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Thesis

Generational Differences in Employee Work Values

-An Explorative Study in a Norwegian Work Context-

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Abstract

In an increasingly knowledge intensive economy, it is essential to determine what drives knowledge workers into action and motivate them to excel. According to the value- based view on motivation, work values underlie these mechanisms and work value differences are therefore important to consider where they appear. In the present research, the potential effect of generation was examined. While previous research suggests that generational differences exists, there have been conflicting findings in respect to their effect on work values. The present study aimed to test whether significant differences in work values would prevail between three generations of Norwegian knowledge workers. Second, it explored whether other demographic characteristics may explain larger parts of the variance. The findings suggest that marital status and parenthood moderated the relation between generation and social, altruistic and freedom work values. Significant effects were identified for education, gender and generation. In particular, those belonging to Generation X and Y placed larger importance on extrinsic work values than Baby Boomers. Further, gender seems to have an effect on work values as women placed larger emphasis on intrinsic aspects than men. Educational level was positively related to extrinsic and intrinsic work values. For generation and gender, these effects were nevertheless small. By contrast, educational level seemed to be a viable predictor of work values. Thus the study concludes that generational differences are unlikely to translate into meaningful differences and comprise of sources of conflict at the workplace. Policies designed to accommodate for generational differences are therefore likely to be of little practical value to organizations.

Introduction

Currently, organizations and researchers alike discuss the effects of Generation Y joining the workforce and possible challenges entailed by their entry. This group of individuals, born between 1980 and 2000, grew up experiencing another world than generations before them, characterized by rapid change, technological advances and globalization (Edmunds & Turner, 2005). As a result, they are thought to have developed a different set of values and outlooks, affecting their behavior in a different direction than other generations (Hershatter & Epstein, 2010). As a result, they have been portrayed as hard to interact with (Deal, Altman, & Rogelberg, 2010), narcissistic (J. M. Twenge & Campbell, 2008), lacking in loyalty (Myers & Sadaghiani, 2010), and overly concerned with extrinsic rewards (Jean M. Twenge, Stacy M. Campbell, Brian J. Hoffman, & Charles E. Lance, 2010). Such allegations have led to the belief that a generational clash is emerging at the workplace.

Popular media embrace the business case of a possible generational gap. While the literature is replete with publications suggesting how to manage across generations, a mini industry has been built on the hype (Jean M. Twenge, Stacy M. Campbell, Brian J. Hoffman, & Charles E. Lance, 2010), making statements like "The Workplace Generation Gaps" (Elmore, 2010, p.8) commonly appearing headlines. By some, a generational clash has even been portrayed as inevitable (Reisenwitz & Iyer, 2009), creating concern because it may lead to a self-fulfilling prophecy (Hershatter & Epstein, 2010), spurring narcissistic behavior through the share effect of Pygmalion (Cherrington, 1989). Furthermore, stereotypes may generate out- group effects at work, complicating organizational interaction (Passer et al., 2009). Thus, refuting these differences may contribute to reduce the potential for conflicts at work (Angeline, 2011).

The possible presence of generational differences is also important in other respects. If they exist, current reward- and recruitment strategies may fail to meet the newcomers' needs, resulting in low motivation at work and a reduced number of applicants (Armstrong, 2005; Posner, 2010). By contrast, increasing the knowledge on how the generations' work values differ may enable the

development of tailor made designs. Hence, the efficiency of human resource management schemes may be improved (Chen & Choi, 2008) suggesting a valid rationale for why this knowledge needs to be enhanced.

While theory thus emphasize the importance of finding out whether generational differences exist, interesting findings suggest that significant differences may indeed occur, and exert an effect on employees' work values (Cennamo & Gardner, 2008; D'Amato & Herzfeldt, 2008; E. Ng, Schweitzer, & Lyons, 2010; Jean M. Twenge, et al., 2010). As I will elaborate in the theoretical section, previous research has nevertheless come to contradictory conclusions with respect to the nature and direction of these differences. However, these inconsistencies may be driven by inadequate or inappropriate samples, which appear to be a common factor for the vast majority of previous research. For instance, these studies have often been conducted on college- bound adolescents (Real, Mitnick, & Maloney, 2010), whose work values may still be conducive to change (Johnson, 2002). In other instances, one of the three generations in the workforce was typically not included in the sample, preventing the entire relation to emerge. This suggests that further research is needed, using a sample of adult employees with all the generations of interest represented.

In the present research, I seek to contribute by addressing these issues in a more homogenous sample than previously employed, consisting of Norwegian knowledge workers from all the three generations currently active in the Norwegian work life: Baby Boomers (1946- 1959), Generation X (1960-1980) and Generation Y (1981- 2002). Even though a cross- sectional design is not optimal for generational research, it can provide a significant contribution by addressing weaknesses in previous research while adding evidence from a sample of fully grown workers. This provides a valuable indication to managers of whether or not generations differ and in turn provide status quo data on the generations organizations currently are trying to recruit and retain. Thus, this study seeks to answer:

> *Research question 1: Are there significant differences between the generations' work values?*

Another relevant question in this respect is whether variance in work values is better explained by generation or other demographic factors. Aside from age-related effects, generational effects may be confounded with effects attributable to life stage (Giancola, 2008; Levenson, 2010). For instance, some research suggests that marriage or parenthood may exert an influence on individuals' work values (Johnson, 2001; Kirkpatrick Johnson, 2005; Lachman, 2004). Further, as previous research has indicated that tenure, gender and educational level may operate to influence work values (Ismael & Richard E., 1997; E. Ng, et al., 2010; T. W. H. Ng & Feldman, 2010), so it is instructive to invesitgate whether generational effects still prevail after controlling for these possible effects. Thus, the study will also examine:

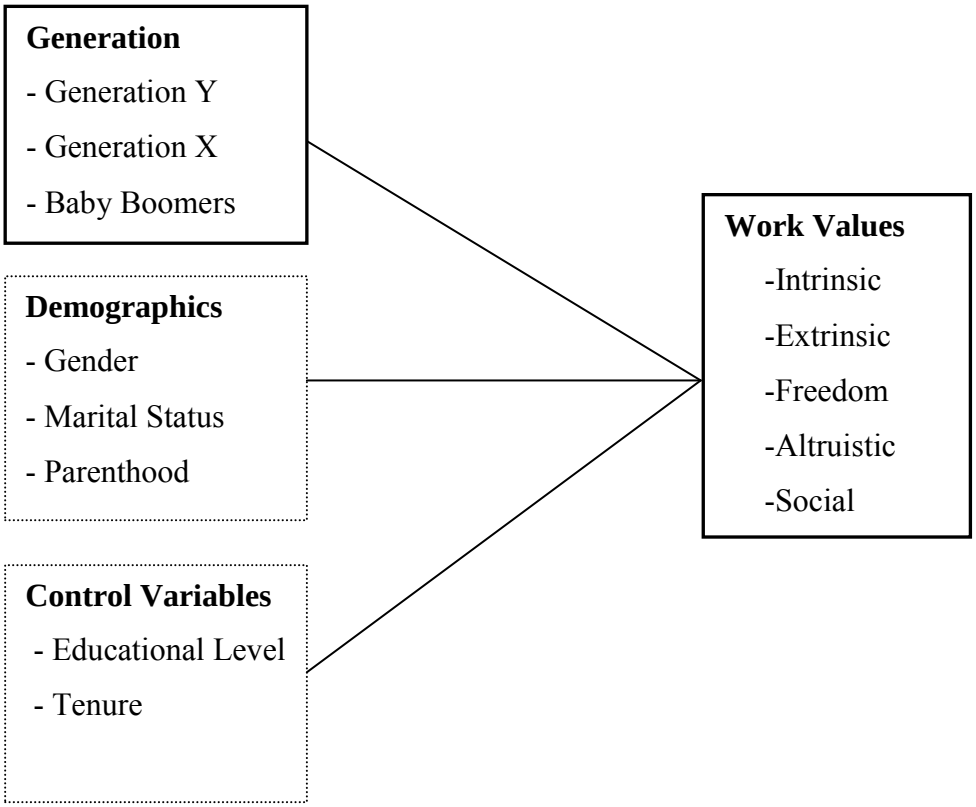
> *Research question 2: Do generational effects explain more than other demographic characteristics?*

The structure of this thesis is: First, the concepts of work values and generation are defined. Next, relevant literature is reviewed. Here, findings from empirical studies on generational difference in work values will be presented. Throughout the text, hypotheses will be derived. Then, the methodology, measures and procedure are presented before main results will be discussed. Last, implications, limitations and recommendations for future research are set forth.

Summary of Main Research Objectives

> *Research question 1: Are there significant differences between the generations' work values?*
>
> *Research question 2: Do generational effects explain more than other demographic characteristics?*

Research Model



Demographic characteristics and covariates are marked by stapled lines.

Literature Review

In the following sections, the concepts of work values and generation are defined. Then, empirical studies on generational differences in work values are presented to show what we currently know and what needs to be found out. In essence, I will show that findings indicate that generational differences exist and affect work values. Still, previous research is conflicting with regard to the direction of the relation. Further, methodological limitations apply, underpinning the need for further research. Throughout the text, hypotheses are detailed. Supplementing each of the general hypotheses, directional hypotheses are derived based on an overall discussion of global versus national forces, and hence whether general trends may be expected to apply also in the Norwegian context. Last, demographic influences will be briefly described before two broad hypotheses are presented, linking back to research question two.

The Concept of Work Values

In the following section, work values are defined. Work values are important to consider because they underlie choices, attitudes and goals (Connor & Becker, 1975; Roe & Ester, 1999) while being closely connected to motivation (England, 1967; Hitlin & Piliavin, 2004; Latham & Pinder, 2005). In this way, they direct behavior (Hitlin & Piliavin, 2004) and have been found to affect a range of organizational outcomes such as judgment and decision making (Connor & Becker, 1975) job choice decisions(Judge & Bretz, 1992) work effort (Frieze, Olson, Murrell, & Selvan, 2006), satisfaction(Meglino, Ravlin, & Adkins, 1989), commitment (Meyer, Irving, & Allen, 1998; Putti, Aryee, & Liang, 1989) and performance (Shapira & Griffith, 1990). These findings suggest that work values may be useful predictors of choices and actions (Rokeach, 1973).

As work values have been found to be important, the question is raised about what they are, and how they are formed. Throughout the literature, work values have been variously defined (S. T. Lyons, Higgins, & Duxbury, 2010). To the purpose of the present research, a value will nevertheless be defined as an "enduring belief that a specific mode of conduct is personally or socially preferable to an opposite or converse mode of conduct or end state of existence" (Rokeach, 1973, p.5). In other words, values are beliefs about desirable goals (Connor & Becker, 1975).

Hence, work values may be seen as beliefs about desirable attributes and outcomes at work (Dose, 1997; Gahan & Abeysekera, 2009; S. T. Lyons, et al., 2010; Schwartz, 1999), guiding individuals' choice of behavior (Berings, De Fruyt, & Bouwen, 2004; Dose & Klimoski, 1999; Elizur, 1984; England, 1967; Gahan & Abeysekera, 2009; S. T. Lyons, Duxbury, & Higgins, 2006; S. T. Lyons, et al., 2010; Ravlin & Meglino, 1987; Schwartz, 1999; Schwartz & Bilsky, 1987; Schwartz et al., 2001). They are hierarchically ordered (S. T. Lyons, et al., 2010), based in needs (Hitlin & Piliavin, 2004; S. Lyons, Duxbury, & Higgins, 2005), relatively enduring and resistant to change(Dose, 1997; Rokeach, 1973, 1975).

While work values may be broadly defined like above, the literature further classifies work values based on their motivational domains (Gahan & Abeysekera, 2009; Schwartz & Bilsky, 1990). One commonly applied distinction is between intrinsic and extrinsic work values (Jean M. Twenge, et al., 2010). Intrinsic work values are process- related work rewards such as intellectual stimulation (Amabile, Hill, Hennessey, & Tighe, 1994; Cennamo & Gardner, 2008). By contrast, extrinsic work values are related to material and prestige- related features(Cennamo & Gardner, 2008). Later, research has added altruistic work values such as contributing to the good of society, freedom- related and social work values (Humphrey, Nahrgang, & Morgeson, 2007). These work values will therefore be examined.

As work values have been shown to be integral to an extensive set of different work outcomes, it is important to understand what affects their formation. Among the range of possible antecedents, this study will focus on the potential effect of generation. Through the mechanisms explained in the section to come, special events during formative years may create a lasting effect on generations' work values. In addition, I will look at a set of demographic antecedents which have been shown to influence work values. First, generations will nevertheless be defined.

The Concept of Generation

In the section to come, generations are defined. A generation may be seen as a group of individuals that has been born within the same historical and social time frame(Mannheim, 1952). This makes them exposed to the same events during the

transition from childhood to adulthood, where individuals develop a political awareness (Schuman & Scott, 1989). As people leave childhood, primacy effects may apply as critical social or economic events like for instance demographic shifts, wars or economic cycles occur (Macky, Gardner, & Forsyth, 2008); in a way, they constitute political "firsts" with a substantial effect on individuals' world view (Schuman & Scott, 1989). Generations may therefore become predisposed to specific modes of thought and action (Mannheim, 1952), affecting their values and attitudes to work (Davis, Pawlowski, & Houston, 2006; Edward F. Jr., Gibson, & Regina Greenwood, 2010; Jurkiewicz, Massey, & Brown, 1998; Kowske, Rasch, & Wiley, 2010; Kupperschmidt, 2000; Macky, et al., 2008; Meriac, Poling, & Woehr, 2009; Real, et al., 2010; Smola & Sutton, 2002; Timmermann, 2007) which remain relatively stable through the life course (Arsenault, 2004; Kupperschmidt, 2000; Low, Yoon, Roberts, & Rounds, 2005 ; S. T. Lyons, Duxbury, & Higgins, 2007; Meglino & Ravlin, 1998).

Although empirical separations are often done on the basis of age, generation and age are not conceptual equals. While age effects may be seen as increased convergence at specific ages (Rhodes, 1983), generational effects may be seen as the relative divergence separating them at any given time or age (Parry & Urwin, 2011). In other words, age effects make individual A more similar to B as he reaches B's age, while generational effects makes them stay "fixed in qualitatively subjective areas" through the life course (Scott, 2000, p.356) due to their different outlooks. Although a longitudinal and sequential cohort design is necessary to separate the two empirically (Jean M. Twenge, et al., 2010), generation may therefore be distinguished from age, both in terms of conceptual content and their potential effect on work values.

Empirical findings suggest that generational differences exist and are important. Schuman and Scott (1989) examined whether historical events during formative years actually posit the power to imprint upon a set of individuals' memory. Thereby, they tested the underlying assumption that the events with maximum impact actually occur during individuals' youth. By asking a sample of 1410 American citizens to name one or two national or world events which had been especially important, they found consistent support for the hypothesis that the period stretching from adolescence to early adulthood, i.e. the mid- teens to mid-

twenties (Griffin, 2004), had the largest impact on individuals' memories (Schuman & Scott, 1989). Arsenault (2004) replicated these findings, adding credence to the belief that generation matters.

Also, De Hauw and De Vos (2010) provided some empirical validation of the generational hypothesis by exploring the relative stability of work values from adulthood. If respondents' work values were affected by generation, one would expect them to be relatively stable from adulthood, even in the face of economic turmoil. Comparing two samples of Generation Y graduates, one surveyed prior to (2006) and one after (2009) the financial crisis, the authors purported to test whether work values are affected most by generational influence or context. As valuation of extrinsic and intrinsic features remained high in spite of the recession, they concluded there is reason to believe these were attributable to generation (De Hauw & De Vos, 2010). This study thus indicates that generational effects exist and operate to influence work values.

