This is a self-archived version of an original article. This version may differ from the original in pagination and typographic details.

Author(s): Wilska, Terhi-Anna; Silinskas, Gintautas; Nyrhinen, Jussi

Title: From hedonism to frugality : consumption desires in different age groups across 20 years

Year: 2023

Version: Accepted version (Final draft)

Copyright: © Authors 2023

Rights: In Copyright

Rights url: http://rightsstatements.org/page/InC/1.0/?language=en

Please cite the original version:

Research article:

From hedonism to frugality: Consumption desires in different age groups across 20 years

Abstract

This paper examined consumption desires of Finnish consumers by asking how they would change their consumption if they had more money at their disposal. As the previous research on consumption desires has been mainly based on the essence of desires and the cycle of fulfilling the hedonistic desires and creating new ones, this study analyses the desires in the context of the ages of both consumers and consumer society. Differences in consumption desires between age groups and changes across 20 years were the focus. The data were derived from three repeated surveys collected in 1999, 2009 and 2019 in Finland ($N = 5,459$), which were analysed with Principal Axis Factor Analysis and ANCOVA. The factor analysis extracted three types of consumption desires: hedonistic, charitable-cultural, and materialistic. Saving-oriented desires were analysed as a single item. Hedonistic consumption desires were the most typical for the youngest age group (18–25), and materialistic desires were the highest for young adults aged 26–35 across all 3 years of measurement. Older people had the most charitably and culturally oriented desires in 1999, but older age cohorts' orientation to saving and charitable giving and culture decreased across 20 years. Hedonistic consumption desires generally decreased across 20 years, particularly in young age cohorts. Conversely, young people's desire to save increased significantly, whereas the oldest age cohorts saved less. The research shows that consumer culture ideals and economic circumstances are manifested in people's consumption desires.

Introduction

Most people have probably fantasised what they would do if they got large sums of money and were thus able to fulfil their consumption desires. The 'nouveau riche' are traditionally seen to like treating themselves with luxuries and hedonistic experiences (Featherstone, 2014; Veblen, 1899/2007). However, research on, for instance, lottery winners reveals that only a few of them actually changed their consumption patterns (Casey, 2003; Eckblad and Lippe, 1994; Falk and Mäenpää, 1999; Hedenus, 2011; Larsson, 2011). Moreover, many super-rich people, such as

Mark Zuckerberg or Ingvar Kamprad, are known for their frugal consumption styles.[1] Nevertheless, particularly the media and gambling industry, fuel consumers' fantasies and dreams of getting rich.

In this article, we study the consumption desires in different age groups over 20 years in Finland. In psychological, sociological and anthropological theories and research, consumers are typically regarded as hedonistic rather than rational, guided by their desires that are emotional drivers for pleasurable consumption experiences and life-satisfaction (Belk, Ger and Askegaard, 2003; Boujbel and d'Astous, 2014; Campbell, 1987; McCracken, 1988; Brickman and Campbell, 1971; Diener, 2002). Status competition and social comparison have also been stated to have a high impact on consumption desires (e.g., Bourdieu, 1984; Duesenberry, 1947), and the imagined social status is expected to actualise in luxury consumption, in particular (Veblen, 1899/2007; McCracken, 1988; Fournier and Guiry, 1993).

As most research on the desires of consumers focus on the essence of the desires and the problems related to the actualisation of the desires, there are few empirical studies about the socio-economic and demographic factors that have an impact on the desires. Even less is known about how the desires change in time. In a human life course, material and social conditions change, and the desires also reflect the economic fluctuations and standard of living of society. It is likely that in the affluent but unpredictable consumer societies, all consumers don't passionately yearn for extraordinary experiences, or consciously aim at building their identities with status consumption (Wilska 2002). This leaves space for more rationally calculated consumption desires (e.g. Ajzen 1985; Fishbein and Ajzen 2010).

---

[1] Frugal Habits of super rich and famous - Thrifty Millionaire (accessed 13 Jan. 2021).

This article examines consumption desires by asking Finnish consumers of different ages about how they would change their consumption if they had much more money at their disposal. This was asked in a survey at three points of time: in 1999, 2009 and 2019. Since there was no previous research, the alternatives for the desires were based on the consumption that the lottery winners in Nordic countries have reported: *hedonistic desires* such as travelling, self-indulging, culture and leisure, *materialistic desires* such as a new house, a new car, and other status purchases, *charitable desires* such as donations to charities and *frugal desires* such as saving and investments (Eckblad and von der Lippe, 1994; Falk and Mäenpää, 1999). In this article, we first discuss the consumption desires, age, and time in the light of theories and previous research. In the empirical part we analyse the consumption desires in different age cohorts in the 20 year-time period. Finally, we reflect the findings to the current consumer culture and consumer society.

Consumption Desires

Many theories suggest that consumers' desires are endless, and that this essence of desire makes the desires adequate indicators for their attitudes and expected consumer behaviour. According to the adaptation theory, when a desired state is achieved the individual adapts to a certain level of satisfaction (Brickman and Campbell, 1971; Campbell, 1981). Subsequently, once the level of expectation changes it creates a gap between the actual state and the desired state, which constitutes dissatisfaction (Boujbel and d'Astous, 2015). In Colin Campbell's theory of modern hedonism, dreams of an imagined lifestyle play a crucial role in consumption, and that makes the consumption desire enjoyable (Campbell 1987). The eventual purchase of a good or service ends the desire and thereby triggers a desire for a new purchase (Belk, Ger and Askegaard, 2003). The process of fulfilling desires is described as hedonistic, emotional and affective, and

that has very little to do with rational behaviour (Belk, Ger and Askegaard, 2003). Indeed, when consumers were asked what they would do if they had more money, many have reported that they would indulge themselves with hedonistic experiences, such as travelling, (Fournier and Guiry, 1993; Räsänen, 2003; Sarpila and Haanpää, 2010; Wilska, 2002). Lottery winners typically reported spending on self-indulgence even though they otherwise maintained that they did not want to change their lifestyle (Eckblad and von der Lippe, 1994; Falk and Mäenpää, 1999; Hedenus, 2011; Larsson, 2011).

Hedonistic desires are also linked to materialism, which has been described as the importance of material possessions in one's life (Belk, 1985; Bock, Eastman and Eastman, 2018). Status consumption that aims to display success in society through consumption of certain luxury products and services is related to materialism (Bourdieu, 1984; Eastman, Goldsmith and Flynn, 1999; Goldsmith, Flynn and Clark, 2014; Veblen, 1899/2007). Consumers who feel uncertain, either within their own lives or within society, arguably pursue status goods as a means to achieve a higher status in society. This is referred to as *instrumental materialism,* while *terminal materialism* refers to acquisition and ownership of goods just for the sake of possessing them (Bock, Eastman and Eastman, 2018). Instrumental materialism can also be based on reasoned action in order to reach certain material goals in life, such as house, car, and other status goods (Ajzen 1985; Fishbein and Ajzen 2010), expressing thus rational rather than hedonistic behaviour. A new house, and a car have been the most common desires people have reported, when asked what they would do with a lot of money (Räsänen, 2003; Sarpila and Haanpää, 2010; Wilska, 2002). Also in studies with lottery winners, the participants typically reported buying a better car or a new home after their win (Eckblad and von der Lippe, 1994; Falk and Mäenpää, 1999; Larsson, 2011).

In previous research, consumers have also expressed frugality in their desires. Putting money aside has been common desire among Finnish consumers when asked what they would do with extra money (Räsänen, 2003; Wilska, 2002). In Finnish society, frugality has traditionally been highly valued as it is based on the values of Protestant ethics (Weber, 1904/2002) typical of societies with late urbanisation (Huttunen and Autio, 2010). For the Finnish and Swedish lottery winners, paying off the mortgage, saving money in a bank account and investing in shares have been almost as popular actions as buying a car or a house (Eckblad and van der Lippe, 1994; Falk and Mäenpää, 1999; Hedenus, 2011; Larsson, 2011). Cultural traditions affect people's desires, but there are also other drivers for frugality, such as personality and values, and social pressure (Goldsmith, Flynn and Clark, 2014; Thomas and Danko 2010).

For the rich, there is often social pressure to donate to charities as a moral duty. This is proposed already in Adam Smith's theory of moral sentiments which argues that individuals are naturally sympathetic to people who are less well-off, as part of human nature (Smith, 2000/1759; Mayo and Tinsley 2009). Besides feeling good about helping others: *pure altruism*, social status and good reputation are drivers for *impure altruism* (Bock, Eastman and Eastman, 2018; van Leeuwen and Wiepking, 2013; Prendergast and Maggie, 2013). In Nordic countries, charitable giving and helping other people have not been among the most popular desires of consumers, though (Räsänen, 2003; Wilska, 2002). The Lottery winners in the Nordic countries reported rather modest donations to charities and sharing the money even with relatives was not very popular either (Eckblad and von der Lippe, 1994; Larsson, 2011). In the Nordic welfare state regimes (Esping-Andersen, 1990) with universal social security, such as Finland, wealthy people are not morally expected to give charitable donations in the same extent as in countries of a

Liberal welfare state regime, where social security level is low and donations to charities are regarded as a social duty for the upper and middle classes (Pennerstorfer and Neumayr, 2016).

Consumption desires, age, and time

As mentioned above, desires of an individual consumer are likely to change with age as well as with changes in consumer society. However, it is difficult to know if the consumption desires or attitudes of certain age groups are permanent features of generational cohorts, or if they are likely to change with age (Hyde et al, 2008). Therefore, it is important to study consumption desires in different age groups during a longer time period. In microeconomics, consumption and saving is traditionally considered as related to age and life course. According to the permanent income hypothesis (Friedman, 1957) and the life-cycle model of savings and consumption (Deaton, 1992; Modigliani and Brumberg, 1954), people try to save during their middle age and spend more than their income in their old age after retirement.

