Adoptive Identity and Adjustment from Adolescence to Emerging Adulthood: A Person-Centered Approach

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Abstract

Adopted persons face special challenges in the development of identity, as aspects of their histories may be unknown, making it difficult to construct a coherent narrative linking past, present, and future. Extensive literature on adjustment outcomes for adopted persons indicates an elevated risk for adjustment problems. In this study, a low-risk sample of adopted youth is involved to examine, longitudinally, connections between adoptive identity and adjustment. Participants included 145 adopted youth who participated in Waves 2 (W2: adolescence: mean age = 15.7) and 3 (W3: emerging adulthood: mean age = 25.0) of a longitudinal study with a nationwide sample. Children were placed with same-race adoptive families (over 95% White) as infants through domestic private adoption agencies in the U.S. Internalizing and externalizing behaviors were assessed by the Youth Self Report (W2) and the Adult Self Report (W3). Adoptive identity was assessed by ratings of six dimensions coded from interviews which, using cluster analysis, revealed four adoptive identity subgroups: Unexamined, Limited, Unsettled, and Integrated. Factorial ANCOVA examined mean differences in W3 internalizing problems across identity clusters while controlling for W2 internalizing. The main effect for adoptive identity cluster was significant: $F_{(3, 840.72)} = 3.724$, $p = 0.011$. Adopted adolescents in the Unsettled group had significantly higher levels of internalizing problems in emerging adulthood than persons in the Unexamined and Limited categories. A similar ANCOVA for W3 externalizing behavior was not significant. Identity profiles high in negative affect may be at particular risk of increased levels of internalizing problems.

Keywords

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The field of identity development research is currently experiencing an identity crisis of its own. Although there is no consensus around a unifying theory or set of methods, there does appear to be agreement that identity is multidimensional and must take processes, contexts, and identity domains (or content areas) into account (McLean & Syed, 2015; Schwartz, Luyckx, & Vignoles, 2011; Syed & McLean, 2015).

Erikson's primary writings about identity (e.g., 1950e.g., 1968) focused on domains about which individuals have some degree of choice (e.g., occupation, religion, political views). However, increasing attention is being paid to aspects of identity about which individuals have little or no choice, but must still make meaning of that domain in their lives (Grotevant, 1992). Such domains include gender identity, racial identity, ethnic identity, and adoptive identity, among others. The case of adoptive identity ("What does being adopted mean to me, and how does this fit into my understanding of my self, relationships, family, and culture?" Grotevant & Von Korff, 2011, p. 585) is worthy of investigation in its own right; it also provides a prototype for understanding the significance and dynamics that might be at play in other assigned domains of identity.

Adoption

Because adoption constitutes a legal arrangement, specific types of adoption vary across national boundaries. Within the United States, three types of non-relative adoption predominate: domestic adoption of infants through private agencies, domestic adoption through the public child welfare system, and international adoption (Grotevant & McDermott, 2014). Despite the specific type of adoption, all adopted persons experience the potential for disruptions in identity development because aspects of their histories may be unknown to them (e.g., family health history information). Such information gaps are related to subsequent information seeking (a form of identity exploration), although the link between the existence of a gap and information seeking is dependent upon contextual factors that may serve as barriers or facilitators to exploration (Wrobel, Grotevant, Samek, & Von Korff, 2011). Even in the increasingly common case of open adoption in which there is contact between adoptive and birth family members, the developing child may not have full access to all relatives or aspects of the backstory of his or her adoption (Wrobel & Schneider, 2009).

Adoptive Identity

Following development of an identity process model that incorporated multiple contexts and interconnections across domains (Grotevant, 1987), we have written extensively about identity development in one specific domain: adoptive identity (e.g., Dunbar & Grotevant, 2004; Grotevant, 1997; Grotevant, Dunbar, Kohler, & Esau, 2000; Grotevant & Von Korff, 2011). An integration of Eriksonian and narrative approaches has allowed us to incorporate important intrapsychic elements of identity process, while also framing identity as a narrative or life story that links past, present, and future (Grotevant & Von Korff, 2011). The latter is a particularly compelling component in the case of adoption, where elements of the past and present may be unknown, making the construction of one's life story a challenging task. For young persons adopted across national, racial, or cultural lines, issues of racial and

ethnic identity may be intertwined with those of adoptive identity (e.g., Beaupre, Reichwald, Zhou, Raleigh, & Lee, 2015; Kim, 2010).

