

Generational Differences in Work Values: Using Retrospective Methods to Disentangle the

Effects of Age and Cohort

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### Abstract

Although the scientific evidence for generational differences in work values is weak and results of published studies on generations may not be strictly valid due to conceptual and methodological problems, differences between generations seem to be acknowledged both in popular media and organisations. The present mixed-method study examined what importance Generation X, (born 1965-1980) ( $n = 17$ ), Generation Y (born 1981-1994) ( $n = 45$ ) and Generation Z (born 1995-2015) ( $n = 80$ ) place on work values, as measured by the Lyons Work Value Survey, and why this occurs, by means of semi-structured interviews. In order to overcome the limitations of cross-sectional research as a method of studying generational differences, this study used retrospective methods which allow for the comparison of generations within the same life stage in different time periods. Results showed (1) Generation Z placed more importance on Instrumental Personal Security and Social Work Environment than Generation Y, (2) Generation Z placed more importance on Instrumental Management Support and Sociality Enabling Tasks than Generation X, (3) there were no differences between Generation X and Y. Overall, findings suggest that differences are not outweighed by similarities in work values between Generation X, Y and Z.

*Keywords:* work values, generational differences, Generation X, Generation Y, Generation Z, age effect, period effect, cohort effect

## Generational Differences in Work Values: Using Retrospective Methods to Disentangle the Effects of Age and Cohort

Both in popular media, academic and non-academic literature, there is attention for differences between generations in the workplace (Lyon & Kuron, 2014). Popular media suggest that generations differ in work values, ideas, attitudes and behaviour. Organisations should approach each generation differently and should even adapt their management strategies to the presupposed differences between generations in order to attract, motivate and retain employees (Stanton, 2017; Stassen, Anseel, & Levecque, 2016). Although this is not strongly reflected in academic literature, differences between generations seem to be acknowledged both in popular media and organisations, showing up in reports and blogs of large companies like PricewaterhouseCoopers and Deloitte with quotes like: “Knowledge about new generations provides insight into how the organisation must adapt to remain attractive as an employer” (Dekkers, n.d.) and “Gen Z is about to make its presence known in the workplace in a major way — and it’s important to understand the differences that set them apart” (Gomez, Mawhinney, & Betts, 2017, p.4). Moreover, since there is a labour shortage in the Dutch workforce (CBS, 2019), organisations seem to have a greater focus on understanding what new employees find important concerning work in order to attract them to their organisation (Hughes & Rog, 2008). To understand what differences organisations take into account, it is important to look at the different generations present in society.

In academic as well as non-academic literature, distinctions are made between different generations. Although there is little agreement on the years encompassing a specific generation, Table 1 shows a division that has been used previously in research conducted in the Netherlands as well as in other countries (e.g. Hansen & Leuty, 2012; Lub, Bijvank, Bal, Blomme, & Schalk, 2012; Ng & Parry, 2015). The presented division will be used in the present study. Generations that are present in society include Traditionalists, Baby Boomers,

Generation X, Generation Y and Generation Z (Lyons & Kuron, 2014). The focus in this study will be on the latter three generations. Generation X is the generation that followed the Baby Boomers and therefore received the letter 'X': this generation does not have determined characteristics like their parents. Having grown up with financial and societal insecurity, Generation X is often described as individualistic, sceptical and cynical (Lub et al., 2012; Smola & Sutton, 2002). Concerning work Generation X is said to prefer working independently and to strive for a balance between work and social life (Kuppersmidt, 2000). Generation Y, also often referred to as Millennials, is the generation that has grown up with technological and digital innovations and economic prosperity. They are often depicted as less independent and even more seeking a work-life balance compared to Generation X (Clark, 2017). Given Generation Z is rather new to the workforce, less research has focused on them in comparison with the previous generations. However, being born in a highly developed digital environment they are said to think differently than the previous generations due to this early interaction with technology (Tang, 2019). Although claims about generational differences are made in popular press and are said to have impact on outcomes in a variety of settings, including the workplace, the scientific substantiation for the existence of generational differences is weak (Costanza, Badger, Fraser, Severt, & Gade, 2012). Also, results in published research on generational differences up till now may not be strictly valid due to conceptual and methodological problems in generational research (Lyons & Kuron, 2014). This study contributes to scientific literature by examining what importance Generation X, Y and Z place on work values. Besides, by adding a qualitative approach to commonly used quantitative approaches in generational research, it also aims to clarify *why* generations place importance on specific work values. Finally, an additional goal of this study is to improve on methods in generational research by using retrospective methods.

Table 1.

*Generational Groups in the Workplace*

Generation	Years of Birth	Literature
Generation X	1965 – 1980	Hansen & Leuty, 2012; Lub et al., 2011
Generation Y	1981 – 1994	Hansen & Leuty, 2012; Lub et al., 2011; Ng & Parry, 2016
Generation Z	1995 – 2015	Ng & Parry, 2016

**Critique on Generational Research**

The construct of generation has its early origins in the work of Mannheim (1952) in which he explains belonging to a generation as being similar to the class position of an individual. As individuals in a specific class position, members of a generation share a common location in social and historical processes. Beyond sharing the same year of birth, members of a generation “experience the same formative experiences and develop unifying commonalities as a result” (Lyon & Kuron, 2014, p. 141). As indicated previously, it is hard to generalize findings on generational differences, because of conceptual and methodological problems that occurred in generational research (Costanza et al., 2012; Parry & Urwin, 2011).

Mannheim’s theory focused on individuals having the same experience of a historical event as a condition for being member of a generation. This creates the assumption of generation being a concept within a particular national context (Parry & Urwin, 2011). Comparisons of studies conducted in various countries are made in research. However, it is not difficult to imagine that the influences of specific historical events have different meanings within different national contexts. Therefore, these comparisons need to be interpreted with caution (Lyons & Kuron, 2014). Another conceptual problem lies in defining

generation in terms of the years in which people were born, i.e. in research there is little agreement on the birth-year boundaries of generations (Cennamo & Gardner, 2008).

Therefore, when researchers employ different definitions of generations, generalizing results on generational differences is hard.

The methodological challenge in generational research is to distinguish the effects of age, period and cohort. An effect of age can be described as consequence of growth because of going through developmental stages and accumulation of experience. A period effect is variation because of the impact of environment and historical events that happen at a specific point of time. Lastly, a cohort effect, also referred to as generation effect, includes variation due to shared experiences of the same age group in the same period (Kowske, Rasch, & Wiley, 2010; Parry & Urwin, 2011; Stassen et al., 2016). When interpreting research on generations in the workplace it is important that the research design allows for observing cohort effects and excludes age and period effects, as the last two effects explain variation due to different causes (Stassen et al., 2016). Research designs used in studies on generational differences do not always take into account the existence of these different kinds of effects. Consequently, age, period and cohort effects are not always separated and might be confounded (Costanza et al., 2012). This a limitation that can undermine conclusions of research on generational differences, including research on generational differences in the workplace.

### **Work Values**

In generational research, a variety of concepts has been studied within the context of the workplace, among which work values. Work values can be defined as “The set of underlying desirability criteria that determine one’s preferences for various work aspects” (Lyons, Higgins, & Duxbury, 2010, p. 972). Work aspects encompass individual attributes of jobs, working conditions and work outcomes (Lyons, Higgins, & Duxbury, 2010). Work

values have received considerable attention in research for decades since they are important influences in the workplace (Gursoy, Maier, & Chi, 2008). Work values are conceptualized as variables that influence the career choice-making process, job satisfaction and job performance of employees (Dawis & Lofquist, 1984; Dawis, 2002). Other studies reported that reinforcement of the employee's values in the workplace is related to job satisfaction (Hesketh, McLachlan, & Gardner, 1992) and, subsequently, predicts intention to stay in the job (Ghosh, Satyawadi, Joshi, & Shadman, 2013). In line with these prior studies, Cogin (2012) argues that congruence between an employee's work values and organisational arrangements can influence the effectiveness of HRM practices (e.g., recruiting, retaining and engaging employees). When this congruence appears employee productivity could improve and hence organisational performance could grow to a higher level (Cogin, 2012; Hughes & Rog, 2008).

Numerous approaches to classifying and measuring work values exist, but the majority of work values can be broadly categorized in intrinsic, extrinsic, social, altruistic and prestige work values (Lyons & Kuron, 2014). These categories are both combined and presented separate in existing research and sometimes include different underlying work values while being named the same overarching category. This can complicate the process of comparing different studies. However, general descriptions of these categories can be provided. Intrinsic values, also named cognitive values, are associated with satisfaction of psychological needs like growth, achievement and intellectual challenge. Extrinsic values, also named instrumental values, concern material aspects of work like job security, salary and safety needs. Social and altruistic values, are related to helping others, positively contributing to society and social interactions with others. Prestige work values have to do with having influence, power and authority (Lyons, Duxbury, & Higgins, 2006; Ng, Lyons, & Schweitzer, 2018). With regard to studying possible differences between generations in the above-

mentioned work values, it is important to consider different research designs, since these designs affect results found in generational research (Lyons, Urick, Kuron, & Schweitzer, 2015). In general, three different research designs are used to research generational differences, of which the top two are used regularly when assessing importance placed on work values, see Figure 1 (Stassen et al., 2016). A relative new research design, the retrospective design, is illustrated in Figure 2. Below, each design is described in more detail.

