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Reinforcement or Compensation? The Effects of Parents' Work and Financial Conditions on Adolescents' Work Values during the Great Recession*

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The Great Recession of 2008–2009 brought many changes to the work and financial lives of American families, as unemployment soared, job security eroded, and employees' job duties were redefined to cover existing workloads with fewer employees. Unemployment rose from 5 percent in December of 2007 to 10 percent at its peak in October of 2009 (U.S. Bureau of Labor Statistics, 2010). Hurd and Rohwedder (2010) estimate that more than one in three American households experienced either unemployment, negative equity in their home, or failure to make a house payment between 2008 and 2009. Recent research documents shifts in adult work value orientations in response to recessionary experiences (Johnson, Sage & Mortimer, 2012). Little is known, however, about how changes in parents' work conditions in hard economic times influence the vocational development of their adolescent children.

The formation of work values is a key component of vocational development; these orientations serve as a guide in occupational choice (Johnson & Mortimer, 2011; Weisgram, Bigler & Liben, 2010) and for evaluating one's satisfaction with work (Hoffmans et al., 2013; Kalleberg, 1977). Work values also shape work engagement and other behaviors (e.g., Sorthaix et al., 2013). Thus, it is important to understand the experiences that shape work

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values early in life and how major historical changes, like economic recessions, affect their development.

Drawing on data from an intergenerational study of parents in their late 30s and their adolescent children, the current study examined whether children's work values reflected parents' employment and financial experiences during the Great Recession. We considered two potential processes of influence based on the social psychological literature as well as a prior study of parental job values in the Great Recession (Johnson, Sage, and Mortimer, 2012). The first, the reinforcement hypothesis, predicts that children value most the desirable features of parents' jobs that are readily available; children attach less value to those job features that their parents have lost or are otherwise not within reach. The second, the compensation hypothesis, predicts that when parents' desirable job features erode or become more difficult to obtain, the value that children place on those features rises. This is especially likely to occur when declining parental job circumstances affect the material well-being of workers and their children. This study also examined whether parents' work values shape their children's values, and whether they mediated the influence of parental financial and employment experiences on the next generation's orientations to work.

Adolescents' Work Values

Work values reflect the importance attached to various rewards of working. Although alternative conceptualizations exist, the dominant view classifies work rewards as being either intrinsic or extrinsic. This distinction originates from two classic studies in occupational choice and satisfaction. Rosenberg (1957) distinguished between rewards gained from doing work, which he labeled self-expression rewards, and rewards given in return for work performed, which he labeled extrinsic. Likewise, Herzberg, Mausner and Snyderman (1959) distinguished between the intrinsic content of the job and the job situation or context, including rewards given in exchange for work. Accordingly, intrinsic rewards include work that is interesting, challenging, or offering learning opportunities, work that is meaningful to the worker, or work that benefits others or society. In contrast, extrinsic rewards include features such as pay, benefits, job security, prestige, and opportunities for advancement. A recent study supports this classification across a range of datasets from different populations and eras (Johnson et al., 2007).

Adolescence is a key period for the development of work values. According to classic theories of vocational development (Erikson, 1959; Ginzberg, et al., 1951; Super, et al., 1963), young people gradually develop understandings of their own interests, preferences, and capacities, and attempt to find a good "fit" between themselves and the experiences and rewards that can be obtained through work. (For more recent formulations of vocational development, see Fouad, 2007; Porfeli & Vondracek, 2007; Porfeli, Hartung, & Vondracek, 2008). Crystallizing occupational values is a central component of this growing self-awareness, which guides the assessment of potential future lines of work (e.g., Davis, 1965; Rosenberg, 1957). In forming their work values and related occupational identities, adolescents draw from their own experiences, as they are exposed to various tasks and subject matter in school, take on volunteer activities, or participate in paid work, as well as the experiences of parents, relatives, and other significant adults.

Adolescents may be considered more “vocationally mature” when their values and preferences surrounding work are clear, guiding purposeful planning, the mobilization of effort, and the selection of post-secondary educational programs and early jobs (Zimmer-Gembeck & Mortimer, 2006). In contrast, uncertainty and ambivalence about vocational goals leads to floundering in the school-to-work transition (Schneider & Stevenson, 1999; Staff, Harris, Sabates, & Briddell, 2010). Given these processes, it is not surprising to find that work values measured during high school exhibit short- and long-term connections to key achievement-related outcomes during and after the transition to adulthood, including educational attainment (e.g., Chow, Krahn & Galambos, 2013) and both pay and intrinsic rewards in later jobs (e.g., Johnson & Monserud, 2012; Mortimer & Lorence, 1979). Stability of intrinsic and extrinsic values is fairly high, though it is important to note that stability strengthens with age at least through the 20s (Jin & Rounds, 2012; Johnson, 2001).

Families are one of the most important contexts of value development (Bengtson, 1975), and while cohort effects and other factors create some dissimilarity in parents’ and children’s work values, they remain linked. Focusing specifically on the value of self-direction, Kohn et al (1986) found a significant relationship between parents’ and children’s values. Similarly, Mannheim (1988) reports a significant parent-child association in the evaluation of earnings, but not in the importance attached to social status and mobility. Ryu & Mortimer (1996) report positive associations between parents’ and adolescent children’s extrinsic and intrinsic work values, though the pattern differs somewhat across mother/father and son/daughter dyads.

Parents’ Work and Adolescents’ Values

Over the last several decades, much attention has been given to the influence of parents’ work experience on children’s and adolescents’ development and well-being (e.g., Augustine, 2014; Parcel & Menaghan, 1994), including their vocational development (Mortimer & Finch, 1996; Skorikov & Patton, 2007; Vondracek et al., 1986; Zhao et al., 2012). Adolescents’ work values are thought to develop in ways that reflect their parents’ positions in the occupational structure. According to a model developed first by Kohn and Schooler, (1983), parents’ job conditions shape parents’ work values and child-rearing goals and behaviors, which then influence children’s work values. Although this hypothetical model is rarely assessed in total (for an exception see Ryu & Mortimer, 1996), key linkages have received empirical support. Parental work characteristics shape parents’ values and child-rearing behavior (Kohn & Schooler, 1983) as well as children’s work values in adolescence and young adulthood (Galambos & Sears, 1998; Mortimer & Kumka, 1982). Correspondence between parents’ and children’s work values has likewise been documented, as described above.