As indications thus are that generational differences exist and may be central for the study of work values, these differences need to be examined in a Norwegian work context. Generation carries both national and global components; during the last fifty years, globalization has changed the way people experience international events (Edmunds & Turner, 2005). For instance, communicational technology brings news in real time, making people feel their effects on their skin (McGrew, 2008). Hence, physical distance does not necessarily entail psychological distance, making national borders less important (McGrew, 2008). Still, nationality continues to apply, as nation- specific institutions affect the way globalization is experienced by generations in different countries (Mills & Blossfeld, 2005). For instance, educational systems, employment regulations and welfare regimes moderate the forces of globalization (Mills & Blossfeld, 2005); being an American in this globalized world may be a very different experience from what it may be for a Norwegian citizen. This makes it problematic to generalize previous findings to the Norwegian context, suggesting a need to find out whether generational differences exist in a Norwegian sample.

In the sections to come, findings from previous research are presented. First, research is reviewed to show what we generally know about these generational

effects. Then, a tentative discussion will be made on the interplay of global and national forces to see whether these effects may be expected to apply in Norway as well. Last, demographic characteristics and their possible impact will be briefly assessed. Hypotheses are integrated throughout.

Empirical Findings on Generational Differences in Work Values

In the sections to come, research on generational effects on work values is reviewed. Such effects have been controversial. In particular, possible changes in intrinsic and extrinsic work values may be important to consider because of the possible undermining effect of extrinsic rewards on intrinsic motivation (Deci, Ryan, & Koestner, 1999; Kaufmann & Kaufmann, 2003), and hence the importance of findings suggesting that extrinsic work values are increasing. I will show that the available evidence is indicative of such a trend, with possible ramifications for human resource management systems aiming to optimize motivation and performance. Also, a predicted increase in appreciation of freedom work values for recent generations has largely been supported. Jointly these studies thus suggest a potential managerial challenge related to retaining key personnel belonging to Generation X an Y in the future. While findings are overall less clear for altruistic and social work values, these will be predicted to increase.

Intrinsic Work Values

In the present section, generational differences in intrinsic work values are reviewed. Intrinsic work values include finding meaning and interest in work (J. Twenge, 2010) and constitute expressions of higher order needs such as self-actualization (Maslow, 1954). Intrinsic attributes included in this study are *interesting work tasks, challenging work tasks, continuous learning opportunities, sense of achievement, use abilities, recognition*, *variety* and *feedback.*

According to generational theory, importance attached to intrinsic attributes may be affected by generation. During the last 50 years, there has been a shift from manufacturing economies to service- and knowledge intensive economies (A. M. Grant & Parker, 2009; Nonaka, Toyama, & Konno, 2000). As a result, knowledge has increasingly been emphasized as a source of competitive advantage (Blackler, 1995; R. M. Grant, 1991; Robert M. Grant, 1996; Løwendahl, 2005; Spender, 1996), favoring trends of training and development (Jean M. Twenge, et al.,

2010). These trends may have contributed to make intrinsic work values more salient in recent generations, both because they have become more socially desirable and because formal capabilities have become required to enter a wider range of professions(Blackler, 1995). Facing increased competition (Nilsen, 2005) and decreased job security (D'Amato & Herzfeldt, 2008), Generation X and Y are believed to have responded by focusing on learning to enhance their marketability (D'Amato & Herzfeldt, 2008; Kupperschmidt, 2000). In sum, one would therefore expect more salient intrinsic work values among Generation X and Y than Baby Boomers.

This notion has received some empirical support. Examining learning orientation among 1,666 European managers, D'Amato and Herzfeldt (2008) found Generation X to be significantly more likely to agree with items like "It is important to me to learn in my job" than Baby Boomers. Hence, their findings supported the overall hypothesis of generational influences as well as the predicted direction. However, as their sample did not include Generation Y, one needs to find out whether the same trend applies to them as well. Also, as their sample had a gender bias of 69.1% male respondents, this may have influenced their findings. There is therefore a need to find out whether their findings replicate to a more balanced sample which also includes Generation Y, like the one employed in the present research.

Next, Ng et al. (2010) examined desired work attributes among 23.413 Canadian Generation Y undergraduates, asking them to rate the importance of 16 different job attributes for job choice. Here, training opportunities was rated fourth, while challenging work tasks was rated number ten. Nevertheless, as Generation X and Baby Boomers were omitted from the study, one cannot know whether the same work values would be more or less salient in comparison and whether possible differences would be significant if all three focal generations were included. This underlines the need for additional research.

Further, in a study comparing data from Cherrington's (1979) research against a sample of US employees from 1999, Smola and Sutton (2002) found significant generational differences. In particular, Generation X held larger pride in work knowledge and skills than Baby Boomers. While the sequential cohort design

represents a primary strength of this study, it also suffers from an 8% response rate of the 1999 sample; this may have biased their results. As scale means from the 1974 sample were not available, their analysis was also constricted to comparisons on individual items (J. Twenge, 2010). Further research is consequentially called for.

Moreover, Real et al. (2010) compared generational work values among 2.581 American construction workers and identified significant differences in their intrinsic work values. Specifically, Generation Y rated these attributes higher than Baby Boomers. No differences were nevertheless identified between Generation X and Y. This study thus supports the generational hypothesis as well as the predicted direction. However, their sample consisted of 95.4% male respondents, which may have biased their results. Further research is consequentially needed to determine whether their findings replicate to a less gender biased sample.

While the studies above support the predicted direction, Jurkiewicz (2000) came to different conclusions. Subjecting 241 public sector employees to a questionnaire ranking 15 work attributes, she found Baby Boomers to be significantly more concerned about learning opportunities than Generation X. However, as a ranking instrument was applied, differences in measurement approaches may have caused these apparent inconsistencies (S. Lyons, et al., 2005). Also, as the sample was drawn from the public sector, which has been shown to affect certain work values (S. T. Lyons, et al., 2006), this may also have affected her findings, suggesting the need for further research.

In a study of 398 managerial hospitality workers, Chen and Choi (2008) nevertheless obtained similar results. Subjecting their sample to Super's (1970) Work Value Inventory, they found Baby Boomers to value achievement and intellectual stimulation more than Generation X and Y. However, the fact that they did not control for demographic variables represents a serious threat to the validity of their findings; they report neither effect size nor tests of significance for any of the demographic variables included. This may question the validity of their findings, underlining the need for further research.

Twenge et al. (2010) came to similar conclusions. Using longitudinal and nationally representative data from the American Monitoring the Future dataset, they studied generational differences with a sequential cohort design. Here, Baby Boomers were significantly more likely to value challenging and interesting work tasks, learning and a job which lets you use your abilities than Generation X and Y. Hence, their findings supported the general generational differences, but not the predicted direction of their influence. Nevertheless, as their sample consisted of high school seniors, their work values may still be subject to change; as noted by Johnson (2002), adolescents tend not to be too selective. This may have inflated their ratings. While findings from this study are useful and relevant, there is therefore a need to investigate generational differences within a sample of actual workers, to see whether their findings replicate to the work context.

In a cross- sectional study of 504 Auckland employees, Cennamo and Gardner (2008) failed to find significant differences at all. While they did not specify their items, they informed they had consolidated Elizur's Work Value Scale with Lyons' Work Value Survey (2003) to develop their applied questionnaire, making it likely that their items corresponded to items included in the present research. This contradicts generational differences in general as well as the theorized trend. However, this apparent inconsistency could be explained by work environment differences (Chen & Choi, 2008) as they employed a highly stratified sample, drawn from a range of different industries (e.g. law firms, media corporations, the construction industry). Hence, the sample may differ on a variety of other attributes than they controlled for in the study, operating to bias their results (Pallant, 2010). Further research is consequentially warranted, using a more homogenous sample.

Taken together, even though the literature is supportive of the general premise that differences exist, it is inconclusive with respect to their direction. As significant weaknesses applied to the samples of all of these studies, being addressed by the present research, it may be argued it makes a relevant contribution. The following hypothesis will consequentially be tested:

H1 a) *Generational differences will prevail in intrinsic work values*

Extrinsic Work Values

In the current section, findings related to extrinsic work values are reviewed. Extrinsic work values refer to materialistic and prestige- related attributes people may achieve from their jobs (Kaufmann & Kaufmann, 2003). Employees may look upon such attributes as a signal of their worth to the organization (Kuvaas, 2006). In the present research, items included in this category will be *prestigious work tasks, authority, salary, advancement opportunities, benefits* and *doing work that makes a significant impact*.

According to generational theory, extrinsic work values may differ across generations. For instance, extrinsic work values may become increasingly salient among generations experiencing economic hardships during their transitions to adulthood (Jean M. Twenge, et al., 2010). In effect, this would suggest a greater propensity to value extrinsic rewards among Generation X and Y than Baby Boomers; while Baby Boomers joined the workforce during prosperous times, Generation X and Y experienced times of economic uncertainty and recession during critical formative years (D'Amato & Herzfeldt, 2008; Kupperschmidt, 2000; S. T. Lyons, et al., 2007).

Empirical studies have supported this hypothesis. First, Chen and Choi (2008) found that Generation X and Y rated economic returns significantly higher than Baby Boomers. This lends support to the generational premise, as well as the theorized direction. However, the omission of important demographic variables such as for instance gender or marital status represents a serious threat to the validity of their findings; as previous research suggests that these variables may influence work values (e.g.,Gorman, 2000; Herzog, 1982), one cannot know to which their findings may be accounted for by other effects than that of generation. Further research is evidently called for.

Next, Twenge et al. (2010) also found extrinsic work values to be increasing across the generations. In particular, Generation X and Y were found to rate "a job that provides you with a chance to earn a good deal of money" significantly higher than Baby Boomers. Also, significant differences prevailed between the generations' emphasis on advancement, status and prestige; Generation X valued these attributes most, followed by Generation Y. Overall, their findings thus

indicated a general trend of increased extrinsic work value salience among the recent generations. As previously mentioned, their sample nonetheless consisted of high- school seniors, suggesting a need to find out whether these findings apply to the work place.

Further, Ng et al. (2010) identified advancement as number second out of sixteen attributes. In other words, advancement opportunities were seen as a top priority, which was concluded to confirm their "ambitious and impatient nature" (E. Ng, et al., 2010, p. 288). Furthermore, Generation Y rated health- and benefit plans as number eight, while a good initial salary scored as number nine. Overall, this indicated that extrinsic work values were relatively pronounced among Generation Y. As mentioned before, there is nevertheless a need to examine work values in a sample including all the three focal generations to identify the nature of a possible trend.

Next, Wong et al (2008) subjected a sample of 3.535 Australian workers to the Occupational Personality Questionnaire (OPQ32) and the Motivational Questionnaire (MQ) and found that Generation X and Y scored significantly higher in achieving traits. In this particular instrument, these are defined as "the degree to which a person perceives themselves as ambitious and career centered and the degree to which they prefer to work to demanding goals and targets"(Wong, et al., 2008, p. 883). Also, they reported that Generation X and Y were less motivated by power than Baby Boomers. Hence, this study supported the overall generational hypothesis, as well as the predicted direction. Due to the cross- sectional design, one can nevertheless not be certain these are true generational effects. As the time- lagged research conducted by Twenge et al. (2010) came to similar conclusions, empirical evidence of large empirical rigor nevertheless indicate that they are.

Further, Gursoy et al (2008) conducted a qualitative study on hospitality managers and found convergent evidence to the general trend. Applying qualitative method and in- depth group discussions among 91 participants they observed a tendency to expect immediate rewards among Generation X and Y, including "praise, promotion and pay"(Gursoy, et al., 2008, p. 448). Also, Generation X was less concerned with authority and hierarchy than Baby Boomers. Hence, this study

supports the generational hypothesis and theorized trends. However, issues pertain to their methodological procedure; instead of taking measures to hide their hypotheses from participants, they were outright informed about the purpose of the study before the in-depth discussions were begun. Hence, social desirability may have biased their findings (Bowen, Martin, & Hunt, 2002). The validity of their research may consequentially be questioned, highlighting the need for further research.

Contradicting the above- mentioned findings, Smola and Sutton (2002) found significant differences between the generations' valuation of advancement, but not for salary and pay increases. Hence, their study lent credence to the notion of generational differences, but not with respect to all types of attributes. As previously described, methodological weaknesses still apply to their sample, which may explain their contradictory results. Research conducted with a more robust sample is consequentially called for, which encompass all three generations.

Further, examining differences in basic human values in a sample of 31.571 Canadian workers, Lyons et al (2005) found power values to be affected by generation. As they are conceptualized in Schwartz' Values Survey which was applied, power values may be seen as "social values and prestige, control or dominance over people and resources" (S. T. Lyons, et al., 2007, p. 341). Here, significant differences were found between Generation X and Baby Boomer men, but not for women. These values were most pronounced in Generation X. As their sample was drawn from private, public and non- for profit- organizations, and had a gender bias of 68% female respondents these characteristics may nevertheless have influenced their findings. While supporting the theorized trend, methodological weaknesses thus apply, suggesting the need for further research.

Cennamo and Gardner (2008) reported an opposite relationship. Here, Baby Boomers placed lesser importance on status work values than the younger generations. While this study thus lends credence to the general notion of generational differences, it contradicts their theorized direction. However, as previously discussed, their conflicting findings may be partially explained by the highly stratified nature of their sample, operating to bias their results.

Also, Real et al (2010) found no significant differences between the generations' valuation of extrinsic attributes. As previously seen, their study nevertheless suffered from an overweight of male respondents, which may have affected their findings. In light of this methodological weakness combined with the fact that it represents the only study contradicting the larger body of supportive evidence, the following hypothesis will nevertheless be tested:

H2 a) *Generational differences will prevail in extrinsic work values*

Freedom – Related Work Values

In the following section, research on freedom related work values will be presented. Freedom work values refer to the opportunity for leisure and freedom from supervision at work (Johnson, 2002). In the present study, the following freedom-related attributes are examined: *work life balance*, *convenient work hours, job security* and *freedom to make decisions and allocate time*.

Possible changes in freedom work values are among the most central aspects in the discourse on generations. According to generational theory, heightened divorce rates and the emergence of two- career families during the 1980's and 1990's (Eriksen, Hompland, & Tjønneland, 2003) created a sense of social insecurity during Generation X' formative years (Kupperschmidt, 2000; Jean M. Twenge, et al., 2010). In response, they are believed to have developed a distinct sense of independence, manifested through enhanced valuation of work-life balance and autonomy at work (Duchscher & Cowin, 2004; Jorgensen, 2003; S. Lyons, et al., 2005; Macon, 2009; Westerman & Yamamura, 2006). Hence, Generation X and Y are typically portrayed to value freedom work values more highly than Baby Boomers (Erickson, 2010; Myers & Sadaghiani, 2010; Timmermann, 2007).

In addition, Generation X and Y are frequently portrayed as less concerned with job security than Baby Boomers (e.g., Armour, 2010; Cennamo & Gardner, 2008; Eisner, 2005; E. Ng, et al., 2010). This is believed to have translated into lower loyalty and commitment to employers (Cindy, 2009; D'Amato & Herzfeldt, 2008; Simons, 2010; Wong, et al., 2008) and a corresponding inclination to job-hop (Hewlett, Sherbin, & Sumberg, 2009; Liakopoulos, 2010; Reisenwitz & Iyer,

2009). Overall, it is therefore suggested that Generation X and Y will exhibit larger emphasis on freedom work values than Baby Boomers.

Reviewing the body of empirical evidence, Twenge (2010, p. 204) suggested there may be empirical grounding to believe these predictions. First, with respect to leisure and work- life balance, she concluded that ”the best data available show that younger generations are more likely to value time off and less likely to value work for work’s own sake”. Gursoy et al. (2008) also provided supportive evidence to this notion, concluding by the exact same phrase. It was also supported by Cennamo and Gardner (2008), who found Generation X and Y to place larger emphasis on freedom than Generation X and Baby Boomers. Moreover, Ng et al (2010) found work- life balance to be an important concern among these generations. Last, Twenge et al. (2010) found significant effects of generation on leisure. Taken together, these studies thus suggested a higher attached importance to freedom work values in Generation X and Y compared with the Baby Boomer generation. As previously detailed, various methodological considerations yet apply to these studies, suggesting the need for further research.