Adopted persons clearly differ in how much they know about their birth relatives and their origins (Grotevant, Wrobel, Von Korff, et al., 2007); but they also differ in how such information (or its absence) is processed and integrated (Dunbar, 2003; Dunbar & Grotevant, 2004). This observation suggests the usefulness of a person-centered approach (Laursen & Hoff, 2006), which explicitly seeks to identify subgroups of individuals who show distinctive profiles.

Our person-centered approach to describing adoptive identity began with six theoretically significant dimensions drawn from the Eriksonian (Erikson, 1968; Kroger & Marcia, 2011) and narrative identity perspectives (Fiese, Sameroff, Grotevant, Wamboldt, Dickstein, & Fravel, 1999; Grotevant, 1993). *Depth of identity exploration* is characterized by serious, reflective thinking about the meaning of adoption in one's life. *Salience* refers to the prominence or importance of adoptive identity relative to other aspects of identity and the degree to which adoptive identity, in particular, influences behaviors, thoughts, decisions, and feelings. *Internal consistency* views identity as a self-theory; internally consistent narratives provide support for conclusions, and the aspects of the theory show minimal contradiction. *Flexibility* concerns the adolescent's ability to consider issues from multiple points of view and integrate potentially contradictory views. *Positive affect* refers to expressions of positive emotion about various aspects of adoption, and *negative affect* assesses negative emotion. Positive and negative affect are assessed separately, because the emotions relevant to one's sense of adoptive identity can vary independently. For example, adopted persons may feel very positively about certain aspects of their adoption but negatively about other aspects.

Dunbar (2003; Dunbar & Grotevant, 2004) used cluster analysis (Hair & Black, 2000) to develop a typology of adoptive identity based on the ratings of these six identity dimensions. Interrater reliability for ratings of the six variables were as follows: depth of exploration (85.3%), salience (88.4%), internal consistency (85.3%), flexibility (86.8%), positive affect (86.6%), and negative affect (87.5%). Because the identity dimensions were intercorrelated (median $r = .50$) and violated the assumption of local independence (e.g., the scores on the variables used to construct the latent classes depend only upon this latent variable, and are thus not related to one another (Hagenaars & Halman, 1989), latent class analysis was not used. Instead, cluster analysis, which allows for noncollinear correlations but makes no distributional assumptions about the data, was employed in order to yield mutually exclusive groups with high within-cluster homogeneity and high between-cluster heterogeneity. A combination of hierarchical and nonhierarchical clustering methods were used to evaluate the data, and solutions were compared for consistency across cases assigned to clusters. Ward's method, a hierarchical clustering procedure using the squared Euclidian distance (Aldenderfer & Blashfield, 1984) suggested four to five clusters best described the data. Case assignment across clustering methods was most stable for the four cluster solution, and this solution produced the most distinct and meaningfully interpretable clusters. Discriminant analysis confirmed the appropriateness of the cluster solution, correctly

classifying 97.2% of all cases. For further details about the development and validation of this typology, see Dunbar (2003) and Dunbar and Grotevant (2004).

This cluster-analytic approach revealed four distinct groups. Adolescents in the *Unexamined* adoptive identity group showed low levels of exploration, salience, positive affect, and negative affect with low-moderate levels of internal consistency and flexibility. Adolescents in the *Limited* adoptive identity group demonstrated low levels of negative affect, low-moderate levels of exploration and salience, and moderate levels of internal consistency, flexibility, and positive affect. Adolescents in the *Unsettled* group showed moderate to high levels of all six qualities, but most notably the highest level of negative affect across all types. Finally, adolescents in the *Integrated* group showed moderate levels of exploration, salience, and positive affect, high levels of internal consistency and flexibility, and a low level of negative affect.