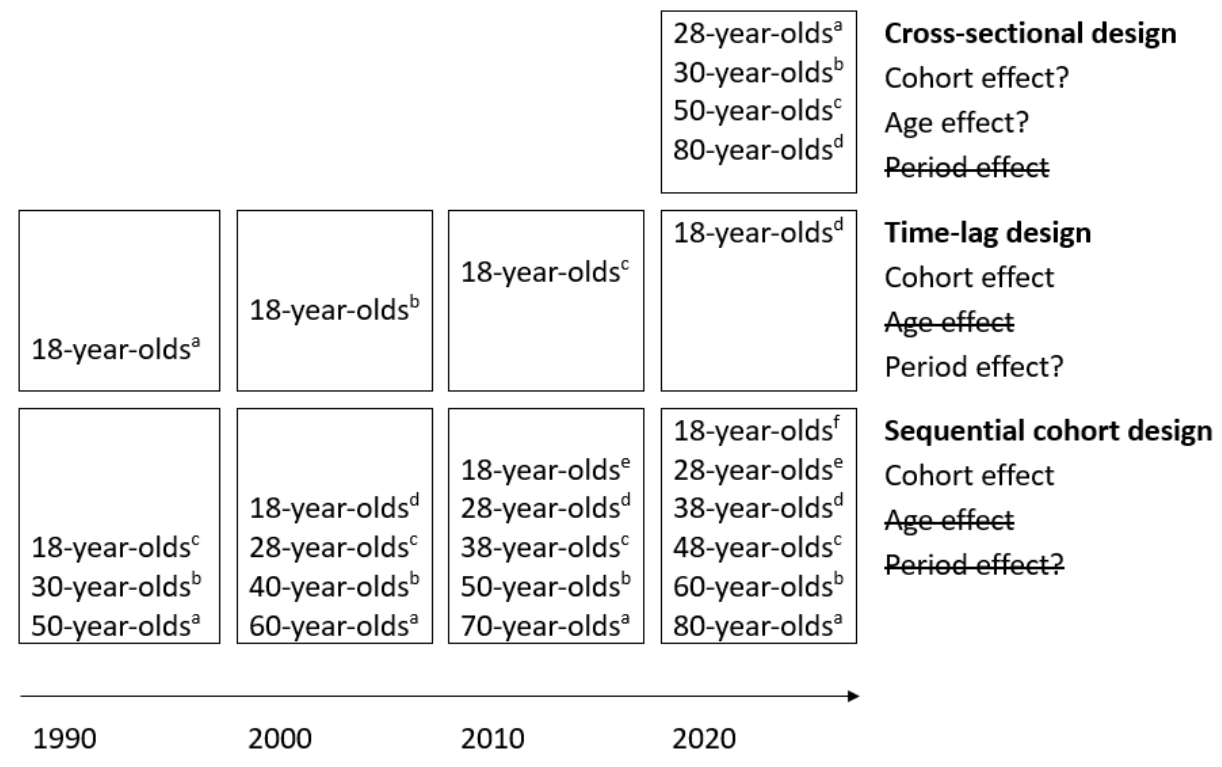


Figure 1. Research designs in generational research. <sup>a b c d e f</sup> = corresponding letters display the same group; ? = unsure if this is the intended effect; ~~Effect~~ = this effect is kept constant. Adapted and translated from “Generatieverschillen op de werkvloer: Een systematische analyse van een mythe,” by L. Stassen, F. Anseel, and K. Levecque, 2016, *Gedrag en Organisatie*, 29, p. 49.

**Cross-sectional design.** A cross-sectional design captures different generations at different life stages at one point in time. Capturing a cohort effect is complicated by the interaction of cohort and age, i.e. it impossible to control for the effect of age (Parry & Urwin,



2011). Despite this disadvantage, several cross-sectional studies have been conducted. Studies found significant differences between generations (e.g. Cennamo & Gardner, 2008; Cogin, 2012; Lyons, Duxbury and Higgins, 2005) as well as surprising levels of similarity on work related factors between generations (e.g. Cennamo & Gardner, 2008; Jurkiewicz, 2000; Lyons, Duxbury and Higgins, 2005). Overall, results from cross-sectional studies are mixed and no consistent patterns were identified.

**Time-lag design.** Time-lag studies capture different generations at a specific life stage at different points in time, which makes it possible to control for the effect of age (Twenge, 2010). Only a few time-lag studies that examine work values have been conducted. Smola and Sutton (2002) used samples from 1974 and 1999 to study work values among different age groups (27-40-year-old and 41-65-year-old participants) and found differences in work values. In particular, they found a decline in *moral importance of work* and *pride in craftsmanship*. A decline in moral importance of work is for example demonstrated by the 1999 samples placing less importance on work to be a central part of life and feeling more likely to quit a job if they inherited a lot of money, than the 1974 samples. A decline in pride in craftsmanship was demonstrated by the 1999 samples being less likely to think that a worker should feel a sense of pride in his work and that working hard makes you a better person, in comparison with the 1974 samples. Overall, it can be argued that centrality of work seems to decrease over successive generations.

Twenge, Campbell, Hoffman and Lance (2010) examined work values of samples in 1976, 1991 and 2006 among Baby Boomers, Generation X and Generation Y. In this study small to moderate differences were found among generations: leisure values increased with successive generations. Moreover, social and intrinsic values decreased steadily over the generations. Extrinsic values did not display a consistent increase or decrease across generations: Generation X was highest in extrinsic values, followed by Generation Y and then

Baby Boomers. Only for altruistic values no significant differences were found between generations.

Hansen and Leuty (2012) found few differences in work values among male Traditionalists, Baby Boomers and Generation X: only comfort, autonomy and status values were found to differ significantly, with comfort being highest among Generation X and autonomy and status being highest among Traditionalists. There were no differences in achievement, altruism or safety values.

**Sequential cohort design.** A sequential cohort design, which aims to collect data among different generations in different life stages longitudinally, has never been used in previous studies. It is seen as the most suitable design for research on generational differences since it captures variation due to cohort effect and reduces the effects of age and period (Stassen et al., 2016). However, using this research method is beyond the scope of the present study, given the labour intensity and time-consuming nature of longitudinal research methods on the one hand and the imposed time constraint in the present study on the other (Robinson, Schmidt, & Teti, 2005).

**Retrospective design.** An alternative design which suits the conditions of the present study, is a retrospective study design. Applied to the context of this study, using a retrospective research procedure means asking already employed participants to recall memories about the time that they were about to enter the workforce. This way, generations can be compared by controlling for the effect of age (i.e. life stage). It helps us understand if importance placed on a specific work value differs per generation, instead of per life stage. Lyons, Ng and Schweitzer (2014) and Lyons, Schweitzer, Ng and Kuron (2012) also used retrospective methods to qualitatively study generational differences with the aim of overcoming the limitation of cross-sectional studies.

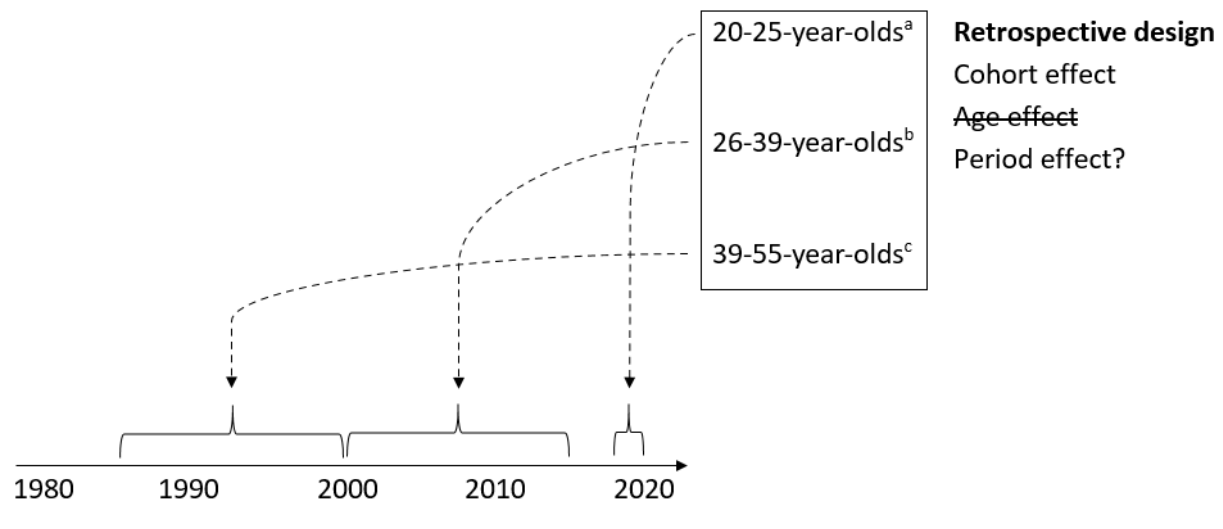


Figure 2. Retrospective research design. Dashed lines are pointed at the estimated time period about which participants needed to recall memories. <sup>a b c</sup> = letters display the different groups; ? = unsure if this is the intended effect; Effect = this effect is kept constant.