In Kohn and Schooler’s model, workers value more highly those rewarding work conditions that they experience, while the value placed on other job features is lower. In other words, being in a high paying or secure job with little opportunity for creativity or self-expression would support the maintenance or growth of extrinsic values, but erode intrinsic values. Numerous longitudinal studies, taking into account the selection processes that lead workers to choose jobs reflecting their values, support this “reinforcement and accentuation”

perspective (Daehlen, 2007; Johnson, 2001; Lindsay & Knox, 1984; Mortimer & Lorence, 1979). Extending this model to the next generation, we would expect that children learn values that correspond to those of their parents. Parents communicate their values to their children, explicitly guiding their vocational development through rewarding and punishing behavior in line with parental values. Value transmission may also occur through processes of vicarious reinforcement, whereby children observe how parents respond to their jobs and form their values accordingly (Porfeli Wang, & Hartung, 2008). Thus, a child may observe parents' good moods after getting a raise, observe stress when parents experience job insecurity, or hear their parents talking about their jobs, communicating satisfaction, anxiety, hopes and fears, to one another.

Despite the empirical support this reinforcement model has received to date, another popular perspective deserves consideration. According to the compensation model, workers experiencing eroding job conditions become *more* concerned with the rewards they are losing or have difficulty getting. Moreover, based on the assumption that material needs must be met before self-actualizing experiences become salient (Maslow, 1954), workers in low paying and less secure jobs are thought to place greater emphasis on extrinsic rewards than do workers in higher paying and more secure jobs.¹ Only workers in relatively good positions with respect to extrinsic rewards (good pay, prestige, and security) can place much importance on intrinsically rewarding aspects of work.

A link between family socioeconomic status (SES) and adolescents' values is sometimes offered as support for the compensation model. As would be predicted by this perspective, parental SES is negatively associated with adolescents' extrinsic orientations and positively associated with their intrinsic orientations (Lindsay & Knox, 1984; Mortimer et al., 1996). Thus, adolescents of lower social status background may be compensating for their families' circumstances by valuing extrinsic rewards, and discounting the intrinsic. Two recent studies, however, have failed to find a significant association between socioeconomic origins and adolescents' *intrinsic* values (Johnson & Mortimer, 2011; Krahn & Galambos, 2013), raising the possibility of historical variability with respect to this pattern.

Workers' experiences in the Great Recession are particularly useful in evaluating the compensation perspective, as most assessments of how work conditions shape work values have been conducted in relatively stable economic times. As such, workers in national samples are generally not facing major threats to their work conditions in large numbers. A recent study of adults during the Great Recession, however, did not find that major difficulties, such as unemployment and wage losses, strengthened extrinsic work values as the compensation perspective would predict (Johnson, Sage & Mortimer, 2012). Instead, the findings were consistent with the reinforcement perspective.

Young people, however, may be more apt than older people to exhibit compensation processes in the face of difficult employment conditions. Chow, Krahn & Galambos (2013) found that unemployment immediately after high school (between the ages of 18 and 20)

¹Alderfer's (1972) ERG theory presents an alternative conceptualization of needs to Maslow's, applied to the work setting. However, because Alderfer did not theorize needs as hierarchically ordered, Maslow provides the inspiration for this expectation.

had a lagged positive effect on change in both intrinsic and extrinsic values in the 20s. This pattern of findings, seemingly characteristic of a scarcity-generated compensation process, could reflect developmental contingencies or historical effects. As young people moved into their 20s and felt greater expectation to have transitioned successfully from school to work, a rocky start may have heightened their concern with work rewards. Alternatively, as their 20s aligned historically with an economic recession, earlier unemployment may have sensitized young people to be more concerned with work rewards when the recession began. Still, when young adults experienced unemployment in their 20s, their evaluation of intrinsic rewards diminished, as the reinforcement model would predict (but unemployment did not weaken their evaluation of extrinsic rewards). Thus, while the compensation model has received some limited empirical support, most research on work and changing work values supports a reinforcement model (Daehlen, 2007; Johnson, 2001; Lindsay & Knox, 1984; Mortimer & Lorence, 1979).

None of these studies examined adolescents' responses to *their parents'* changing work conditions, however. In a small study of low-income Black adolescents and their parents, Isralowitz and Singer (1987) compared the work values of youth living in families in which the head of household had experienced long-term unemployment (at least 3 years) to those where the head was currently employed (and had been employed for at least a year). Adolescents in households experiencing long-term unemployment did not have different extrinsic work values than those living in families with an employed head, but, consistent with the compensation model, they did place less importance on a key intrinsic reward (autonomy). This pattern could arise if scarcity makes intrinsic rewards seem like a luxury, while having no influence on extrinsic rewards tied to material well-being.

Based on the reinforcement and accentuation perspective, we would expect that adolescents whose parents' conditions of work in the Great Recession are more rewarding, extrinsically and intrinsically, will evaluate the corresponding dimensions more positively. Increasing parental rewards will also positively affect children's work values. In contrast, we expect that negative parental experiences, such as low levels of extrinsic rewards, or declining wages, reduced household income, reduced job security, and low parental intrinsic rewards, will be associated with lower extrinsic and intrinsic work values among their adolescent children. Also consistent with the model, parents' own work values should partially mediate the relationship between parents' work experiences and adolescents' values.

In contrast, based on the compensation or scarcity model, we would expect adolescents whose parents' experience lower levels of extrinsic rewards at work, or who experience deteriorating rewards, such as reduced wages or diminished job security, to have stronger extrinsic work values than adolescents whose parents experience better material working conditions. Unemployment and major income loss, much more common in the Great Recession than during more economically stable periods, represent the kind of threat to material well-being that might be most likely to produce patterns consistent with the compensation model. In addition, the experiences of families who are more vulnerable in the economy might be more likely to show consistency with the compensation model. Parental education, as an indicator of labor market opportunities, may interact with changing work conditions to produce distinct value orientations among youth. Mortimer and colleagues

(2014) showed that children's achievement orientations were more responsive to parental hardship during the Great Recession when parents had low levels of education and prior episodes of unemployment. Education has also been shown to moderate the influence of mothers' work conditions on parenting (Augustine, 2014), which can shape children's value development.