Of particular interest with regard to psychological adjustment is the Unsettled adoptive identity group. Many adolescents in this group were having difficulty understanding their adoption story in all its complexity, including adult interpretations of the life circumstances and motivations of their birth parents, both at the time of their conception, at the time of placement, and now. Many talked about feeling rejected, discarded, or thrown away and worried about being rejected again. They talked about adoption being a "hard life" or a "rough road," and felt the burden of having to figure out their own story and feelings while also having to understand the feelings and intentions of their birth and adoptive parents. Some coped with this cognitive and emotional load by shutting down their feelings; others worried extensively about how their own stance might affect their birth and adoptive parents. Many were not sure where they fit in, feeling different from both their birth and adoptive relatives; some said they would never adopt a child or recommend adoption to others. The present study follows up the sample of adoptees on which the typology was based, examining longitudinal connections between their adoptive identity group during adolescence and their psychological adjustment during emerging adulthood, approximately eight years later.

Linking Adoptive Identity and Adjustment

The extensive literature on psychological outcomes for adopted persons indicates an elevated risk for adjustment problems, ranging from mild to serious psychopathology (Juffer & van IJzendoorn, 2005; Wierzbicki, 1993). The risk for psychopathology can be due to both pre-adoption circumstances such as abuse or neglect, as is often the case for children adopted through the child welfare system, or prolonged institutionalization, often experienced by children adopted internationally (Juffer et al., 2011); as well as post-adoption circumstances, such as ethnic or racial discrimination experienced by children adopted internationally (Hjern, Lindblad, & Vinnerljung, 2002: Lee and the International Adoption Project, 2010).

A slightly increased risk for adjustment difficulties exists even among adopted persons who have not experienced maltreatment, institutionalization, or racial discrimination (e.g., Howard, Smith, & Ryan, 2004). Yet we know that the vast majority of adopted persons develop in the typical range (Palacios & Brodzinsky, 2010). Overall, the literature suggests

that multiple factors (including genetic, prenatal, preplacement, family, and broader contexts) contribute to developmental outcomes among adopted persons. Complex transactions among these multiple factors across time contribute to the difficulty of predicting outcomes at the individual level (Grotevant & McDermott, 2014).

The children in the present study were placed for adoption as infants (many as newborns) into same-race families with little to no pre-placement risk. Although trauma histories certainly place adopted children at risk for adjustment difficulties and psychopathology, it is possible that the additional complexities involved in constructing one's adoptive identity might also confer risk. This is the first study with longitudinal data from adolescence to emerging adulthood to be able to examine linkages between adoptive identity formation during adolescence and adjustment difficulties during emerging adulthood, in a low-risk, non-clinical sample. The central question of this study is the following: To what degree does adoptive identity, measured during adolescence, predict adjustment difficulties in emerging adulthood, controlling for the level of adjustment in adolescence? Of particular interest were adolescents experiencing Unsettled adoptive identity. The combination of high identity exploration, high salience of adoptive identity, high perspective-taking, and an internally coherent narrative in the presence of high negative affect suggested characteristics which could drive differences in psychological adjustment. Therefore, comparisons between adolescents in the Unsettled group and those in the remaining three groups (Unexamined, Limited, and Integrated) were planned, hypothesizing that higher levels of problematic adjustment would be found in the Unsettled group than in the other three groups.

In addition to identity group membership, gender and the interaction between gender and identity group membership were also included in the predictive model. Gender was included in the model because of previous findings of gender differences in externalizing and internalizing behavior problems in the literature, with female individuals typically being reported as having somewhat higher levels of internalizing behaviors and males typically being reported as having somewhat higher levels of externalizing behaviors (Achenbach, Howell, Quay, & Conners, 1991; Achenbach & Rescorla, 2003; Bonger et al., 2003; Leadbeater, Blatt, & Quinlan, 1995).

Method

Participants

Participants included 145 adopted youth (51.7% female) who participated in Waves 2 (W2: adolescence: mean age = 15.60, SD age = 2.05, age range = 11–20) and 3 (W3: emerging adulthood: mean age = 24.90, SD age = 1.96, age range = 20–30) of the longitudinal Minnesota Texas Adoption Research Project (Grotevant, McRoy, Wrobel, & Ayers-Lopez, 2013). U.S.-born children were placed with their adoptive families as infants (mean age = 4 weeks) through private adoption agencies in the United States. Adopted individuals and their families were primarily White (95.3% non-Hispanic White/Caucasian, 4.7% Hispanic/ Mexican American), Protestant, and middle-class; all children were of the same race as their adoptive parents. For more information, see "Multiple Imputation" section, below.