**This Study**

To summarize, generational research carries conceptual and methodological risks that need to be considered when seeking understanding about differences between generations. Despite the complexity of the topic, research on generational differences in work values remains relevant. Claims about generational differences in mainstream publications with little or no empirical funding can give the general audience a flawed sense of reality, which should be prevented by using the correct methodologies. Also, work values remain variables of interest since they appear to be important influences in the workplace and can guide HR decision making.

This study examines possible differences in work values between three generations at the same stage of their life, i.e. the moment that they were about to enter the workforce and having (almost) obtained their Master’s degree. By gathering data retrospectively, it addresses the limitation of cross-sectional research and it aims to capture variation due to cohort effect instead of age effect. Controlling for the effect of age, any variation is due to either cohort effect or period effect. Adhering to Mannheim’s definition of generation indicating that

members of the same generation have a shared location in historical processes, cohort and period effects seem to be intertwined. The present study takes an accepting approach towards this since “we cannot step outside history to observe the variance that a historical period creates” (Lyons et al., 2015, p. 348). Using retrospective accounts can have the limitation of participants having to recount memories of a specific life stage and not well remembering details concerning this. To solve this problem, the present study uses interviews subsequent to a questionnaire to validate the importance placed on a specific work value. Conducting interviews will also make it possible to ask follow up questions to understand the motivation of the participants behind a given value. By adding a qualitative approach, this study aims to provide a richer understanding of generational differences, as suggested by Lyon and Kuron (2014).

For formulating hypotheses, the present study will rely on time-lag studies as opposed to, for example, cross-sectional studies, according to the previously mentioned advantages of a time-lag design. Although the results of time-lag studies have to be interpreted with caution as well, several of those studies (e.g. Hansen & Leuty, 2012; Smola & Sutton, 2002; Twenge et al., 2010) showed differences in work values among generations. As discussed above, time-lag designs allow for observing cohort effects while controlling for the effect of age, which will be sought to be imitated by the current study using a retrospective design. Therefore, it is expected that differences between generations will be found. Given the inconsistency in results and the use of partially incomparable overarching work value categories in time-lag studies, patterns between generations and work values are hard to identify. However, since Smola and Sutton (2002) and Twenge et al. (2010) both seem to have found a decrease in the centrality of work over the generations, it is expected a similar trend will be found in the present study. Furthermore, considering social values, it is expected that a decrease in social values will be found (Twenge et al. 2010). For the other categories in the present study

(cognitive, instrumental and prestige values) expectations cannot be drawn based on the few performed time-lag studies, since these studies use incomparable underlying concepts for the overarching work value categories. Expectations about Generation Z cannot be made, as little empirical research has been done on Generation Z in the workplace since they have not entered the workforce in sufficiently large numbers yet (Tang, 2019). However, Generation Z may show similarities to Generation Y since they both grew up in a digitally developed environment.

This leads to the research question: What importance do Generation X, Y and Z place on work values and why does this occur?

## **Methods**

### **Design**

A mixed method approach, specifically, an explanatory sequential design, was used in order to expand and strengthen conclusions taken in this research (Creswell & Plano Clark, 2017; Schoonenboom & Johnson, 2017). Firstly, explanatory quantitative survey research was used to analyse and test if and to what extent Generation X, Y and Z value work values differently. Secondly, a qualitative interpretive approach is used for the purpose of being complementary to the quantitative method. The qualitative method was used with the aim of clarification and elaboration of the results from the quantitative method by answering the question why Generation X, Y and Z place importance on a specific work value (Greene, Carcelli, & Graham, 1989).

### **Participants**

The sample for the quantitative study included 142 participants with a Dutch nationality. 98 women (69%), 43 men (30.3%) and one participant classified as 'different' (0.7%) participated ( $M_{age} = 28.42$ ,  $SD_{age} = 8.12$ ). 37 of the 179 participants were deleted, of which 30 participants filled in demographic data only, 6 participants did not belong to the

intended population and 1 participant was identified as outlier. An a priori power analysis with G\*Power was conducted to calculate the minimum sample size of 110 participants for a conventional power of  $d = 0.80$  (Cohen, 1988). Although the aim was to have a minimum of 37 participants for each of the three generational cohorts, Generation X included 17 participants ( $M_{\text{age}} = 47.49$ ,  $SD_{\text{age}} = 1.27$ ), Generation Y included 45 participants ( $M_{\text{age}} = 30.00$ ,  $SD_{\text{age}} = 0.55$ ) and Generation Z included 80 participants ( $M_{\text{age}} = 23.53$ ,  $SD_{\text{age}} = 0.12$ ). Convenience recruiting was used to reach participants. The categorization of generation in timeframes in this study followed the categorization of Lub et al. (2012) because this study on generational differences was conducted among participants located in the Netherlands, thus sharing the same national context, see Table 1. Since they did not categorize Generation Z yet, in this study 1995-2015 was the chosen birth-date range for Generation Z, as categorized by Ng & Parry (2016). Dutch citizens obtaining their university Master's degree or having obtained their Master's degree in the Netherlands were chosen as study population to meet the suggestion for generation as construct within a national context. By only including people with a specific educational background, this study tried to increase participants' experience of having shared common locations in social and historical processes.

The sample for the qualitative study included 15 participants out of the 142 participants. Five participants of each generation were chosen randomly.

### **Instruments**

Both a questionnaire and a semi-structured interview were used to gather required data.

**Questionnaire.** Before filling in the questionnaire, participants that were employed were instructed to think back to the time that they obtained their Master's degree and were about to enter the workforce. Based on these recalled memories they needed to fill in the questionnaire (i.e. a retrospective questionnaire was used). Participants that were doing their Master's or were about to enter the workforce after obtaining their Master's degree did not

need instruction on recalling memories. The revised 25-item format of the Lyons Work Value Survey (LWVS) (Lyons, 2003; Lyons et al., 2010) was used for measuring work values, see Appendix A. The LWVS has advantages over other measures for work values: it includes work values that are more relevant to the modern work context in comparison with work values used in older instruments. Besides, it was constructed by reviewing 13 other measures for work values that had been used in prior research (Lyons et al., 2010). The importance placed on work values was assessed using four scales including instrumental, cognitive, social/altruistic and prestige. The scales in the original study had a sufficient to good reliability score of  $\alpha = 0.83$ ,  $\alpha = 0.91$ ,  $\alpha = 0.74$  and  $\alpha = 0.79$  respectively (Kuron, Lyons, Schweitzer, & Ng, 2015). Participants answered on a five-point Likert scale ranging from *not at all important* to *very important*. The LWVS was translated from English into Dutch using forward and backward translation, in order to ensure the accuracy of the translation (Tsang, Royse, & Terkawi, 2017). After the original questionnaire was translated into Dutch, the initial translation was back-translated into English by an independent bilingual translator. Improvements of the initial translation were made based on revealed misunderstandings in the back-translated version.

**Semi-structured interview.** Semi-structured interviews were used to learn more about why participants answered questions like they did. Participants were asked the following question: ‘Why is work value category  $x$  important or not important to you? (i.e. what factors influence the fact that you find this important or not important?)’. Participants that were employed were asked to answer this question retrospectively. Questions were only asked based on significant differences in importance placed on a specific category of work values among Generation X, Y and Z, i.e. not all categories of work values have been discussed. A pilot study was conducted on two individuals of the intended sample and this revealed that it was hard for participants to talk about the categories of work values without seeing the exact

wording. Consequently, a list of all the categories of work values was shown as text message in the Microsoft Teams chat which enabled participants to read through the categories while answering the questions. Besides, the pilot study confirmed that the questions asked were formulated clearly and understandable.

### **Procedure**

**Questionnaire.** Before participants were asked to fill in the online questionnaire, they were provided with an informed consent form and an overview of the study (see Appendix C). Only if participants had actively chosen to consent, they were provided with the questionnaire. Participants that did not need to answer questions retrospectively were instructed to fill in the questionnaire based on the situation before the COVID-19 crisis, since the situation due to the COVID-19 crisis could have had influenced participants' answers. After completing the questionnaire participants were asked if they were willing to participate in a follow up interview. If so, they were asked to leave their e-mail address. Data was pseudonymised (i.e., each participant was assigned a code that was used as a key to replace all identifying information) since it allowed for contacting participants again for the follow-up interview. The identifying information, together with the key, was stored separately from the original data.

**Semi-structured interview.** Interviews were conducted online by means of Microsoft Teams since conducting interviews in person was not possible due to the COVID-19 pandemic. Before the start, participants were asked to give written consent for audio recording the interview (see Appendix D). By having some small talk beforehand and by repeating orally that data will be processed anonymously, it was aimed to create a comfortable atmosphere, in order to let participants talk as freely as possible and to prevent from socially desirable answers. Participants that did not need to answer questions retrospectively were instructed to answer questions based on the situation before the COVID-



19 crisis, since the situation due to the COVID-19 pandemic could have had influenced participants' answers. Afterwards, the interviews were transcribed. Memos about notable expressions or characteristics of participants were made to possibly support in explaining results and taking conclusions (Boeije, 2010). Data were pseudonymised by replacing participants' names into participant numbers.

In accordance with ethical guidelines and to guarantee safety and confidentiality of data, data was stored on YourData, which is a system for reliably storing and archiving research data (see Appendix F for the FETC form).