Adolescents' sensitivity to these processes may also vary by age. Adolescents become more engaged in thinking about their future work lives as they grow older. Older adolescents may be more aware of, and reflective about, change in their parents' work and financial circumstances, and may be more apt to consider their parents' experiences in thinking about their own future work lives.

Data and Methods

We draw on data from the Youth Development Study (YDS), in which a cohort of adolescents has been surveyed into adulthood; more recently, their children have also been surveyed. YDS began with a randomly chosen panel of 1,139 ninth grade students enrolled in St. Paul, Minnesota, public schools in 1988. Participants (64 percent of those invited) completed questionnaires in their classrooms annually between 1988 and 1991. Those not present on either of the two administration days, no longer attending school, or who had moved from the area completed questionnaires by mail. Data were collected by mailed questionnaires nearly every year thereafter. The retention rate through 2009 was 62.5 percent, achieved through extensive tracking procedures and financial incentives for survey completion. In 2008, we began recruiting children whose parents had participated in recent survey waves. By 2010, 59 percent of eligible parents (i.e., those having children 11 and older) had consented to allow one or more of their children to participate. The children were surveyed by mail in 2010 (N=274).

The sample for the current study includes the children who completed the adolescent survey in 2010, together with their parents in the ongoing panel of the original study. We limited the sample to co-resident parent-adolescent pairs, as changes in parental financial and employment conditions may not influence children living outside the household (N=240).

These two generation data are particularly valuable for several reasons. As the Great Recession was not widely anticipated, it is a particular strength of this study that the parents were surveyed as a part of a longer-term panel including measurements both before and during the Great Recession. In addition, the parent questionnaire included an extensive set of measures of employment experience and financial conditions. Finally, both parent and child questionnaires measured work values, allowing us to assess intergenerational transmission of values and the extent to which this mediates the effects of changing parental circumstances on children.

Measures

We examine whether the work and financial experiences of parents in 2009 (during the Recession, at ages 35–36), and changes since 2007 (before the Recession began), shape adolescents' intrinsic and extrinsic work values, measured in 2010 (at ages 11–21; 92%

were 18 and under). We also assess whether parents' work values (measured in 2009) mediate the influence of parents' work and financial conditions on adolescents' values.

Work values for adolescents and their parents were measured by respondents' ratings of a list of job features from 1 (not at all important) to 4 (extremely important), including key indicators of intrinsic and extrinsic work rewards (see Figure 1). We averaged ratings of good pay, security, advancement opportunities and a job that is regarded highly to create a scale tapping extrinsic orientations ($\alpha = .65$ parents; $.67$ adolescents). We averaged ratings of decision-making authority, having responsibility, using one's skills and abilities, opportunities to learn, contact with people, and opportunities to help others, creating a scale of intrinsic orientations ($\alpha = .76$ parents; $.76$ adolescents). This two-dimensional conceptualization of work values was supported by exploratory and confirmatory factor analysis for the larger YDS sample during adolescence (Mortimer, et al., 1996) and adulthood (Johnson, 2005) as well as for the current analysis subsamples of parents and children.

We examine a range of parental experiences, including household income, perceived financial problems, unemployment, and job characteristics (intrinsic rewards, opportunities for advancement, job security, and biweekly earnings). *Household income* was reported by the parent. We include a measure of logged household income in 2009 as well as a categorical measure of whether household income rose, fell, or remained largely the same in 2009 as it was in 2007 (converted to 2009 dollars). Those categorized as having rising or falling income were more than a standard deviation higher or lower than the mean of the change score (that is, 2009 household income minus 2007 household income).

Perceived financial stress was based on the mean of parental responses to two items: (1) "How much stress have you felt in meeting your financial obligations during this past year?" and (2) "How difficult is it for you to pay your bills on time? These bills might include insurance, rent, mortgages, car payments, credit cards, etc." Responses ranged from 1, "No burden (stress or difficulty) at all," to 7, "Extremely high burden (stress or difficulty)." We include a measure of 2009 perceived financial stress as well as the change in financial stress over the period ($\alpha = .91$ in 2007; $\alpha = .86$ in 2009). Again those categorized as having rising or falling financial stress were more than a standard deviation higher or lower than the mean of the difference over time.

Unemployment was reported by parents on a monthly life history calendar in 2009; we dichotomize those experiencing any vs. no unemployment over the prior 12 months. Because unemployment is infrequent and because the measure itself covers a period of time (vs. snapshots at the time of the survey), we do not include change measures for unemployment.

Parents' job characteristics were also measured in 2009 for those who were employed. Parents rated their *advancement opportunities* with a single item on a scale from 1–4. Respondents also rated their jobs on seven items tapping *intrinsic rewards*, which we combined into a scale by standardizing them and taking the mean ($\alpha = .78$). Three items, including the frequencies of feeling bored at work or that time is dragging (reversed), of

finding the job interesting enough to do more work than the job requires, and of feeling the work is meaningful and important, were rated on five point scales from 1 (never) to 5 (always). For the next three items, respondents were asked how true statements were about their job, with ratings from 1 (not true at all) to 4 (very true): the job provides the chance to learn a lot of new things, a chance to be helpful to others, and it uses one's skills and abilities. A final item captured how frequently respondents had to think of new ways of doing things or solving problems on their jobs, rated from 1 (never) to 5 (almost always). *Job security* was rated on a scale from 1 (not at all secure) to 4 (very secure). Whereas advancement opportunities and intrinsic rewards were only assessed in 2009, job security was also assessed for employed parents in 2007, allowing us to assess change in job security. Almost no one rated their jobs as more secure in 2009 than they did in 2007, so we distinguish those who report lower security on the ordinal scale in 2009 than 2007 from all those who report stable (or rising) levels. *Biweekly earnings* were also reported in both years. We include logged biweekly earnings in 2009 and create a categorical measure of change in biweekly earnings that parallels the measure of change in household income (i.e., converting 2007 earnings to 2009 dollars and classifying those more than a standard deviation above and below the average change as earnings up and earnings down, respectively, for the period).