There is little empirical research on temporal changes in consumers' values, attitudes, and behaviour, but some evidence has been found on the cohort effects on attitudes towards consumption (Kuoppamäki, Wilska and Taipale, 2017; Rees Jones et al, 2008). Older people accumulate material goods to bring them a feeling of security due to their experiences of material scarcity in childhood and youth (Jones et al, 2008; Wilska and Kuoppamäki, 2017). Conversely, young people's tendency towards instrumental materialism (Bock, Eastman and Eastman, 2018) is connected to their perceived uncertainty of the future, and to their identity creation (e.g. Autio and Heinonen, 2004; Kuoppamäki, Wilska and Taipale, 2017; Wilska, 2003). Research suggests that younger age groups also value more hedonistic experiences in their consumption desires than do older age groups (Kuoppamäki, Wilska and Taipale, 2017; Parment, 2013; Wilska,

2002). There is also evidence of hedonistic attitudes being related to life course stage. Consumers are typically hedonistic when they are young, but the attitudes change later in life. (Kuoppamäki, Wilska and Taipale, 2017). In previous research, younger age groups have also shown more desire for luxury consumption than older consumers, (Falk and Mäenpää, 1999; Räsänen, 2003; Sarpila and Haanpää, 2010; Wilska, 2002).

Frugal consumer behaviour has been commonly explained from generational perspective. The economic conditions and experiences the age cohorts grew up with are argued to permanently shape their future consumption (e.g. Hyde et al., 2008). Age cohorts are typically referred to as generations and named as Pre-War and War-generations (born before 1944), Baby-Boomers (born 1944-1959), and Generations X (born 1960-1979), Y (born 1980-1995) and Z (born 1995-) (Wilska and Kuoppamäki 2017). Growing up in economically insecure circumstances may result both in materialism (Bock, Eastman and Eastman, 2018) and frugality (Hyde et al, 2008; Kuoppamäki, Wilska and Taipale, 2017; Wilska, 2011). There is also evidence that economical consumption styles were typical of the Baby-Boomer- or Pre-War cohorts, but there was little difference between younger cohorts (Kuoppamäki, Wilska and Taipale, 2017). Age also explains charitable consumption desires. Previous research suggests that middle-aged and older age groups have typically more altruistic attitudes than younger age groups (Atkinson and Hayes, 2010;), and their spending is oriented more towards culture and charitable donations (Bekkers and Wiebking, 2011).

Macro-economic changes in society have been found to affect people's economic resources and consumption in all age groups (Kuoppamäki, Wilska and Taipale, 2017; Rees Jones et al, 2008; Silinskas, Ranta and Wilska, 2021). In Finland, there was an economic boom in the late 1990s

and 2000s, and the expenditures of Finnish households increased steadily until the Great

Recession in 2008. Individual consumption increased only slowly in the latter part of the 2010s.[2]

Research suggests that particularly after the Great Recession, the appreciation of status goods has

declined Western consumer societies. The pursuit towards a deeper meaning of life, such as

sustainability and mental well-being has increased, respectively (Boujbel and d'Astous, 2015;

Danziger, 2011). Besides hedonistic experiences, consumers derive pleasure from ethical and

ecological consumption choices (Achabou and Dekhili, 2013).

The propensity to save or invest have also changed across time. In economic recessions, people

are usually able to save less, although their desire to save may be higher (Riihelä 2006; Silinskas,

Ranta and Wilska, 2021). Economic fluctuations have an impact on charitable giving, too. In a

study of Meer, Miller and Wulfsberg (2017), charitable giving in the U.S fell significantly during

the Great Rcession. The main reason for the fall was not the decrease in income or wealth, but

rather attitudes towards giving or increased uncertainty. In the Nordic Countries, charitable

giving has typically increased during economic recessions (Vamstad and von Essen, 2013).

Research questions

Framed by the theories and previous research above, the goal of the current study is to

investigate people's consumption desires if they had more money at their disposal, and to predict

the desires by age group and the year of data gathering. To achieve these aims we used three

---

[2] Statistics Finland - National Accounts 2019. Retrieved from (https://www.tilastokeskus.fi (accessed 13 August 2020).

cross-sectional datasets in a Finnish time-series data derived from surveys that collected

representative samples in 1999, 2009 and 2019.

The research questions are:

RQ1: What kinds of consumption desires can be found in Finland and how have the consumption

desires changed across 20 years (1999, 2009 and 2019)?

RQ2: To what extent do consumption desires differ by age groups (ages 18–25, 26–35, 36–45,

46–55, 56–65 and 66–75) in the years 1999, 2009 and 2019?

Methodology

This study does not include robust age-period-cohort analysis, because the time period is too

short for that. Yet, the time period allows certain interpretations based on the trends in different

age groups in different points of time. Previous research has identified also some other factors

that may explain different consumption desires, such as gender, education, place of living,

household type (e.g. Casey, 2003; Jackson, Stoel and Brantley, 2011; Wilska, 2002), income

(Bekkers and Wiebking, 2011) and subjective financial situation (e.g. Silinskas, Ranta and

Wilska, 2021). Thus, we also analysed their effects on the desires.

The data was derived from three surveys from a set of five cross-sectional surveys called

"Finland—Consumption and Lifestyle". The purpose of the survey was to follow changes in

people's consumption and other financial behaviour, attitudes and lifestyles in the beginning of

the new Millennium. The survey was first carried out in 1999 ($n = 2,492$) and repeated every 5

9

years. In this study, we analysed years 1999, 2009 ($n = 1,202$) and 2019 ($n = 1,765$), since the question on consumption desires was only asked in those years. Participants (aged 18–75) were selected from the Finnish Population Register Database using stratified random sampling where the population was stratified by age. The response rate was 61%, 49% and 44% in the years 1999, 2009 and 2019 respectively (Kuoppamäki, Wilska and Taipale, 2017; Saari, Koivula, Sivonen and Räsänen, 2019). The final data set was corrected by weighing the data by age and gender.

Measures. Identical statements were used in all data collections (1999, 2009 and 2019). Descriptive statistics are presented in Appendix Table A1, and correlations between all study variables are presented in Appendix Table A2.

Consumption desires. At each measurement point the respondents were asked, "What would you do or buy more if you could afford it?" and were presented with 12 different non-essential goods, services and both hedonistic and charitable activities that people with a sudden increase in income, such as winning the lottery, have reported having bought (e.g., Eckblad and Lippe, 1994; Falk and Mäenpää, 1999; Larson, 2011). The respondents were asked to assess whether they would be more likely to buy the items or to undertake activities than they currently do, using a Likert-scale ranging from 1 ('I would not do at all') to 5 ('I would do much more'). The evolution of the single desires in each year is presented in Appendix Table A3.

We ran principal axis factor analyses for the consumption desire scale for all available data. We used the principal axis factoring method with oblimin rotation and obtained three factors (Hedonistic, Charitable-cultural, and Materialistic) based on eigenvalue (> 1). We used pairwise

deletion in our calculations. The factors Mean-scores were calculated for each dimension of the consumption desires scale. The item 'I would save' did not load on any of the three extracted factors (loadings to all were lower than .30), and, therefore, we analysed it separately as the fourth dimension. One important reason for analysing 'I would save' separately was that it was the most popular desire in all years under examination (Appendix Table A3). Secondly, in previous studies and in microeconomic theories, saving has been generally connected to the life cycle (Deaton, 1992; Modigliani and Brumberg, 1954) and generations (Kuoppamäki, Wilska and Taipale 2017; Riihelä 2016). The exact items and the factor structure of the questionnaire are presented in Table 1. The factor solution was fairly similar to a factor solution in a previous study based on the 1999 data (Räsänen 2003). In order to further control the reliability of the factor solution, we ran the factor analysis separately for each point of time (Appendix Table A4). The factors were not identical, but Hedonistic, Charitable-cultural, and Materialistic factors could be detected each point of time.

Age groups. We asked participants to report their age in years. We categorised responses into six age groups: 18–25, 26–35, 36–45, 46–55, 56–65 and 66–75. We also categorized responses into respective birth cohorts in each point of time, in order to detect if there were permanent generational features, i.e., *cohort effects* on the desires.

Subjective financial situation was measured by asking one question (*'How would you describe your financial situation at the moment?'*). A five-point Likert scale was used, with values ranging from 'Very bad' (1) to 'Very good' (5).

Sociodemographic characteristics. Participants answered questions concerning their gender, place of living, highest level of education and personal income (net income/month), and household size.

Analysis Strategy

To investigate our main research questions we ran ANCOVA by using the Univariate General Linear Model. We ran four separate models for each dimension of consumption desires (hedonistic, charitable-cultural, materialistic and saving-oriented) as the dependent variables. For each model the independent variables included year of measurement (Year: 1999, 2009 and 2019), age group (Age: 18–25, 26–35, 36–45, 46–55, 56–65 and 66–75) and the interaction term of the two—Year × Age. Other predictors included gender, place of living, highest level of education, personal income and subjective financial situation. In all four Univariate General Linear Models, the overall statistical significance of the independent variables were indicated by the F values, and the total explained variance (adjusted R^2) for the overall models was presented. The unstandardised parameter estimates (B), their significance levels (p) and partial eta-square (partial η^2) were also reported.

Results

Descriptive statistics

The principal axis analysis revealed three kinds of consumption desires: Hedonistic, Charitable and Cultural and Materialistic. As presented in Table 1, the reliabilities of the scales were: Hedonistic ($M = 3.01$, $SE = .95$, Cronbach's alpha = .752), Charitable–cultural ($M = 2.73$, $SE = .92$, Cronbach's alpha = .690) and Materialistic ($M = 2.84$, $SE = 1.06$, Cronbach's alpha = .508).

The reliability values were not high, but they are regarded as acceptable for attitudinal questions in social science surveys with a large number of respondents (see e.g., Taber 2018, 1278).

Table 1 here

As Table 1 illustrates, Hedonistic consumption desires included recreational shopping, impulsive shopping, and self-indulging. Charitable and cultural desires included donations to charities, supporting close people, using cultural services, and buying art and antiques. Materialistic desires included saving in the stock market, buying a new house/flat and changing an old car for a new one. Saving was the most common consumption desire ($M = 3.67$, $SE = 1.11$). Based on repeated-measures ANOVA (F [1, 5515] = 1464.749, $p < .001$; partial-eta = .210), the means of all four types of consumption desires were significantly different from each other (all Bonferroni pairwise comparisons were significant at $p < .001$ level).