Measures

Internalizing and externalizing behaviors—Problem behaviors were measured using the Youth Self Report (YSR; Achenbach & Rescorla, 2001) at Wave 2 and the Adult Self Report (ASR; Achenbach & Rescorla, 2003) at Wave 3. For both the YSR and ASR, adopted individuals rated the frequency of their own behavior problems on a 3-point scale. The YSR includes 31 items that assess internalizing behavior problems and 32 items that assess externalizing behavior problems; the ASR includes 39 items that assess internalizing behavior problems and 35 items that assess externalizing behavior problems. Items within each scale were summed to create total scores for internalizing behavior and externalizing behavior.

Adoptive identity—At Wave 2, adopted adolescents completed a semi-structured interview that covered four identity domains: occupation, friendship, religion, and adoption. Questions in the adoption domain asked about the participant's experience with adoption in reference to his or her birthparents, adoptive parents, and peers. Interview transcripts for the adoption domain questions were coded on six identity dimensions: exploration, salience, internal consistency, flexibility, positive affect about adoption, and negative affect about adoption. Exploration was coded on a 4-point scale while the other five constructs were coded on 5-point scales, with higher scores indicating higher displays of that dimension. Further information about the coding system is available from the first author upon request. Cluster analysis applied to these six dimensions yielded four adoptive identity types (see introduction for further discussion): Unexamined (n = 24), Limited (n = 46), Unsettled (n = 30), and Integrated (n = 45).

Procedure

At Wave 2, data were collected primarily through visits to the homes of the adopted adolescents. Home visits lasted approximately four to five hours, during which the adolescents, their adoptive parents, and their siblings were interviewed and given questionnaires to complete. In the case of 14 adolescents, home visits were not possible for reasons such as living outside the country and being away at college. When home visits were not possible, interviews were completed over the phone and questionnaires were administered through the mail. At Wave 3, data were collected through a secure online system. Online data collection typically included multiple sessions and involved an interview conducted through an online chat tool and online questionnaires. In 18 cases, questionnaire measures used in this study could not be collected online, typically because the participant lacked internet access or preferred to respond in another way. In those cases, questionnaires were mailed to the participant.

Data Analysis

Data were analyzed using analysis of covariance (ANCOVA) methods. Of primary interest was whether there were adoption identity group and gender differences on Wave 3 internalizing (or externalizing) behavior, controlling for Wave 2 internalizing (or externalizing) behavior. Age was not included as a predictor or a covariate because neither the correlations between age and the covariates (−.016 with W2 internalizing; −.001 with

W2 externalizing) nor the dependent variables (−.070 with W3 internalizing; −.068 with W3 externalizing) were statistically significant. In order to retain the N = 145 adopted young adults from Wave 2 who had been included in the adoptive identity analysis from earlier work (Dunbar & Grotevant, 2004), ten multiply imputed data sets were created to populate the missing model variables for those individuals. Pooling was used to aggregate output from each imputed data set.

Multiple Imputation to Address Missing Data

Multiple imputation was used to create ten complete data sets on which to perform the analyses. While all 145 adoptive adolescents in the study had been assigned an identity grouping based on interview data collected during Wave 2, not every one of these participants partially or fully completed the survey measures at Waves 2 and 3; some of these items and subscales are used as covariates and outcome variables in the reported models. The four variables used in these models which contained missing values were 1) internalizing behavior score at Wave 2, 2) internalizing behavior score at Wave 3, 3) externalizing behavior score at Wave 2, and 4) externalizing behavior score at Wave 3. Every participant had complete data on gender, age at Wave 2, and identity grouping.