Our analyses also include controls for adolescent age (in years) and gender (1=male; 0=female), as well as parental educational attainment. *Parents' education* was measured categorically, distinguishing those with a high school degree or less, those with some postsecondary education short of a BA, and those with a BA or higher). We also examined whether the effects of parents' experiences varied by parents' education and child age. While we found limited conditional effects by parents' education, there were no significant interactions with child age. In addition to examining age in years, we also dichotomized age into those 11–14 (60%) and those 15–21 (40%), still finding no conditional effects by age.

Analytic Approach

We estimate a series of models regressing adolescents' extrinsic and intrinsic work values on indicators of parents' financial situations and employment experiences, considered one at a time. The primary reason for estimating separate models is that the sample size available for analysis varies, with some measures only available for employed parents. Household income, financial stress, and whether parents experienced unemployment were assessed for the full sample. Work conditions were only assessed for parents employed at the time of the survey. Changing work conditions could only be modeled for parents employed at the time of both the 2007 and 2009 surveys. Those parent-child dyads excluded in these latter models may have another employed parent in the household, but information on work conditions was only gathered for the parent in the original YDS cohort.

In order to assess whether the effects of parents' financial conditions and work experiences are conditional upon parents' educational backgrounds, we then examine interactions between these indicators and parents' educational attainment, one at a time. Finally, in order to evaluate whether the influence of parents' experiences on adolescents' values are mediated by parents' own work values, we introduce the parents' work values in the

corresponding domain to the models. We use multiple imputation to address a small amount of missing data. In addition, given likely similarities in work values among children in the same family, standard errors were adjusted for the clustering of children in families.

Findings

Descriptive information appears in Table 1. Means on the four items composing the extrinsic scale and six items in the intrinsic scale are also graphed in Figure 1 by generation. It is notable that mean levels of parents' and adolescents' work values are very similar in the aggregate. Only slight differences are evident and, generally, the work characteristics parents value most their adolescent children do too. Consistent with prior studies, scores on the extrinsic and intrinsic values scales are positively correlated within each generation. However, whereas among parents the correlation between their intrinsic and extrinsic work values is .44, this correlation among adolescents is .63. Thus, it appears that adolescents' work values are less differentiated than those of their parents.

Sizable proportions of parents experienced difficulties during this period, including nearly 13% reporting in 2009 that they were unemployed at some point in the past year. Parents reported having moderate financial problems (mean of 4.28 on a scale from 1 to 7), and almost a third of those employed in both 2007 and 2009 rate the security of their jobs lower in 2009 than they did in 2007. On average the children were 15 years old; just under half (46%) were male.

Models regressing adolescents' work values on parental experiences and the control variables are shown in Table 2 and Table 3 for extrinsic and intrinsic values, respectively. For some measures of parents' experience surrounding the Great Recession, including 2009 household income, biweekly earnings, financial problems, and intrinsic job characteristics, and change in biweekly earnings and financial problems between 2007 and 2009, there were no statistically significant effects on either the extrinsic or intrinsic work values of adolescents, and so they are not shown. Change in household income and job security (2007 to 2009), and the level of job security and advancement opportunities that parents had at work in 2009, however, were associated with adolescents' values; their effects, controlling parents' educational attainment and adolescent age and gender, are shown in Tables 2 and 3, Models 1a – 5a.

We find no significant effects of child age, though males have significantly lower intrinsic values than females. Having college-educated parents has a positive effect on children's extrinsic values, but this is statistically significant in only two models (Table 2, Model 2a & 3a).

Consistent with the reinforcement model, adolescents whose parents experienced increases in income from 2007, before the recession, to 2009, during the recession, held stronger extrinsic work values (Model 1a, Table 2). Parents' reports of better advancement opportunities (Model 2a) and higher job security (Model 3a) in 2009 were also positively associated with adolescents' extrinsic work values. When parents' reported their jobs as less secure in 2009 than they did in 2007, adolescents held weaker extrinsic values (Model 4a). Parental unemployment had no main effect on adolescents' extrinsic work values; instead

the association between parental unemployment and extrinsic values was conditional upon parental education level (Model 5a). No college educated parents experienced unemployment during this period, so we collapsed them into the group with some postsecondary education. (Models measuring education in years produced similar findings). Predicted values for adolescents' extrinsic work values by the unemployment experience and education level of their parents is graphed in Figure 2. For those with the more educated parents, unemployment was negatively related to extrinsic values. This is consistent with the larger pattern of findings, signifying an intergenerational process of reinforcement, that extrinsic values are stronger when parents have more rewarding work and weaker when they have less rewarding work (or in this case, a lack of work rewards due to unemployment). However, for those with the less educated parents (those with a high school degree or less), we find evidence for a compensation process: parental unemployment was positively related to adolescents' extrinsic values ($p < .10$).

Findings for intrinsic values also suggest reinforcement (Table 3), with increased household income (Model 1a) and greater 2009 advancement opportunities (Model 2a) positively related to intrinsic work values. Reduced job security (Model 4a) was negatively related to intrinsic work values. Unlike the model for extrinsic values, however, the level of job security itself in 2009 was not associated with intrinsic work values (Model 3a). Again, parental education level moderated the impacts of unemployment. The conditional relationship between parental unemployment and adolescents' intrinsic work values by parental education is graphed in Figure 3 and reveals a pattern nearly identical to that shown in Figure 2.

Parents' work values (measured in 2009), when added to these models, partially mediated the significant effects of some parental experiences on children's work values. The estimated effect of having higher job security on children's extrinsic values decreases only slightly (Table 2, Model 3b), but is no longer significant at standard levels. The same is true for the loss of job security (Table 2, Model 4b). The coefficients for increased household income, advancement opportunities, and the parental education-unemployment interaction were also reduced slightly, though these estimates remain statistically significant. For children's intrinsic values, parents' intrinsic values again partially mediate the effects of advancement opportunities (Table 3, Model 2b), but do not mediate the effects of rising income (Model 1b), loss of job security (Model 4b), or the education-unemployment interaction (Model 5b).

