	1079	1018	Monthly	Before taxes	BGN
	CZ	1205	786	1232	1154	Monthly	Before taxes	CZK
	EE	1005	805	.	.	Monthly	After taxes	EEK

(continued on next page)

**Table A1 (continued)**

Country group	Country	2009 adults 18 +	2009 adults 18 + with non-missing values	2019 adults 18 +	2019 adults 18 + with non-missing values	Income measure		Currency
Africa, Asia, South America	HU	1010	767	.	.	Monthly	Before taxes	HUF
	HR	.	.	836	744	Monthly	After taxes	HRK
	LT	1023	583	778	715	Monthly	After taxes	LTL
	LV	1069	688	.	.	Monthly	After taxes	LVL
	PL	1263	966	.	.	Monthly	After taxes	PLN
	RU	1603	1116	1462	1340	Monthly	?	RUB
	SI	1065	514	.	.	Monthly	After taxes	EUR
	SK	1159	854	.	.	Monthly	After taxes	EUR
	UA	2012	1216	.	.	Monthly	After taxes	UAH
	AR	1133	803	.	.	Monthly	After taxes	ARS
	CL	1505	970	850	635	Monthly	After taxes	CLP
	CN	3010	2537	.	.	Yearly	Before taxes	CNY
	IL	1193	768	990	933	Monthly	After taxes	ILS
	JP	1255	635	1316	1106	Yearly	After taxes	JPY
	PH	.	.	4123	3687	Monthly	Before taxes	PHP
	SR	.	.	633	540	Monthly	After taxes	SRD
	TH	.	.	921	760	Monthly	Before taxes	THB
	TR	1569	696	.	.	Monthly	After taxes	EUR
	TW	2026	1360	1395	1336	Monthly	Before taxes	TWD
	ZA	3201	1437	1619	694	Monthly	Before taxes	ZAR

**Table A2**

linear regression on logged household income with two objective class (ESEC-5) and subjective class (ISSP 2009, 2019).

	Germany 2019		Great Britain 2009		Italy 2019		USA 2009	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
ESEC-5								
Skilled / unskilled manual	-0.10 (0.08)		-0.17 * * (0.09)		-0.25 * ** (0.07)		-0.04 (0.09)	
Lower-grade white collar	ref.		ref.		ref.		ref.	
Petite bourgeoisie	0.24 * * (0.10)		0.28 * * (0.12)		-0.01 (0.08)		0.51 * ** (0.10)	
Higher-grade white or blue collar	0.30 * ** (0.07)		0.35 * ** (0.09)		0.24 * ** (0.08)		0.52 * ** (-0.10)	
Salariat	0.55 * ** (0.06)		0.73 * ** (0.08)		0.35 * ** (0.07)		0.71 * ** (0.09)	
Subjective class								
Lower class		-0.40 * ** (0.13)		-0.65 * ** (0.15)		-0.43 * ** (0.12)		-0.76 * ** (0.14)
Working class		ref.		ref.		ref.		ref.
Lower-middle class		0.35 * ** (0.05)		0.30 * ** (0.07)		0.17 * * (0.07)		0.10 (0.08)
Middle class		0.56 * ** (0.05)		0.51 * ** (0.06)		0.46 * ** (0.06)		0.50 * ** (0.06)
Upper + upper-middle class		0.96 * ** (0.06)		0.79 * ** (0.14)		0.87 * ** (0.10)		0.83 * ** (0.11)
Observations	1020	1020	795	795	508	508	1362	1362
Adjusted R-squared	0.15	0.25	0.20	0.13	0.17	0.24	0.10	0.11

\*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1

**Table A3**

linear regression on logged net household wealth with objective class (ESEC-5) and subjective class (ISSP 2009).

	Germany 2009		Great Britain 2009		Italy 2009		USA 2009	
	(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)
ESEC5								
Skilled / unskilled manual	-0.73 * ** (0.20)		0.19 (0.22)		0.11 (0.25)		0.04 (0.17)	
Lower-grade white collar	Ref.		Ref.		Ref.		Ref.	
Petite bourgeoisie	0.37 (0.25)		0.83 * ** (0.27)		0.89 * ** (0.26)		1.09 * ** (0.20)	
Higher-grade white or blue collar	-0.16 (0.20)		0.74 * ** (0.22)		0.29 (0.23)		0.59 * ** (0.18)	
Salariat	0.31 (0.19)		0.99 * ** (0.19)		0.68 * ** (0.22)		0.60 * ** (0.16)	
Subjective class								
Lower class		-0.25 (0.50)		-0.62 (0.60)		-1.20 * (0.71)		-0.40 (0.29)

Table A3 (continued)

