

Demographic Indicators as Predictors of Future Time Perspective

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Abstract The present investigation examined the relationships between five demographic variables (age, sex, income, marital status, and education) and future time perspective. From a theoretical perspective, these demographic indicators were conceptualized as proxy measures for the social forces that influence the adult expression of this personality dimension. Data were drawn from six investigations in which a brief measure of future time perspective (Hershey and Mowen in *The Gerontologist* 40:687–697, 2000) had been administered to one thousand four hundred and ninety eight individuals. Higher future time perspective scores (i.e., longer future orientations) were associated with being male, increased age, income, and educational level. These main effects, however, were mitigated by a significant three-way interaction among sex, age, and level of education. These findings suggest that a complex interplay of variables is responsible for the expression of personality traits at the individual level.

Keywords Future time perspective · Time orientation · Personality · Demographic

What is it that predisposes some individuals to plan for the future more than others? According to personality theorists, planning predispositions largely stem from individual differences in future time perspective. This central personality trait has been shown to influence a variety of real-world behaviors such as levels of work motivation (Seijts 1998), the pursuit of higher education (Peetsma 2000), attitudes toward safe sex (Burns and Dillon 2005), late-life planning behaviors (Burtless 1999), the regulation of

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social emotions (Carstensen et al. 1999) and retirement planning practices (Jacobs-Lawson et al. 2004; Jacobs-Lawson and Hershey 2005). A large majority of empirical studies have conceptualized future time perspective as a precursor to behavior. Relatively few investigations, in contrast, have sought to explore the antecedents of future time perspective. The present study was designed to evaluate the extent to which five common demographic indicators independently (and jointly) covary with individual differences in future orientation.

In the literature, future time perspective has been characterized as a “central” personality trait (cf., Mowen 2000). Theoreticians have argued that this construct is shaped by multiple factors, including “cardinal” personality traits such as conscientiousness and emotional stability (Hershey and Mowen 2000), culturally-based social norms regarding the perception of time (Jones 1988), one’s chronological age (Gonzalez and Zimbardo 1985), life stage (Sears 1981), and perceived proximity to death (Carstensen 2006). Investigations of future time perspective often rely on demographic indicators as proxy variables for the social and intrapsychic forces that structure individuals’ orientation to time. Unfortunately, researchers fail to agree on whether future time perspective is a unitary or multidimensional construct, and opinions also differ on how it should best be operationalized and measured. In a review of the future orientation literature, Seijts (1998) found that the construct had been operationalized in at least five different ways. For the purpose of the present study, future time perspective was viewed as a form of “extension” that is how far an individual looks into the future when thinking about his or her life (Seijts, p.157, definition one).

From both theoretical and applied perspectives, understanding the extent to which future orientation covaries with demographic markers is an important research goal. From an applied perspective, it is important to know which segments of the population possess a “low” future time perspective, because such persons might be differentially prone to making poor decisions and failing to plan for the future when appropriate. The ability to successfully identify individuals with low levels of future time perspective would be helpful in developing applied intervention programs aimed at encouraging forward-thinking patterns of behavior.

Another reason it is important to examine the link between demographic variables and future time perspective is because doing so can help extend the theoretical basis of trait theory. If it is found, for instance, that differences exist in future time perspective as a function of sex, age, and educational level, then that would support the notion that social forces emanating from the environment shape our personality development. In other words, demographic markers in this study are conceptualized as proxy variables for the various normative social messages that influence our thoughts about time. Say it is found that middle-aged married men are found to have a particularly “long” future time perspective. We could presumably then look to the specific characteristics of the environment of middle-aged married men to determine the factors that promoted that personality manifestation. By exploring the relationship between five demographic indicators and future time perspective we hope to learn something about the unique characteristics that covary with this personality dimension. At a broader level, however, the findings from this study should provide insights into the extent to which socio-cultural factors contribute to our personality expression.

With a few exceptions, previous studies have shown that high levels of future time perspective are associated with being married, being a man, having a high income, and

having achieved high levels of education (Bortner and Hultsch 1974; Glass and Kilpatrick 1998; Gonzalez and Zimbardo 1985; Rakowski 1979). Studies that have examined the relationship between age and future time perspective have resulted in equivocal findings (Fingerman and Perlmutter 1995; Rakowski 1979). Taken together, these studies have largely relied on small samples with truncated age ranges representing different points in the lifespan. These sample characteristics present one potential explanation as to why findings are inconsistent across studies. A second possible explanation is that the aforementioned studies focused primarily on main effects. To address the limitations described above, the present investigation of future time perspective utilized a larger sample, wider age range, and in addition to testing for main effects, all possible two- and three-way interaction effects were evaluated. Of particular interest are any interactions between age and the other four demographic variables as they may offer insights into the nature of developmental differences in future orientation.