Also evident in these models is a sizable relationship between parents' work values and those of their children. Across models, parents' work values significantly predict adolescents' work values in the corresponding domain.

Discussion

Taken together, the findings indicate that a reinforcement model not only applies to adults' work conditions and their own values (Johnson, Sage, & Mortimer, 2012; Kohn & Schooler, 1983; Mortimer & Lorence, 1979), this model also helps us to understand value development across generations. Both extrinsic and intrinsic values are stronger among

adolescents when parental work conditions are more rewarding, and this pattern holds irrespective of the adolescent's age. Like other recent studies, we find that adolescent girls have stronger intrinsic values than boys, but their extrinsic values are similar.

It also appears that adolescents' intrinsic and extrinsic values are both higher when parental rewards of either dimension are higher, rather than reinforcement patterns holding only within domain. Studies of adults, including the larger sample of YDS participants from which the parents in this analysis came, also sometimes reveal "cross-over" effects similar to this. Controlling earlier values, experiencing higher intrinsic rewards on the job has been linked to stronger extrinsic as well as stronger intrinsic values (Johnson, Sage, & Mortimer, 2012; Lindsay & Knox, 1984). The wider pattern of cross-over effects observed here (with rewards in both domains influencing values in both domains) may be due in part to the fairly strong correlation between the two value dimensions in this sample of adolescents.

It is interesting to note that the parents' values when they were adolescents appeared to be more differentiated than their children's are today ($r = .51$ for these parents' extrinsic and intrinsic values in 1989, when they were 15 and 16 years old, compared with $r = .63$ in the adolescent generation). Whether lessening differentiation between adolescent intrinsic and extrinsic values represents longer-term historical change, or whether it reflects heightened concern with rewards overall during a stressful economic period, we cannot say. Assessments of contemporary adolescents' work values after economic recovery would shed light on this.

Our findings, that the impacts of parental work and financial experiences extend beyond parents to shape the work values of adolescent children as well, have quite important potential implications given the widespread changes experienced by families during the Great Recession. Changes in parents' job security, incomes, and views of the opportunities they face at work may be eroding the development of strong work values in their adolescent children. And while the patterns indicate that stronger value orientations are fostered when work conditions become more rewarding, the economy in the U.S. has been slow to recover. Moreover, though the Great Recession exacerbated work-related uncertainties, longer-term trends of growing job insecurity (Fullerton & Wallace, 2007; Kalleberg, 2011) and wage erosion at all but the highest education levels (Lemieux, 2006) have been cause for concern among workers (e.g., Glavin, 2013). The effects of work conditions and changing work conditions observed in the current study add to the evidentiary base with respect to the "social psychological costs of job insecurity" (Glavin, 2013) and other poor working conditions, extending them intergenerationally.

In an exception to the general pattern of reinforcement and accentuation, parental unemployment when parental education levels were low was associated with stronger extrinsic and intrinsic values among their adolescent children, consistent with the compensation model. When parental education levels were relatively high (more than a high school degree), the familiar reinforcement and accentuation pattern was evident—parental unemployment was associated with weaker extrinsic and intrinsic values. Perhaps the divergent patterns result from differences in the nature of the unemployment experience among better and lesser-educated parents. Among those with high school degrees or less,

unemployment spells were longer (mean of 10 vs. 7 months of the past year for those with some post-secondary education); those with lesser education who experienced unemployment were also less likely to have an employed partner or spouse (44%; compared to 58% of those who experienced unemployment but who had attended at least some postsecondary education). Thus, unemployment was a more lengthy and perhaps more destabilizing experience for families of the least well-educated parents, stimulating particularly strong motivation among adolescent children to secure future occupational rewards.

Similarly, Chow, Krahn and Galambos (2013) found some evidence consistent with the compensation model with respect to young adults' own unemployment and value development. Long-term parental unemployment in a low-income sample also correlated with weaker intrinsic values, though not stronger extrinsic values (Isralowitz & Singer, 1987). Across studies it is the effects of unemployment (vs. work conditions) that are most consistent with the compensation model, though not completely so, as the evidence in some studies is mixed (Chow, et al., 2013) or consistent only with the reinforcement model (Johnson, et al., 2012).

Our study also finds evidence for intergenerational similarity in work values. On both dimensions, parents' work values were positively associated with their adolescent children's work values. Earlier analysis of data obtained from the larger YDS cohort (Mortimer & Ryu, 1996), from which these parents came, also indicated positive relationships between their values and their own parents' values (i.e. the grandparents of the children in the current analysis). Intergenerational similarity can be produced through parental effects on children but also as children shape their parents (Pinquart & Silbereisen, 2004). Past research indicates the importance of parental transmission, however, even if children exert some influence on their parents (Kohn et al., 1986). Pinquart and Silbereisen (2004) find that children's influence on parents was weaker in the domain of work than for religion and tradition, perhaps because children's attitudes in the work domain are less strongly held, given their lack of relevant experience. Parents may also be less accepting of adolescents' views given their own longer experience and stronger establishment in the world of work.

The intergenerational and longitudinal nature of the YDS data and its span of data collection, including parents' experiences both before and during the recession, facilitated and strengthened the current research. At the same time, aspects of the study design create limitations that are important to note. First, the sample size is relatively small, and because children of the original cohort were not recruited until they were age 11 or above, the families in our sample represent those in which the adults entered parenthood relatively early (before age 26). These families are somewhat disadvantaged socioeconomically (e.g., the parents have lower levels of education and income) compared to the rest of the original YDS cohort.

Second, because the children of young women in the original cohort were recruited more successfully than the children of young men, the parents in our parent-child dyads are disproportionately female. Not having data on the work experiences of the other parent, disproportionately fathers, may have limited our capacity to observe the effects of parents'

work conditions on adolescent children. While household income and change in household income are measured for the family, information about jobs and financial stress pertained to only one parent.