Table 2 about here

What predicts hedonistic desires?

As presented in Table 2, the model explained 16.4% of variance of the hedonism scale. The hedonism scale was significantly predicted by the year of measurement (F (2, 4403) = 11.510, $p < .001$, partial $\eta^2 = .005$), age group (F (5, 4403) = 72.874, $p < .001$, partial $\eta^2 = .077$) and interaction between the two (F (10, 4403) = 3.654, $p < .001$, partial $\eta^2 = .008$). Further analyses of the between subject Bonferroni comparisons revealed that participants in 2019 scored

lower on the hedonism scale (M = 2.857, SE = .021) than participants in 2009 (M = 3.063, SE = .028) and in 1999 (M = 3.132, SE = .022). As seen in Figure 1, there were also significant differences between the age groups. Overall, the trend between age and hedonistic desires was relatively linear. The youngest participants (Ages 18–25 and 26-35) expressed more hedonistic desires than participants in older age groups. We also analysed the means according to birth cohorts. As Appendix Figure 1 shows, the difference between cohorts remained about the same across 20 years except for the two youngest age cohorts in 2019. It was obvious that hedonistic consumption was related to life course stage rather than being characteristic to specific age cohorts. In all cohorts, hedonistic desires decreased between 1999 and 2009. (Appendix, Figure A1)

Figure 1 here

Hedonistic consumption desires were also predicted by some sociodemographic characteristics (Table 2). They were more common among females (vs. males) and participants living in urban areas (vs. rural areas). Interestingly, the more people were satisfied with their economic situation, the less hedonistic aspirations they reported. The amount of personal income was a significant predictor at p = .043 level, but the effect was surprisingly low (B < .001). Level of education and household size did not predict hedonistic consumption desires.

What predicts charitable-cultural desires?

As presented in Table 2, the model explained 8.7% of variance of the charitable-cultural scale. The cultural-charitable scale was significantly predicted by the year of measurement (F (2, 4394) = 14.429, p <.001, partial η^2 = .007), age group (F (5, 4394) = 4.554, p <.001, partial η^2 = .005) and interaction between the two (F (10, 4394) = 5.717, p <.001, partial η^2 = .013). Further analyses of the between subject Bonferroni comparisons revealed that participants in 2009 scored slightly lower (M = 2.675, SE = .028) on the charitable-cultural scale than participants in 2019 (M = 2.749, SE = .022) and in 1999 (M = 2.779, SE = .022). There were also significant differences between the age groups. Overall, the participants aged 56–65 scored higher than the youngest participants aged 18–25 and those aged 26–35. None of the other age groups differed. When looking at age cohorts (Appendix, Figure A2), it looks that the charitable and cultural desires went down for pre-war and war-cohorts (born 1924-1943) and baby-boomers (born 1943-1953), in particular. There was increase in cohorts born in the 1970s and 1980s (Generations X and Y), respectively.

Charitable-cultural consumption desires were also predicted by some sociodemographic characteristics (Table 2). They were more common among female (vs. male), participants living in urban areas (vs. rural areas) and among higher educated people. Interestingly, the more people were satisfied with their economic situation, the less charitable and cultural desires they reported. Personal income and household size did not predict charitable-cultural desires.

Figure 2 here

What predicts materialistic desires?

As presented in Table 2, the model explained 7.7% of the variance of the materialistic orientation. The materialistic orientation was significantly predicted by the year of measurement (F (2, 4398) = 25.226, p <.001, partial η^2 = .011), age group (F (5, 4398) = 26.903, p <.001, partial η^2 = .031) and interaction between the two (F (10, 4398) = 1.873, p = .044, partial η^2 = .004). Further analyses of the between subject Bonferroni comparisons revealed that participants in 2009 (M = 2.655, SE = .033) scored lower on the materialistic orientation than participants in 2019 (M = 2.864, SE = .025) and in 1999 (M = 2.931, SE = .026). There were also significant differences between the age groups. Overall, the trend was somewhat linear, except for the group of the youngest participants (Ages 18–25). In particular, the youngest participants (ages 18–25) expressed less materialistic desires than participants aged 36–45, but they expressed higher materialistic desires than those aged 56–65 and 66–75. Participants aged 26–35 reported higher materialistic desires than all other age-groups. Participants aged 36–45, 46-55 and 56-65 reported higher materialistic orientation than participants in older age groups. No clear cohort effect was found in materialistic desires. As seen in Appendix Figure A3, all cohorts had highest materialistic desires when in young adulthood (aged 26-35), and later, the desires decreased and remained rather stable.

Materialistic consumption desires were also predicted by some sociodemographic characteristics (Table 2). They were more common among males (vs. females), people living in urban areas (vs. rural areas) and among higher educated people. Household size, personal income and satisfaction with personal economic situation did not predict materialistic desires.

Figure 3 here

What predicts saving-oriented desires?

As presented in Table 2, the model explained 6.8% of the variance of saving-orientation. The saving-oriented consumption desires were significantly predicted by the year of measurement (F (2, 4358) = 8.759, p <.004, partial η^2 = .004), age group (F (5, 4358) = 23.340, p <.001, partial η^2 = .026) and interaction between the two (F (10, 4358) = 12.07, p <.001, partial η^2 = .027). Further analyses of the between subject Bonferroni comparisons revealed that participants in 2019 scored the highest (M = 3.699, SE = .027) on the saving-orientation in comparison to the participants in 1999 (M = 3.664, SE = .028) and in 2009 (M = 3.602, SE = .035). There were significant differences between the age groups. In particular, the youngest participants (ages 18–25) expressed higher saving-orientation when compared to all other participants. Similarly, participants aged 26–35 reported higher saving-orientation than older age groups. Participants aged 36–45 reported higher saving-orientation than the oldest age groups 56–65 and 66–75. Finally, participants aged 46–55 reported higher saving-oriented desires than participants aged 66–75. Cohort analysis (Appendix, Figure A4.) revealed that saving orientation decreased in older age cohorts and increased in younger ones. There was very little difference between cohorts in 1999, but in 2019 younger cohorts have notable stronger desires to save than older age cohorts.

Saving-oriented consumption desires were also predicted by some sociodemographic characteristics (Table 2). Those were more common among females (vs. males), and people who were less satisfied with their current economic situation. Place of living, education, household size and personal income did not predict saving-oriented desires.

Figure 4 here

Discussion

The present study investigated changes in consumption desires in different age groups by asking the participants in three cross-sectional surveys across 20 years what they would do if they had more money. The original context was Finnish consumer society at the turn of the Millennium and the study followed the desires until year 2019, mirroring temporal changes in consumer society.

Consumption desires across 20 years

In our analyses, we found hedonistic, materialistic, charitable, and cultural, and saving-oriented consumption desires. In 2019, the desire to save was the highest. This may reflect the persisting ideal of frugality and the values of Protestant ethics (Weber, 1904/2002) in Nordic societies (Huttunen and Autio, 2010) and the social pressure to behave in a modest way (Goldsmith, Flynn and Clark, 2013), as even lottery winners have reported behaving in this way (Eckblad and von der Lippe, 1994; Falk and Mäenpää, 1999; Hedenus, 2011; Larsson, 2011). Interestingly, the desire to save was lower in 2009 than before or after it. It is possible that since the Great Recession decreased incomes and consumption (Raijas, 2014), the respondents desired to spend rather than to save. However, our analysis also revealed that the respondents who were less satisfied with their economic situation were more likely to have saving-oriented desires. Saving-oriented desires were also more common among females than males (Bloodhart and Swim, 2020).

Hedonistic desires, i.e. desires for impulsive and recreational shopping and self-indulging were the second most common desires that also declined across 20 years, although the standard of living and consumption increased. Moreover, the more satisfied the respondents were with their economic situation, the less hedonistic were their consumption desires. This was an interesting result, because according to theories, consumers have insatiable desires to derive pleasure and life-satisfaction from consumption (Brickman and Campbell, 1971; Diener, 2002), and hedonistic consumption is fuelled by dreams of future consumption (Campbell 1987: McCracken 1988). Females had more hedonistic desires, which may be related to women's higher desires for recreational shopping (Jackson, Stoel and Brantley, 2011)

Materialistic desires included increasing investing in the stock market and buying a new house and a better car. Those expenditures are typically regarded as both investments and materialistic status consumption in Finland. The desire to invest in shares increased notably between 2009 and 2019. Materialistic desires were clearly lower in 2009 than before or after it, which suggests that the period of Great Recession impacted the desires. The desires for wealth, luxury and high social status (Bock, Eastman and Eastman, 2018; Eastman, Goldsmith and Flynn, 1999) were typical of the time before the Great Recession in 2008. Many researchers argue that since the recession, consumption ideals have become less conspicuous (e.g. Danziger, 2011; Eckhardt, Belk and Wilson, 2015), and the role of social comparison (e.g. Bourdieu, 1984; Duesenberry, 1947) has diminished. Moreover, during the Great Recession, consumers had less economic resources for investing. Materialistic desires were more common among males, people living in urban areas and among higher educated people in our study. Some studies suggest that men have

more materialistic values than women and they are more willing to take risks in investments (e.g. Segal and Podoshen, 2013).

The dimension of charitable-cultural desires included donations to charities and helping close people, but interestingly, also desires to spend on arts and cultural services. The charitable and cultural desires were the highest in 1999, the lowest in the recession in 2009, but increased again by 2019. The respondents in a good economic situation had less charitable and cultural desires than others, which contradicts the theories of moral sentiments (Smith, 2000/1759) and previous studies (e.g. Bekkers and Wiebking, 2011). In a Nordic welfare state, 'impure' altruism for social status and reputation was not the same kind of driver as it is in Liberal welfare states (Bock, Eastman and Eastman, 2018; van Leeuwen and Wiepking, 2013; Prendergast and Maggie, 2013). In the Nordic welfare states, also arts and culture have mainly been funded by the public sector. People may thus not consider supporting culture as their moral duty, whereas in many Liberal welfare states, cultural services are typically 'patronised' by wealthy individuals or institutions (Garber, 2008).