Materials and Method

The data for this study were drawn from six different investigations carried out by the second and third authors between 2000 and 2005. Regional samples from different parts of the country were used in five of these investigations, whereas one was based on a nationally representative sample. The six studies were all part of the larger program of research to broadly examine individuals' late-life planning activities. Collectively, they represent 1,498 individuals ($n=714$ men, $n=784$ women) who range in age from 24 to 74 years ($M=47.8$, $SD=13.76$). The median level of education was 15.6 years and the median household income level was just under sixty-two thousand. Sixty-eight percent of respondents were married; the sample was over-represented by whites (87.6%) and under-represented by blacks (3.9%).

A consistent approach was used to measure future time perspective in all six investigations. For each item, participants were shown a statement and asked to "Indicate the extent to which the statement accurately represents you or reflects your feelings." The four statements were as follows: (a) "I follow the advice to save for a rainy day," (b) "I enjoy thinking about how I will live years in the future," (c) "The future seems very vague and uncertain to me," and (d) "I pretty much live on a day to day basis." The latter two items were reverse scored. Participants responded using a seven-point Likert-type scale (one=strongly disagree; seven=strongly agree).

Predictor variables in each of the studies were measured in a conventional fashion and were consistent across the six studies. Age and educational level were recorded in years, and income measured in dollars. Marital status was coded dichotomously (zero=single/divorced/widowed/other; one=married/ cohabitating), as was sex (zero=women; one=men).

Results

Before analyzing the data all distributions were checked for outliers, extreme skew or irregular kurtosis; however, none of the distributions were found to exhibit abnormal

characteristics. Next, predictor variables were centered in an effort to combat the difficulties associated with multicollinearity and interaction terms computed. Forward selection regression techniques were used to examine the impact of the demographic characteristics on future time perspective. This ensured that the most salient factors or interactions were entered into the regression first, which allowed us to better examine the relative impact of the various higher order effects.

Future time perspective scores were regressed on the five demographic indicators and all two- and three-way interactions, resulting in a model that contained 25 predictors. The analysis revealed five significant predictors and a significant overall model effect, $F(5, 1492)=46.94, p<0.01$. Four of the five predictors involved main effects: income ($\beta=0.31, t=12.53, p<0.01$), age ($\beta=0.18, t=7.28, p<0.01$), sex ($\beta=0.06, t=2.46, p=0.02$) and educational level ($\beta=0.06, t=2.23, p=0.03$). Among interaction terms, only the three-way interaction among age, sex, and educational level was significant, $\beta=-.06, t=2.43, p=0.02$. These five predictors collectively accounted for 13.6% of the variance in future time perspective scores.

Decomposition of the three-way interaction using a simple slopes technique (testing the slopes at one standard deviation above and below the mean for each variable; Aiken and West 1991), revealed three statistically significant slopes among the four tested. As seen in the Fig. 1a, educational level was a significant predictor of future time perspective among men at both older ($\beta=0.11, t[710]=2.18, p=0.03$) and younger ages ($\beta=0.28, t[710]=4.94, p<0.01$). Educational level was not a significant predictor of future time perspective for younger women, $\beta=0.07, t(780)=1.25$; however, the corresponding education effect exceeded the 0.01 threshold among older women, $\beta=0.17, t(780)=3.77$ (Fig. 1b).