Galambos and Sears (1988), though examining adolescents' perceptions of parents' work (not the parents' self-reported work experiences), and during an earlier era, only found relationships between parents' work and adolescents' values for fathers, not mothers. While we did find significant effects of parental work experience, the relationships between several work characteristics and adolescent values were not statistically significant in the current study (as noted earlier). They might have been, however, had we been able to examine the experiences of both parents in the household, or if we had had enough cases to distinguish father-child dyads from mother-child dyads. Future work is needed incorporating both parents' job conditions.

Finally, because data from children were obtained only after the onset of the recession, we cannot observe change in children's values resulting from parental hardships, nor can we discern whether initial economic shocks in the family had particularly strong, but short-lived impacts. Relatedly, we cannot tell whether the patterns observed here, indicating broad support for the reinforcement perspective, are particular to recessionary times, or whether they would likewise hold under more favorable economic conditions. Mounting uncertainty and concerns about work in the society at large could make issues surrounding unemployment, as well as deteriorating work conditions, particularly salient to both parents and adolescent children during recessionary periods, heightening intergenerational transmission.

One factor known to shape the development of work values that we did not consider in this study is adolescents' own employment experience. Like adults, the characteristics of adolescents' jobs shape their work values. Mortimer et al. (1996), using data from the original YDS cohort during their high school years (from which the parents in this study are selected), found that key intrinsic work features, including the opportunity to learn valuable skills on the job and the opportunity to help others, had a positive influence on adolescents' intrinsic and extrinsic work values. In strong contrast with the experience of the parental cohort, however, few adolescents in this sample worked. Rates of employment have declined substantially for teenagers over the past few decades (Smith, 2011; Staff et al., 2014). Although we do not address this issue directly in the current study, this trend may have important implications for vocational development during adolescence for today's youth. In the absence of work experiences of their own, parental work experiences and values may assume greater importance in the vocational development of contemporary cohorts of adolescents.

References

- Alderfer, CP. Human Needs in Organizational Settings. New York: The Free Press of Glencoe; 1972.
- Augustine JM. Mothers' Employment, Education, and Parenting. *Work and Occupations*. 2014; 41(2): 237–270.10.1177/0730888413501342
- Bengtson VL. Generation and Family Effects in Value Socialization. *American Sociological Review*. 1975; 40(3):358–71.

- Chow A, Krahn HJ, Galambos NL. Developmental Trajectories of Work Values and Job Entitlement Beliefs in the Transition to Adulthood. *Developmental Psychology*. 2014; 50(4):1102–15. [PubMed: 24294882]
- Daehlen M. Job Values, Gender, and Profession: A Comparative Study of the Transition from School to Work. *Journal of Education and Work*. 2007; 20:107–21.
- Davis, JA. Undergraduate career decisions: Correlates of occupational choice. Chicago: Aldine Publishing Company; 1965.
- Erikson EH. The Problem of Ego Identity. *Psychological Issues*. 1959; 1:101–164.
- Fouad NA. Work and Vocational Psychology: Theory, Research, and Applications. *Annual Review of Psychology*. 2007; 58:543–564.
- Fullerton AS, Wallace M. Traversing the Flexible Turn: U.S. Workers' Perceptions of Job Security, 1997–2002. *Social Science Research*. 2007; 36:201–21.
- Herzberg, F.; Mausner, B.; Snyderman, BB. The motivation to work. 2. New York: John Wiley; 1959.
- Hurd, MD.; Rohwedder, S. Effects of the Financial Crisis and Great Recession on American Households. Washington, DC: The National Bureau of Economic Research; 2010. Retrieved February 24, 2012 (<http://www.nber.org/papers/w16407>)
- Galambos NL, Sears HA. Adolescents' perceptions of parents' work and adolescents' work values in two-earner families. *Journal of Early Adolescence*. 1998; 18(4):397–420.
- Ginzberg, E.; Ginsburg, SW.; Axelrad, S.; Herma, JL. Occupational Choice: An Approach toward a General Theory. New York: Columbia University Press; 1951.
- Glavin P. The Impact of Job Insecurity and Job Degradation on the Sense of Personal Control. *Work and Occupations*. 2013; 40(2):115–142.10.1177/0730888413481031
- Hofmans J, De Gieter S, Pepermans R. Individual Differences in the Relationship between Satisfaction with Job Rewards and Job Satisfaction. *Journal of Vocational Behavior*. 2013; 82(1):1–9.
- Isralowitz RE, Singer M. Long-Term Unemployment and Its Impact on Black Adolescent Work Values. *Journal of Social Psychology*. 1987; 127(2):227–236. [PubMed: 3613536]
- Jin J, Rounds J. Stability and Change in Work Values: A Meta-Analysis of Longitudinal Studies. *Journal of Vocational Behavior*. 2012; 80(2):326–39.
- Johnson MK. Job Values in the Young Adult Transition: Stability and Change with Age. *Social Psychology Quarterly*. 2001; 64:297–317.
- Johnson MK, Monserud M. Work Value Development from Adolescence to Adulthood. *Advances in Life Course Research*. 2012; 17:45–58.
- Johnson MK, Mortimer JT. Origins and Outcomes of Orientations Toward Work. *Social Forces*. 2011; 89(4):1239–1260.
- Johnson MK, Mortimer JT, Lee JC, Stern M. Judgments About Work: Dimensionality Revisited. *Work and Occupations*. 2007; 34:290–317.
- Johnson MK, Sage RA, Mortimer JT. Work Values, Early Career Difficulties, and the U.S. Economic Recession. *Social Psychology Quarterly*. 2012; 75(3):242–67. [PubMed: 23503050]
- Kalleberg AL. Work Values and Job Rewards: A Theory of Job Satisfaction. *American Sociological Review*. 1977; 42:124–43.
- Kalleberg AL. Good Jobs, Bad Jobs: The Rise of Polarized and Precarious Employment Systems in the United States, 1970s to 2000s. 2011
- Kohn, ML.; Schooler, C. Work and Personality: An Inquiry into the Impact of Social Stratification. Norwood, NJ: Ablex; 1983.
- Kohn ML, Slomeznski KM, Schoenbach C. Social Stratification and the Transmission of Values in the Family: A Cross-National Assessment. *Sociological Forum*. 1986; 1(1):73.
- Krahn HJ, Galambos NL. Work Values and Beliefs of 'Generation X' and 'Generation Y.'. *Journal of Youth Studies*. 2013
- Lindsay P, Knox WE. Continuity and Change in Work Values among Young Adults. *American Journal of Sociology*. 1984; 89:918–31.
- Mannheim B. Social Background, Schooling, and Parental Job Attitudes as Related to Adolescents' Work Values. *Youth & Society*. 1988; 19(3):269–293.
- Maslow, AH. Motivation and Personality. New York: Harper; 1954.