Missingness was explored by performing chi-square tests on dummy variables (0 = missing, 1 = not missing) representing each of the four variables without complete information to determine whether the data were Missing At Random (MAR) by either the adopted individual's gender (0 = male, 1 = female) or identity grouping at Wave 2 (1 = Unexamined, 2 = Limited, 3 = Unsettled, 4 = Integrated). Neither gender ($\chi^2(1) = 1.029$, $p = 0.310$) nor identity grouping ($\chi^2(3) = 2.097$, $p = 0.552$) significantly affected missingness at the second wave; the same conclusions held true for the third wave, with gender ($\chi^2(1) = 2.232$, $p = 0.135$) and grouping ($\chi^2(3) = 1.748$, $p = 0.626$) being non-significant. Further, Little's Missing Completely At Random (MCAR) test of the four variables which contained missing data was not significant ($\chi^2(4) = 2.351$, $p = 0.672$), suggesting that the data are MCAR. As the data of interest satisfied the conditions of being missing completely at random, it was determined that multiply imputing these missing values based on the original data available was appropriate (Widaman, 2006). Models were run on each imputed data set, and reported results were pooled over all imputations. See Table 1 for intercorrelations among the four continuous covariates and dependent variables.

Results

ANCOVA on Internalizing Behavior

Factorial Analysis of Covariance (ANCOVA) on ten multiply imputed data sets examined mean differences in internalizing behavior at Wave 3 across adoptive identity clusters and gender while equating for each adoptee's level of internalizing behavior at Wave 2. The pooled effect of cluster assignment on internalizing behavior at Wave 3 was significant ($F(3, 840.72) = 3.724$, $p = 0.011$, partial $\eta^2 = 0.085$), which licensed us to make pairwise comparisons between levels of adoptive identity group membership in order to clarify the nature of this effect (see Table 2 for summary of pooled models). This result also corroborated the findings from the original, non-imputed data set, which yielded a

significant effect of cluster assignment ($F(3,95) = 3.008$, $p = 0.034$, partial $\eta^2 = 0.087$). There was no significant effect of gender, the interaction of identity grouping and gender, or internalizing behavior at Wave 2 (see Table 2 for a summary of findings). The covariate was approximately normally distributed across levels of the independent variables and linearly related to the outcome variable.

Using a Bonferroni-corrected α (set to $\alpha = 0.0167$ to account for three comparisons being made for each imputed data set), all comparisons between Unexamined and Unsettled (p range: 0.001–0.013, Hedge's g range: 0.71–1.01) were significant across imputed data sets, with adopted individuals in the Unsettled identity group having a significantly higher pooled internalizing behavior score at Wave 3 ($M = 14.34$, $SE = 1.95$, $n = 30$) compared to those in the Unexamined identity group ($M = 6.10$, $SE = 2.21$, $n = 24$). Comparisons between Limited and Unsettled adoptive identity groups were also all significant (p range: 0.000–0.010, Hedge's g range: 0.60–0.84), with Unsettled participants having significantly higher pooled internalizing behavior scores at Wave 3 than those in the Limited group ($M = 7.20$, $SE = 1.61$, $n = 46$). None of the pairwise comparisons between the Integrated and Unsettled identity groups were significant, though the Integrated group had slightly lower average internalizing scores ($M = 10.23$, $SE = 1.73$, $n = 45$). All means and standard deviations at the group level were pooled across data sets using Rubin's rules (Rubin, 1987); see Table 3 for additional information.

ANCOVA on Externalizing Behavior

A factorial ANCOVA was performed to analyze differences in externalizing behavior at Wave 3 across adoptive identity clusters and gender while controlling for each adoptee's level of externalizing behavior at Wave 2. The pooled effect of identity cluster on Wave 3 externalizing behavior was not significant ($F(3, 108.99) = 0.550$, $p = 0.648$, partial $\eta^2 = 0.022$).

A marginal effect of gender on externalizing behavior at Wave 3 was found ($F(1, 249.56) = 3.406$, $p = 0.066$, partial $\eta^2 = 0.032$), with male adoptees having higher levels of externalizing behavior ($M = 10.79$, $SE = 1.12$, $n = 70$) than female adoptees ($M = 7.93$, $SE = 1.07$, $n = 75$), but the interaction of identity grouping and gender was not significant. The covariate was strongly related to the outcome variable ($F(1, 105.84) = 33.678$, $p = 0.000$, partial $\eta^2 = 0.264$). See Tables 4 and 5 for a summary of model findings and group differences. As with the internalizing behavior model, the covariate was approximately normally distributed across levels of the independent variables and linearly related to the outcome variable.

Discussion

In the current study, identity classification of adopted individuals during adolescence significantly predicted levels of internalizing behavior during emerging adulthood, controlling for levels of internalizing shown at adolescence. Adopted adolescents in the "Unsettled" group had significantly higher levels of internalizing behavior problems during emerging adulthood than adopted individuals in the "Limited" or "Unexamined" group.