	Germany 2009		Great Britain 2009		Italy 2009		USA 2009	
	(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)
Working class		Ref.		Ref.		Ref.		Ref.
Lower-middle class		-		0.40 **		0.18		0.30 **
				(0.16)		(0.18)		(0.13)
Middle class		0.77 ***		1.03 ***		0.69 ***		0.90 ***
		(0.11)		(0.13)		(0.16)		(0.10)
Upper + upper-middle class		1.49 ***		1.34 ***		1.90 ***		2.16 ***
		(0.17)		(0.27)		(0.24)		(0.17)
Observations	625	625	546	546	475	475	941	941
Adjusted R-squared	0.10	0.13	0.06	0.11	0.04	0.14	0.05	0.18

\*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1

Appendix B

See Appendix Figs. B1–B4 here.

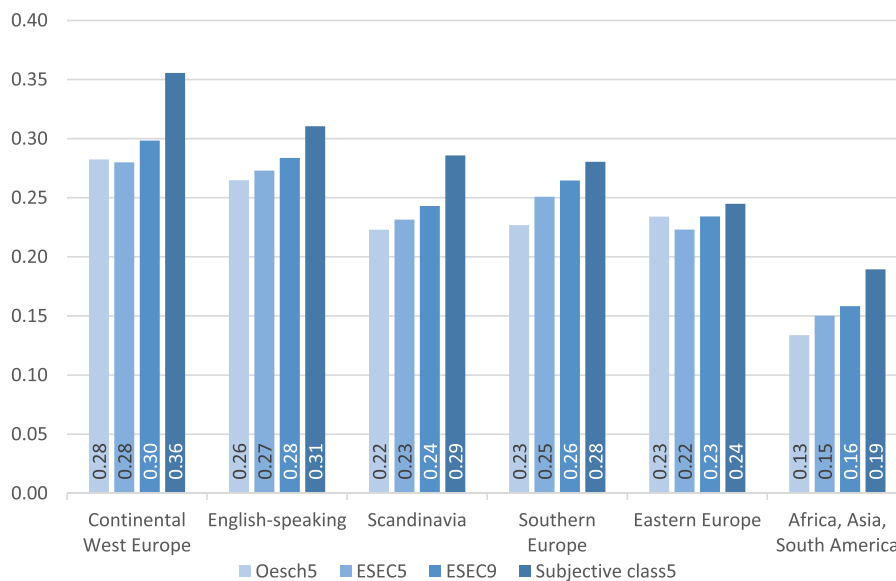


Fig. B1. Variance in household income that is accounted for by class – together with age, gender and household size (ISSP 2009, 2019).

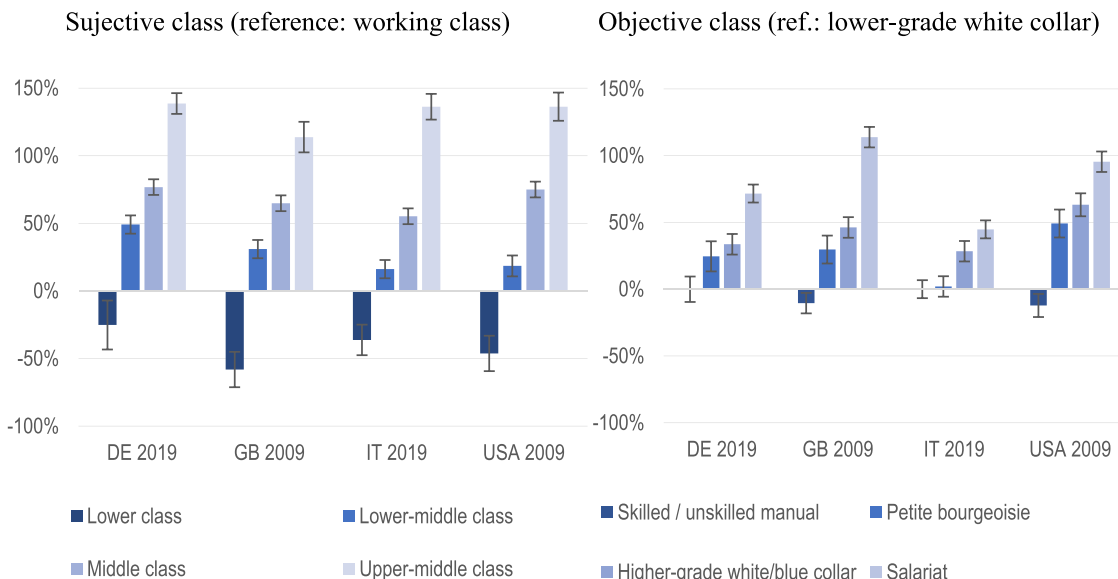


Fig. B2. differences in household income by subjective and objective class (with controls for age, gender and household size).