- Mortimer, JT.; Finch, MD. Adolescents, Work, and Family: An Intergenerational Developmental Analysis. Thousand Oaks, CA: Sage; 1996.
- Mortimer JT, Kumka DS. A Further Examination of the 'Occupational Linkage Hypothesis'. *Sociological Quarterly*. 1982; 23:3–16.
- Mortimer JT, Lorence J. Occupational Experience and the Self-Concept: A Longitudinal Study. *Social Psychology Quarterly*. 1979; 42:307–23.
- Mortimer JT, Pimentel EE, Ryu S, Nash K, Lee C. Part-Time Work and Occupational Value Formation in Adolescence. *Social Forces*. 1996; 74(4):1405–18.
- Mortimer JT, Zhang L, Hussemann J, Wu C. Parental Economic Hardship and Children's Achievement Orientations. *Longitudinal and Life Course Studies*. 2014; 5(2):105–128.
- Parcel, TL.; Menaghan, EG. Parents' Jobs and Children's Lives. New York: Aldine de Gruyter; 1994.
- Pinquart M, Silbereisen RK. Transmission of Values from Adolescents to Their Parents: The Role of Value Content and Authoritative Parenting. *Adolescence*. 2004; 39(153):83–100. [PubMed: 15230068]
- Porfeli EJ, Hartung PJ, Vondracek FW. Children's Vocational Development: A Research Rationale. *Career Development Quarterly*. 2008; 57(1):25–37.
- Porfeli, EJ.; Vondracek, FW. Development of Work Values. In: Skorikov, VB.; Patton, W., editors. *Career Development in Childhood and Adolescence*. Rotterdam, Netherlands: Sense Publishers; 2007. p. 105-126.
- Porfeli EJ, Wang C, Hartung PJ. Family Transmission of Work Affectivity and Experiences to Children. *Journal of Vocational Behavior*. 2008; 73(2):278–286.
- Rosenberg, M. Occupations and values. New York: Free Press; 1957.
- Ryu, S.; Mortimer, JT. The 'Occupational Linkage Hypothesis' Applied to Occupational Value Formation in Adolescence. In: Mortimer; Finch, editors. *Adolescents, Work, and Family: An Intergenerational Developmental Analysis*. Thousand Oaks, CA: Sage; 1996. p. 167-190.
- Schneider, B.; Stevenson, D. *The Ambitious Generation: America's Teenagers, Motivated but Directionless*. New Haven CT: Yale University Press; 1999.
- Sortheix FM, Dietrich J, Chow A, Salmela-Aro K. The role of career values for work engagement during the transition to working life. *Journal of Vocational Behavior*. 2013; 83(3):466–475.10.1016/j.jvb.2013.07.003
- Staff J, Harris A, Sabates R, Briddell L. Uncertainty in Early Occupational Aspirations: Role Exploration or Aimlessness? *Social Forces*. 2010; 89:659–683.
- Staff J, Johnson MK, Patrick ME, Schulenberg JE. The Great Recession and Recent Teenage Employment Trends in the United States. *Longitudinal and Life Course Studies*. 2014; 5(2):173–188.
- Super, DE.; Starishevsky, R.; Matin, N.; Jordaan, JP. *Career Development: Self-Concept Theory*. Princeton: College Entrance Examination Board; 1963.
- U.S. Bureau of Labor Statistics. Sizing up the 2007–09 Recession: Comparing Two Key Labor Market Indicators with Earlier Downturns. Washington, DC: 2010. Retrieved on February 23, 2012 at (<http://www.bls.gov/opub/ils/pdf/opbils88.pdf>)
- Vondracek, FW.; Lerner, RM.; MacLean, MJ. *Career Development: A Life-Span Developmental Approach*. Hillsdale, NJ: Lawrence Erlbaum; 1986.
- Weisgram ES, Bigler RS, Liben LS. Gender, Values, and Occupational Interests Among Children, Adolescents and Adults. *Child Development*. 2010; 81(3):778–796. [PubMed: 20573104]
- Zhao X, Lim VKG, Teo TSH. The long arm of job insecurity: Its impact on career-specific parenting behaviors and youths' career self-efficacy. *Journal of Vocational Behavior*. 2012; 80(3):619–628.10.1016/j.jvb.2012.01.018
- Zimmer-Gembeck MJ, Mortimer JT. Adolescent work, Vocational Development, and Education. *Review of Educational Research*. 2006; 76:537–566. [PubMed: 17387375]

Highlights

- We document an intergenerational reinforcement process; parents' rewarding work conditions foster adolescents' work values
- Changes in household income and parents' job security shape adolescent children's work values
- Parents' perceptions of financial stress and the intrinsically rewarding nature of their jobs are not
- Limited support for a compensation process is also evident for unemployment among parents with lower education levels
- Study findings also support an intergenerational transmission of work values

Figure 1.
Mean rating of job characteristics for parents (2009) and children (2010)

Figure 2.
Predicted Values of Children's Extrinsic Work Values by Parents' Education Level and Unemployment Experience

Figure 3.
Predicted Values of Children's Intrinsic Work Values by Parents' Education Level and Unemployment Experience

Table 1

Descriptive Statistics on Study Measures (N=240)