Moreover, Lyons et al. (2005) examined differences in basic human values by the Schwartz Value Survey (SVS) and found Baby Boomers to place significantly larger emphasis on security, reflecting value for “safety, harmony, and stability of society, of relationships, and of self” (S. Lyons, et al., 2005, p. 765). As work values are commonly considered as expressions of general values (Ros, Schwartz, & Surkiss, 1999; Schwartz, 1999), this may provide some indication of the direction generational differences in work values may take , even though they are separate constructs. In a follow- up study, incorporating also Generation Y undergraduates, Lyons et al (2007) replicated these findings; Generation X and Y scored significantly lower on security than Baby Boomers. This supports the predicted presence of generational effects. However, as neither of the studies controlled for occupational type, even though it has been shown to be related to work values (Schwarzweller, 1960), research with a more homogenous sample is called for.

Countering these findings, Smola and Sutton’s (2002) failed to find significant differences between Generation X and the Baby Boomer generation. In particular,

1974 respondents were equally likely to value "Having leisure and free time" as their 1999 counterparts. Also, Twenge et al. (2010) found Generation X to score significantly higher for items like "A job that offers a reasonably predictable, secure future", while the lowest was observed for Generation Y. While supporting the predicted presence of generational effects, the direction thus contradicts popular belief.

Further, Dries et al. (2008) subjected a sample of 750 Belgians students and workers to a vignette task and found Generation Y to be significantly more concerned with job security than the other two generations. However, as they collected their data through snowballing strategy, serious limitations apply to this study. In essence, students were asked to forward an e-mail containing a link to the online survey to their friends and family members of various age groups. As work values are influenced by family and educational environment (Loscocco, 1989), this approach substantially increases the likelihood of gaining a biased sample, which may affect the responses. Hence, these findings may be questioned, underlining the need for further research.

Also, Appelbaum et al. (2005)drew on a previous case study and concluded that a stable and secure future was ranked among the top five attributes across the generations, a trend of generational convergence rather than divergence. However, as their analysis was restricted to a verbal discussion of the relative distribution of affirmative responses, one cannot know whether these differences would be significant if their sample was subjected to statistical testing. As a result, further testing is warranted.

In sum, while there are indications that generational differences may exist, affecting freedom- related work values. However, findings are mixed and as methodological weaknesses apply to all of the studies reviewed, a clear conclusion may thus not be reached. However, considering the extensive societal changes that has occurred during the latter 50 years, it is arguably reasonable to believe that generational differences may have developed as well. For instance, the "time trap" has emerged as a product of our time, raising the marginal need for freedom- related aspects at work. The following hypothesis will therefore be tested:

H3 a) *Generational differences will prevail in freedom work values*

Altruistic Work Values

In the present paragraph, empirical research on altruistic work values is reviewed. Altruistic work values are related to importance attached to helping others and make a contribution to society (Johnson, 2002; Jean M. Twenge, et al., 2010). In the following study, the altruistic work values of interest will be *doing work that allows you to help people, having the ability to influence organizational outcomes* and doing work which *makes a contribution to society*.

According to popular conceptions, there are generations altruistic work values are supposed to differ. In essence, Generation Y is supposed to be highly altruistically orientated (Howe & Strauss, 2000) and value ideological contribution over extrinsic rewards (De Hauw & De Vos, 2010; Duchscher & Cowin, 2004). By some, it has even been called the most socially conscious generation to date; polling 2200 professionals from a wide range of industries, Meister and Willyerd (2010) found a sense of purpose to be one of the most important aspects underlying Generation Y's job satisfaction. Consequentially, they concluded that Generation Y is altruistically oriented, making corporate social responsibility initiatives a viable part of recruitment strategies (Meister & Willyerd, 2010).

However, empirical research has contradicted this contention. For instance, Twenge and Campbell (2008) reviewed research reports using personality, attitude, psychopathology, or behavior scales from 1930s to the present and concluded there is reason to believe that recent generations have become more narcissistic rather than altruistic. Supporting this statement, Twenge et al. (2010) found altruistic work values to be declining rather than increasing in Generation X and Y when compared to Baby Boomers. Further, Smola and Sutton (2002) found no significant differences in items like for instance "being of service to others", while Cennamo and Gardner (2008) failed to find significant differences in altruistic work values. This contradicts popular stereotypes and suggest there may be other explanations underlying Meister and Willyerd's (2010) findings. For instance, social desirability rather than social responsibility may have influenced the responses (Bowen, et al., 2002).

Taken together, it therefore appears plausible to believe that generational differences in altruistic work values will be either non- existent or run counter to

popular belief. As previously detailed, various limitations nevertheless apply to the studies indicating this trend, suggesting that further research is needed to either support or refute their conclusions. In particular, a balanced sample of workers representing all the three focal generations will be applied to contribute. Thus, the following hypothesis is tested:

H4 a) *Generational differences will not prevail in altruistic work values*

Social Work Values

Next, research on social work values is reviewed. Social work values are interpersonal and related to the need to belong (Baumeister & Leary, 1995). Hence, they include aspects like meaningful relationships with colleagues and workplace fun. According to Lamm and Meeks (2009, p. 614) workplace fun may be defined as "playful social, interpersonal, recreational, or task activities intended to provide amusement, enjoyment, or pleasure". In the present study, social attributes of interest will be friendly *coworkers*, *social interaction,* a *supportive and considerate supervisor* and *workplace fun*.

According to various authors, Generation X and Y are likely to place larger emphasis on social work values than Baby Boomers (Altimier, 2006; Lamm & Meeks, 2009). Trained for team work from an early time through the educational system, they are described to value interpersonal relations more than Baby Boomers, who are often portrayed as workaholics with little concern for workplace fun (Kupperschmidt, 2000; Lamm & Meeks, 2009). While social work values are therefore likely to be salient among Generation X and Y, Baby Boomers' strong work ethic and "win-at-all-cost" perspective makes social work values likely to be less pronounced for Baby Boomers (Lamm & Meeks, 2009).

In previous research, this hypothesis has received some support. For instance, Wong et. al (2008) found Generation Y to place higher emphasis on an affiliative workplace than Baby Boomers. Also, Real et al. (2010) found Generation Y to place larger emphasis on social aspects than elder generations, while Ng et. al (2010) found Generation Y to rank coworkers as the second most important job aspect. These studies support the notion of generational differences in social work values. As previously detailed, methodological limitations nevertheless apply, emphasizing the need for further research. .

In a study examining the relationship between generation and workplace fun among 930 US Generation Y undergraduates, Lamm and Meeks (2009) found reason to believe that different generations valued workplace fun differently. In particular, their study supported the predicted propensity to value workplace fun among Generation Y; their ratings were significantly higher than Generation X. Also, Boomers' valuations of workplace fun were significant and positive, countering the authors' previous assumptions. However, as sampling was conducted through the undergraduates' social networks, analogue to Chen and Choi's (2008) highly questionable method, the authors professed this may have influenced their findings, highlighting the need for additional research.

With regarding to a supportive supervisor, Arsenault (2004) examined generational differences in admired leadership characteristics. Distributing a survey based on Kouzes and Posner' (2000) Checklist of Admired Leaders through his students, he obtained a sample of 790 respondents. As a result, he found a higher propensity to value caring leadership among Baby Boomers than Generation X and Y, supporting the general notion of generational differences, as well as their theorized direction. However, apart from generational membership, no demographic variables were measured or controlled for. Furthermore, the combination of providing students with paper- and pencil questionnaires and rewarding them with a grade increase for returning their share may be seen as a highly questionable approach, particularly when students were well informed of the hypothesis in advance, as it creates an incentive to cheat and fill them in themselves. In light of these considerations, further research is evidently warranted.

Further, conflicting evidence has also been found with respect to valuation of a supportive supervisor. Kodatt (2009) examined preference toward six different leadership dimensions in a sample of 371 workers. Here, the humane-oriented dimension reflected supportive and considerate leadership along with compassion, modesty, generosity and an emphasis on being humane. As no significant differences prevailed on this dimension, this study contradicts the notion of generational differences. Nonetheless, the broadness of this leadership dimension implies a lack of unitary measurement, questioning whether value for a supportive supervisor is actually being tapped. As a result, more research is called for.

Next, Twenge et al (2010) found Generation Y to value social rewards less than Baby Boomers and Generation X. While supporting the main question of whether generational differences exist in social work values, their findings thus countered the direction of the predicted relationship. However, as argued before, this apparent inconsistency may partly be explained by the fact that their sample consisted of students whose work values may be moldable for yet some years to come (Johnson, 2001). This highlights the need to study this relationship more with a sample consisting of fully grown adults, preferably which have entered the workplace (Johnson, 2002). This study seeks to contribute in this respect. Hence, the following hypothesis will be tested:

H5 a) *Generational differences will prevail in social work values*

The Influence of National Culture

In the succeeding section, general trends will be tentatively discussed in opposition to nation-specific factors pertaining to the Norwegian environment. In this way, I will aim to deduce the extent to which the same trends may apply to a Norwegian sample as generally observed in previous research. In essence, I will argue that the social-democratic welfare regime, regulated employment relations and economic ideology may be moderating forces because they influence the uncertainty experienced by youth. This uncertainty is hypothesized slightly different generational patterns in Norway as opposed to general trends. Hypotheses are derived throughout the text.

In the previous, it was shown that research has identified significant associations between generation and various work values. However, work values may also be affected by national culture (Eccles & Wigfield, 2002; Schwartz, 1999). Schwartz (1999) examined work values in a cross-cultural study of 49 countries and found different value profiles to emerge. This suggests that work values are affected by cultural context. Hence, the strength and direction of predicted relations may be expected to differ in a Norwegian setting.

The findings of systematic variations in cultural work values suggest that national institutions may matter. Among various factors, employment relations may be essential as they affect parameters to uncertainty experienced by youth (Mills & Blossfeld, 2005). For instance, they are likely to affect barriers to workforce entry;

while liberal regimes entail an easy workforce entry, social- democratic regimes tend to optimize economic security at the expense of entry ease (Mills & Blossfeld, 2005). Hence, entering the workforce becomes more difficult, particularly during periods of high unemployment (Mills & Blossfeld, 2005). Therefore, youth in egalitarian regimes like Norway may be expected to take measures to optimize their employability. In particular, education becomes more and more important (Nilsen, 2005). Consistent with this trend, the national educational level has increased during the previous ten years (Statistics Norway, 2010b), and data on lifelong learning witness of an increased focus on learning and development also later on in life (Statistics Norway, 2011). This would suggest a larger propensity to value intrinsic work values among Generation X and Y, who grow up in a time where capabilities were looked upon as more necessary and desirable and hence more likely to be socially reinforced. Based on this, the following hypothesis is tested:

> ***H1 b:*** *Intrinsic work values will be more salient among Generation X and Y than Baby Boomers*

The experienced uncertainty may also be affected by national economic ideology and the nature of the welfare regime. For instance, while Norwegian youth unemployment has been relatively high since 1988, this trend was amplified in countries with familistic welfare regimes (Nilsen, 2005). Youth unemployment in countries like Spain and Italy thus often surpassed 30%, while it remained well below this level in most other welfare regimes (Klijzing, 2005). In effect, this demonstrates how regulation may affect important parameters of uncertainty. In particular, the Norwegian social democratic regime with its corresponding safety net may reduce the insecurity experienced by youth (Mills & Blossfeld, 2005); for instance, unemployment benefits ensure a certain level of security even in the face of economic turmoil. Hence, the perceived financial risk may likely be reduced, while the marginal need for extrinsic rewards should be lower than in liberal regimes. As work values reflect the strength of underlying needs (Loscocco, 1989), extrinsic work values may therefore be expected to be less salient in a Norwegian setting. Further, generational differences should follow the development in Norwegian youth unemployment rates, because it represents a central type of uncertainty experienced by youth during formative years. This would suggest an increasing trend, with Generation X and Y exhibiting the most

pronounced orientation toward extrinsic attributes, as both of these generations experienced recessions during formative years (Statistics Norway, 2010a). Hence, the following hypothesis is tested:

> ***H2 b:*** *Extrinsic work values will be more salient among Generation X than Generation Y and Baby Boomers*

The social- democratic regime may also affect the emphasis placed on freedom work values. For instance, protective factors like labor unions and protective policies are strong in comparison to liberal regimes (Mills & Blossfeld, 2005). Hence, Americans work longer hours today than ever since the last 30 years (Kuvaas, 2011; J. Twenge, 2010). By contrast, Norwegian employees are protected against extensive overtime by law, and they also enjoy protective legislation against unreasonable redundancies (Dege, 2009). In theory, emphasis on freedom-related work attributes like job security should therefore be lower in comparison to liberal regimes. Still, the marginal need may likely have increased during the last fifty years. As two- income households emerged as a norm, fast-paced change and technological advances increased the effort extended at work, the time left for other responsibilities has decreased, making the "time trap" a common problem of our time (Greenhaus & Beutell, 1985; Sharon Alisa, 1991). Combined, the residual time spent on rest and recovery may consequentially have decreased, making the marginal need for leisure and balance more salient. This suggests a linear trend, with increased prominence of freedom work values in Generation X and Y. Hence, the following hypothesis will be tested:

> ***H3 b:*** *Freedom work values will be more salient among Generation X and Y than Baby Boomers*

With respect to altruistic work values, there is nevertheless little evidence suggesting there is reason to believe that the Norwegian context may change the lack of comparative difference between the generations as predicted by hypothesis 3, as no study reviewed looked into generational differences in personality within a Norwegian sample. Therefore, no directional hypothesis will be tested with respect to altruistic work values.

Last, regarding social work values, Schwartz (1999) suggested that these are compatible with egalitarian cultures like Norway. Hence, they should be relatively

pronounced. Also, teamwork has become increasingly emphasized at school since the educational reform of 1994 (Eriksen, et al., 2003), and large corporations like TINE and Aker Solutions now identify team work as part of best practice (Thormodsæter, Bærnstrøm, & Andreassen, 2009). This is analogue to the generally suggested trend, predicting an enhanced emphasis on social work values in recent generations. Consequentially, I hypothesize:

> ***H5 b)*** *Social work values will be more pronounced among Generation X and Y than Baby Boomers*

The Influence of Demographic Characteristics

While generation and culture thus may influence work values, demographic variables are often assumed to be related to work values (Keller, Arvey, Bouchard, & Segal, 1992; Tsui, Egan, & Iii, 1992). In the section to come, these connections will be outlined. Hypotheses related to research question two will be presented in the end.

Among various factors which may influence work values, gender has received much attention in previous research. Often, these studies have identified a larger salience of intrinsic, altruistic, social and freedom- related work values for women (e.g., Herzog, 1982; Konrad, Ritchie, Corrigall, & Lieb, 2000; Marini, Fan, Finley, & Beutel, 1996), while extrinsic rewards are often found to be more salient for men (e.g., Johnson, 2001; Konrad, et al., 2000; McCarrey, Edwards, & Jones, 1977; Schuler, 1975 ; Schwartz & Rubel, 2005; Vaus & McAllister, 1991). However, other studies have also found women to be more concerned with extrinsic attributes (Loscocco, 1989), while some failed to find significant gender differences at all (Mottazl, 1986). Overall, effect sizes were typically small (Konrad, et al., 2000; Schwartz, et al., 2001). This suggests that gender should be moderately, but significantly related to work values when considered as a set.

Marriage and parenthood have also been suggested to influence work values (Kirkpatrick Johnson, 2005). These transitions are part of the entry to adulthood (Hogan & Astone, 1986) and may entail extensive changes in priorities and goals. Generally, marriage and parenthood has been found to be related to a larger valuation of extrinsic rewards (Gorman, 2000; Kirkpatrick Johnson, 2005; Loscocco, 1989; Rowe & Snizek, 1995). However, it has also been argued that the

causality may be reversed, so extrinsically oriented individuals self- select into marriage or parenthood (Gorman, 2000; Johnson, 2001). Either way, these findings suggest that family roles may be significantly related to work values, even though effect sizes overall have been small.