### **Data analysis**

Quantitative data were analysed using IBM SPSS Statistics 25. In order to answer the first part of the research question 'What importance do different generations place on work values and why does this occur?' a one-way between groups analysis of variance (ANOVA) was used to investigate the importance that each generation places on a specific work value, with *work value* as dependent variable and *generation* as independent variable. Before conducting a one-way between groups ANOVA, the assumption of normality and the assumption of homogeneity were tested. A principal component factor analysis was conducted to investigate the underlying structure of each scale of the 25-item questionnaire. All scales have been examined by means of reliability analyses.

In order to answer the second part of the research question 'What importance do Generation X, Y and Z place on work values and why does this occur?' a qualitative analysis with an inductive approach was conducted by means of NVivo 12 pro. Although alternating between data gathering and data analysis was not possible due to time constraints, the *Grounded Theory* method was used as fundament. Consequently, data were analysed systematically in order to develop a theory (Glaser & Strauss, 1967). Open coding, axial coding and selective coding was used to identify codes within the data. In the open coding

phase, the data were re-read and compared with each other and codes were assigned to data fragments. In the axial coding phase fragments assigned to a code were compared, categories and subcategories were defined and relationships between main categories were determined. In the selective coding phase important categories, also referred to as core categories, were determined and data were reassembled to answer the research question (Boeije, 2010).

To make the qualitative research process as transparent as possible, a comprehensive report of the coding process and code trees were included in a logbook enclosed in the data package (Anfara, Brown, & Mangione, 2002; Harding & Whitehead, 2013). Peer debriefing was used during and after the coding process to establish credibility to the study. The peer reviewer asked questions about researcher's assumptions, methods and interpretations to prevent from making incorrect interpretations of the data and to contribute to making objective decisions (Creswell & Miller, 2000; Harding & Whitehead, 2013).

## **Results**

### **Principal Component Analysis**

As four scales reflected four different generally accepted work value categories (Lyons & Kuron, 2014), a principal component factor analysis (PCA) was conducted on each of the 4 scales (instrumental, cognitive, social/altruistic, prestige) of the 25-item questionnaire. Multiple recognized criteria were used: (a) at least .30 correlation with another item, (b) the Kaiser-Meyer-Olkin measure ( $\geq .50$ ), (c) the Kaiser criterion (eigenvalue  $\geq .1$ ), (d) a visualization of scree plots, (e) factor loadings per item (items with a factor loading  $< .40$  were suppressed) (Field, 2014). The internal consistency in the extracted factors was measured with Cronbach's Alpha. Using COTAN's criterion for less important decisions on individual level  $\alpha \leq .70 < .80$  is sufficient (Evers, Lucassen, Meijer & Sijtsma, 2009). See Appendix B for the new structure existing of 6 scales.

**Instrumental scale.** According to the  $<.30$  factor correlation an orthogonal rotated factor analysis (Varimax) was conducted for the scale Instrumental. Item V14\_Instr6 was deleted because it loaded  $<.40$  on both factors. Factor analyses showed that on the Instrumental scale, two factors were extracted, instrumental values related to personal security (Instrumental Personal Security) and instrumental values related to needs towards the management (Instrumental Management Support), with a Cronbach's  $\alpha$  of  $.72$  and  $.75$  respectively.

**Cognitive scale.** An oblique rotated factor analysis (Oblimin) showed that two factors were extracted on the Cognitive scale. However, item V19\_Cogn6 was deleted because it loaded  $<.40$  on factor 1 and was the only item loading high on factor 2 in the Oblique rotated solution. After deletion, an unrotated factor analysis showed that one factor (Cognitive Values) was extracted, with a Cronbach's  $\alpha$  of  $.77$ .

**Social/Altruistic scale.** According to the  $<.30$  factor correlation an orthogonal rotated factor analysis (Varimax) was conducted for the scale Social/Altruistic. On the Social/Altruistic scale, two factors were extracted, social values related to fun at the workplace (Social Work Environment) and social values related to work tasks (Sociality Enabling Tasks), with a Cronbach's  $\alpha$  of  $.64$  and  $.56$  respectively. Although this reliability is relatively low, it common to find quite low reliability values with scales with fewer than ten items, since Cronbach's  $\alpha$  is sensitive to the number of items in the scale (Pallant, 2011). The inter-item correlation for the items of the scales Social Work Environment and Sociality Enabling Tasks was  $.48$  and  $.39$  respectively.

**Prestige scale.** On the Prestige scale, one factor (Prestige Values) was extracted with a Cronbach's  $\alpha$  of  $.76$ , using unrotated factor analysis.

### **Assumptions**

The assumption of normality was tested using the Shapiro-Wilk statistic. Line 18 was repeatedly identified as an outlier and therefore deleted. Normality was supported for Generation X in every test. Normality was supported for Generation Y in the tests for Instrumental Personal Security, Cognitive Values, Sociality Enabling Tasks and Prestige Values, but not in the tests for Instrumental Management Support,  $W(45) = 0.94, p = .014$  and Social Work Environment,  $W(45) = 0.89, p = .001$ . Normality was supported for Generation Z in the tests for Instrumental Personal Security and Cognitive Values. However, the assumption of normality was not supported for the test Instrumental Management Support,  $W(80) = 0.94, p = .001$ , Social Work Environment,  $W(80) = 0.92, p < .001$ , Sociality Enabling Tasks,  $W(80) = 0.95, p = .004$ , and Prestige Values,  $W(80) = 0.96, p = .017$ . Given the ANOVA is quite robust with respect to non-normally distributed data and the Shapiro-Wilk test is considered over-sensitive for detecting non-normality, these deviations were not considered problematic (Tabachnick & Fidell, 2007; Schmider, Ziegler, Danay, Beyer, & Bühner, 2010; Blanca, Alarcón, Arnau, Bono, & Bendayan, 2017). Levene's statistic was significant for Instrumental Personal Security,  $F(2, 139) = 3.41, p = .036$ , Cognitive Values,  $F(2, 139) = 6.55, p = .002$ , and Social Work Environment,  $F(2, 139) = 5.86, p = .004$ , and non-significant for Instrumental Management Support,  $F(2, 139) = 2.87, p = .060$ , Sociality Enabling Tasks,  $F(2, 139) = 2.67, p = .073$ , and Prestige Values,  $F(2, 139) = 1.47, p = .234$ . This means that the assumption of homogeneity of variance was violated for Instrumental Personal Security, Cognitive Values and Social Work Environment. Consequently, post hoc tests that are appropriate when equal variances cannot be assumed are used.

### **Quantitative Results**

A one-way between groups ANOVA revealed statistically significant main effects of generation on the following factors: Instrumental Personal Security,  $F(2, 139) = 8.75, p < .001, \eta^2 = .112$ , Instrumental Management Support,  $F(2, 139) = 4.76, p = .01, \eta^2 = .064$ ,

Cognitive Values,  $F(2, 139) = 4.24, p = .016, \eta^2 = .058$ , Social Work Environment,  $F(2, 139) = 9.66, p < .001, \eta^2 = .122$ , and Sociality Enabling Tasks,  $F(2, 139) = 3.71, p = .027, \eta^2 = .051$ . There was no significant main effect of generation on Prestige Values,  $F(2, 139) = 0.15, p = .858, \eta^2 = .002$  (see Table 2 and Figure 3). Since the criterium of homogeneity of variance was not met for Instrumental Personal Security, Cognitive Values and Social Work Environment and group sizes were very different post hoc comparisons were executed using the Games-Howell and using the Hochberg's GT2 for Instrumental Management Support and Sociality Enabling Tasks (Field, 2014).

**Instrumental Personal Security (IPS).** Post hoc tests revealed that Generation Z scored significantly higher than Generation Y on Instrumental Personal Security. There were no significant differences between Generation X and Generation Y, nor between Generation X and Generation Z. Effect sizes were  $d = 0.65, 0.08, 0.31$  respectively.

**Instrumental Management Support (IMS).** Post hoc tests revealed that Generation Z scored significantly higher than Generation X on Instrumental Management Support. There were no significant differences between Generation X and Generation Y, nor between Generation Y and Generation Z. Effect sizes were  $d = 0.43, 0.15$  and  $0.39$  respectively.

**Cognitive Values (CV).** Although there was a significant main effect of generation on Cognitive Values, post hoc tests did not reveal any significant differences for Cognitive Values. Effect sizes for comparisons between Generation X and Y, Generation X and Z and Generation Y and Z were  $d = 0.26, 0.38$  and  $0.18$  respectively.

**Social Work Environment (SWE).** Post hoc tests revealed that Generation Z scored significantly higher than Generation Y on Social Work Environment. There were no significant differences between Generation X and Generation Y, nor between Generation X and Generation Z. Effect sizes were  $d = 0.75, 0.01$  and  $0.32$  respectively.

**Sociality Enabling Tasks (SET).** Post hoc tests revealed that Generation Z scored significantly higher than Generation X on Sociality Enabling Tasks. There were no significant differences between Generation X and Generation Y, nor between Generation Y and Generation Z. Effect sizes were  $d = 0.40, 0.24$  and  $0.25$  respectively.

Table 2.