Consumption desires in different age groups across 20 years

Our results revealed that age significantly predicted all consumption desires. There was very little difference in the saving-oriented desires between age groups in 1999, but interestingly, young people's desire to save increased steeply during the 20-year period of examination. Older people's desire to save decreased, respectively. This is interesting, as it corresponds with the permanent income hypothesis (Friedman, 1957) and the life-cycle model (Deaton, 1992; Modigliani and Brumberg, 1954). The desire to save was about the same for all age cohorts in

1999, but it decreased in Baby Boomers and Pre-War cohorts and increased in cohorts born in the 80's and 90's, known as Generations Y and Z (see Hyde et al., 2008; Kuoppamäki, Wilska and Taipale 2017). It is thus likely that young people's values have become more frugal than before (see also Silinskas, Ranta and Wilska, 2021).

Hedonistic consumption desires decreased linearly by participants' age in 1999 and 2009, indicating that the desire to derive pleasure from consumption and the high value of experiences is related to a certain life course stage (Eastman and Liu, 2012; Kuoppamäki, Wilska and Taipale, 2017; Parment, 2013). However, in 2019 the youngest age groups had less hedonistic consumption desires than in previous years, which suggests changes in material values in the young cohorts. As today's young people have been grown up in a consumer society full of hedonistic experiences, they may not yearn for more. Materialistic consumption desires had similar age-related patterns in all years: young adults aged 26-35 had the highest desire for buying a house, new car or investing in shares in all years. Thereafter, the desire to invest decreased linearly by age in all years under examination. These age differences thus seem to be related to life course stages. In young adulthood, the position in society must be established, and therefore young adults' consumption desires can be seen as expressing goal-oriented instrumental materialism (Bock, Eastman and Eastman. 2018) and rational behaviour (Fisbein and Ajzen 2010).

Charitable-cultural consumption desires varied by age in all years: in 1999, young people aged 18-35 had significantly lower charitable-cultural consumption desires than other age groups. Interestingly, in 2009, charitable and cultural desires were lower in older age groups and higher

among young adults aged 26-35. In 2019, the charitable-cultural desires were lowest among the oldest age groups, which suggests that pre-war, and baby-boomer generations having become less altruistic, and Generations X and Y more oriented to charity and culture. This result contradicts previous research which suggests that middle-aged and older age groups are more altruistic (Atkinson and Hayes, 2010), and their spending is oriented more towards culture and charitable donations (Bekkers and Wiebking, 2011).

Limitations and strengths

We acknowledge some limitations concerning our study. First, this study was cross-sectional although the data had been collected in three points of time cross 20 years. To gain a better understanding of the consumers' desires in the life course, a longitudinal study following the same participants would be ideal. Second, the study relied on self-reported data, which is prone to social desirability bias. Moreover, the respondents' answers to the subjective data are open to interpretation. In the Factor Analysis, interpreting the desire dimensions was not unambiguous, and reliabilities of the factors were not very good, which is typical in large surveys. Also, the triggers of the desires may remain unclear. For instance, it is hard to determine whether the desire to invest in shares is frugal or materialistic. Our interpretations about cohort effects should also been treated with caution, as the 20-year period under examination was too short for a robust age-period-cohort analysis.

Despite the limitations, this study complements our understanding of the development of consumption desires in different times and with different age cohorts. Among the most interesting -and encouraging- results in our study were young people's consumption desires

becoming less materialistic and hedonistic and more frugal and saving oriented across the past 20 years. This result paves the way for more specific empirical and comparative research on consumers' desires, motivations, values and attitudes in today's abundant consumer societies that face serious environmental problems. In the future, research on consumers' desires and motivations should specifically focus on sustainable consumption, particularly with the youngest consumer groups.

References:

Achabou, MA. and Dekhili, S. (2013) 'Luxury and sustainable development: Is there a match?', *Journal of Business Research,* 66(10): 1896–1903.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action control: From cognition to behavior* (pp. 11–39). Berlin: Springer-Verlag.

Atkinson, A. and Hayes, D. (2010) 'Consumption patterns among older consumers - Statistical analysis' *London: The International Longevity Centre - UK (ILC-UK)* https://ilcuk.org.uk/wp-content/uploads/2018/10/ConsumptionPatterns.pdf

Autio, M. and Heinonen, V. (2004) 'To consume or not to consume?: Young people's environmentalism in the affluent Finnish society', *YOUNG,* 12 (2): 137–153.

Bekkers, R. and Schuyt, T. (2008) 'And who is your neighbor? Explaining denominational differences in charitable giving and volunteering in the Netherlands', *Review of Religious Research,* 50(1): 74–96.

Belk, RW. (1985) 'Materialism: Trait aspects of living in the material world', *Journal of Consumer Research,* 12: 265–281.

Belk, RW., Ger, G. and Askegaard, S. (2003) 'The fire of desire: A multisited inquiry into consumer passion', *Journal of Consumer Research,* 30: 326–351.

Bloodhart, B., and Swim, JK. (2020) 'Sustainability and consumption: What's gender got to do with it?', *Journal of Social Issues,* 76: 101-113.

Bock, DE., Eastman, JK. and Eastman, KL. (2018) 'Encouraging consumer charitable behavior: The impact of charitable motivations, gratitude, and materialism', *Journal of Business Ethics,* 150 (4):1213-1228.

Boujbel, L. and d'Astous, A. (2015) 'Exploring the feelings and thoughts that accompany the experience of consumption desires', *Psychology and Marketing,* 32: 219-231.

Boujbel, L. and d'Astous, A. (2012) 'Voluntary simplicity and life satisfaction: Exploring the mediating role of consumption desires', *Journal of Consumer Behaviour,* 11: 487-494.

Bourdieu, P. (1984) *Distinction: A social critique of the judgement of taste*, Routledge: London.

Brickman, P. and Campbell, DT. (1971) Hedonic relativism and planning the good society. In MH Appley (ed) *Adaptation level theory: A symposium,* New York: Academic Press, pp 287–302.

Campbell, C. (1987). *The romantic ethics and the spirit of modern consumerism*, Oxford: Basil Blackwell.

Carr, DJ., Gotlieb, MR., Lee, NJ. and Shah, DV. (2012) 'Examining overconsumption, competitive consumption and conscious consumption from 1994 to 2004: Disentangling cohort and period effects', *The Annals of the American Academy of Political and Social Science, 664*(1): 220–233.

Casey, E. (2003) 'Gambling and consumption: Working-class women and UK national lottery play', *Journal of Consumer Culture* 3(2): 245-263.

Danziger, P. (2011) *Putting the luxe back in luxury: How new consumer values are redefining the way we market luxury,* Rochester, NY: Paramount Marketing Publishing.

Deaton, A. (1992) *Understanding consumption,* Oxford: Oxford University Press.

Diener, E., Lucas, RE. and Oishi, S. (2002) 'Subjective well-being: The science of happiness and life satisfaction', in CR Snyder and SJ Lopez (eds), *Handbook of positive psychology* , Oxford: Oxford University Press, pp 463–73.

Duesenberry, JS. (1949) *Income, saving and the theory of consumer behavior,* Cambridge, Mass: Harvard University Press.

Eastman, JK., Goldsmith, RE and Flynn, LR. (1999) 'Status consumption in consumer behavior: Scale development and validation', *Journal of Marketing Theory and Practice,* 7(3): 41-52.

Eastman, JK. and Liu, J. (2012) 'The impact of generational cohorts on status consumption: An exploratory look at generational cohort and demographics on status consumption', *Journal of Consumer Marketing,* 29(2): 93–102.

Eckblad, GF. and von der Lippe, AL. (1994) ' Norwegian lottery winners: Cautious realists', *Journal of Gambling Studies,* 10: 305–322.

Eckhardt, GM., Belk, RW. and Wilson, JAJ. (2015) 'The rise of inconspicuous consumption', *Journal of Marketing Management,* 31(7-8): 807-826.

Esping-Andersen, G. (1990) *The three worlds of welfare capitalism.* New Jersey: Princeton University Press.

Falk, P. and Mäenpää, P. (1999) *Hitting the Jackpot: Lives of lottery millionaires*. Oxford: Berg publishers.

Featherstone, M. (2014) 'The rich and the super-rich: Mobility, consumption, and luxury lifestyles', in N Mathur (ed), *Consumer Culture, Modernity and Identity,* New Delhi: SAGE Publications, pp 3-43.

Fishbein, M., & Ajzen, I. (2010). *Predicting and changing behavior: The reasoned action approach*. New York: Psychology Press.

Fournier, S. and Guiry, M. (1993) '"An emerald green jaguar, a house on Nantucket, and an African safari": Wish lists and consumption dreams in materialist society', in L McAlister and ML Rothschild (eds), *NA - Advances in Consumer Research Volume 20,* Association for Consumer Research, Provo, UT, pp 352-358.

Friedman, M. (1957) 'Introduction to "A theory of the consumption function"', in M Friedman (ed) *A theory of the consumption function,* New Jersey: Princeton University Press, pp 1–6.

Garber, M. (2008) *Patronising the arts.* New Jersey: Princeton University Press.

Goldsmith, RE. and Clark, RA. (2012) 'Materialism, status consumption, and consumer independence', *The Journal of Social Psychology,* 152(1): 43-60.

Goldsmith, RE., Flynn, LR. and Clark, RA. (2014) 'The etiology of the frugal consumer', Journal of Retailing and Consumer Services, 21(2): 175-184.

Hedenus, A. (2011) 'Finding Prosperity as a lottery winner: Presentations of self after acquisition of sudden wealth', *Sociology* 45(1): 22-37.

Huttunen, K. and Autio, M. (2010) 'Consumer ethoses in Finnish consumer life stories: Agrarianism, economism and green consumerism', *International Journal of Consumer Studies,* 34(2): 146–152.