Next, education has been found to be related to work values (Marini, et al., 1996). Lindsay and Knox (1984) showed that educational attainment has a socializing effect on work values. In particular, educational level has been found to be positively associated with valuation of intrinsic work values (e.g., Kalleberg, 1977; Kalleberg & Loscocco, 1983; Loscocco, 1989; Rowe & Snizek, 1995; Saleh & Lalljee, 1969) and negatively related to extrinsic work values (Cherrington, et al., 1979; Rowe & Snizek, 1995).

Last, tenure may be associated with work values. For instance, while work values predict occupational choice (Judge & Bretz, 1992), Mortimer and Lawrence (1979) found evidence that the degree of autonomy provided in a job may affect employees' work values over time. This is indicative of a dialectic relationship rather than a one- way effect, suggesting that tenure may have an effect. Gomez-Mejia (1983) also identified work value differences between high- and low tenure groups. Combined, this suggests that tenure may be positively associated with work values.

Taken together, previous research suggests that gender, marriage, parenthood, education and tenure may be significantly related to various work values. However, effect sizes have typically been small, indicating the possibility of alternative and better predictors like for instance generational effects. Hence, the following hypotheses will be tested:

> ***H6 a:*** *The demographic variables will be moderately but significantly related to work values considered as a set*
>
> ***H6 b****: Generation will explain more variance than other demographic characteristics*

Table 2.1 Summary of Hypotesized Relations

Nr.	
H1a	Generational differences will prevail in intrinsic work values
H1b	Intrinsic work values will be more salient in Generation X and Y than Baby Boomers
H2a	Generational differences will prevail in extrinsic work values
H2b	Extrinsic work values will be more salient in Generation X and Y than Baby Boomers
H3a	Generational differences will prevail in freedom work values
H3b	Freedom work values will be more salient in Generation X and Y than Baby Boomers
H4	Generational differences will not prevail in altruistic work values
H5a	Generational differences will prevail in social work values
H5b	Social work values will be more salient in Generation X and Y than Baby Boomers
H6a	The demographic variables will be modestly, but significantly related to work values
H6b	Generation will explain more variance than other demographic characteristics

Methodology

In the following section, the applied methodology will be outlined. First, research design, organizational context and sampling procedure are presented. Then, measures, operationalization of variables and statistical procedures will be outlined. Last, the results are detailed.

Research Design

A cross sectional design was applied. As a longitudinal design may not be attained, this represented the best available option (Levenson, 2010). It provides a useful indication of whether the generations differ as they currently exist, and represents a first step towards detecting causal relationships in a Norwegian setting.

Organizational Context and Sampling Procedure

The study targeted professionals embodying a distinctive level of education and expertise (Alvesson, 2000; Nordenflycht, 2010; Scarborough, 1999) from the three focal generations. In order to obtain a homogenous sample, data were drawn from two private sector companies operating within the Norwegian banking industry. The survey was distributed by e-mail to the various departments by their managers, while answers were coded and saved via Confirmit, a web- based tool.

Measurement and Operationalization of Variables

Dependent Variables

Work values were measured using Lyons' (2003) Work Values Survey (LWVS). This survey comprise of 25 items on a 5-point Likert response format. This instrument was chosen because it reconciles previous theory while reflecting the recent developments in the field (S. T. Lyons, et al., 2010). Although it is a fairly new measure, it has been validated in a large Canadian sample, demonstrating adequate psychometric properties (S. Lyons, 2003). Intrinsic work values (α=0,822) were represented by eight items, including the example item "working on tasks and projects that challenge your abilities". Extrinsic work values (α=0,713) were measured by five items including "doing work that is prestigious and regarded highly by others". Freedom work values (α=0,735) were measured by three items, by example "having hours of work that are convenient to your life". Social work values (α=0,662) were measured by four items, including the example items "working in an environment that is lively and fun". Altruistic work values were represented by only by two items at the outset. As several other studies have indicated importance of preference toward societal contribution (De Hauw & De Vos, 2010; Jean M. Twenge, et al., 2010) "a job that is worthwhile to society" was included as an additional item for the altruistic subscale (α=0,679).

Independent Variables

Generational taxonomy is controversial (Spitzer, 1973). Even though societal change is more likely to be linear than abrupt, the generations have been categorized on the basis of birth year (Jean M. Twenge, et al., 2010). This approach is problematic because it entails a lack of mutual exclusivity, creating cusp and crossover- effects (Arsenault, 2004). In essence, individuals born in proximity to generational borders may experience altering events of both. Furthermore, as social constructions, these demarcations involve an inevitable degree of subjectivity because there is no specific end date to ripple effects and externalities of significant events (Carpini, 1989).

In order to induce objectivity to measurement, D'Amato and Herzfeldt (2008) used fluctuations in European birth rates to deduce generational boundaries. As objective indicators of the broader development, birth rates mirror significant

events (D'Amato & Herzfeldt, 2008). By inspecting the development in Norwegian and European birth rates, it was determined that their patterns converged. Hence, D'Amato and Herzfeldt's (2008) taxonomy was used to operationalize generation. Thus, respondents were classified and coded into 1= Generation Y, born between 1981 and 2000, 2= Generation X, born between 1960 and 1980, and 3= Baby Boomers, born between 1946 and 1959.

Demographic Variables

Demographic variables were operationalized in the following way. Gender was coded 1= male 0= female and entered as independent variable. Marital Status was coded 1= married 0= not married and entered as independent variable. Parenthood was coded 1= has one or more children under 18 years of age and/or one or more children living at home versus 0= has not. It was also entered as an independent variable. Educational level was measured by years of schooling, divided into seven subgroups. These categories ranged from 1= ten years of primary education to 7= six years or more on university or college. Educational level was entered as a covariate. As covariate number two, tenure was entered. Tenure was measured by five categories ranging from 1= less than a year of organizational experience to 5= 15 years or more.

Procedure

The data analysis was conducted by SPSS version 19.0. First, data were screened for outliers while data adequacy was tested. Next, principal component analysis with was conducted for item retention purposes and to examine the factor structure of the work values scale. Due to the Norwegian translation, exploratory factor analysis was preferred to a confirmatory approach (Kuvaas, 2006). Following Tabachnick and Fidell (2007), item retention was chosen to be conducted on items with factor loadings $\geq .4$ as long as it did not produce cross-loadings above .35 (Kuvaas, 2006). Last, multivariate analysis of covariance was applied to test the hypotheses. Compared to conducting a series of separate analysis of variances, this was seen as a desirable design because it allows for several comparisons on a measure with reduced error variance (Marascuilo & Levin, 1983). Also, Bartlett's test was significant, signifying the need for a multivariate approach (Cooper & Schindler, 1995).

Results

The Respondents

The survey was distributed by e-mail to a total of 1287 respondents resulting in a total sample of 771 respondents and a response rate of 59%. After deleting multivariate outliers (α=.001), the final sample comprised of 763 respondents. As shown in table 3.1 and 3.2, the sample was fairly balanced in terms of gender, marital status and parenthood. There was a clustering of respondents in Generation X. There was also an overweight of highly educated individuals with long tenure, signaling a certain amount of expertise. This indicated that the target group had been met (Newell, Robertson, Scarbrough, & Swan, 2009; Nordenflycht, 2010).

Table 3.1 Generational Breakdown and Demographic Characteristics

Generation		Gender		Marital Status		Parenthood	
Generation Y	13,2 %	Male	55,2 %	Married	53,2 %	Yes	52,6 %
Generation X	60,6 %	Female	44,8 %	Unmarried	46,8 %	No	47,4 %
Baby Boomers	26,2 %						

Table 3.2 Covariates

Eduacation		Tenure	
Elementary school (10 years)	2,0 %	Less than 2 years	7,2 %
Vocations	3,5 %	2-3 years	18,1 %
Upper secondary school	8,5 %	4-8 years	24,8 %
1-2 years on university or college	15,6 %	9-15 years	20,7 %
3 years on university or college	16,0 %	More than 15 years	29,2 %
4-5 years on university or college	35,6 %		
6 years on university or college	18,7 %		

Factor Analysis

The principal component analysis revealed a five- factor solution with explanatory power of 51,03%. As *information* barely exceeded the threshold for inclusion, and the reliability of the subscale increased by its exclusion, this item was omitted from the further analysis. Means, standard deviations, bivariate correlations, reliability (Cronbach's alpha) and the number of items in the final subscales are presented in table 3.3.

Results of tests of normality, homogeneity of variance- covariance matrices, linearity, and multicollinearity were assessed and judged as adequate. Covariates were assessed to be sufficiently reliable for covariance analysis.

Table 3.3 Means, Standard Deviations and Correlations Between Study Variables

		Generation Y		Generation X		Baby Boomers											
Nr.	Items	M	SD	M	SD	M	SD	1	2	3	4	5	6	7	8	9	10
1 Gender	-	,55	,05	,53	,02	,61	,035	-									
2 Marital status	-	,19	,04	,53	,02	,72	,032	,132**	-								
3 Children	-	,15	,04	,71	,02	,28	,032	,025	,303**	-							
4 Educational level	-	5,65	,10	5,39	,06	4,62	,126	,156**	-0,026	,101**	-						
5 Tenure	-	2,16	,07	3,32	,06	4,46	,064	-0,034	,186**	-0,052	-,268**	-					
6 Intrinsic	8	4,07	,04	4,05	,02	3,84	,035	-,146**	-0,05	0,021	,260**	-,123**	(0,822)				
7 Extrinsic	5	3,27	,06	3,22	,03	2,89	,046	0,07	-0,043	0,061	,331**	-,139**	,526**	(0,713)			
8 Freedom	4	3,64	,06	3,97	,03	3,76	,044	-,206**	0,048	,201**	-0,042	0,048	,258**	,126**	(0,686)		
9 Social	4	3,64	,06	3,48	,03	3,33	,041	-,090*	-0,057	-0,039	0,018	-0,006	,374**	,256**	,392**	(0,677)	
10 Altruism	3	3,02	,07	3,17	,03	3,24	,045	-,097**	0,026	-0,02	-0,061	,104**	,402**	,377**	,210**	,386**	(0,679)

Notes. N = 763; reliability estimates (α) are shown in parentheses along the

*p <.05 **p <.01

Multivariate Analysis of Covariance

A between- subjects multivariate analysis of covariance was carried out on the five dependent variables: intrinsic, extrinsic, freedom, altruistic and social work values. Generation, gender, marital status and parenthood were independent variables while educational level and tenure served as covariates. In order to examine their power to adjust the dependent variables(Tabachnick & Fidell, 2007), multiple regressions were run for each dependent variable with the covariates as predictors. Educational level gave significant adjustment to intrinsic and extrinsic work values, while tenure adjusted altruistic work values. For freedom- related and social work values, none of the covariates gave significant adjustment.

Results from the omnibus test are displayed in Table 3.4. Using Pillai's trace criterion, a significant main effect of medium size was identified for educational level and the combined set of work values (Cohen, 1992). The effect of tenure was not significant. Significant main effects were detected for generation, gender, the interaction term for generation and marital status and the interaction for generation, marital status and parenthood. The size of these effects were small (Cohen, 1992). As education explained comparatively larger part of the variance as opposed to generation, hypothesis 6b was not supported.

The interaction terms were examined further though univariate analysis. As demonstrated in table 3.5, the two-way interaction affected social and altruistic work values. The interaction between generation, marital status, and parenthood affected freedom work values. These interactions are illustrated in table 3.6-3.9.

Table 3.4: Results, Multivariate Tests

Effect	Value	F	Hyp.df	Error df	Sig.	Partial Eta Sq.	N.C. Par.	Power
Education	,137	23,30	5	733	,000	,137	116,48	1,000
Tenure	,012	1,74	5	733	,124	,012	8,68	,602
Generation	,038	2,87	10	1468	,001	,019	28,72	,978
Gender	,028	4,19	5	733	,001	,028	20,96	,960
Mar_stat	,009	1,30	5	733	,261	,009	6,51	,465
Parenthood	,016	2,40	5	733	,036	,016	12,01	,766
Gen * Mar.Stat	,031	2,34	10	1468	,010	,016	23,39	,938
Gen * Mar.Stat * Parent	,026	1,97	10	1468	,033	,013	19,66	,882

Notes. R^2 =0,145 Adjusted R^2 = 0,116. Pillai's trace is reported.

Table 3.5 Significant Results, Tests of Between-Subjects Effects

Source	DV	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Sq.	Non-Centrality Parameter	Power
Education	Intrinsic	10,70	1	10,70	50,26	,000	,064	50,26	1,000
	Extrinsic	22,91	1	22,91	64,21	,000	,080	64,21	1,000
Generation	Extrinsic	2,61	2	1,30	3,66	,026	,010	7,31	,674
	Social	6,41	2	3,21	8,41	,000	,022	16,82	,964
Gender	Intrinsic	2,26	1	2,26	10,63	,001	,014	10,63	,903
	Freedom	4,02	1	4,02	11,91	,001	,016	11,91	,931
Parenthood	Freedom	2,92	1	2,92	8,64	,003	,012	8,64	,835
Gen* MarStat	Social	3,65	2	1,83	4,79	,009	,013	9,58	,796
	Altruism	4,52	2	2,26	4,84	,008	,013	9,69	,801
Gen* MarStat* Parent	Freedom	4,10	2	2,05	6,06	,002	,016	12,12	,885

The graph in table 3.6 shows the two- way interaction effect on social work values. Intra- and intergenerational differences emerge between married and unmarried respondents. For both of the groups, social work values become more pronounced among recent generations. Within each generation, the relative valuation differs. Unmarried Baby Boomer and Generation Y respondents thus place lower emphasis on social attributes than their married peers. Within Generation X, the trend is reversed. Combined, hypothesis 4a and 4 b are supported.

Table 3.6 Plot of Significant 2-Way Interaction Term, Social Work Values

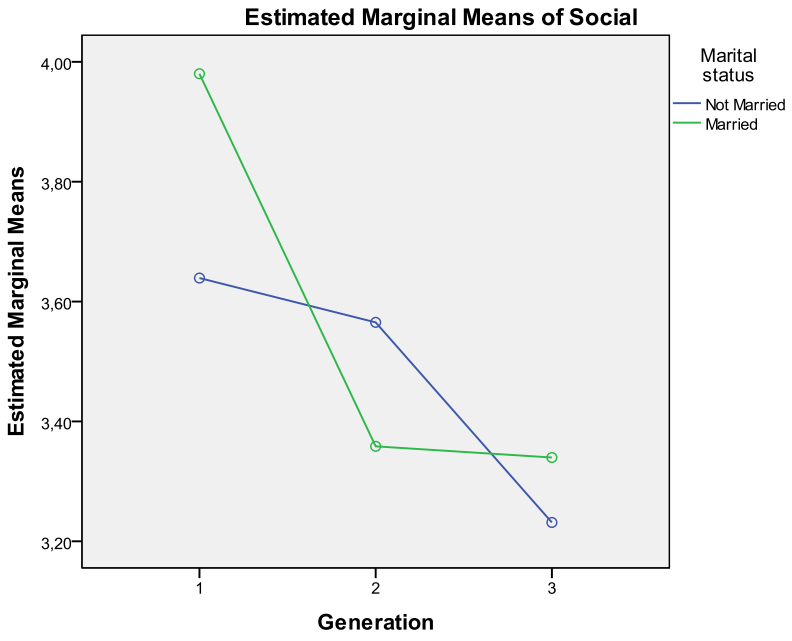
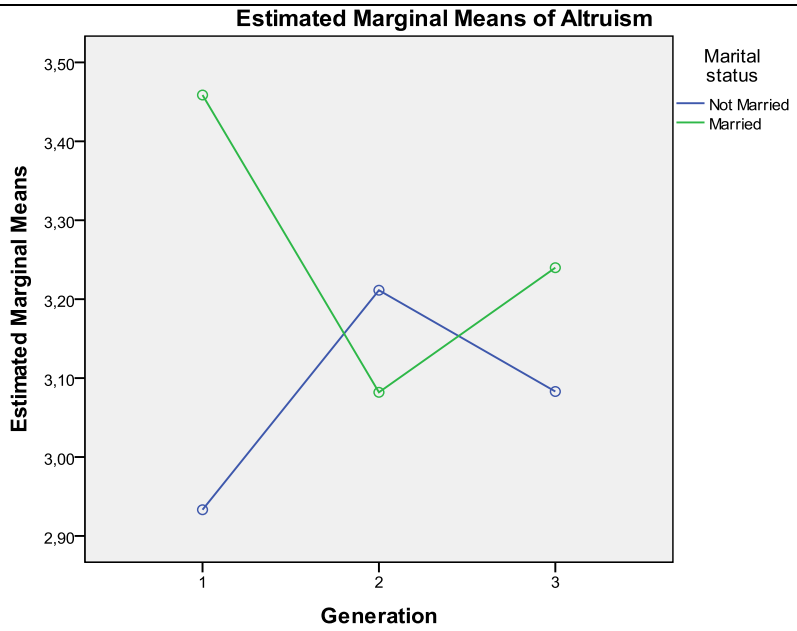


Table 3.7 Plot of Significant 2-way Interaction, Altruistic Work Values



Next, table 3.7 shows the effect of the two- way interaction term on altruistic work values. Unmarried respondents exhibit a concave pattern, peaking for Generation X, while married respondents' value orientation takes shape of a convex connection across generations. This provided support for hypothesis 5a was supported while hypothesis 5b was not supported. Hypothesis 6a was partially supported.