*Mean Scores, Standard Deviations and ANOVA for Work Values by Generation*

	Generation X		Generation Y		Generation Z		Total		ANOVA
	<i>n</i> = 17		<i>n</i> = 45		<i>n</i> = 80		<i>N</i> = 142		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	$\eta^2$
IPS	2.81	.84	2.70**	.77	3.21**	.57	3.00	.72	.112
IMS	2.94*	.85	3.13	.85	3.45*	.66	3.29	.77	.064
CV	3.52	.76	3.84	.64	3.95	.46	3.86	.57	.058
SWE	3.41	1.06	3.39**	.66	3.93**	.65	3.69	.76	.122
SET	2.97*	1.07	3.31	.80	3.54*	.80	3.40	.85	.051
PV	2.53	.88	2.42	.83	2.42	.72	2.43	.77	.002

*Note.* \*  $p < .05$ , \*\*  $p < .001$

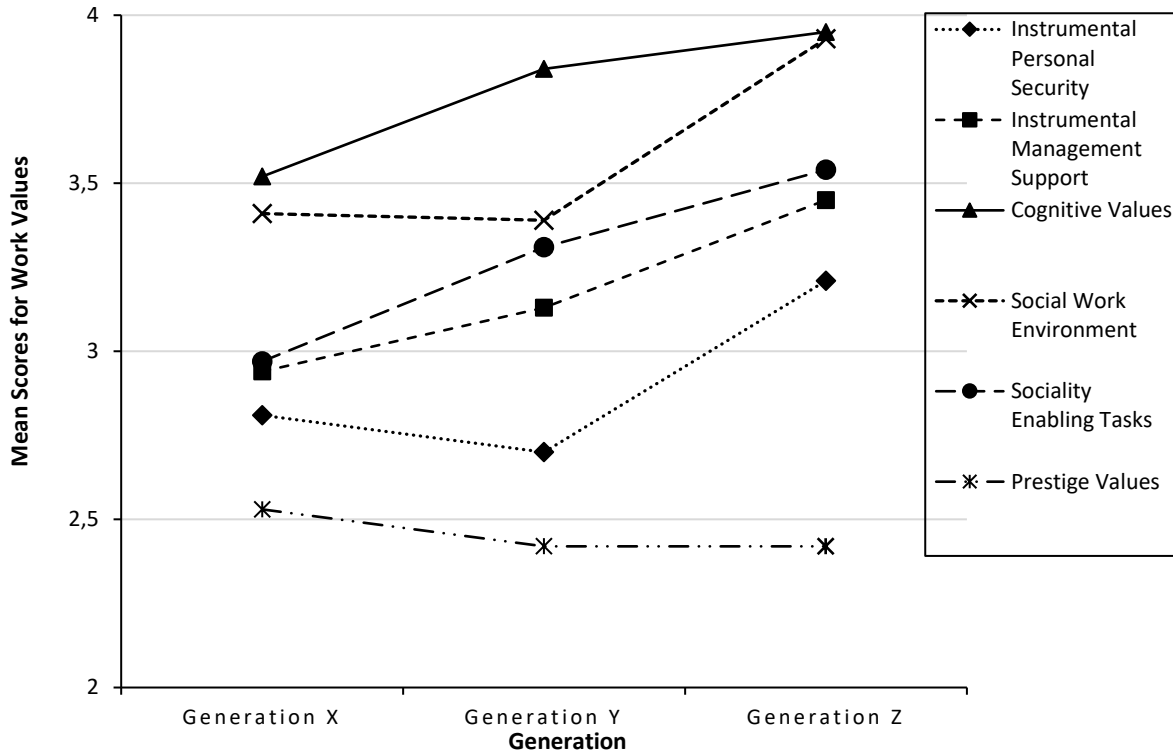


Figure 3. Line Graph with Mean Scores for Work Values by Generation. Note: y-axis starts at a non-zero value.

**Qualitative Results**

Reasons why individuals (do not) place importance on certain work values varied both between and within generations. Interestingly, similarities in reasoning between and within generations were found as well, regardless of the found significant differences between generations in the quantitative results. In the section that follows, qualitative data is divided into work value categories which enabled several themes to emerge, which are specified below. See Appendix E for quotes that illustrate the emerged themes.

**Instrumental Personal Security (IPS).** Quantitative analysis revealed that Generation Z scored significantly higher on Instrumental Personal Security values than Generation Y. However, qualitative results did not reflect these differences. Three themes of reasoning emerged among both Generation Y and Z: (a) the feeling of comfort that job security provides, by either emotional or material support (Generation Y,  $n = 3$ ; Generation Z,  $n = 2$ ); (b) the explorative and relatively unrestricted nature of the life stage of a young adult

(Generation Y,  $n = 3$ ; Generation Z,  $n = 1$ ); (c) work values related to personal security were no priority at the moment of entering the workforce (Generation Y,  $n = 2$ ; Generation Z,  $n = 3$ ). Besides, overall, Generation Y seemed to be relatively indifferent concerning Instrumental Personal Security values at the moment of entering the workforce in comparison to Generation Z.

**Instrumental Management Support (IMS).** Quantitative analysis revealed that Generation Z scored significantly higher on Instrumental Management Support values than Generation X. Qualitative results reflected and complemented these differences. Three themes of reasoning emerged: (a) a work environment where recognition and feedback from the management is not a custom, either due to social hierarchy at the workplace or due to scant conditions in economic crisis (Generation X,  $n = 4$ ; Generation Z,  $n = 0$ ); (b) position and experience level of a starter in the workforce, which is linked with insecurity or the unfamiliarity with work tasks (Generation X,  $n = 3$ ; Generation Z,  $n = 3$ ); (c) interest in personal growth and continuous knowledge development supported by supervisor feedback (Generation X,  $n = 1$ ; Generation Z,  $n = 4$ ).

**Social Work Environment (SWE).** Quantitative analysis revealed that Generation Z scored significantly higher on Social Work Environment values than Generation Y. However, qualitative results did not reflect these differences. Four themes of reasoning emerged: (a) beneficial consequences of a social work environment like feeling energized and experiencing a sense of belonging (Generation Y,  $n = 2$ ; Generation Z,  $n = 3$ ); (b) appreciation of a boundary between professional and personal life (Generation Y,  $n = 2$ ; Generation Z,  $n = 3$ ); (c) to seek for social contact is in personality's nature (Generation Y;  $n = 3$ , Generation Z,  $n = 0$ ); (d) time spent on work is considerable, thus should be enjoyable (Generation Y;  $n = 2$ , Generation Z,  $n = 0$ ).



**Sociality Enabling Tasks (SET).** Quantitative analysis revealed that Generation Z scored significantly higher on values concerning Sociality Enabling Tasks than Generation X. The qualitative results reflected these differences as well. Three themes of reasoning emerged: (a) helping people is inherent in study or work field (field related altruism) (Generation X,  $n = 1$ ; Generation Z,  $n = 5$ ); (b) wishing to make a positive impact or contribute to a greater purpose, either personal or societal (Generation X,  $n = 1$ , Generation Z,  $n = 4$ ); (c) to seek for social or altruistic tasks is in personality's nature (Generation X,  $n = 3$ ; Generation Z,  $n = 4$ ). Overall, both generations expressed their preference of working in a social context. However, primarily Generation Z explicitly mentioned their wish to make a positive impact in their work or contribute to a greater purpose.

### Discussion

The current study examined what importance Generation X, Y and Z place on work values and why this occurs. Based on previous research it was expected to find differences between generations. More specifically, a decrease in the centrality of work over the generations was expected as well as a decrease in social values.

This study confirmed the general hypothesis that there are differences in work values between generations. However, differences were found only between Generation Z and former generations, and not between Generation X and Y. The lack of previously performed studies examining generational differences using retrospective methods and the lack of those examining Generation Z shows the relevance of the current study. Unfortunately, the unique design of the current study inhibits the possibility of comparison to similar studies.

It is not yet clear for some work values *why* differences between generations appeared. Qualitative findings could not fully explain all found differences, as several reasons were given by different generations as well as different reasons within generations were given.

### Main Findings

First, results indicate that Generation Z places more importance on Instrumental Personal Security values than Generation Y. Instrumental Personal Security includes, next to job security and salary, work-life balance and hours of work that are convenient to life. Increases in the latter two values could imply work is less central in life, which supports the above stated hypothesis and is in accordance with the results of previous studies (Smola & Sutton, 2002; Twenge et al., 2010). Qualitative results showed that participants placed importance on Instrumental Personal Security values since this security enables them to spend their leisure time according to their wishes or needs. This view of work as a means to provide themselves with the comfort of their preferred leisure activities seems to support evidence for the decrease of work centrality.

Secondly, results indicate that Generation Z places more importance on Instrumental Management Support values than Generation X. The finding that Generation Z places more importance on recognition, feedback and support from the management can possibly be explained by the qualitative finding that Generation Z seems to be very interested in self-development which they feel can be supported by feedback. Contrariwise, Generation X mentioned that it was not a custom to ask recognition and feedback from the management, due to social hierarchy at the workplace or due to scant conditions in economic crisis.

Thirdly, results indicate that Generation Z places more importance on Social Work Environment values than Generation Y. This finding is not in accordance with Twenge et al. (2010)'s finding concerning a decrease in importance on social values over the generations. However, Twenge et al. (2010) did not include Generation Z as participants. A possible explanation for the current finding is that social media supports the idea that most activities in life, including work, should be social and fun (Reinecke & Trepte, 2014). Besides, there is the popular perception (e.g. Meester, 2019) that life can be *socially engineered*, i.e. there are no limits in freedom and each individual has control of their own decisions which consequently

impact the individual's future. Thus, it is in the individual's control to also have a fun and lively work environment.