Hyde, M., Higgs, P., Gilleard, G., Victor, C., Wiggins, D. and Rees Jones, I. (2008) 'Ageing, cohorts, and consumption: The British experience 1968-2005', in IR Rees Jones, M Hyde, CR Victor, RD Wiggins, C Gilleard, and P Higgs (eds), *Ageing in a consumer society: From passive to active consumption in Britain,* Bristol: Policy Press, pp 93-125.

Jackson, V., Stoel, L. and Brantley, A. (2011) 'Mall attributes and shopping value: Differences by gender and generational cohort' *Journal of Retailing and Consumer Services,* 18(1): 1-9.

Kuoppamäki, SM., Wilska, TA. and Taipale, S. (2017) 'Ageing and consumption in Finland: The effect of age and life course stage on ecological, economical and self-indulgent consumption among late middle-agers and young adults between 1999 and 2014', *International Journal of Consumer Studies,* 41(5): 457– 464.

Larsson, B. (2011) 'Becoming a winner but staying the same: Identities and consumption of lottery winners', *American Journal of Economics and Sociology* 70(1): 187-209.

Mayo, JW and Tinsley, CH (2009) Warm glow and charitable giving: Why the wealthy do not give more to charity? *Journal of Economic Psychology*, 30 (3) , 490-499,

McCracken, G. (1988). *Culture and consumption*. Bloomington, IN: Indiana University Press.

Meer, J., Miller, D. and Wulfsberg, E. (2017), The Great Recession and charitable giving. *Applied Economics Letters,* 24(21): 1542-1549.

Modigliani, F. and Brumberg, R. (1954/2005) 'Utility analysis and the consumption function: An interpretation of cross-section data', in Modigliani, F (ed), *The collected Papers of Franco Modigliani.* Massachusetts: MIT Press,

Parment, A. (2013) 'Generation Y vs. Baby Boomers: Shopping behavior, buyer involvement and implications for retailing', *Journal of Retailing and Consumer Services,* 20(2): 189–199.

Pennerstorfer, A. and Neumayr, M. (2017) 'Examining the association of welfare state expenditure, non-profit regimes and charitable giving', *Voluntas: International Journal of Voluntary and Nonprofit Organizations 28*: 532–555.

Prendergast, G. and Maggie, C. (2013), 'Donors' experience of sustained charitable giving: a phenomenological study', *Journal of Consumer Marketing, 30* (2), 130-139.

Raijas, A. (2014) 'Kotitalouksien kulutuksen kehitys 2000-luvulla Suomessa ja Ruotsissa', *Kansantaloudellinen aikakauskirja,* 110(4): 477–491.

Rees Jones, IR., Hyde, M., Victor, CR., Wiggins, RD., Gilleard, C. and Higgs, P., (eds) (2008), *Ageing in a consumer society. From passive to active consumption in Britain*. Bristol: Policy Press.

Riihelä, M. (2006), *Kotitalouksien kulutus ja säästäminen: Ikäprofiilien ja kohorttien kuvaus.* Valtion taloudellinen tutkimuskeskus VATT/ Institute for Economic Research: Keskustelualoitteita/Discussion papers 267. http://urn.fi/URN:ISBN:951-561-608-5

Räsänen, P. (2003*) In the twilight of social structures: A mechanism-based study of contemporary consumer behaviour,* Annales Universitatis Turkuensis, Ser. B 263. University of Turku.

Saari, H., Koivula, A., Sivonen, J., and Räsänen, P. (2019). *Suomi 2019 – kulutus ja elämäntapa. Tutkimusseloste ja koodikirja.* Working Papers in Economic Sociology. University of Turku. http://urn.fi/URN:ISBN:978-951-29-7919-6

Sarpila, O. and Haanpää, L. (2010) *Luksustuotteet osana suomalaisten vapaavalintaista kulutusta koskevia haaveita. Kuluttajatutkimuskeskuksen vuosikirja 2010,* Kuluttajatutkimuskeskus, Helsinki. http://hdl.handle.net/10138/152242

Segal, B. and Podoshen, JS. (2013) 'An examination of materialism, conspicuous consumption and gender differences', *International Journal of Consumer Studies* 37(2): 189–98.

Silinskas, G., Ranta, M. and Wilska, T-A. (2021) 'Financial Behaviour Under Economic Strain in Different Age Groups: Predictors and Change Across 20 Years', *Journal of Consumer Policy* 44(2): 235-257.

Smith, A. (2000/1759). The theory of moral sentiments, liberty classics, Indianapolis (1759). Amherst, New York: Republished Prometheus Books.

Taber, KS. (2018), 'The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education' Research in Science Education 48 (2018):1273–1296.

Thomas, SJ. and Danko, WD. (2010) *The millionaire next door: The surprising secrets of America's wealthy.* New York: Taylor Trade Publishing.

Van Leeuwen, MHD. and Wiepking, P. (2013) 'National campaigns for charitable causes: A literature review' *Nonprofit and Voluntary Sector Quarterly,* 42(2): 219–240.

Veblen, T. (1899/1994). *The theory of the leisure class*. Penguin Group, New York.

Weber, M. (1904/2002) *The protestant ethic and the spirit of capitalism*. New York: Penguin Books, 2002, translated by Peter Baehr and Gordon C. Wells.

Wilska, TA. (2002) 'Me–A Consumer? Consumption, identities and lifestyles in today's Finland', *Acta Sociologica,* 45(3): 195-210.

Wilska, TA and Kuoppamäki, S. (2017) 'Necessities to all? The importance of ICT to the middle-aged and the elderly', in: S Taipale, S., TA Wilska and C Gilleard (eds), *Digital Technologies and Generational Identity: ICT Usage Across the Life Course.* London: Routledge, pp 149-166.

Table 1

Factor Loadings of the Principal Axis Factor Analysis for the Consumption Desires Scale

Items	Hedonistic	Charitable–cultural	Materialistic
Consumption desires scale			
What would you do if you could afford them?			
1. I would do holiday travelling			
2. I would use cultural services (e.g., theater, opera)		.616	
3. I would make donations (e.g., charity, fundraising)		.774	
4. I would support people close to me		.604	
5. I would buy art and antiques		.397	
6. I would buy new house/apartment			.320
7. I would change car more often			.537
8. I would invest in the stock market			.624
9. I would spend time doing recreational shopping	.873		
10. I would do impulse shopping	.779		
11. I would save			
12. I would indulge myself	.487		
Eigenvalue, % (cumulative %)	24.454 (24.454)	9.190 (33.644)	4.590 (38.233)
Cronbach's alpha (α)	.752	.690	.508

Table 2

Univariate General Linear Model Predicting Consumer Desires

	Dependent variables																			
	Hedonistic (adjusted R^2 = .164)					**Charitable-cultural** (adjusted R^2 = .087)					**Materialistic** (adjusted R^2 = .077)					**Saving-oriented** (adjusted R^2 = .068)				
Independent variables	B	df	F	p	partial η^2	B	df	F	p	partial η^2	B	df	F	p	partial η^2	B	df	F	p	partial η^2
Intercept	2.723	1	1627.546	**<.001**	.271	2.251	1	791.240	**<.001**	.154	3.113	1	1292.803	**<.001**	.228	2.977	1	1168.947	**<.001**	.213
Gender (1 male, 2 female)	.319	1	149.683	**<.001**	.033	.374	1	201.282	**<.001**	.044	-.281	1	83.168	**<.001**	.019	.213	1	42.448	**<.001**	.010
Place of living (1 = urban, 2 = rural)	-.194	1	35.749	**<.001**	.008	-.111	1	11.470	**.001**	.003	-.226	1	35.102	**<.001**	.008	.045	1	1.253	.263	<.001
Household size	.009	1	.795	.373	<.001	.012	1	1.313	.252	<.001	.002	1	.017	.896	<.001	.022	1	2.862	.091	.001
Education	-.014	1	2.720	.099	.001	.079	1	85.114	**<.001**	.019	.023	1	5.422	**.020**	.001	<.001	1	<.001	.984	<.001
Personal income	<.001	1	4.100	**.043**	.001	<.001	1	.529	.467	<.001	<.001	1	.018	.895	<.001	<.001	1	.025	.875	<.001
Subjective financial situation	-.146	1	77.476	**<.001**	.017	-.095	1	32.089	**<.001**	.007	-.014	1	.482	.488	<.001	-.082	1	15.547	**<.001**	.004
Year of data gathering (YEAR)		2	11.510	**<.001**	.005		2	14.429	**<.001**	.007		2	25.266	**<.001**	.011		2	8.759	**<.001**	.004
Year 1999	.089			.305	<.001	.283			**.001**	.002	.089			.387	<.001	.414			**<.001**	.003
Year 2009	.150			.112	.001	.078			.409	<.001	-.198			.085	.001	.159			.192	<.001
Year 2019	0ᵃ					0ᵃ					0ᵃ					0ᵃ				
Age group (AGE)		5	72.874	**<.001**	.077		5	4.554	**<.001**	.005		5	26.903	**<.001**	.030		5	23.340	**<.001**	.026
Age 18–25	.676			**<.001**	.016	.150			.065	.001	.632			**<.001**	.010	1.119			**<.001**	.028
Age 26–35	.698			**<.001**	.019	.119			.118	.001	.736			**<.001**	.016	1.096			**<.001**	.030
Age 36–45	.706			**<.001**	.019	.143			.066	.001	.491			**<.001**	.007	.726			**<.001**	.013
Age 46–55	.544			**<.001**	.012	.138			.064	.001	.487			**<.001**	.007	.573			**<.001**	.009
Age 56–65	.265			**<.001**	.003	.073			.293	0	.220			**.007**	.002	.258			**.003**	.002
Age 66–75	0ᵃ					0ᵃ					0ᵃ					0ᵃ				
YEAR × AGE		10	3.654	**<.001**	.008		10	5.717	**<.001**	.013		10	1.873	**.044**	.004		10	12.076	**<.001**	.027
Error		4403					4394					4398					4358			