Table 3.8 Plot of 3-Way Interaction Term on Freedom Work Values

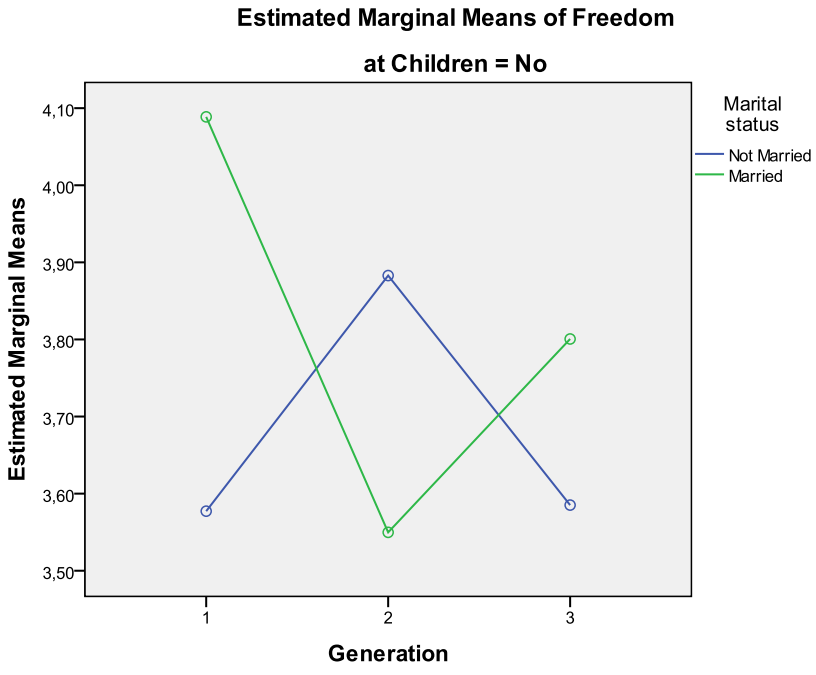


Table 3.8 depicts the effect of the three-way interaction on freedom work values for respondents without dependent children. Illustrating a similar but reinforced trend to the one just described, unmarried respondents without children place a larger emphasis on freedom work values in Generation X than other generations. Married respondents without dependent children exhibits an opposite pattern, placing lower emphasis on freedom work values in Generation X than in other generations. Hypothesis 3a was thereby supported, 3b discarded while hypothesis 6a gained partial support.

Table 3.9 shows the effect of the same interaction term on freedom work values among respondents with dependent children. Unmarried respondents show high preference toward freedom- related aspects overall, independently of generational identity. For married respondents, quite another pattern emerges, taking shape of a curvilinear and concave relation. Thus, hypothesis 3a about a significant relation was supported while 3b, predicting an increasing trend was discarded. Further, the significant and moderate demographic influence provides partial support to hypothesis 6a.

Table 3.9 Plot of Interaction on Freedom Work Values, Parental Respondents

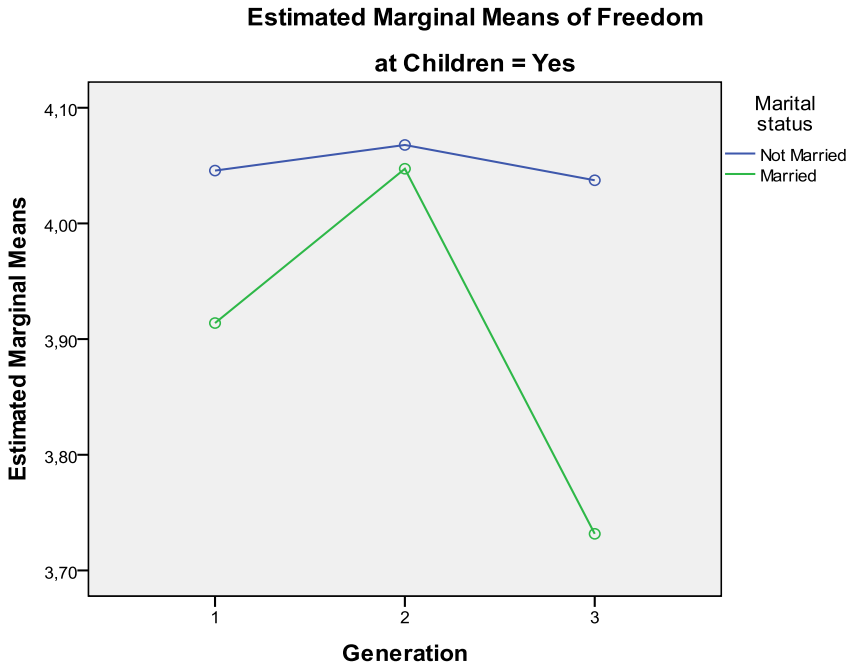


Table 3.10 Results from Pairwise Comparisons, Gender

Dependent Variable	Gender (I)	Gender (J)	Mean Difference (I-J)	Std. Error	Sig.a	95% Confidence Interval for Difference	
						Lower Bound	Upper Bound
Intrinsic	Female	Male	,200	,061	,001	,080	,321
	Male	Female	-,200	,061	,001	-,321	-,080
Extrinsic	Female	Male	,031	,079	,693	-,125	,188
	Male	Female	-,031	,079	,693	-,188	,125

As the interaction terms were not significant for intrinsic or extrinsic work values, these could be analyzed further without confound. For demographic characteristics, significant effects were detected for gender, intrinsic and extrinsic rewards. As demonstrated in table 3.10 above, post- hoc tests revealed that the gender based difference was only significant for intrinsic work values. Women placed significantly higher importance on intrinsic attributes than men. Hypothesis 6a was thereby supported. Further, generation was significantly and positively related to extrinsic work values. As shown in table 3.11 below, this difference took shape of a linear trend with recent generations placing higher importance on extrinsic attributes. This is consistent with the predicted presence of generational differences, as well as their theorized direction. Hypotheses 2a and 2b were consequentially supported.

In sum, these results support the notion of generational effect on work values. However, interactions occurred between family roles and generational membership, changing the way these differences played out. Significant relations were also identified between gender and intrinsic work values and generation and extrinsic work values. The implications of these findings will be further discussed in the following section.

Table 3.11 Results from Pairwise Comparisons, Generation

Dependent Variable	Generation (I)	Generation (J)	Mean Difference (I-J)	Std. Error	Sig.a	95% Confidence Interval for Difference	
						Lower Bound	Upper Bound
Extrinsic	GenY	GenX	,130	,103	,620	-,116	,376
		BB	,309	,124	,038	,012	,606
	GenX	GenY	-,130	,103	,620	-,376	,116
		BB	,180	,079	,071	-,010	,369
	BB	GenY	-,309	,124	,038	-,606	-,012
		GenX	-,180	,079	,071	-,369	,010

Table 3.12 Summary of Results

Nr.		Support
H1a	Generational differences will prevail in intrinsic work values	No
H1b	Intrinsic work values will be more salient in Generation X and Y than Baby Boomers	No
H2a	Generational differences will prevail in extrinsic work values	Yes
H2b	Extrinsic work values will be more salient in Generation X and Y than Baby Boomers	Yes
H3a	Generational differences will prevail in freedom work values	Yes
H3b	Freedom work values will be more salient in Generation X and Y than Baby Boomers	No
H4	Generational differences will not prevail in altruistic work values	No
H5a	Generational differences will prevail in social work values	Yes
H5b	Social work values will be more salient in Generation X and Y than Baby Boomers	No
H6a	The demographic variables will be modestly, but significantly related to work values	Partial
H6b	Generation will explain more variance than other demographic characteristics	No

Discussion

This study aimed to examine whether generational differences exists between three generations currently employed. Following the values- based approach to motivation, work values were chosen as dependent variables as they were seen to be of special importance to practitioners. In particular, it sought to answer the following research questions: Are there significant differences between the generations' work values? And do generational effects explain more than other demographic variables? As a first to address these questions empirically in a Norwegian setting, directional hypotheses were also derived with a critical view to the possible effect of national institutions.

In the following section, these questions will be discussed in light of the empirical findings. First, research question one will be addressed. As the primary research question, this was covered by hypothesis 1a to 5b which will be discussed in the first three sections. Next, research question two will be discussed through the hypothesized findings from hypothesis 6a and 6b.

Are There Generational Differences in Work Values?

The present research suggested that generational differences may have an impact on work values. Generation was modestly, but significantly related to valuation of extrinsic rewards. As this propensity was more salient among Generation X and Y than Baby Boomers, the predicted direction was also supported. Among the two, Generation Y had the higher mean ranking, implying a linear and increasing trend. This is consistent with Twenge et al. (2010), who found an increasing trend to emerge. It is also consistent with Chen and Choi (2008) and Gursoy et al. (2008). Thus, Generation Y may now enter the workforce with higher extrinsic work values, on average, than employees from different generations.

Further, family roles moderated the relation between generation and their valuation of social, altruistic and freedom related work values. Specifically, marital status moderated the relation between generation, social and altruistic work values, while marital status and parenthood jointly moderated the relation between generation and freedom work values. This supports previous reasoning by Johnson (2001), who argued that the substantial changes entailed by these transitions may exert an effect on employees' work values. However, the fact that they affected the softer work values often associated with female value profiles rather than extrinsic ones contradicts previous findings in this field. Also, the fact the family roles had the larger relative impact on these work values, manifested through the lack of significant relations between gender and for instance social work values represented a surprising result with regard to the extensive research conducted on gender as opposed to familial life stage. These findings therefore represent a possible avenue of interest for future research, which should examine whether they replicate to other populations.

Contrary to expectations, no significant relation nevertheless emerged between generation and intrinsic work values. This contradicts previous findings of Real et al. (2010), D'Amato and Herzfeld (2008) and Smola and Sutton (2002). It also contradicted the predictions which was based on Schwartz' (1999a) theory on cultural values. Future research should look into the possible causes for this apparent inconsistency.

National Influences

With respect to the directional hypotheses derived based on the likely effect of national institutions, these were generally not supported. To the exception of the predicted direction of generational differences in extrinsic work values, the findings thus failed to support the predicted salience of intrinsic, social, altruistic and freedom- related work values in Generation X and Y relative to Baby Boomers' value profiles. Instead, value patterns differed as a product of familial life stage, due to the moderating effect of marriage and parenthood. Due to the lack of support for four out of five directional hypotheses, this study thus found little reason to believe that the nation- specific institutions may influence the societal development in work values in the predicted ways for populations similar to this sample.

Demographic Influences

Turning to the influence of demographic characteristics, covariates will be first to be considered. With respect to organizational tenure, this was not significantly related to work values. While contradicting previous studies that identified a significant relation between organizational and work values, like for instance Adkins et al. (1996), this study thus supports the notion that socialization prior to adulthood may enjoy primacy to socialization occurring in later points in time, like for instance occupational socialization. In this respect, it aligns with an extensive body of literature suggesting that work values may be relatively stable from adulthood.

Furthermore, education was significantly and positively related to intrinsic and extrinsic work values. In particular, education was moderately related to intrinsic work values while exerting an effect on extrinsic orientation approximating a medium association (Cohen, 1992). This is consistent with previous findings by Johnson (2001), who also found a significant association between educational level and extrinsic work values. However, the fact that this variable was more closely related to extrinsic rather than intrinsic rewards contradicts previous findings for instance by Kalleberg (1977), while significant effect for extrinsic work values contradicted previous findings by Cherrington et al. (1979) and Rowe and Snizek (1995a). The strength of association for educational level was larger than any other variable included.

Next, gender was significantly related to intrinsic work values. Specifically, women placed larger importance on intrinsic attributes than men. This is consistent with previous findings by Herzog (1982), who found women to be more concerned with intrinsic features. Hence, this study supports the general notion that women attain larger importance to the prospects for training, development and recognition in a job, but contradicts previous findings that attribute a greater orientation toward social and altruistic aspects to women as well.

With regard to marital status and parenthood, these stages jointly moderated the effect of generation on work values. As previously discussed, this interaction term significantly affected the respondents' valuation of altruistic, social and freedom-related aspects at work. This suggests that societal change perhaps may be better captured by the joint effect of generation and other indicators of life stage. As none of the generational research reviewed seemed to come to similar conclusions, future research should look into whether this relationship may apply because of the special characteristics of this sample or whether any general conclusions may be drawn from the tentative results of the present research.

Relative Contribution to Explained Variance

Turning next to the question of relative importance between the included predictors, and the question of whether generation explains more variance than other demographic characteristics, findings suggest that this is evidently not the case. While statistically significant, the main effect of generation on work values explained a mere 1.9% of incremental variance, while the effect of generation on extrinsic work values explained only 1%. Compared to standards set by Cohen (1992), this effect size does not even fall within the range of a small effect. With regard to the strength of the moderations, these also explained marginal parts of the variance in affected work values. Overall, there is therefore little reason to believe that these effects will translate into meaningful deviations in behavior at the workplace. This questions the practical value of generation- based practices at the workplace.

Next, gender exerted a somewhat larger, yet small effect. This study thus aligns with previous studies identifying small effects of gender on work values. As only

one of the five work values included was statistically significant, this study also concurs with previous studies suggesting that the genders' value patterns are more similar than different, even though it has been argued that small to moderate changes in means can multiply to meaningful changes at the ends of distributions (Jean M. Twenge & Campbell, 2010). Neither gender nor generation thereby appeared as viable predictors in the present research.

Educational level thus emerged as the better predictor. In terms of explanatory power, years of educational accounted for a definite majority of the overall variance. As the main effect was of medium effect size, this study suggests that educational level may be important to consider for the study of individual work values in general, and for intrinsic and extrinsic work values in particular. Overall this study thus suggests that it may be a more viable strategy to consider individual differences in educational background than generational differences when designing human resource management schemes.

In sum, while generational differences were statistically significant, the effect sizes of these differences were negligent. Therefore, this study suggests that generational differences are unlikely to emerge as practically meaningful at the workplace. While providing partial support for research question one, research question two is therefore declined. In the section to come, implications of these findings are discussed.

Implications and Future Research

This study has notable implications for practitioners. While previous research has reached conflicting conclusions on the question of how generations may differ, managers have wondered whether spending limited resources on generation based policies may be justified. This study suggests that the answer to that question may be a definite no. Within the frames of this particular research, differences of negligent effect sizes emerged. In work environments of comparable nature, these differences are therefore unlikely to translate into meaningful differences in behavior. In effect, there is therefore little reason to believe that a redesign of organizational policies is warranted. This frees resources to be spent where they are needed the most, instead of being allocated to developing procedures that accommodate generational diversity.