Finally, results indicate that Generation Z places significantly more importance on values concerning Sociality Enabling Tasks than Generation X. Qualitative findings in the present study revealed that primarily Generation Z emphasizes that they would like to feel that they contribute to a greater purpose and make meaningful impact while working, which can be realized by tasks that allow for social interaction and helping others. This can be explained by the idea that work can serve as a means to overcome existential fears related to meaninglessness (Blomme & Bornebroek-Te Lintelo, 2012).

Although the above conclusions emphasize differences between Generation Z and former generations, it is important to acknowledge that differences are not outweighed by the similarities between Generation X, Y and Z. No differences were found between Generation X and Generation Y on any of the work value categories. Also, Cognitive and Prestige values do not appear to be different across the three generations at all. Altogether, Generation Z catches the eye among the three generations. More specifically, Generation Z seems to express the importance placed on work values more strongly in general.

### **General Strong Expression of Importance by Generation Z**

The most obvious finding to emerge from the analysis was that Generation Z consistently showed a higher degree of importance placed on work values in comparison with former generations. There are several possible explanations for this result. First, Generation Z seems to think more consciously about their career perspectives, interests and competences than former generations did when graduated and about to enter the workforce. It could be that this consciousness caused the increase in importance placed on work values. This consciousness among Generation Z might be aroused by the increasing popularity of professional networking sites such as LinkedIn (CBS, 2016). Former generations did not yet

have access to such networks or usage of social media was not common when they were young adults. LinkedIn provides the opportunity to present accomplishments and position oneself professionally, while simultaneously getting inspired by peers' career paths. Also, an initiative such as Career Services at higher education institutes, which have the aim of well preparing students for working life, may have contributed to the consciousness of Generation Z (Dey & Cruzvergara, 2014). Secondly, economic prosperity before the COVID-19 crisis allowed Generation Z to make greater demands with regard to preferences in the workplace.

### **Limitations and Suggestions for Future Research**

There are several limitations of this study that need to be considered. First, as explained in the introduction, using retrospective methods makes it possible to compare generations by controlling for the effect of age (i.e. life stage). However, the qualitative interpretive addition to this study revealed some patterns that might be life stage specific, e.g. the need for support and feedback from the management or a supervisor for unexperienced starters. Secondly, recounting memories from a specific life stage could be problematic since it is possible that participants may not be able to recollect memories' specific details. This may have influenced findings, despite the interviewer's emphasis on thinking back to the time of entering the workforce. To illustrate, qualitative findings suggest that Generation Z in general seems to be more conscious about their preference for certain work values than Generation X and Y. However, the latter two generations might have had difficulty recounting memories, instead of in fact being less conscious. Secondly, group sizes in the quantitative study varied which is less desirable when comparing groups. Hochberg's GT2 and Games-Howell post hoc tests were used to account for these differences in group sizes. Nevertheless, larger and equal group sizes would have provided statistically stronger findings. Thirdly, although not a limitation per se, this study only focused on Dutch individuals obtaining or having obtained an university Master's degree. This makes it easier to verify

findings for this specific population, but more difficult to expand findings to broader populations. Finally, since each generation was represented with only five participants in the qualitative study, reasons for placing importance on certain work values may not be representative for the whole population and need to be interpreted with caution.

In the light of these limitations, future studies on the current topic are recommended. Although great variation in methodologies exist in generational research which causes difficulty in taking conclusions, findings of differences provide enough stimulus to continue researching this complex phenomenon. Ideally, a longitudinal study with a sequential cohort design, as described in the introduction, is suggested to detect trends, and can contribute to our understanding of differences between generations in work values. Furthermore, there is abundant room for exploring why generations place importance on specific work values since this is not addressed in previous research other than the present study.

### **Implications**

The present study contributes to existing literature in three ways. First, this study has been one of the first attempts to empirically examine work values of Generation Z, with the aim of expanding the field of generational research. Secondly, by adding a qualitative interpretive approach the present study allowed for a deeper understanding of why generations place importance on certain work values. Thirdly, conceptual and methodological issues were addressed by researching a sample that shares a certain set of generation specific characteristics, such as national context and education, and using retrospective methods respectively.

Findings in this study may have implications for employers as they aim at understanding, motivating and retaining employees in their organisation which can be supported by satisfying employees' needs. Knowledge about work values of employees is valuable since congruence between employees' work values and organisational arrangements

is related to job satisfaction, intention to stay in the job and job performance. Although popular media focus on differences between generations, it is important to stress that these are prone to be exaggerations of the actual generational differences. After all, generation is a topic that is vulnerable for reductionism and exaggeration. As the current study shows, differences do not take precedence over similarities between generations. Nevertheless, the relatively high degree of consciousness about work values of Generation Z should be noted and can be usefully taken into account by employers striving for a flourishing work place.

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Appendix A. The Lyons Values Survey (LWVS). Translation of Revised 25-item Format.

Original in English	Not important at all	Somewhat important	Important	Very important	Absolutely essential
Translated to Dutch	Helemaal niet belangrijk	Enigszins belangrijk	Belangrijk	Erg belangrijk	Absoluut noodzakelijk

Code	Original in English	Translated to Dutch
V1_Instr1	Having BENEFITS (e.g. vacation pay, health/dental insurance, pension plan, etc.) that meet your personal needs.	Arbeidsvoorwaarden hebben die voldoen aan je persoonlijke behoeften (voorbeelden van arbeidsvoorwaarden zijn vakantiegeld, zorg-/tandartsverzekering, pensioenregeling etc.).
V2_Prest1	Doing work that makes a SIGNIFICANT IMPACT on the organisation.	Werk doen dat een belangrijke impact maakt op de organisatie.
V3_Prest2	Having the AUTHORITY to organize and direct the work of others.	De autoriteit hebben om anderen in hun werk te sturen.
V4_Cogn1	Working on tasks and projects that CHALLENGE your abilities.	Werken aan taken en projecten die je uitdagen op het gebied van vaardigheden.

V5_Instr2	Having management that provides timely and constructive <b>FEEDBACK</b> about your performance.	Een management hebben dat tijdige en constructieve feedback geeft over je prestaties.
V6_Soc1	Working with agreeable and friendly <b>CO-WORKERS</b> with whom you could form friendships.	Werken met aangename en vriendelijke collega's waarmee je vriendschappen zou kunnen sluiten.
V7_Soc2	Working in an environment that is lively and <b>FUN</b> .	Een levendige en leuke werkomgeving hebben.
V8_Cogn2	Having the opportunity to <b>CONTINUOUSLY LEARN</b> and develop new knowledge.	De mogelijkheid hebben om continu te leren en nieuwe kennis te ontwikkelen.
V9_Instr3	Having the assurance of <b>JOB SECURITY</b> .	Baanzekerheid hebben.
V10_Instr4	Having <b>HOURS OF WORK</b> that are convenient to your life.	Passende werktijden hebben die aansluiten bij je privéleven.
V11_Cogn3	Doing work that you find <b>INTERESTING</b> , exciting and engaging.	Werk doen dat je interessant, leuk en boeiend vindt.
V12_Cogn4	Having the <b>FREEDOM</b> to make decisions about how you do your work and spend your time.	De vrijheid hebben om beslissingen te nemen over hoe je je werk doet en je je tijd invult.

V13_Instr5	Working in an environment that allows you to <b>BALANCE</b> your work life with your private life and family responsibilities.	Werken in een omgeving die een balans tussen je werkleven en je privéleven en gezinsverantwoordelijkheden toestaat.
V14_Instr6	Having access to the <b>INFORMATION</b> you need to do your job.	Toegang hebben tot informatie die je nodig hebt om je werk te doen.
V15_Prest3	Doing work that is <b>PRESTIGIOUS</b> and regarded highly by others.	Werk doen dat prestigieus is en dat hoog aangeschreven wordt door anderen.
V16_Instr7	Doing work that affords you a good <b>SALARY</b> .	Werk doen dat een goed salaris oplevert.
V17_Cogn5	Doing work that provides change and <b>VARIETY</b> in work activities.	Werk doen dat veranderende en afwisselende werkactiviteiten biedt.
V18_Instr8	Working where <b>RECOGNITION</b> is given for a job well done.	Werken in een omgeving waar erkenning wordt gegeven wanneer een taak goed uitgevoerd is.
V19_Cogn6	Doing work that allows you to <b>USE</b> the <b>ABILITIES</b> you have developed through your education and experience.	Werk doen waarin je vaardigheden kunt inzetten die je door opleiding en ervaring hebt ontwikkeld.
V20_Cogn7	Having the opportunity for <b>ADVANCEMENT</b> in your career.	De mogelijkheid hebben om door te groeien in je carrière.



V21_Cogn8	Doing work that provides you with a personal sense of ACHIEVEMENT in your accomplishment.	Werk doen dat je persoonlijk een gevoel van voldoening geeft in je prestaties.
V22_Soc3	Doing work that allows for a lot of SOCIAL INTERACTION.	Werk doen waarbij veel sociale interactie mogelijk is.
V23_Prest4	Having the ability to INFLUENCE organisational outcomes.	In staat zijn om uitkomsten van de organisatie te beïnvloeden.
V24_Instr9	Working for a SUPERVISOR who is considerate and supportive.	Werken voor een supervisor die attent en ondersteunend is.
V25_Soc4	Doing work that allows you to HELP PEOPLE.	Werk doen dat je de mogelijkheid biedt om mensen te helpen.