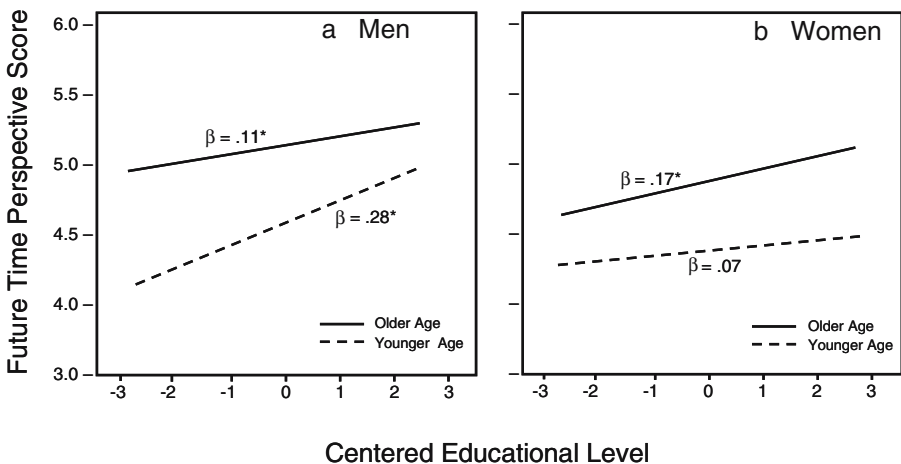


Fig. 1 Simple slopes decomposition of the three-way interaction among age, sex and educational level predicting future time perspective. **a** Represents the slopes between education and future time perspective for men at young and old ages. **b** Represents the slopes between education and future time perspective for women at young and old ages. The *asterisk* indicates slopes significant at the $p < 0.05$ level

Discussion

Four of the five demographic indicators included in this study covaried with future time perspective. Longer future orientations were found among individuals with higher incomes, those who were older, men, and those who were more highly educated. The finding that the majority of main effects emerged provides indirect support for the theoretical proposition that demographic markers can effectively serve as proxies for the social forces that shape future time perspective. More interesting than these main effects, however, was the observed three-way interaction among age, sex, and level of education.

The three-way interaction revealed that age was a critical dimension along which future time perspective scores differed. For men, the relationship between education and future time perspective was stronger for young men than older men (Fig. 1a). One speculative explanation for this effect is that differences exist in the types of life tasks encountered by young men who possess dissimilar levels of education. Relative to their less-educated counterparts, highly-educated men at this life stage would be more likely to be employed in a professional position, engaged in career-building activities, and in a personal economic situation that would cultivate an orientation toward the future. These same long-range life-planning tasks, it would seem, would not be experienced to the same degree among men with lower levels of education. The magnitude of the regression coefficient for older men was weaker due to the fact that their future time perspective scores were higher on average, thus, there was less variability to explain. For women, a very different picture emerged which suggests that the explanations for age differences among men do not hold true for women.

Older women were similar to older men in that for both, education was modestly related to future time perspective. Given the explanation offered above, this suggests that the impact of life tasks on future time perspective is comparable for members of these two groups. However, young women were unique in that their educational level was not related to future time perspective. This begs the question as to what factors are influential in the development of future orientation among young women, beyond the additive effects of age, income, and education.

Because future time perspective is related to economically enabling behaviors such as work motivation (Peetsma 2000), retirement planning (Jacobs-Lawson et al. 2004), and the pursuit of higher education (Seijts 1998), from an applied perspective, the findings have important implications for programs or efforts aimed at encouraging individuals to think more about the future. Specifically, these programs would be most beneficial if they target young men with relatively low levels of education and young women at all educational levels. Both groups, as seen in the figure, had relatively low levels of future time perspective.

The finding that the majority of main effects emerged provides indirect support for the theoretical proposition that demographic markers can serve as proxies for the social forces that shape future time perspective (Jones 1988; Mowen 2000). Furthermore, the data from this study suggest that the interrelationships between these variables are critical to understand. It is not simply age, sex or education that is related to future time perspective, but the interplay among these variables. An important extension of

this work would be to examine the environmental forces and opportunity structures that are associated with certain demographic variables.

Limitations of this study include the fact that only five demographic indicators were used, among the many possible individual difference dimensions that could have been sampled. Other variables, such as whether or not one has children, socioeconomic status, and whether one has a retirement plan at work, might also serve as reasonable predictors of the tendency to look toward the future. Future investigations might benefit by expanding the pool of demographic markers in an effort to optimize the prediction of future orientation. This study was also limited by the fact that a self-report measure was used to assess future orientation (Simons et al. 2004). Perhaps future studies could utilize a multi-method approach to the measurement of future time perspective, in order to not only replicate the present findings, but also to establish a degree of convergent validity among the dependent measures.

A question was posed in the opening of this paper: What is it that predisposes some individuals to plan for the future more than others? Such a question is not easily answered, but any list of the factors that account for individual differences in future time perspective would have to include income, age, sex, and level of educational attainment. It would be a serious mistake, however, to conclude that these demographic variables were causally linked to time perspective. More likely it is the case that they merely covary with the social forces, environmental constraints, and meaningful life tasks individuals encounter during the course of their lives. From a research perspective, the truly challenging task lies ahead-to show how these often unobservable and difficult to measure constructs differentially structure our orientation to time.

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