Identity change between late adolescence and adulthood

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ABSTRACT

Change in Identity status between age 18, age 22, and age 35 was studied. Longitudinal change in four identity statuses – Diffused, Foreclosed, Moratorium and Achieved – was examined using Hierarchical Linear Modeling (HLM). The results indicated that the developmental level of identity generally progressed between age 18 and age 35. However, there was significant variability among the participants in the degree to which they had changed. Age 18 personality variables of Narcissism and Defense Mechanisms were found to predict both the direction and magnitude of change at age 35. However, these personality variables, when assessed at subsequent ages (22, 35), were not associated with identity change.

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1. Introduction

The development of an identity – personal beliefs, values, goals – is a critical step in the movement from adolescence to adulthood. The concept of identity has its origins in Erikson's (1968) writings, and has been amplified by the work of Marcia (1966, 1980) to include four identity "statuses" – Achieved, Moratorium, Foreclosed and Diffused. These statuses are differentiated by two factors. The first is whether or not a commitment has been made to a set of values and goals. The second factor is based on whether the individual has experienced some personal searching, or exploration, in trying to establish these values and goals. The Achieved status is based on commitment subsequent to personal searching. Moratorium is characterized by the presence of searching but no commitment. Foreclosure is characterized by commitment, but no searching. The identity status of Diffusion is characterized by no commitment and no searching.

Recent models of identity have focused on two consecutive identity cycles. The first represents Marcia's classical paradigm of four identity statuses, and includes the processes of exploration in breadth and commitment making. The second cycle, commitment evaluation, includes exploration in depth and identification with commitment. Subsequently added to this second group was ruminative exploration (Luyckx et al., 2013). Both models (cycles) continue to inform research (e.g., Classical paradigm: Gfellner & Bartoszuk, 2015; Schwartz, Cote, & Arnett, 2005; 2 cycles: Luyckx et al., 2008; Luyckx, Goosens, & Soenens, 2006).

1.1. Longitudinal change in identity

There have been two meta-analyses of studies of longitudinal identity development, one covering the period from 1996 to 2005 (Kroger,

Martinussen, & Marcia, 2010), the other from 2000 to 2010 (Meeus, 2011). In the former, there were eleven studies using a categorical assessment of identity during the college years. Two of these studied change between college and post college. Half of the participants showed no change in status, with stability highest for Achieved and Foreclosed status and lowest for Moratorium. In the latter meta-analysis, seven studies assessed identity status of college students across intervals varying from 4 months to 3 years. A further study assessed college students at intervals of three months or one year (Luyckx et al., 2013). In general, Diffusion and Moratorium showed a decrease; Achieved was stable, or showed an increase. These longitudinal studies were restricted to change during the college years, with one exception. Sneed, Whitbourne, and Culang (2006), using a measure of two identity statuses (Achieved and Diffusion), studied change between college and age 54, with data from 11 year intervals. The results showed an increase in Achieved identity, occurring primarily between age 20 and age 31, with significant individual variability.

To my knowledge, no research study has investigated change in all four identity styles between late adolescence and adulthood. It is the purpose of the present research to study this issue.

1.2. Identity, personality and anxiety

In addition to the question of Identity change between late adolescence and adulthood, previous research has shown that the identity statuses are differentially related to anxiety, which is stronger in the Moratorium and Diffused statuses (Lillevoll, Kroger, & Martinussen, 2013; Marcia, 1980). Since anxiety may be controlled through the use of defensive operations, there is reason to expect that defense mechanisms may be associated with the Moratorium and Diffused identity statuses. Previously, three types of defense mechanisms have been found to be important for controlling anxiety in adults. The defense of Denial

is a mental operation that excludes disturbing thoughts and feelings from conscious awareness. Projection deals with disturbing thoughts and feelings by attributing them to someone else. Identification protects against emotional upset by taking on the characteristics and qualities of another, usually stronger person (Cramer, 1991, 2006). Previous research has shown that these defenses are related to identity change in later adulthood (ages 44, 58) (Cramer, 2004), in complex ways. Simplified, Identification predicted an increase in Moratorium and a decrease in Foreclosed and Achieved Identity between age 35 and age 45. IQ was found to moderate these findings.

A second type of defensive operation, narcissism, protects the individual from underlying low self-esteem (Myers & Zeigler-Hill, 2012) and promotes self-enhancement and realistic ambitions (Roche, Pincus, Lukowitsky, Menard, & Conroy, 2013). In previous work, both of these defensive operations – defense mechanisms and narcissism – have been found to be associated with the Moratorium and Diffused statuses in late adolescence (Cramer, 1995, 1998).