Appendix B. New Scale Structure

Factor 1: Instrumental Personal Security	Factor 2: Instrumental Management Support
Benefits	Feedback
Security	Recognition
Hours of work	Supervisor
Balance	
Salary	
Factor 3: Cognitive Values	Factor 4: Social Work Environment
Challenge	Co-workers
Continuously learn	Fun
Interesting	
Freedom	
Variety	
Advancement	
Achievement	
Factor 5: Sociality Enabling Tasks	Factor 6: Prestige Values
Social interaction	Impact
Help people	Authority
	Prestigious
	Influence

## Appendix C. Informed Consent Quantitative Study.

**Proefpersoneninformatie voor deelname aan sociaalwetenschappelijk onderzoek ‘Belang van werkwaarden’**

Maart/April 2020

Leuk om te horen dat u geïnteresseerd bent om deel te nemen aan mijn onderzoek naar het belang dat toegeschreven wordt aan werkwaarden.

Via deze brief wil ik u toestemming vragen om mee te doen aan het onderzoek ‘Belang van werkwaarden’. Dit onderzoek heeft het doel te onderzoeken in hoeverre bepaalde factoren invloed hebben op het belang dat mensen toeschrijven aan werkwaarden en wat de reden hierachter is. Werkwaarden zijn aspecten van werk die mensen wel of niet belangrijk vinden. Mensen gebruiken deze waarden om belangrijke beslissingen te nemen over en in hun carrière.

**Wie kan deelnemen aan dit onderzoek?**

U kunt deelnemen aan dit onderzoek als u in de leeftijd van 20 tot en met 55 jaar bent, geboren en opgegroeid bent in Nederland, en daarnaast:

- Óf: een universitaire master doet op dit moment;
- Óf: een universitair masterdiploma recent heeft behaald en op zoek bent naar uw eerste baan;
- Óf: werkend bent en een universitair masterdiploma of doctoraaldiploma in het verleden heeft behaald.

**Hoe ziet het onderzoek eruit?**

Het onderzoek bestaat uit twee onderdelen. Het eerste deel bestaat uit het invullen van een vragenlijst over werkwaarden. Het tweede optionele onderdeel bestaat uit een interview.

**Wat wordt er van u als deelnemer verwacht?**

- Het invullen van een vragenlijst over werkwaarden waarbij u aangeeft in hoeverre deze werkwaarden belangrijk voor u zijn. Dit duurt ongeveer 10 minuten.
- Optioneel: deelname aan een interview van ongeveer 20 minuten waarin o.a. gevraagd wordt naar waarom u bepaalde werkwaarden wel of niet belangrijk vindt. Na het invullen van de vragenlijst kunt u aangeven of u openstaat om benaderd te worden voor een interview. Voor uw gemak kan dit interview via Skype of telefonisch plaatsvinden. Ook zou ik langs kunnen komen voor een face-to-face afspraak.

**Achtergrond onderzoek**

Er is veel onduidelijkheid over welke factoren van invloed zijn op het belang dat toegeschreven wordt aan bepaalde werkwaarden. Ook is het onduidelijk of daarbij verschillen aanwezig zijn tussen specifieke groepen. Met dit onderzoek wordt getracht een toevoeging te leveren aan bestaande kennis over dit onderwerp.

**Mogelijke voor- en nadelen van het onderzoek**

Naast dat dit onderzoek theoretische inzichten levert over het belang dat mensen toeschrijven aan bepaalde werkwaarden en welke factoren hier invloed op hebben, draagt deelname aan dit onderzoek bij aan uw bewustwording over wat u belangrijk vindt in uw werk. Verder heeft deelname aan dit onderzoek geen direct voordeel voor de deelnemer zelf.

**Vertrouwelijkheid verwerking gegevens**

Voor dit onderzoek is het nodig dat ik een aantal persoonsgegevens van u verzamel. Deze gegevens heb ik nodig om de onderzoeksvraag goed te kunnen beantwoorden, dan wel om u te kunnen benaderen voor vervolgonderzoek, indien u hiervoor toestemming geeft. De onderzoeksgegevens worden opgeslagen op een beveiligde server en alleen betrokken

onderzoekers hebben toegang tot de gegevens. Uw gegevens zullen voor minimaal 10 jaar bewaard worden. Dit is volgens de daartoe bestemde richtlijnen van de VSNU. Meer informatie over privacy kunt u lezen op de [website van de Autoriteit Persoonsgegevens](#).

### **Vrijwilligheid deelname**

Deelname aan dit onderzoek is vrijwillig. U kunt op elk gewenst moment, zonder opgave van reden en zonder nadelige gevolgen, stoppen met het onderzoek. De tot dan toe verzamelde gegevens worden wel gebruikt voor het onderzoek, tenzij u expliciet aangeeft dit niet te willen.

### **Contactpersoon en klachtenfunctionaris**

Als u vragen of opmerkingen over het onderzoek heeft, kunt u contact met mij opnemen via [a.a.m.salimans@students.uu.nl](mailto:a.a.m.salimans@students.uu.nl).

Als u een officiële klacht heeft over het onderzoek, dan kunt u een mail sturen naar de klachtenfunctionaris via [klachtenfunctionaris-fetsocwet@uu.nl](mailto:klachtenfunctionaris-fetsocwet@uu.nl).

Onderaan deze pagina kunt u aangeven de informatiebrief te hebben gelezen en deel te willen nemen aan mijn onderzoek. Alvast bedankt voor uw deelname!

Met vriendelijke groet,

Anne Salimans

Hierbij verklaar ik de informatiebrief m.b.t. onderzoek 'Belang van werkwaarden' gelezen te hebben en akkoord te gaan met deelname aan het onderzoek.

## Appendix D. Informed Consent Qualitative Study.

Leuk dat u wilt deelnemen aan het tweede deel van mijn onderzoek naar het belang van werkwaarden. Op de volgende pagina kunt u toestemming geven voor de opname van het interview.

U heeft al deelgenomen aan het eerste deel van mijn onderzoek waarbij u een vragenlijst invulde. Het tweede deel van mijn onderzoek bestaat uit een interview waarbij ik u zal vragen waarom u bepaalde werkwaarden wel of niet belangrijk vindt. Dit interview zal ongeveer 20 minuten duren. In uw mail vindt u nogmaals de informatiebrief van mijn onderzoek.

Nog steeds geldt dat deelname vrijwillig is en dat u op elk gewenst moment kunt stoppen met het onderzoek. Gegevens zullen vertrouwelijk worden verwerkt en alleen worden gebruikt voor onderzoeksdoeleinden.

**Toestemming opname interview**

A1. Vul hier je e-mailadres in.

\*Dit dient hetzelfde e-mailadres te zijn als waarop u de e-mail met uitnodiging voor het interview heeft ontvangen.

A2. Ik geef toestemming voor de opname van het interview.

Ja.

Nee.

Appendix E. Illustrative Quotes.

Reasons for (not) placing importance on Instrumental Personal Security

Comfort of security
<p>“Dat je niet met onzekerheid of financiële problemen komt te zitten, daar hecht ik gewoon veel waarde aan. Dat je niet stressvol op zoek moet naar een baan. Ik ervaar dat nu gewoon niet zo stressvol, ik weet gewoon dat dat toch wel goed komt. Het scheelt je dus gewoon stress.” [female, age 23, Generation Z]</p>
Life stage
<p>“Ik denk dat dat op dat moment niet een van de belangrijkste dingen was voor mij. Ook omdat ik op dat moment nog wilde verkennen wat ik graag wilde in mijn werk en de uitdagingen die daarbij komen kijken. En op dat moment heb je ook geen kinderen wat het nog wel wat makkelijker maakt.” [female, age 29, Generation Y]</p>
Personal security not prioritised
<p>“Arbeidsvoorwaarden, baanzekerheid en een goed salaris zijn allemaal leuk meegenomen, maar ik zit liever op mijn plek, en dat het werkt goed bij me past, dan dat alles tot in de puntjes ‘gemaximaliseerd’ is zeg maar.” [male, age 24, Generation Z]</p>

Reasons for (not) placing importance on Instrumental Management Support

Absence of needs towards management
<p>“Maar überhaupt het idee dat je wensen zou kunnen hebben ten aanzien van een meerdere. Dat had denk ik ook heel erg met de tijd te maken en opvoeding en dergelijke, dat was toen gewoon echt heel anders.” [female, age 52, Generation X]</p>
Position as starter

<p>“Ik denk dat dat toch te maken heeft met een bepaalde onzekerheid als je net de arbeidsmarkt betreedt. Ik had dat nodig om te checken of mijn standaarden matchen bij de standaarden die van mij verwacht werden. Ik kon dat in die periode nog moeilijk inschatten. Aan de ene kant was ik ook wel op mezelf aan het vertrouwen, maar aan de andere kant ook nog aan kijken van ‘wat is hier de norm’.” [male, age 52, Generation X]</p>
<p>Self-development</p>
<p>“Dat is uiteindelijk waar de zelfontplooiing op je werk vandaan komt. Als je geen feedback krijgt, geen erkenning krijgt en geen ondersteuning krijgt zul je nooit beter worden in je werk. Een beetje een gevoelsmatig mens wil op die manier gestimuleerd worden.” [male, age 24, Generation Z]</p>