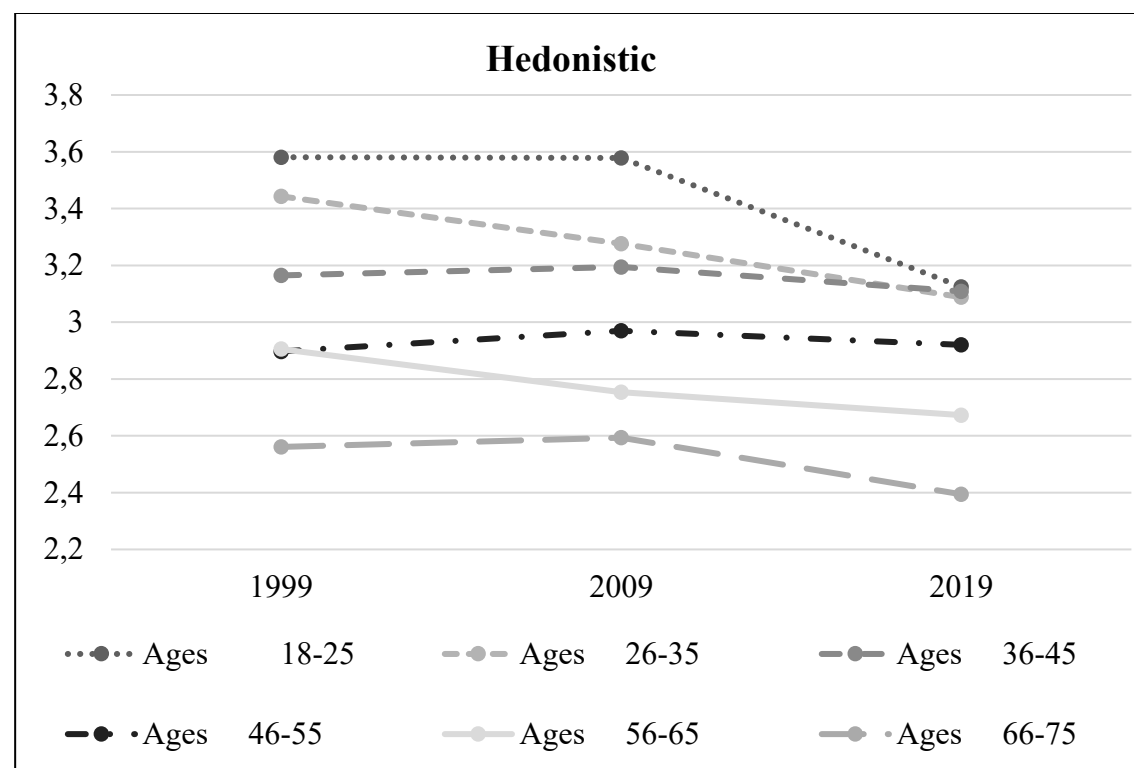In **bold** – significant results at $p < .05$

Figure 1. Hedonistic desires across different age groups (separate lines) and years of measurement (x-axis), after controlling for gender, place of living, education income, and satisfaction with the current economic situation.

Figure 2. Charitable-cultural desires across different age groups (separate lines) and years of measurement (x-axis), after controlling for gender, place

of living, education income, and satisfaction with the current economic situation.
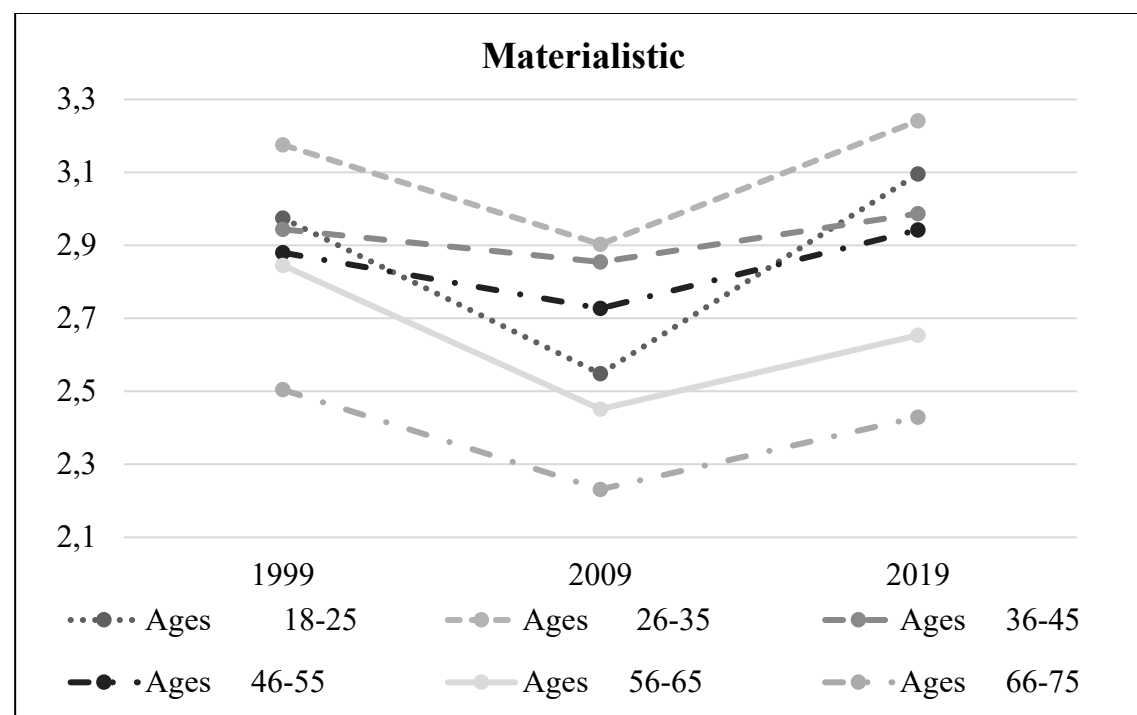
Figure 3. Materialistic desires across different age groups (separate lines) and years of measurement (x-axis), after controlling for gender, place of living, education income, and satisfaction with the current economic situation.
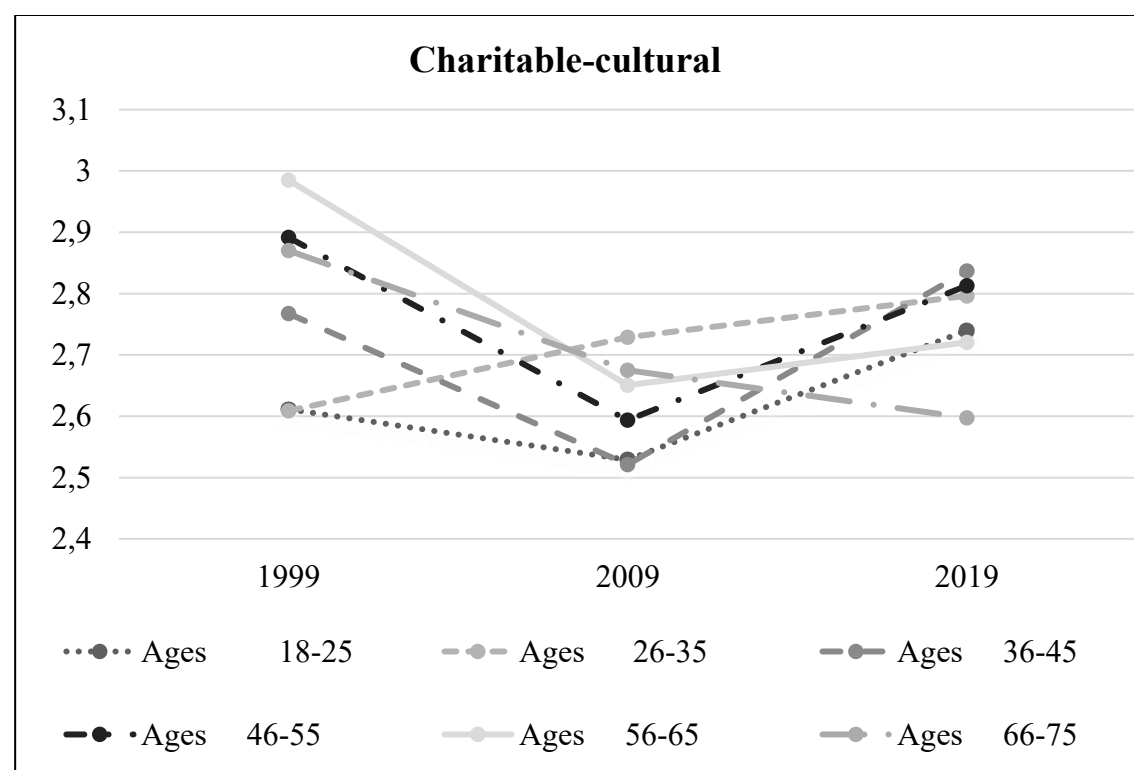
Figure 4. Saving-oriented desires across different age groups (separate lines) and years of measurement (x-axis), after controlling for gender, place of living, education income, and satisfaction with the current economic situation.
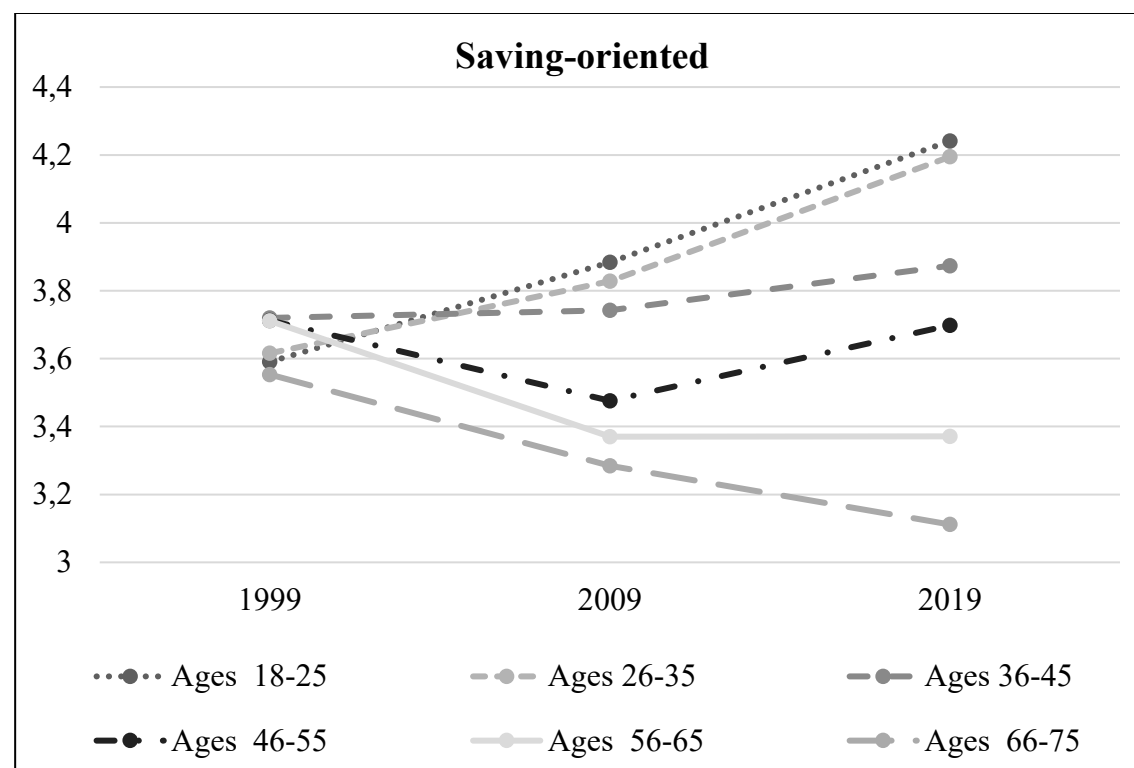
APPENDIX