With regard to the question of whether a generational gap currently exists, this study thus contributes to refute the myth. This represents an important implication for practitioners, who may avoid the emergence of self-fulfilling prophesies and out- group effect by informing their employees of the lack of consistent empirical evidence. By emphasizing the impressive similarity between the generations' work values which occurs in spite of extensive societal change, practitioners may therefore alleviate otherwise potential sources of conflict in addition to unnecessary expenditure.

The findings also have implications for researchers. In a society where organizations rely on the input of knowledge workers to an increasing extent, it may be important to find out whether the increased salience of extrinsic work values as indicated here describes a general trend. If knowledge workers may indeed attain increased importance to extrinsic rewards as suggested by this particular study, this may be a relevant source of concern as extrinsic rewards have been found to undermine intrinsic motivation (Deci, et al., 1999). Simultaneously, literature on knowledge workers suggests that overt rather than covert management must be used to manage these particular professionals. Future research should therefore examine whether these findings replicate to other populations of interest.

Further, this study suggests that educational level is integral to explaining individual work values. Including this factor may therefore add significant explanatory power to models. Hence, this study may provide some guidance to researchers with restricted sample size (Cohen, 1992), by guiding their choice of included predictors. As educational level explained more variance than all the other predictors included, this study suggests that it should be assigned with primary importance.

In terms of implications for further research, the identification of a moderation effect between family roles and generation may also represent an interesting finding. While previous research has largely focused on the influence of gender while omitting marital status and parenthood, this study provides support for the potential importance of including these family roles in future values- based research. Also, it suggests that these variables should not be considered

separately. Future research might want to look into the workings of the moderation terms and see if they replicate to other contexts. If so, conclusions may possibly be drawn from the patterns describing married versus unmarried respondents for reward design purposes.

Limitations

Several limitations apply to this study. Because of the constraints in the student edition of Confirmit for larger samples than 500 respondents, it was for instance possible to answer the questionnaire repeatedly. Therefore, participants wanting to obscure the results actually had the possibility to do so. Still, since participation was voluntary, the extent of this problem is likely to be low. Also, as multivariate outliers were deleted extreme scores were hindered from affecting the analysis.
Next, the lack of randomized selection represents a major limitation to this study. As a result, extraneous attributes may have influenced the results. The fact that the model explained only 14,5% of overall variance may witness of such an omission. For instance, characteristics of the family environment such as parents' socio-economic position may represent on variable of interest which was not included in the study (Hitlin & Piliavin, 2004).

Next, limitations pertain to the measure. In power of being a self- report instrument, a lack of self- insight (McClelland, Koestner, & Weinberger, 1989) and social desirability (Bowen, et al., 2002) may have opeated to bias the responses (Fields, 2002). Further, the measurement instrument is relatively new, and as previously seen, Cronbach's alpha was slightly below 0.7 for some of the subscales. This questions the internal reliability of the scale.

Moreover, the cross-sectional nature of the study implies an inevitable confound with age. Also, it may not say anything about causality. Future research should therefore look into whether selection effects apply and isolate the effect of generation from age through conducting a longitudinal project. Here, generational effects, life cycle indicators and period effects should be incorporated simultaneously (S. Lyons, et al., 2005).

Last, the specific features of the sample limit the study's external generalizability. For instance, its knowledge intensive nature makes the results less transferrable to

capital intensive populations. Future research may therefore examine the same variables within a different organizational context. Further, a nationally representative sample could shed light on regional dynamics not being capture in the present research.

Final Remarks

This study largely concurs with previous studies concluding there is little reason to believe the generational gap as it is currently portrayed in various media (Kowske, Rasch, & Wiley, 2010b; Real, et al., 2010; Wong, et al., 2008). While significant differences prevailed, the effect size was negligent. Also, educational level emerged as a relatively better predictor of work values. This study therefore argues that generation- specific practices are of little practical value. The need for special programs to accommodate Generation Y which has previously been advanced by a selection of authors is therefore not likely to be warranted. Instead, practitioners may be better served by tailoring recruitment and reward policies to individual differences, by example educational level.

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Appendix A: Survey

Introduksjon

Velkommen!

Denne spørreundersøkelsen handler om ulike faktorer som folk ser på som viktige i jobbsammenheng. Den er 100 % anonym, og tar ca. 5 minutter å besvare. Det er viktig at du svarer på undersøkelsen i sin helhet for at dine svar skal kunne registreres. Vennligst svar derfor så ærlig som mulig på alle spørsmålene som følger, og avslutt med å trykke på OK når det takkes for ditt bidrag. Takk for at du deltar!

Kjønn

Vennligst oppgi ditt kjønn

❍ Mann (1)
❍ Kvinne (2)

Alder

Vennligst oppgi din alder – denne variabelen var kontinuerlig.

❍ 18 (18)
❍ 19 (19)
……..
❍ 70 (70)

Sivil Status

Vennligst oppgi din sivil status

❍ Singel (1)
❍ I et forhold (2)
❍ Samboer (3)
❍ Gift (4)
❍ Skilt (5)
❍ Enkestand (6)

Barn

Har du barn under 18 år, eller barn som bor hjemme på nåværende tidspunkt?

❍ Ja (1)
❍ Nei (2)

Utdanningsnivå

Vennligst oppgi ditt utdannelsesnivå

❍ 10-årig grunnskole, real- eller middelskole, eller lavere (1)
❍ Yrkesfaglig videregående skole (2)
❍ Almennfaglig videregående skole (3)
❍ 1-2 år på høyskole/ universitet (4)
❍ 3 år på høyskole/ universitet (5)

❍ 4-5 år på høyskole/ universitet (6)
❍ 6 år eller mer på høyskole/ universitet (7)

Tjenestetid

Hvor lenge har du vært ansatt i nåværende organisasjon?

❍ Under 1 år (1)
❍ 2-3 år (2)
❍ 4-8 år (3)
❍ 9-15 år (4)
❍ Mer enn 15 år (5)

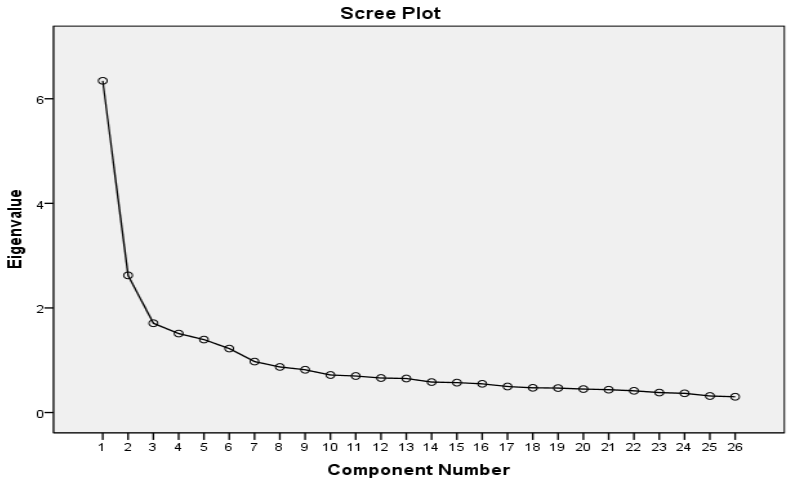
Arbeidsverdier

Vennligst ranger hvor viktig følgende faktorer ville være for deg hvis du skulle bestemme deg for å akseptere en potensiell jobb eller forbli i en jobb. Vennligst tenk på jobber generelt heller enn din nåværende stilling når du besvarer de ulike spørsmålene.

	Ikke viktig	Litt viktig	Viktig	Veldig viktig	Helt essensielt
Å ha frynsegoder (f. eks. helse/tannlegeforsikring, pensjonsplan, etc.) som dekker dine personlige behov (BEN)	□	□	□	□	□
Å utføre arbeid som har en betydelig innvirkning på organisasjonen (IMP)	□	□	□	□	□
Å ha autoritet til å organisere og styre andres arbeid (AUT)	□	□	□	□	□
Å arbeide med oppgaver og prosjekter som utfordrer dine evner (CHA)	□	□	□	□	□
Å ha ledelse som gir konstruktive tilbakemeldinger om dine prestasjoner til rett tid (FBK)	□	□	□	□	□
Å arbeide med hyggelige og vennlige medarbeidere som du kunne blitt venn med (COW)	□	□	□	□	□
Å arbeide i et miljø som er livlig og morsomt (FUN)	□	□	□	□	□
Å ha muligheten til å lære noe nytt og utvikle ny kunnskap kontinuerlig (CLN)	□	□	□	□	□
Å ha jobbsikkerhet (SEC)	□	□	□	□	□
Å ha arbeidstider som er beleilige for livet ditt (f.eks fleksitid) (HRS)	□	□	□	□	□
Å utføre arbeidsoppgaver som du synes er interessante, spennende og engasjerende (INT)	□	□	□	□	□
Å ha frihet til å bestemme hvordan du skal arbeide og legge opp tiden din	□	□	□	□	□

	Ikke viktig	Litt viktig	Viktig	Veldig viktig	Helt essensielt
(FRE)					
Å arbeide i et miljø som tillater deg å balansere ditt yrkesliv med ditt privatliv og familieansvar (BAL)	□	□	□	□	□
Å ha tilgang til den informasjonen du trenger for å gjøre din jobb (INF)	□	□	□	□	□
Å utføre prestisjefylt arbeid som er høyt ansett av andre (PRE)	□	□	□	□	□
Å utføre arbeid som gir deg god lønn (SAL)	□	□	□	□	□
Å utføre varierte arbeidsoppgaver (VAR)	□	□	□	□	□
Å jobbe et sted der et stykke godt arbeid blir anerkjent (REC)	□	□	□	□	□
Å utføre arbeid som tillater deg å bruke de evnene du har utviklet gjennom din utdanning og erfaring (ABI)	□	□	□	□	□
Å ha muligheten for forfremmelse i din karriere (ADV)	□	□	□	□	□
Å utføre arbeid som gir deg en personlig følelse av måloppnåelse i dine prestasjoner (Ach)	□	□	□	□	□
Å utføre arbeid som innebærer mye sosial omgang (SOC)	□	□	□	□	□
Å ha mulighet til å påvirke organisasjonens resultater (IFL)	□	□	□	□	□
Å arbeide for en leder som er omtenksom og støtter deg (SSU)	□	□	□	□	□
Å utføre arbeid som gir deg muligheten til å hjelpe andre (HLP)	□	□	□	□	□
Å utføre samfunnsnyttig arbeid (CSR)	□	□	□	□	□

Appendix B: SPSS Output Preliminary Analysis



Communalities

	Initial	Extraction
Benefits	1,000	,423
Significant impact	1,000	,478
Authority	1,000	,547
Challenging work tasks	1,000	,628
Feedback	1,000	,488
Co-workers	1,000	,682
Fun	1,000	,676
Continously learn	1,000	,583
Job security	1,000	,524
Convenient work hours	1,000	,711
Interesting work tasks	1,000	,634
Freedom	1,000	,602
Work life balance	1,000	,691
Information	1,000	,536
Prestigous	1,000	,537
Salary	1,000	,460
Variety	1,000	,389
Recognition	1,000	,499
Use abilities	1,000	,496
Advancement	1,000	,553
Achievement	1,000	,545
Social interaction	1,000	,469
Influence	1,000	,555
Supervisor	1,000	,493
Help people	1,000	,722
Contribution to society	1,000	,650

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6,216	23,909	23,909	6,216	23,909	23,909	3,765	14,482	14,482
2	2,581	9,926	33,835	2,581	9,926	33,835	2,642	10,162	24,644
3	1,674	6,439	40,274	1,674	6,439	40,274	2,116	8,138	32,782
4	1,513	5,819	46,093	1,513	5,819	46,093	2,094	8,056	40,837
5	1,340	5,153	51,246	1,340	5,153	51,246	2,086	8,023	48,861
6	1,245	4,789	56,035	1,245	4,789	56,035	1,865	7,174	56,035
7	,968	3,722	59,757						
8	,888	3,416	63,173						
9	,823	3,164	66,337						
10	,752	2,891	69,228						
11	,699	2,687	71,915						
12	,692	2,660	74,575						
13	,667	2,565	77,140						
14	,594	2,285	79,425						
15	,578	2,224	81,649						
16	,557	2,143	83,792						
17	,508	1,955	85,748						
18	,494	1,899	87,647						
19	,476	1,830	89,477						
20	,447	1,721	91,198						
21	,435	1,672	92,869						
22	,425	1,634	94,503						
23	,399	1,535	96,038						
24	,373	1,434	97,472						
25	,334	1,286	98,758						
26	,323	1,242	100,000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component					
	1	2	3	4	5	6
Benefits						,442
Significant impact		,479				
Authority		,685				
Challenging work tasks	,740					
Feedback	,466					
Co-workers					,808	
Fun					,769	
Continously learn	,706					
Job security						,572
Convenient work hours			,817			
Interesting work tasks	,774					
Freedom			,700			
Work life balance			,790			
Information						,643
Prestigous		,682				
Salary		,624				
Variety	,437					
Recognition	,466					,423
Use abilities	,586					
Advancement		,604				
Achievement	,664					
Social interaction					,514	
Influence				,507		
Supervisor						,498
Help people				,805		
Contribution to society				,764		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Component Transformation Matrix

Component	1	2	3	4	5	6
1	,655	,459	,269	,353	,302	,267
2	-,423	-,351	,517	,109	,482	,431
3	-,514	,395	-,402	,638	,103	,025
4	-,353	,646	,545	-,298	-,228	-,143
5	,033	-,198	,248	,418	-,780	,340
6	-,053	,229	-,374	-,439	-,076	,779

Extraction Method: Principal Component Analysis.

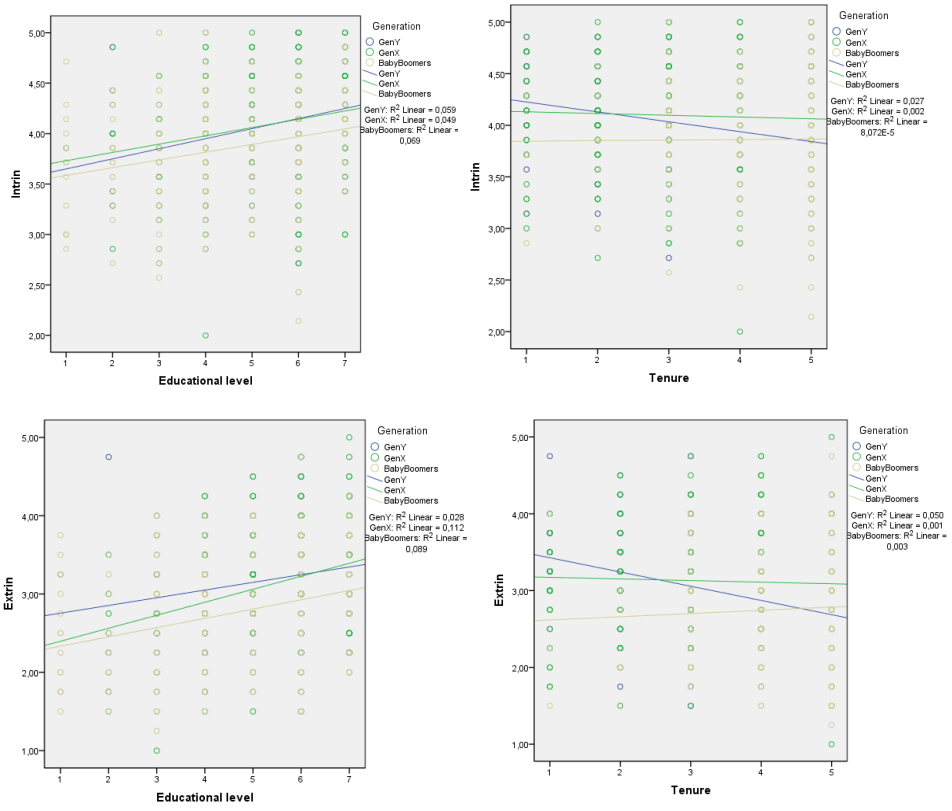
Rotation Method: Varimax with Kaiser Normalization.