Reasons for (not) placing importance on Social Work Environment

<p>Beneficial consequences</p>
<p>“Maar het maakt toch dat je een soort groepsgevoel hebt het gevoel dat je ergens bij hoort, dat je een connectie hebt met de mensen om je heen. Wat gewoon heel veel invloed heeft op hoe lekker je in je vel zit.” [male, age 24, Generation Z]</p>
<p>Boundary professional and personal life</p>
<p>“Ja ik denk voor een groot deel... ik heb al best wat vrienden. En uiteindelijk wil ik mijn werk gewoon goed doen en het lijkt mij lastig om het te combineren met een vriendschap, als jij moet samenwerken waarmee jij ook heel hecht bevriend bent. Dan is het lastiger om elkaar feedback te geven en kritischer naar elkaars functioneren te kijken. Dat lijkt me gewoon lastiger als je ook echt bevriend bent.” [female, age 29, Generation Y]</p>
<p>Social personality type</p>
<p>“Ik ben iemand die heel erg houd van het informele, en daarmee bedoel ik dat er ruimte is op de werkvloer voor gewoon wat gezelligheid. Waar ik weet nog dat waar ik ging</p>



<p>solliciteren ook min of meer geparafraseerd stond ‘je houdt van een biertje met je collega’s’. Dat sprak mij al gelijk aan, dat is in ieder geval een bedrijf dat het informele ook wel op orde heeft. Als het klikt met collega’s kun je ook vrienden worden, van mij hoeft dat niet per se gescheiden te zijn.” [male, age 32, Generation Y]</p>
<p>Time spend on work</p>
<p>“Ja en ik vind en vond het gewoon heel belangrijk dat je je prettig voelt en het naar je zin hebt op je werk. Omdat je daar toch heel veel uren doorbrengt.” [female, age 38, Generation Y]</p>

Table ... Reasons for (not) placing importance on Social Tasks

<p>Field related altruism</p>
<p>“Dat heeft ook wel te maken met het werk dat je doet natuurlijk. Want in mijn geval, in de pedagogiek, heb je gewoon veel sociale interactie en probeer je andere mensen te helpen, dat is wel een beetje de kern van het werk. En ik vind dat ook wel echt heel belangrijk.” [female, age 22, Generation Z]</p>
<p>Making impact</p>
<p>“Ik heb dat toch altijd al een beetje gehad, dat je het gevoel wilt hebben dat je iets bijdraagt de maatschappij. Dus als ik echt het gevoel zou hebben dat ik iets doe wat er niet toe doet, ja dan is dat een bepaalde doelloosheid waar ik niet op zit te wachten.” [female, age 23, Generation Z]</p>
<p>Social or altruistic personality type</p>
<p>“Nou dat zit helemaal in mijzelf, ik vind het heel fijn om mensen te helpen en voor mensen te zorgen. Maar dat lukt natuurlijk niet altijd, je kunt niet elk zielig geval iets geven.” [female, age 53, Generation X]</p>

## Appendix F. FETC Study Registration Form.

**Section 1: Basic Study Information**

1. Name student:

Anne Salimans

2. Name(s) of the supervisor(s):

Casper Hulshof

3. Title of the thesis (plan):

Generational Differences in Work Values: Using Retrospective Methods to Disentangle the Effect of Age and Cohort.

4. Does the study concern a multi-center project, e.g. a collaboration with other organisations, universities, a GGZ mental health care institution, or a university medical center?

~~Yes~~ / No

If yes: Explain.

5. Where will the study (data collection) be conducted? If this is abroad, please note that you have to be sure of the local ethical codes of conducts and permissions.

In the Netherlands.

**Section 2: Study Details I**

6. Will you collect data?

Yes / ~~No~~

Yes → Continue to question 11

No → Continue to question 7

7. Where is the data stored?

8. Is the data publicly available?

Yes / No

If yes: Where?

9. Can participants be identified by the student? (e.g., does the data contain (indirectly retrievable) personal information, video, or audio data?)

Yes / No

If yes: Explain.

10. If the data is pseudonymized, who has the key to permit re-identification?

**Section 3: Participants**

11. What age group is included in your study?

Participants are aged 20-55.

12. Will be participants that are recruited be > 16 years? Yes/~~No~~

13. Will participants be mentally competent (wilsbekwam in Dutch)? Yes/~~No~~

14. Does the participant population contain vulnerable persons?

(e.g., incapacitated, children, mentally challenged, traumatized, pregnant) Yes/No

15. If you answered ‘Yes’ to any of the three questions above: Please provide reasons to justify why this particular groups of participant is included in your study.

-

16. What possible risk could participating hold for your participants?

A possible risk is that participants could encounter negative emotions when thinking about the time that they were about to enter the job market. Next to that, answering and processing questions could cost mental effort.

17. What measures are implemented to minimize risks (or burden) for the participants?

Participants are asked to think about the importance they placed on specific work values when they were about to enter the job market. The questionnaire is focused on the assigned value and does not ask anything about emotions of participants. In the interviews, the same applies.

The questionnaire and interview questions are chosen in such a way to minimize the cognitive task for the participants. The questionnaire is a revised version which is shorter than the original version, which allows participants to respond without having to rate a large number of work values.

18. What time investment and effort will be requested from participants?

Participants will be requested to invest 15 minutes by filling in a questionnaire. Participants that will also participate in the interview will be requested to invest another 30 minutes and answer questions face-to-face or by Skype.

19. Will be participants be reimbursed for their efforts? If yes, how? (financial reimbursement, travelling expenses, otherwise). What is the amount? Will this compensation depend on certain conditions, such as the completion of the study?

No.

20. How does the burden on the participants compare to the study's potential scientific or practical contribution?

By getting to know more about the assigned value to work values and the possible differences between generations, this research will contribute to the extensive research about work values and generational differences by improving the extant methods.

21. What is the number of participants? Provide a power analysis and/or motivation for the number of participants. The current convention is a power of 0.80. If the study deviates from this convention, the FERB would like you to justify why this is necessary.

(Note, you want to include enough participants to be able to answer your research questions adequately, but you do not want to include too many participants and unnecessarily burden participants.)

I conducted an a priori power analysis (using G\*Power 3) which calculated a total sample size of 110 participants for an conventional power of 0.80. However, the actual sample consisted of 142 participants. A post hoc power analysis calculated an actual power of

0.89. Participants filled in the questionnaire on voluntary basis so there is a strong belief that participants were not burdened by filling in the questionnaire.

22. How will the participants be recruited? Explain and attach the information letter to this document.

The participants will be recruited by convenience sampling. I will post a message on social media accounts in which I invite my network to participate in the study. Next to that, I will contact people personally.

23. How much time will prospective participants have to decide as to whether they will indeed participate in the study?

Prospective participants will have one week to decide whether they will indeed participate in the study.

24. Please explain the consent procedures. Note, active consent of participants (or their parents) is in principle mandatory. Enclose the consent letters as attachments. You can use the consent forms on Blackboard.

Prospective participants will be provided with information regarding the study and will be asked to fill in an informed consent form. The participant will be able to print information letter, so these are two separate documents.

25. Are the participants fully free to participate and terminate their participation whenever they want and without stating their grounds for doing so? Explain.

Yes. In every moment, before-during-after the study, participants are free to say that they do not want to participate anymore. I will not ask participants to explain why they do not

want to participate anymore. Collected data will be used for this research, unless the participant ask for deleting the data.

26. Will the participants be in a dependent relationship with the researcher?

Yes / No

If yes: Explain.

27. Is there an independent contact person or a general email address of a complaint officer whom the participant can contact?

Yes, participants can contact my supervisor Casper Hulshof ([c.hulshof@uu.nl](mailto:c.hulshof@uu.nl)) or course coordinators ([edu.acma.thesis@uu.nl](mailto:edu.acma.thesis@uu.nl)).

28. Is there an independent contact person or a general email address of a complaint officer whom the participant can contact in case of complaints?

Yes, participants can contact [klachtenfunctionaris-fetsocwet@uu.nl](mailto:klachtenfunctionaris-fetsocwet@uu.nl).

#### **Section 4: Data management**

29. Who has access to the data and who will be responsible for managing (access to) the data?

I myself will have access and will be responsible for managing the data. I will do this in consultation with my supervisor.

30. What type of data will you collect or create? Please provide a description of the instruments.

I will both collect quantitative and qualitative data. Quantitative data will be collected with questionnaires and qualitative data will be collected with semi-structured interviews.

31. Will you be exchanging (personal) data with organisations/research partners outside the UU?

Yes/ No

If yes: Explain.

32. If so, will a data processing agreement be made up?

Yes / No

If yes: Please attach the agreement.

If no: Please explain.

33. Where will the data be stored and for how long?

The data will be stored in the appropriate folder on the faculty server (YourData). The storage period is similar to the periods for storing study results (2 years for papers, 7 years for theses).

34. Will the data potentially be used for other purposes than the master's thesis? (e.g., publication, reporting back to participants, etc.)

Yes / ~~No~~, if participants are interested in the results they can ask me for more information.

Results will not include information that can be traced back to participants.