Table A1
Descriptives of All Study Variables

	n (%)	M	SD	α	Range Potential	Range Actual	Skewness
Consumption desires							
Hedonistic	5378	3.03	0.95	.749	1–5	1–5	0.00
Charitable-cultural	5372	2.73	0.92	.692	1–5	1–5	0.26
Materialistic	5354	2.84	1.06	.516	1–5	1–5	0.07
Saving-oriented	5303	3.68	1.11		1–5	1–5	–0.63
Year and age							
Year of data gathering	5459 (100%)				1999–2019	1999–2019	0.26
1999	2492 (45.6%)						
2009	1202 (22.1%)						
2019	1765 (32.3%)						
Age group	5366 (100%)				1–6	1–6	0.00
Ages 18–25	689 (12.8%)						
Ages 26–35	964 (18.0%)						
Ages 36–45	1013 (18.9%)						
Ages 46–55	1078 (20.1%)						
Ages 56–65	920 (17.1%)						
Ages 66–75	702 (13.1%)						
Control variables							
Subjective financial situation	5414	2.71	0.83		1–5	1–5	0.35

	N (%)	Mean	SD		Range	
Gender (1 male, 2 female)	5352 (100%)	1.50	0.50	1–2	1–2	−0.01
Male	2668 (49.9%)					
Female	2684 (51.1%)					
Place of living	5283 (100%)	1.23	0.42	1–2	1–2	1.30
Urban	4080 (77.2%)					
Rural	1203 (22.8%)					
Household size	5415	2.45	1.35		1–21	1.39
Highest level of education	4953	3.23	1.68	1–7	1–7	0.39
Personal income	4885	1578.83	2108.04		0–80 000	16.32

Table A2.

Correlations Between All Study Variables

		1	2	3	4	5	6	7	8	9	10	11
	Consumption desires											
1	Hedonistic											
2	Charitable-cultural	.366**										
3	Materialistic	.414**	.265**									
4	Saving-oriented	.219**	.213**	.218**								
	Year and age											
5	Year of data gathering	-.116**	-0.026	-.039**	0.006							
6	Age group	-.274**	.056**	-.172**	-.156**	.040**						
	Control variables											
7	Subjective financial situation	.156**	.053**	0.016	.070**	-.184**	-.030*					
8	Gender (1 male, 2 female)	.176**	.225**	-.135**	.098**	-0.004	.034*	0.009				
9	Place of living	-.093**	-.055**	-.112**	0.009	-.050**	.118**	.042**	-0.016			
10	Family size	.031*	-.015	.025	.043**	-.048**	-.167**	-.077**	-.036**	.112**		
11	Highest level of education	-0.013	.120**	.063**	0.017	.202**	-.104**	-.261**	.063**	-.155**	.083**	
12	Personal income	-.095**	-.030*	0.021	-0.018	.225**	.049**	-.206**	-.103**	-.037**	.048**	.172**

Note. * $p < .05$, ** $p < .01$

Table A3.

Evolution of the Consumption Desires for the Single Items Over Time (Across 1999, 2009, and 2019)

		Year 1999		Year 2009		Year 2019		F	p
		M	SD	M	SD	M	SD		
1.	I would do holiday travelling	3.851^{ab}	1.219	3.415^{ac}	1.302	3.545^{bc}	1.331	55.862	**<.001**
2.	I would use cultural services (e.g., theater, opera)	2.653^{a}	1.334	2.522^{a}	1.272	2.636	1.293	4.245	**.014**
3.	I would make donations (e.g., charity, fundraising)	2.726^{ab}	1.266	2.568^{ac}	1.240	2.842^{bc}	1.283	16.532	**<.001**
4.	I would support people close to me	3.373^{a}	1.177	3.368^{b}	1.143	3.550^{ab}	1.115	14.172	**<.001**
5.	I would buy art and antiques	2.248^{ab}	1.335	1.984^{a}	1.197	1.901^{b}	1.157	42.594	**<.001**
6.	I would buy new house/apartment	2.996^{ab}	1.607	2.792^{a}	1.534	2.856^{b}	1.486	8.107	**<.001**
7.	I would change car more often	2.923^{ab}	1.439	2.524^{ac}	1.335	2.681^{bc}	1.393	35.148	**<.001**
8.	I would invest in the stock market	2.798^{ab}	1.438	2.620^{ac}	1.369	3.012^{bc}	1.439	27.609	**<.001**
9.	I would spend time doing recreational shopping	2.401	1.298	2.448^{a}	1.223	2.311^{a}	1.172	4.850	**<.001**
10.	I would do impulse shopping	2.588^{a}	1.288			2.353^{a}	1.186	35.383	**.008**
11.	I would save	3.689^{a}	1.129	3.593^{ab}	1.081	3.712^{b}	1.115	4.357	**.013**
12.	I would indulge myself	3.548^{ab}	1.132	3.312^{a}	1.096	3.249^{b}	1.124	39.964	**<.001**

Note. Mean scores that share the same superscript are statistically significantly different. Bonferroni was used for all other indicators.

In bold—significant results at *p* < .05 level.

Table A4.

Factor Loadings of the Principal Axis Factor Analysis for the Consumption Desires Scale in 1999, 2009 and 2019