1.3. The present study

The focus of the present paper is to study identity change from late adolescence (age 18) to adulthood (age 35). We investigate the following hypotheses:

(1) Achieved identity will increase from late adolescence to adulthood. There will be a decrease in the three less mature identities.
(2) An increase in Moratorium and Diffusion will be positively associated with Narcissism and Defenses. Because Foreclosure has been found to be associated with low self-esteem (Ryeng, Kroger, & Martinussen, 2013), it is predicted that an increase in Foreclosure will also be positively associated with Narcissism and Defenses.

1.3.1. Plan of analysis

To model the overall form of change in Identity, longitudinal hierarchical linear models (HLM) (Bryk & Raudenbush, 1992), based on SPSS software, were used. HLM has the advantage of being able to include individuals with less than complete data, and allows for different numbers of individuals at different time points. Missing data were estimated using the Full Maximum Likelihood method. Then, because of the way in which occasions of measurement (time of testing, Level 1) are nested within individuals (Level 2), a second step allows the trajectory of change for each individual in the sample to be determined separately (Bryk & Raudenbush, 1987). If there are significant differences across individuals in growth trajectories, factors related to these differences can be explored.

1.3.2. Level 1

For the present study, the data were centered at age 18, with the result that the intercept represents the estimated age 18 Identity score. First, an intercept only model was fit, and then a linear model. With three points of data, linear change is the most complex form of change that can be modeled with HLM. The relative fit of each model was assessed using the chi-square test of deviance (Bryk & Raudenbush, 1992).

At Level 1, the model is similar to an ordinary least squares (OLS) regression model. The outcome measure, Identity, designated as Y, is written as a function of an intercept (P_0) plus the multiplication of a slope parameter (P_1) plus a residual (e).

$$Y = P_0 + P_1 * (\text{Age\_c}) + e.$$

At Level 1, even if the slope is not statistically significant, if there is statistically significant variance associated with P_1, this indicates significant individual change (slope) variability in the population, and it is

this variability – i.e., these individual differences – in which we are interested.

1.3.3. Level 2

At Level 2, the parameter estimates from the Level 1 model (P_0 and P_1) may be considered as outcomes. To assess individual variability, the data are recentered around the population mean. Then, the Level 2 intercept (P_0) is based on the population

intercept B_{00}, plus the deviation from the population intercept (as a result of grand mean centering), $B_{01} * \overline{(\text{Agec})}$, plus the residuals R_0. Similarly, the Level 2 linear slope (P_1) is based on the population linear slope B_{10}, plus the deviation from the population slope (as a result of grand mean centering), $B_{11} * \overline{(\text{Agec})}$, plus the residuals, R_1.

The Level 2 model is thus

$$P_0 = B_{00} + B_{01} * \overline{(\text{Agec})} + R_0.$$

$$P_1 = B_{10} + B_{11} * \overline{(\text{Agec})} + R_1.$$

From the Level 2 model, the residuals provide the intercept and slope for each individual in the sample. From these residuals, HLM's empirical Bayes estimates are obtained, providing the intercepts and growth trajectories (slopes) for each individual participant. Empirical Bayes estimates combine OLS estimates with population average estimates derived from the fitted model. According to Singer and Willett (2003), the resultant Empirical Bayes estimates provide the best individual growth trajectories for individual sample members (Bryk & Raudenbush, 1987).

In sum, the Level 1 analysis provides information regarding the linear growth trajectory (slope) for the group as a whole, and indicates whether there is significant variability (variance) in these slopes across individuals. The Level 2 analysis provides, via the slope residuals, separate values for the growth trajectory of each individual in the group. Thus, while the growth trajectory of a particular trait may be positive for the group as a whole (i.e., the trait increases with age), the Level 2 residuals may show that some individuals increase more than others, and that, in fact, some individuals decrease with age (negative slope value). Because these residuals provide a slope value for each individual participant, they may subsequently be used as a measure of individual change, and may be related to other variables of interest.

2. Method

2.1. Participants

The participants were originally enlisted as part of a random sample from the entering Freshman class of a small American college. 120 students (age 18) completed the assessment materials during their first week at college (T1). Of the 120 students, 75% (90) completed the same materials four years later during their Senior year of college (T2). *No compensation was provided for participants at T1 or T2.*

At age 35 (T3), participants in the T2 study were contacted by letter, email, and in a few cases, by phone, and were invited to participate in the follow-up study. To acquire the age 35 data, test materials with instructions were sent to those who agreed to participate. These booklets contained the identical materials used in the earlier studies (T1, T2), arranged in the same format and order as before. A stamped, addressed envelope was provided for return of the materials. Data for age 18 and age 22 were available from earlier study (Cramer, 1995, 1998).

Fifty-two participants completed and returned the assessment measures at age 35. *Participants in this phase of the study were entered into a drawing for a prize of $500.00.*

The issue of missing data due to attrition has been discussed by Singer and Willett (2003) in the context of using HLM to study longitudinal change. They indicate that "missingness, in and of itself, is not necessarily problematic" (p. 157), if the data are "missing at random" (MAR). To