	Children (ages 11–21) 2010		Parents (ages 35–36) 2009	
	Mean or %	SD	Mean or %	SD
Extrinsic Work Values	3.13	.56	3.12	.50
Intrinsic Work Values	2.85	.56	2.82	.51
Parents' financial and employment characteristics in 2009				
Education high school or less			26.92%	
Education some postsecondary			53.79%	
Education BA or more			19.29%	
Unemployment past 12 months			12.62%	
Household income (logged)			10.34	2.38
Household income higher than 2007 ¹			19.25%	
Household income lower than 2007 ¹			14.04%	
Financial problems index			4.28	1.69
Financial problems higher than 2007			15.00%	
Financial problems lower than 2007			12.25%	
Biweekly earnings (logged)			7.17	.74
Biweekly earnings higher than 2007 ¹			19.17%	
Biweekly earnings lower than 2007 ¹			15.38%	
Job Security			2.77	.82
Job security lower than 2007 ²			31.03%	
Opportunity for advancement			2.82	.92
Intrinsic job characteristics index (standardized for total sample)			−.18	.65
Child characteristics				
Male	46.25%			
Age	15.06	2.38		

¹ amount of change is more than one standard deviation higher/lower than mean

² too few respondents reported higher job security in 2009 than 2007 to distinguish them from stable security.

Note: N=240 (after imputation) except N=176 for biweekly earnings, job security, intrinsic job characteristics, and opportunity for advancement, which required parental employment in 2009; and N=145 for change in biweekly earnings and change in job security, which required parental employment in both 2009 and 2007.

Table 2

Regression Models of Adolescents' Extrinsic Work Values in 2010

	Model 1a	Model 1b	Model 2a	Model 2b	Model 3a	Model 3b	Model 4a	Model 4b	Model 5a	Model 5b
	b (se)	b (se)	b (se)	b (se)	b (se)	b (se)	b (se)	b (se)	b (se)	b (se)
Child variables										
male	-.01 (.07)	-.01 (.07)	.02 (.08)	.00 (.08)	.00 (.09)	-.01 (.08)	.05 (.09)	.02 (.09)	.00 (.07)	-.03 (.07)
age	.01 (.02)	.01 (.02)	.03 (.02)	.03 (.02)	.03 (.02)	.02 (.02)	.01 (.02)	.01 (.02)	.02 (.02)	.02 (.02)
Parent variables (2009)										
Some postsecondary educ.	-.04 (.09)	-.03 (.10)	.17 (.11)	.12 (.11)	.16 (.11)	.12 (.12)	.05 (.14)	.03 (.14)	.10 (.10)	.09 (.10)
Bachelors degree or more [†]	.12 (.12)	.12 (.11)	.27 (.13)*	.23 (.13) ⁺	.27 (.13)*	.22 (.13)*	.21 (.15)	.19 (.15)		
Income up from 2007	.23 (.10)*	.21 (.10)*								
Income down from 2007	.13 (.13)	.10 (.12)								
Advancement Opportunity		.12 (.04)**		.08 (.04)*						
Job security					.11 (.05)*	.09 (.05) ⁺				
Reduced job security from 2007							-.25 (.11)*	-.19 (.11) ⁺		
Unemployment									.38 (.20) ⁺	.33 (.20)
Yrs educ* unemployment		.20 (.07)**		.22 (.08)**		.25 (.08)**		.21 (.09)**	-.66 (.23)**	-.59 (.24)*
Extrinsic Work Values										.19 (.07)**
Intercept	2.91 (.25)	2.32 (.33)	2.16 (.35)	1.66 (.39)	2.24 (.36)	1.62 (.42)	2.93 (.32)	2.30 (.41)	2.82 (.26)	2.26 (.35)
N	240	240	176	176	176	176	145	145	240	240

⁺ p<.10;

* p<.05;

** p<.01;

*** p<.001

[†] Dropped in Model 5, as parents with a BA or more are collapsed with parents who otherwise had at least some postsecondary education.

Table 3

Regression Models of Adolescents' Intrinsic Work Values in 2010

	Model 1a	Model 1b	Model 2a	Model 2b	Model 3a	Model 3b	Model 4a	Model 4b	Model 5a	Model 5b
	b (se)	b (se)	b (se)	b (se)	b (se)	b (se)	b (se)	b (se)	b (se)	b (se)
Child variables										
male	-.13 (.08)	-.15 (.08) ⁺	-.17 (.09) ⁺	-.20 (.08) [*]	-.18 (.09) [*]	-.21 (.09) [*]	-.15 (.09)	-.18 (.09) [*]	-.12 (.08)	-.17 (.07) ⁺
age	.01 (.02)	.00 (.02)	.03 (.02)	.02 (.02)	.02 (.02)	.01 (.02)	.00 (.02)	.00 (.02)	.02 (.02)	.01 (.02)
Parent variables (2009)										
Some postsecondary educ.	-.10 (.10)	-.10 (.10)	.05 (.12)	.02 (.12)	.01 (.13)	-.02 (.12)	-.03 (.15)	-.02 (.15)	.02 (.11)	-.01 (.10)
Bachelors degree or more ^I	.09 (.12)	.00 (.12)	.16 (.13)	.03 (.13)	.14 (.15)	-.01 (.13)	.14 (.17)	.06 (.15)		
Income up from 2007	.31 (.11) ^{**}	.31 (.11) ^{**}								
Income down from 2007	-.03 (.15)	-.04 (.14)								
Advancement Opportunity			.14 (.05) ^{**}	.09 (.05) ⁺						
Job security					.03 (.06)	-.01 (.06)				
Reduced job security from 2007							-.27 (.11) [*]	-.23 (.11) [*]		
Unemployment									.29 (.21)	.31 (.24)
Yrs educ * unemployment									-.59 (.24) [*]	-.60 (.26) [*]
Intrinsic Work Values										
Intercept	2.76 (.26)	2.17 (.34)	2.09 (.38)	1.53 (.41)	2.50 (.38)	1.78 (.43)	2.95 (.34)	2.23 (.49)	2.68 (.26)	2.05 (.32)
N	240	240	176	176	176	176	145	145	240	240

⁺ p<.10;

^{*} p<.05;

^{**} p<.01;

^{***} p<.001

^I Dropped in Model 5, as parents with a BA or more are collapsed with parents who otherwise had at least some postsecondary education.