Appendix C: Testing Assumptions

Table 8: Correlations Between the covariates

		Educational	Tenure
Educational level	Pearson Correlation	1	-,263
	Sig. (2-tailed)		,000
	Sum of Squares and	1626,988	-371,099
	Covariance	2,178	-,497
	N	748	748
Tenure	Pearson Correlation	-,263	1
	Sig. (2-tailed)	,000	
	Sum of Squares and	-371,099	1221,631
	Covariance	-,497	1,635
	N	748	748

Linear relationship, dependent variables and covariates, a sample



Homogeneity of regression slopes

Tests of Between-Subjects Effects

Dependent Variable:Intrin

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	18,381[a]	5	3,676	15,775	,000
Intercept	302,034	1	302,034	1296,081	,000
Generation * edu	,050	2	,025	,108	,897
Generation	,262	2	,131	,562	,570
edu	5,591	1	5,591	23,991	,000
Error	176,408	757	,233		
Total	12616,286	763			
Corrected Total	194,789	762			

a. R Squared = ,094 (Adjusted R Squared = ,088)

Tests of Between-Subjects Effects

Dependent Variable:Extrin

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	54,282[a]	5	10,856	26,846	,000
Intercept	132,941	1	132,941	328,742	,000
Generation * edu	1,029	2	,515	1,273	,281
Generation	,586	2	,293	,725	,485
edu	12,205	1	12,205	30,181	,000
Error	306,126	757	,404		
Total	7416,188	763			
Corrected Total	360,408	762			

a. R Squared = ,151 (Adjusted R Squared = ,145)

Tests of Between-Subjects Effects

Dependent Variable:Freedom

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	26,578[a]	5	5,316	11,896	,000
Intercept	366,683	1	366,683	820,581	,000
Generation * edu	1,890	2	,945	2,115	,121
Generation	2,557	2	1,279	2,861	,058

edu	,306	1	,306	,684	,408
Error	338,272	757	,447		
Total	12055,778	763			
Corrected Total	364,850	762			

a. R Squared = ,073 (Adjusted R Squared = ,067)

Tests of Between-Subjects Effects

Dependent Variable:Altruistic

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	4,201[a]	5	,840	1,786	,113
Intercept	256,458	1	256,458	545,181	,000
Generation * edu	,245	2	,123	,261	,771
Generation	,387	2	,193	,411	,663
edu	,578	1	,578	1,228	,268
Error	356,100	757	,470		
Total	8023,111	763			
Corrected Total	360,301	762			

a. R Squared = ,012 (Adjusted R Squared = ,005)

Tests of Between-Subjects Effects

Dependent Variable:Intrin

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	8,675[a]	5	1,735	7,057	,000
Intercept	624,636	1	624,636	2540,646	,000
Generation	1,051	2	,526	2,138	,119
tenure	,439	1	,439	1,786	,182
Generation * tenure	,411	2	,206	,837	,434
Error	186,114	757	,246		
Total	12616,286	763			
Corrected Total	194,789	762			

a. R Squared = ,045 (Adjusted R Squared = ,038)

Tests of Between-Subjects Effects

Dependent Variable:Extrin

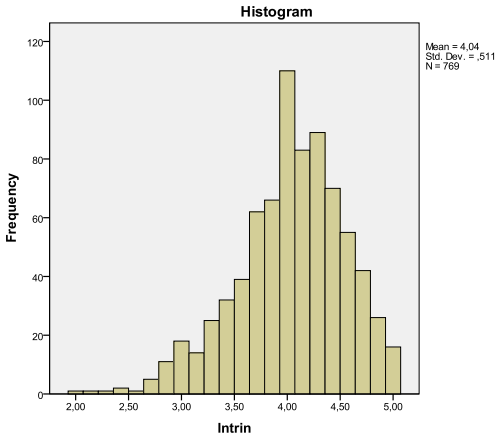
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	24,081[a]	5	4,816	10,840	,000
Intercept	362,842	1	362,842	816,680	,000
Generation	4,829	2	2,415	5,435	,005
tenure	1,024	1	1,024	2,305	,129
Generation * tenure	2,088	2	1,044	2,350	,096
Error	336,327	757	,444		
Total	7416,188	763			
Corrected Total	360,408	762			

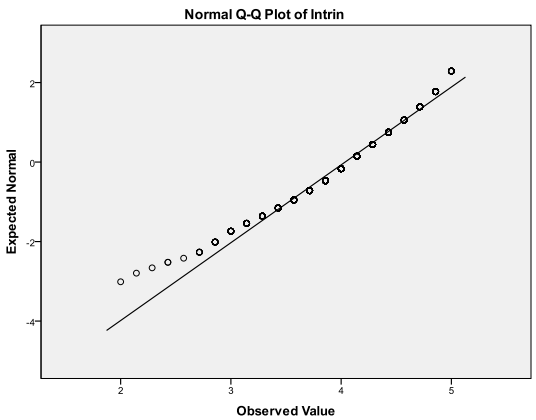
a. R Squared = ,067 (Adjusted R Squared = ,061)

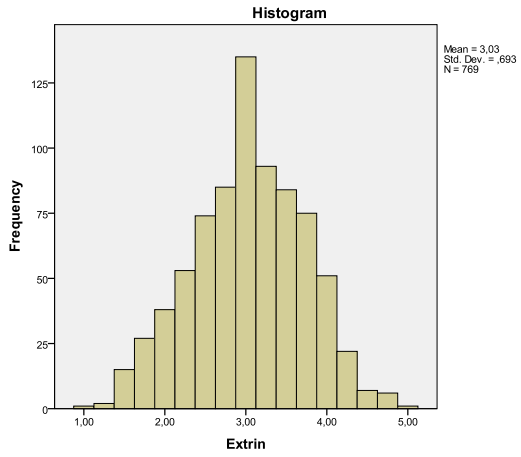
Normality

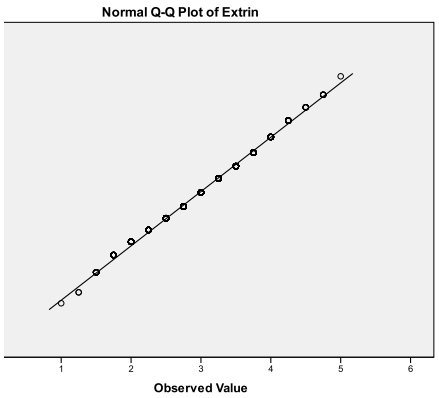
Descriptive Statistics

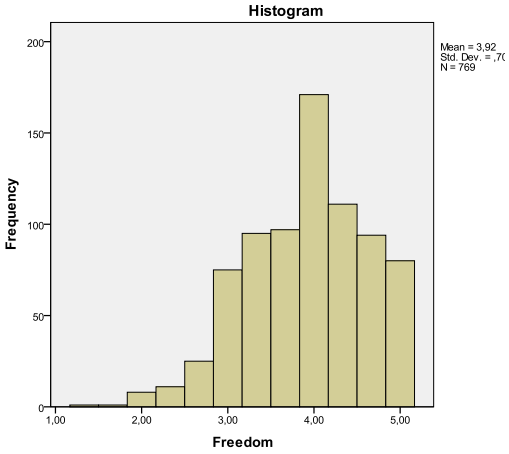
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Educational level	769	1	7	5,22	1,480	-,814	,088	,016	,176
Tenure	769	1	5	3,47	1,276	-,281	,088	-1,060	,176
Age	769	18	65	43,61	10,433	,052	,088	-1,009	,176
Generation	769	1,00	3,00	2,1274	,61609	-,084	,088	-,434	,176
Valid N (listwise)	769								

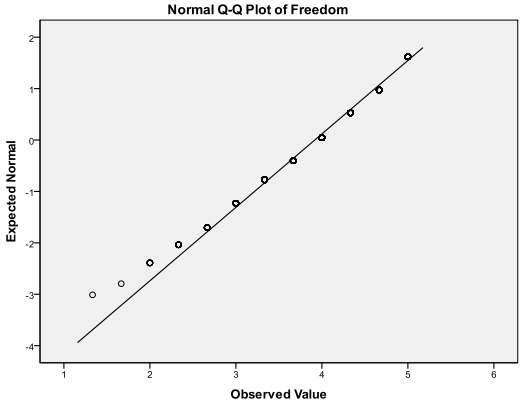


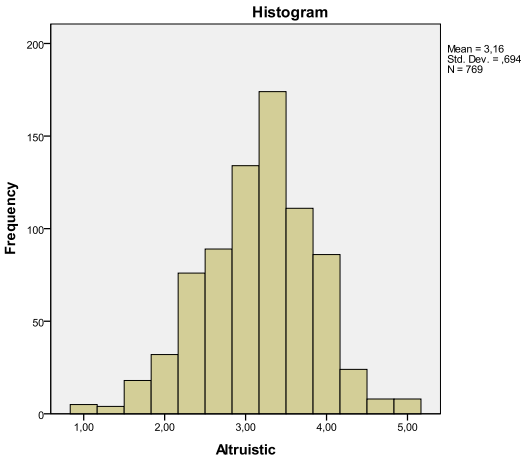


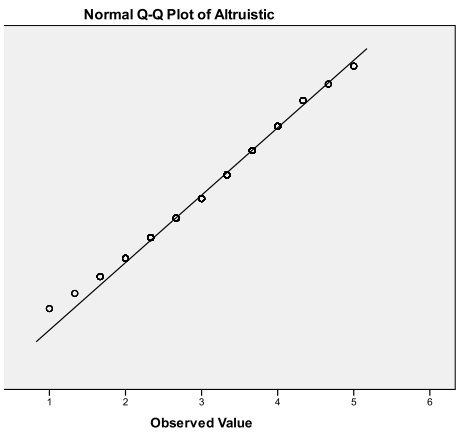

Histogram
Mean = 3,03
Std. Dev. = ,693
N = 769
Frequency
Extrin

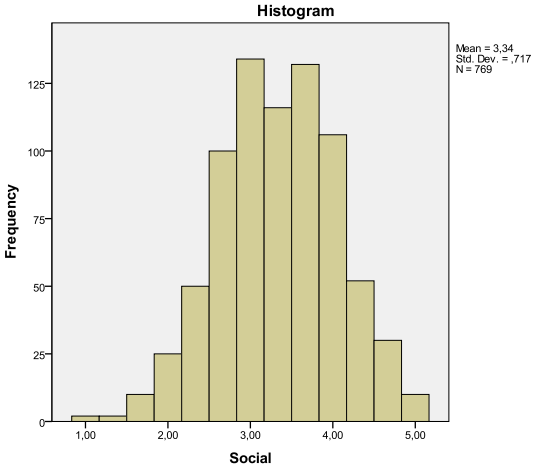

Normal Q-Q Plot of Extrin
Observed Value

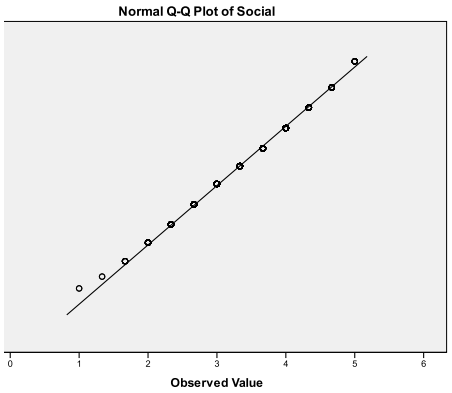

Histogram
Mean = 3,92
Std. Dev. = ,7(
N = 769
Frequency
Freedom


Normal Q-Q Plot of Freedom
Expected Normal
Observed Value

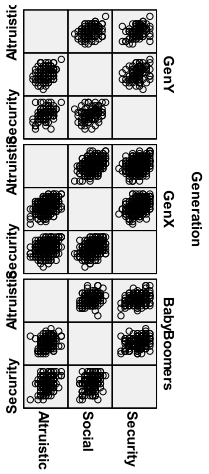

Histogram
Mean = 3,16
Std. Dev. = ,694
N = 769
Frequency
Altruistic

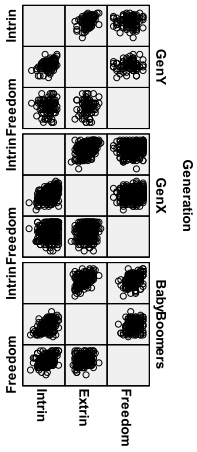

Normal Q-Q Plot of Altruistic
Observed Value





Linearity





Multicollinearity and singularity

Correlations

		Intrin	Extrin	Freedom	Altruistic	Social	Security
Intrin	Pearson Correlation	1	,481**	,257**	,379**	,311**	,302**
	Sig. (2-tailed)		,000	,000	,000	,000	,000
	N	763	763	763	763	763	763
Extrin	Pearson Correlation	,481**	1	,165**	,321**	,230**	,113**
	Sig. (2-tailed)	,000		,000	,000	,000	,002
	N	763	763	763	763	763	763
Freedom	Pearson Correlation	,257**	,165**	1	,174**	,280**	,352**
	Sig. (2-tailed)	,000	,000		,000	,000	,000
	N	763	763	763	763	763	763

Altruistic	Pearson Correlation	,379**	,321**	,174**	1	,335**	,341**
	Sig. (2-tailed)	,000	,000	,000		,000	,000
	N	763	763	763	763	763	763
Social	Pearson Correlation	,311**	,230**	,280**	,335**	1	,355**
	Sig. (2-tailed)	,000	,000	,000	,000		,000
	N	763	763	763	763	763	763
Security	Pearson Correlation	,302**	,113**	,352**	,341**	,355**	1
	Sig. (2-tailed)	,000	,002	,000	,000	,000	
	N	763	763	763	763	763	763

**. Correlation is significant at the 0.01 level (2-tailed).

Homogeneity of variance- covariance matrices

Box's Test of Equality of Covariance Matrices[a]

Box's M	285,539
F	1,081
df1	240
df2	23384,117
Sig.	,187

Appendix D: SPSS Output, MANCOVA

Multivariate Tests[d]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	N.Par.	Observed Power[b]
Intercept	Pillai's Trace	,740	417,930[a]	5,000	733,000	,000	,740	2089,652	1,000
	Wilks' Lambda	,260	417,930[a]	5,000	733,000	,000	,740	2089,652	1,000
	Hotelling's Trace	2,851	417,930[a]	5,000	733,000	,000	,740	2089,652	1,000
	Roy's Largest Root	2,851	417,930[a]	5,000	733,000	,000	,740	2089,652	1,000
edu	Pillai's Trace	,137	23,296[a]	5,000	733,000	,000	,137	116,482	1,000
	Wilks' Lambda	,863	23,296[a]	5,000	733,000	,000	,137	116,482	1,000
	Hotelling's Trace	,159	23,296[a]	5,000	733,000	,000	,137	116,482	1,000
	Roy's Largest Root	,159	23,296[a]	5,000	733,000	,000	,137	116,482	1,000
tenure	Pillai's Trace	,012	1,737[a]	5,000	733,000	,124	,012	8,685	,602
	Wilks' Lambda	,988	1,737[a]	5,000	733,000	,124	,012	8,685	,602
	Hotelling's Trace	,012	1,737[a]	5,000	733,000	,124	,012	8,685	,602
	Roy's Largest Root	,012	1,737[a]	5,000	733,000	,124	,012	8,685	,602
generation	Pillai's Trace	,038	2,872	10,000	1468,000	,001	,019	28,723	,978
	Wilks' Lambda	,962	2,886[a]	10,000	1466,000	,001	,019	28,860	,978
	Hotelling's Trace	,040	2,900	10,000	1464,000	,001	,019	28,997	,979