| Items	1999			2009			2019		
	Hedonistic	Charitable–cultural	Materialistic	Hedonistic	Charitable–cultural	Materialistic	Hedonistic	Charitable–cultural	Materialistic
Consumption desires scale									
What would you do if you could afford them?									
1. I would do holiday travelling				.506			.370	.333	
2. I would use cultural services (e.g., theater, opera)		.586			.545			.627	
3. I would make donations (e.g., charity, fundraising)		.784			.697			.782	
4. I would support people close to me		.625			.560			.585	
5. I would buy art and antiques		.469			.453			.340	
6. I would buy new house/apartment						.321			
7. I would change car more often			.588			.574	.456		
8. I would invest in the stock market			.553			.601			.876
9. I would spend time doing recreational shopping	.874			.731			.858		
10. I would do impulse shopping (not measured in 2009)	.774						.825		
11. I would save									
12. I would indulge myself	.461			.685			.578		
Eigenvalue, % (cumulative %)	21.736 (21.736)	10.543 (32.280)	5.144 (37.423)	24.630 (24.630)	6.781 (31.411)	5.263 (36.674)	28.159 (28.159)	9.056 (37.215)	5.713 (42.928)
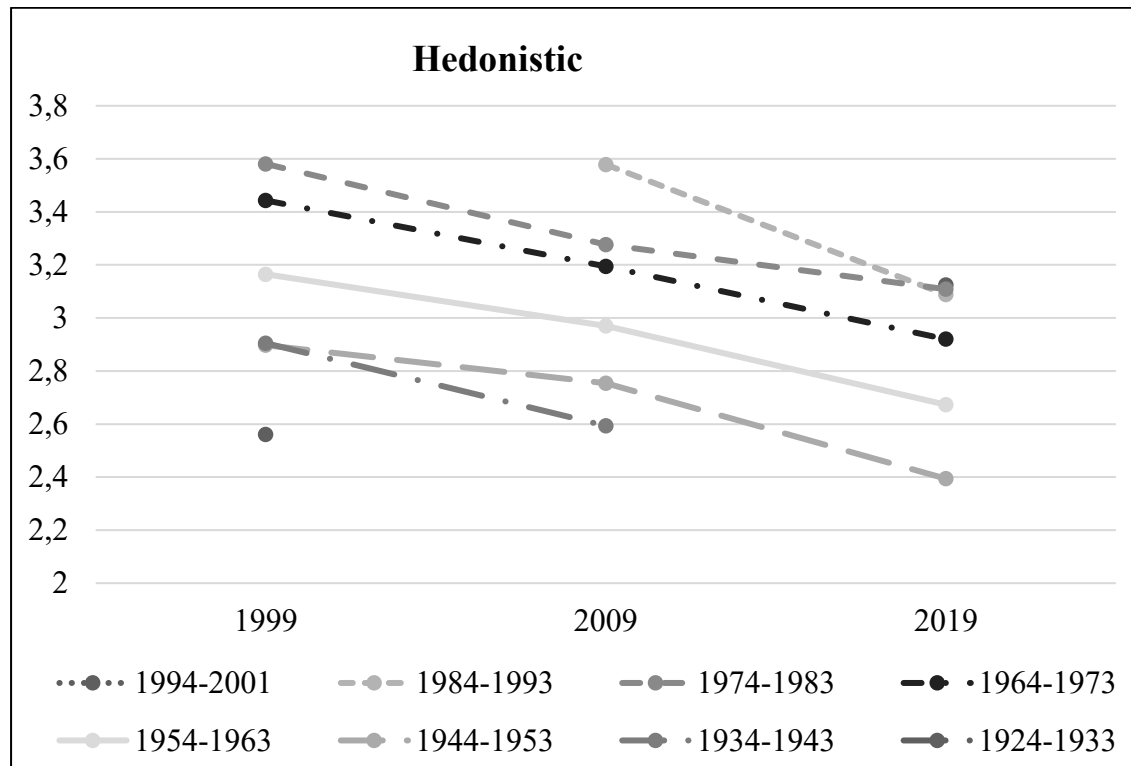
Figure A1. Hedonistic desires across different age cohorts (separate lines) and years of measurement (x-axis), after controlling for gender, place of living, education income, household size and satisfaction with the current economic situation.
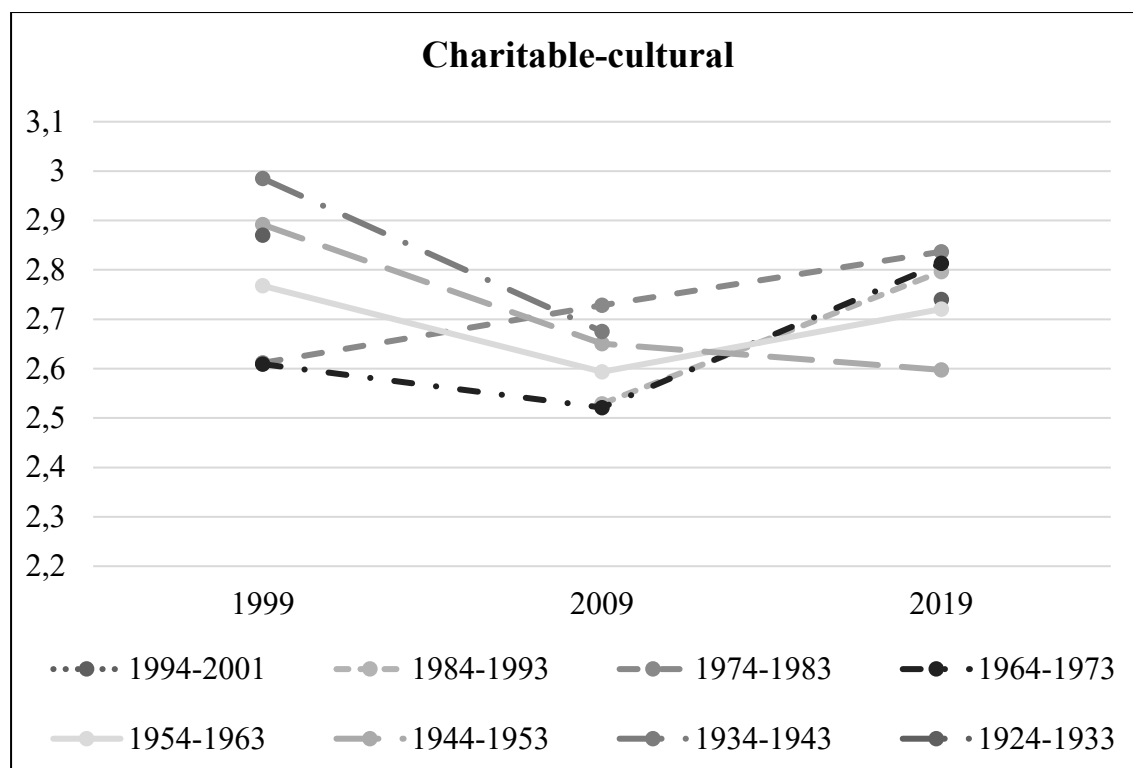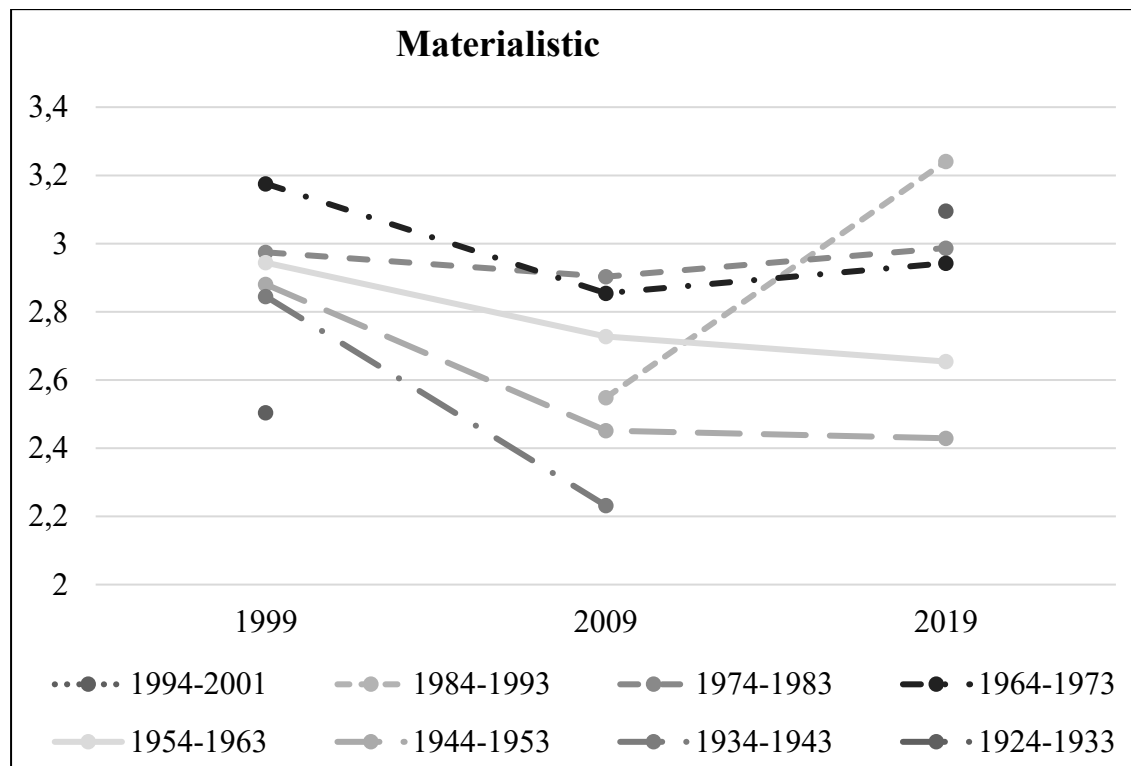
Figure A2. Charitable-cultural desires across different age cohorts (separate lines) and years of measurement (x-axis), after controlling for gender, place of living, education income, household size and satisfaction with the current economic situation.

Figure A3. Materialistic desires across different age cohorts (separate lines) and years of measurement (x-axis), after controlling for gender,

place of living, education income, household size and satisfaction with the current economic situation.
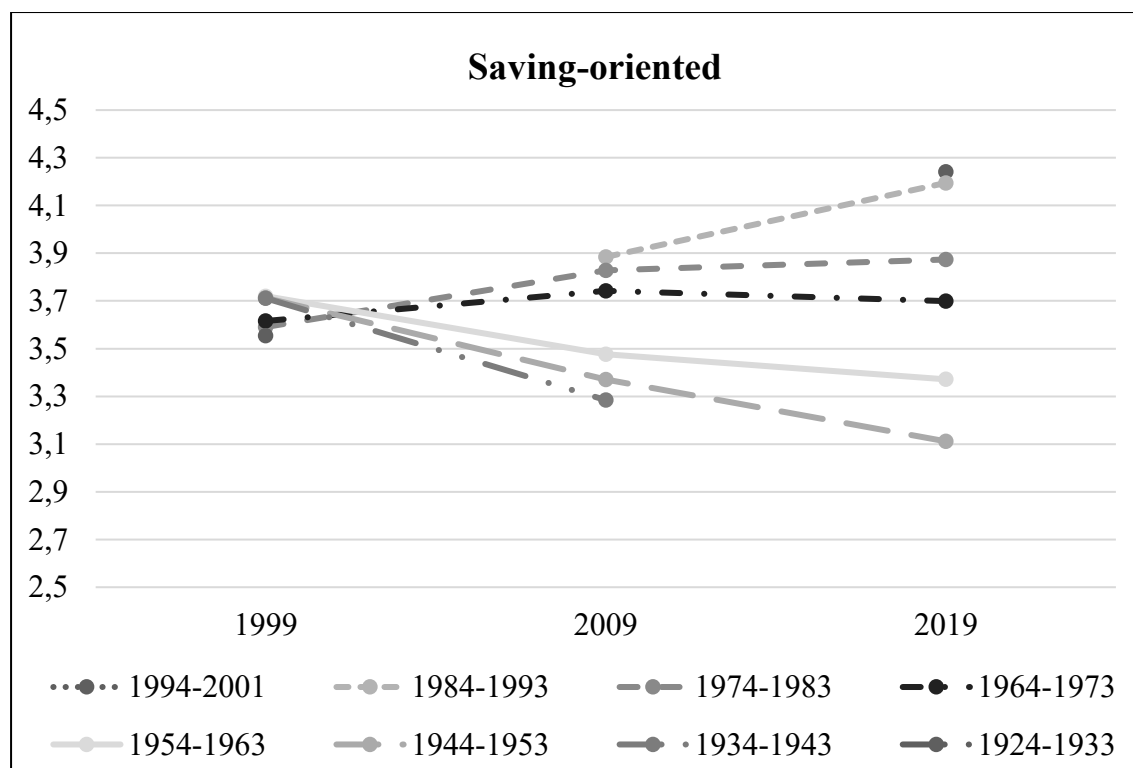
Figure A4. Saving-oriented desires across different age cohorts (separate lines) and years of measurement (x-axis), after controlling for gender,

place of living, education income, household size and satisfaction with the current economic situation.