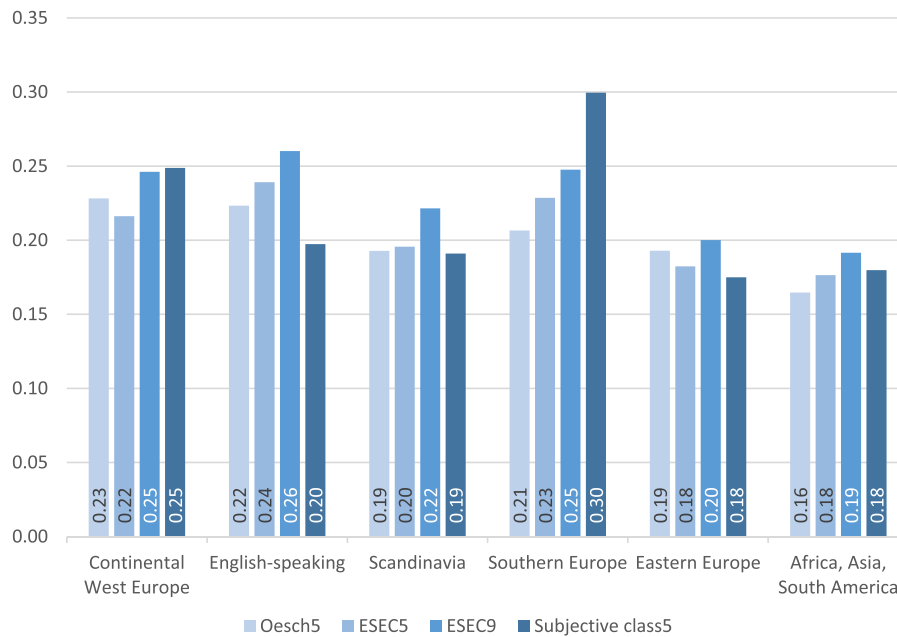


Fig. B3. Variance in individual income that is accounted for by class – together with age and gender (ISSP 2009, 2019).

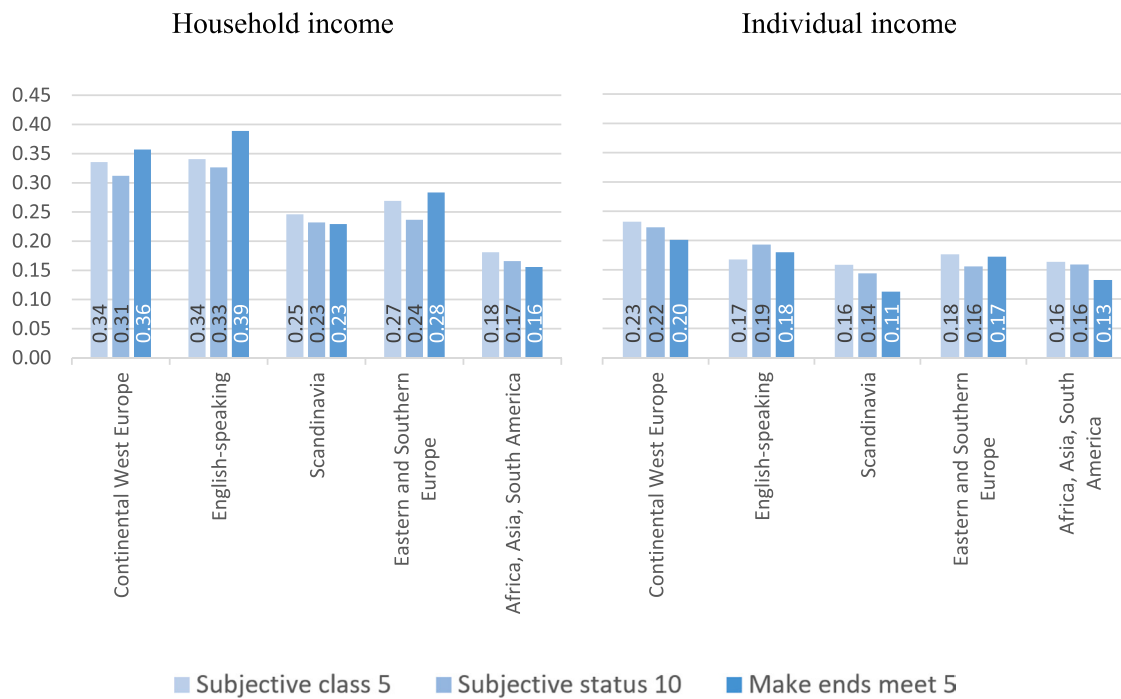


Fig. B4. Variance in income that is accounted for by subjective indicators of class – together with age and gender (ISSP 2019).

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