	Roy's Largest Root	,035	5,208[c]	5,000	734,000	,000	,034	26,038	,988
gender	Pillai's Trace	,028	4,191[a]	5,000	733,000	,001	,028	20,956	,960
	Wilks' Lambda	,972	4,191[a]	5,000	733,000	,001	,028	20,956	,960
	Hotelling's Trace	,029	4,191[a]	5,000	733,000	,001	,028	20,956	,960
	Roy's Largest Root	,029	4,191[a]	5,000	733,000	,001	,028	20,956	,960
mar_stat	Pillai's Trace	,009	1,303[a]	5,000	733,000	,261	,009	6,513	,465
	Wilks' Lambda	,991	1,303[a]	5,000	733,000	,261	,009	6,513	,465
	Hotelling's Trace	,009	1,303[a]	5,000	733,000	,261	,009	6,513	,465
	Roy's Largest Root	,009	1,303[a]	5,000	733,000	,261	,009	6,513	,465
parent	Pillai's Trace	,016	2,403[a]	5,000	733,000	,036	,016	12,014	,766
	Wilks' Lambda	,984	2,403[a]	5,000	733,000	,036	,016	12,014	,766
	Hotelling's Trace	,016	2,403[a]	5,000	733,000	,036	,016	12,014	,766
	Roy's Largest Root	,016	2,403[a]	5,000	733,000	,036	,016	12,014	,766
generation * gender	Pillai's Trace	,011	,838	10,000	1468,000	,592	,006	8,383	,453
	Wilks' Lambda	,989	,838[a]	10,000	1466,000	,592	,006	8,377	,453
	Hotelling's Trace	,011	,837	10,000	1464,000	,593	,006	8,372	,453
	Roy's Largest Root	,008	1,247[c]	5,000	734,000	,285	,008	6,237	,446
generation * mar_stat	Pillai's Trace	,031	2,339	10,000	1468,000	,010	,016	23,394	,938
	Wilks' Lambda	,969	2,342[a]	10,000	1466,000	,010	,016	23,423	,939

	Hotelling's Trace	,032	2,345	10,000	1464,000	,010	,016	23,451	,939
	Roy's Largest Root	,025	3,694[c]	5,000	734,000	,003	,025	18,469	,932
generation * parent	Pillai's Trace	,018	1,324	10,000	1468,000	,212	,009	13,238	,690
	Wilks' Lambda	,982	1,326[a]	10,000	1466,000	,211	,009	13,258	,691
	Hotelling's Trace	,018	1,328	10,000	1464,000	,210	,009	13,277	,691
	Roy's Largest Root	,016	2,392[c]	5,000	734,000	,036	,016	11,961	,763
gender * mar_stat	Pillai's Trace	,003	,440[a]	5,000	733,000	,821	,003	2,200	,169
	Wilks' Lambda	,997	,440[a]	5,000	733,000	,821	,003	2,200	,169
	Hotelling's Trace	,003	,440[a]	5,000	733,000	,821	,003	2,200	,169
	Roy's Largest Root	,003	,440[a]	5,000	733,000	,821	,003	2,200	,169
gender * parent	Pillai's Trace	,006	,898[a]	5,000	733,000	,482	,006	4,490	,324
	Wilks' Lambda	,994	,898[a]	5,000	733,000	,482	,006	4,490	,324
	Hotelling's Trace	,006	,898[a]	5,000	733,000	,482	,006	4,490	,324
	Roy's Largest Root	,006	,898[a]	5,000	733,000	,482	,006	4,490	,324
mar_stat * parent	Pillai's Trace	,008	1,227[a]	5,000	733,000	,294	,008	6,136	,439
	Wilks' Lambda	,992	1,227[a]	5,000	733,000	,294	,008	6,136	,439
	Hotelling's Trace	,008	1,227[a]	5,000	733,000	,294	,008	6,136	,439
	Roy's Largest Root	,008	1,227[a]	5,000	733,000	,294	,008	6,136	,439
generation * gender *	Pillai's Trace	,007	,488	10,000	1468,000	,899	,003	4,876	,259

mar_stat	Wilks' Lambda	,993	,487[a]	10,000	1466,000	,899	,003	4,874	,259
	Hotelling's Trace	,007	,487	10,000	1464,000	,899	,003	4,872	,259
	Roy's Largest Root	,006	,847[c]	5,000	734,000	,517	,006	4,233	,306
generation * gender * parent	Pillai's Trace	,013	,995	10,000	1468,000	,445	,007	9,950	,537
	Wilks' Lambda	,987	,995[a]	10,000	1466,000	,446	,007	9,949	,537
	Hotelling's Trace	,014	,995	10,000	1464,000	,446	,007	9,948	,537
	Roy's Largest Root	,011	1,613[c]	5,000	734,000	,154	,011	8,065	,565
generation * mar_stat * parent	Pillai's Trace	,026	1,966	10,000	1468,000	,033	,013	19,663	,882
	Wilks' Lambda	,974	1,970[a]	10,000	1466,000	,033	,013	19,705	,883
	Hotelling's Trace	,027	1,975	10,000	1464,000	,033	,013	19,746	,883
	Roy's Largest Root	,023	3,405[c]	5,000	734,000	,005	,023	17,025	,908
gender * mar_stat * parent	Pillai's Trace	,006	,880[a]	5,000	733,000	,494	,006	4,401	,318
	Wilks' Lambda	,994	,880[a]	5,000	733,000	,494	,006	4,401	,318
	Hotelling's Trace	,006	,880[a]	5,000	733,000	,494	,006	4,401	,318
	Roy's Largest Root	,006	,880[a]	5,000	733,000	,494	,006	4,401	,318
generation * gender * mar_stat * parent	Pillai's Trace	,014	1,035	10,000	1468,000	,411	,007	10,346	,557
	Wilks' Lambda	,986	1,033[a]	10,000	1466,000	,412	,007	10,333	,556
	Hotelling's Trace	,014	1,032	10,000	1464,000	,414	,007	10,320	,556
	Roy's Largest Root	,008	1,242[c]	5,000	734,000	,287	,008	6,211	,444

Levene's Test of Equality of Error Variances[a]

	F	df1	df2	Sig.
Intrinsic	,795	23	739	,740
Extrinsic	1,819	23	739	,011
Freedom	1,083	23	739	,358
Social	1,245	23	739	,197
Altruism	,862	23	739	,652

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Corrected Model	Intrinsic	24,672[a]	25	,987	4,634	,000	,136	115,843	1,000
	Extrinsic	47,734[c]	25	1,909	5,352	,000	,154	133,789	1,000
	Freedom	42,258[d]	25	1,690	5,002	,000	,145	125,060	1,000
	Social	21,349[e]	25	,854	2,240	,001	,071	56,000	,999
	Altruism	16,812[f]	25	,672	1,443	,075	,047	36,071	,963
Intercept	Intrinsic	316,449	1	316,449	1485,859	,000	,668	1485,859	1,000
	Extrinsic	147,149	1	147,149	412,434	,000	,359	412,434	1,000
	Freedom	366,409	1	366,409	1084,363	,000	,595	1084,363	1,000
	Social	272,219	1	272,219	714,053	,000	,492	714,053	1,000
	Altruism	233,714	1	233,714	501,462	,000	,405	501,462	1,000
edu	Intrinsic	10,705	1	10,705	50,263	,000	,064	50,263	1,000
	Extrinsic	22,909	1	22,909	64,210	,000	,080	64,210	1,000
	Freedom	,235	1	,235	,694	,405	,001	,694	,132
	Social	,009	1	,009	,024	,878	,000	,024	,053
	Altruism	,094	1	,094	,201	,654	,000	,201	,073
tenure	Intrinsic	,005	1	,005	,021	,884	,000	,021	,052
	Extrinsic	,204	1	,204	,571	,450	,001	,571	,117
	Freedom	,351	1	,351	1,039	,308	,001	1,039	,175
	Social	2,277	1	2,277	5,972	,015	,008	5,972	,685
	Altruism	1,167	1	1,167	2,504	,114	,003	2,504	,352
generation	Intrinsic	,203	2	,101	,476	,621	,001	,952	,128
	Extrinsic	2,610	2	1,305	3,657	,026	,010	7,315	,674
	Freedom	,582	2	,291	,861	,423	,002	1,723	,199

	Social	6,412	2	3,206	8,409	,000	,022	16,818	,964
	Altruism	,090	2	,045	,096	,908	,000	,193	,065
gender	Intrinsic	2,264	1	2,264	10,633	,001	,014	10,633	,903
	Extrinsic	,056	1	,056	,156	,693	,000	,156	,068
	Freedom	4,023	1	4,023	11,906	,001	,016	11,906	,931
	Social	,586	1	,586	1,538	,215	,002	1,538	,236
	Altruism	,169	1	,169	,363	,547	,000	,363	,092
mar_stat	Intrinsic	,005	1	,005	,026	,873	,000	,026	,053
	Extrinsic	,030	1	,030	,084	,772	,000	,084	,060
	Freedom	,007	1	,007	,019	,890	,000	,019	,052
	Social	,372	1	,372	,975	,324	,001	,975	,167
	Altruism	1,934	1	1,934	4,149	,042	,006	4,149	,530
parent	Intrinsic	,018	1	,018	,082	,774	,000	,082	,059
	Extrinsic	,026	1	,026	,073	,787	,000	,073	,058
	Freedom	2,918	1	2,918	8,635	,003	,012	8,635	,835
	Social	,013	1	,013	,034	,853	,000	,034	,054
	Altruism	,206	1	,206	,441	,507	,001	,441	,102
generation * gender	Intrinsic	,197	2	,098	,462	,630	,001	,924	,126
	Extrinsic	,919	2	,459	1,287	,277	,003	2,575	,280
	Freedom	,525	2	,263	,777	,460	,002	1,555	,183
	Social	,305	2	,152	,400	,671	,001	,799	,115
	Altruism	,860	2	,430	,923	,398	,002	1,846	,210
generation * mar_stat	Intrinsic	1,042	2	,521	2,445	,087	,007	4,891	,493
	Extrinsic	,512	2	,256	,717	,488	,002	1,434	,172
	Freedom	1,328	2	,664	1,965	,141	,005	3,931	,408
	Social	3,652	2	1,826	4,789	,009	,013	9,579	,796
	Altruism	4,516	2	2,258	4,845	,008	,013	9,689	,801
generation * parent	Intrinsic	1,038	2	,519	2,437	,088	,007	4,875	,491
	Extrinsic	,088	2	,044	,123	,884	,000	,246	,069
	Freedom	,590	2	,295	,873	,418	,002	1,746	,201
	Social	,286	2	,143	,375	,687	,001	,750	,111
	Altruism	,920	2	,460	,987	,373	,003	1,974	,222
gender * mar_stat	Intrinsic	,112	1	,112	,525	,469	,001	,525	,112
	Extrinsic	,244	1	,244	,685	,408	,001	,685	,131
	Freedom	,009	1	,009	,027	,869	,000	,027	,053
	Social	,034	1	,034	,090	,764	,000	,090	,060
	Altruism	,123	1	,123	,264	,607	,000	,264	,081
gender * parent	Intrinsic	,356	1	,356	1,674	,196	,002	1,674	,253
	Extrinsic	,520	1	,520	1,459	,228	,002	1,459	,226
	Freedom	,643	1	,643	1,902	,168	,003	1,902	,280
	Social	,152	1	,152	,399	,528	,001	,399	,097
	Altruism	,007	1	,007	,015	,903	,000	,015	,052

mar_stat * parent	Intrinsic	,100	1	,100	,471	,493	,001	,471	,105
	Extrinsic	,220	1	,220	,616	,433	,001	,616	,123
	Freedom	1,146	1	1,146	3,392	,066	,005	3,392	,452
	Social	,121	1	,121	,317	,573	,000	,317	,087
	Altruism	,280	1	,280	,600	,439	,001	,600	,121
generation * gender * mar_stat	Intrinsic	,164	2	,082	,384	,681	,001	,769	,112
	Extrinsic	,184	2	,092	,258	,773	,001	,516	,091
	Freedom	,645	2	,323	,955	,385	,003	1,910	,216
	Social	,474	2	,237	,622	,537	,002	1,245	,154
	Altruism	,134	2	,067	,143	,866	,000	,287	,072
generation * gender * parent	Intrinsic	,087	2	,043	,204	,815	,001	,408	,082
	Extrinsic	,632	2	,316	,886	,413	,002	1,772	,203
	Freedom	1,807	2	,904	2,674	,070	,007	5,348	,531
	Social	,246	2	,123	,322	,725	,001	,645	,102
	Altruism	,083	2	,042	,089	,915	,000	,178	,064
generation * mar_stat * parent	Intrinsic	1,184	2	,592	2,781	,063	,007	5,561	,548
	Extrinsic	1,342	2	,671	1,881	,153	,005	3,762	,392
	Freedom	4,096	2	2,048	6,061	,002	,016	12,122	,885
	Social	2,054	2	1,027	2,694	,068	,007	5,387	,534
	Altruism	,031	2	,016	,033	,967	,000	,067	,055
gender * mar_stat * parent	Intrinsic	,071	1	,071	,335	,563	,000	,335	,089
	Extrinsic	,002	1	,002	,004	,947	,000	,004	,051
	Freedom	,551	1	,551	1,630	,202	,002	1,630	,247
	Social	,021	1	,021	,056	,813	,000	,056	,056
	Altruism	,674	1	,674	1,447	,229	,002	1,447	,225
generation * gender * mar_stat * parent	Intrinsic	,836	2	,418	1,964	,141	,005	3,927	,407
	Extrinsic	,223	2	,112	,313	,732	,001	,625	,100
	Freedom	1,068	2	,534	1,581	,206	,004	3,162	,336
	Social	,195	2	,098	,256	,774	,001	,512	,090
	Altruism	1,285	2	,643	1,379	,253	,004	2,758	,297
Error	Intrinsic	156,962	737	,213					
	Extrinsic	262,949	737	,357					
	Freedom	249,034	737	,338					
	Social	280,967	737	,381					
	Altruism	343,490	737	,466					
Total	Intrinsic	12370,641	763						
	Extrinsic	7837,200	763						
	Freedom	11733,688	763						
	Social	9445,438	763						
	Altruism	8023,111	763						
Corrected Total	Intrinsic	181,633	762						
	Extrinsic	310,682	762						

	Freedom	291,292	762					
	Social	302,316	762					
	Altruism	360,301	762					

a. R Squared = ,136 (Adjusted R Squared = ,107)

b. Computed using alpha = ,05

c. R Squared = ,154 (Adjusted R Squared = ,125)

d. R Squared = ,145 (Adjusted R Squared = ,116)

e. R Squared = ,071 (Adjusted R Squared = ,039)

f. R Squared = ,047 (Adjusted R Squared = ,014)

Estimated Marginal Means

1. Generation

				95% Confidence Interval	
Dependent Variable	Generation	Mean	Std. Error	Lower Bound	Upper Bound
Intrinsic	1	4,050[a]	,074	3,904	4,196
	2	4,040[a]	,028	3,985	4,096
	3	3,982[a]	,054	3,877	4,088
Extrinsic	1	3,302[a]	,096	3,113	3,491
	2	3,172[a]	,037	3,100	3,244
	3	2,992[a]	,070	2,856	3,129
Freedom	1	3,906[a]	,094	3,723	4,090
	2	3,887[a]	,036	3,817	3,957
	3	3,789[a]	,068	3,656	3,922
Social	1	3,810[a]	,099	3,614	4,005
	2	3,462[a]	,038	3,387	3,536
	3	3,286[a]	,072	3,144	3,427
Altruism	1	3,196[a]	,110	2,980	3,412
	2	3,147[a]	,042	3,064	3,229
	3	3,161[a]	,080	3,005	3,318

a. Covariates appearing in the model are evaluated at the following values: Educational level = 5,22, Tenure = 3,47.