Findings that higher levels of internalizing behavior problems were present in the Unsettled group at both Wave 2 and Wave 3 suggest that adjustment difficulties associated with identity development persist over time. Approximately eight years (on average) separated adoptees' interviews between the two waves of data collection, indicating that difficulties may not be alleviated through maturity into adulthood by itself. It is noteworthy that this predictive power extended over the transition from adolescence (when most youth lived at home with their families) into emerging adulthood, when youth lived in a wide variety of settings.

In contrast, identity classification during adolescence did not significantly predict levels of externalizing behavior during emerging adulthood. Although the association between the two variables was not statistically significant, the patterns of means was similar to those for internalizing, with adolescents in the Unsettled group having the highest mean levels of externalizing.

Internalizing and Negative Affect about Adoption

Previous studies comparing adopted to nonadopted individuals have found that adopted individuals are at risk for increased levels of problem behaviors. In such comparisons, elevations are typically more pronounced in externalizing behavior problems than internalizing behavior problems (Bimmel, Juffer, van IJzendoorn, & Bakermans-Kranenburg, 2003; Juffer & van IJzendoorn, 2005). On the other hand, some longitudinal studies have found that adversities experienced prior to early adoptions may manifest in adulthood, seemingly de novo, in internalizing problems such as anxiety and mood disorders (van der Vegt, Tieman, van der Ende, Ferdinand, Verhulst, & Tiemeier (2009). In the present study, identity at adolescence predicted internalizing problems, but not externalizing problems, at emerging adulthood.

Predictability of internalizing but not externalizing behavior was likely due to the fact that adoptive identity development in adolescence is primarily an internal process. As adopted individuals incorporate information into their own sense of self and explore different aspects of adoption, they may ruminate over a number of adoption-related domains. In nonadoptive samples, such identity-related rumination has been linked with depressive symptoms and other internalizing behavior problems (Luyckx et al., 2007; Luyckx et al., 2013; Ritchie et al., 2013). In a study of young adults who had been adopted internationally as infants from Greece to the Netherlands, negative appraisal of adoption was found to be associated with higher levels of psychological symptoms expressed on the SCL-90 (Storsbergen, Juffer, Van Son, & 't Hart (2010).

Indeed, membership in the "Unsettled" group in the current study was characterized by a unique combination of high levels of identity-related salience, exploration and negative affect towards adoption, which combined could lead to negative preoccupation and rumination about multiple aspects of the adoptive identity development process. For example, many of the participants in the "Unsettled" group seemed preoccupied with their birth parents. One participant stated, "I think they [birth parents] should live next door and get me on the weekends. (laugh) I wish that I saw her a lot more often. I wish I saw her, period. If I knew where the heck she was, I would write to her … but, because I have no idea

where to send it, I guess I can't do it." Although it was not the purpose of this analysis, it is interesting to note that given inspection of the confidence intervals for the means of each group, there was no statistically significant difference in internalizing behavior between the Integrated and Unsettled groups, or between the Integrated as compared to the Limited and Unexplored groups. During adolescence, the identity variable that best distinguished between the Unsettled and Integrated groups was negative affect. The lack of significant difference between these groups on internalizing behaviors at emerging adulthood may suggest the import of high identity salience during adolescence in later heightened internalizing behaviors, but also indicate that it is the addition of strong negative affect that contributes to the differentiation between the Unsettled versus Unexplored and Limited groups.

As indicated above, a high level of negative affect about adoption was a distinctive feature of membership in the "Unsettled" adoptive identity group. Multiple sources of positive and negative feelings about adoption could come from relationships (with adoptive parents, birth relatives, or peers), lack of information or understanding about their adoption circumstances, or difficulties weaving these aspects into a coherent narrative that links past, present, and future. Negative affect was manifested in several ways. For some adopted adolescents, negative affect was fueled by dissatisfaction with contact with birth parents or knowledge about their birth parents. For example, one participant described being "mad that I can't hear from … them, like how they are doing and stuff." For others, negative affect stemmed from adverse adoption-related experiences with peers. One participant stated that peers "think it [adoption] is something that they can use against me when they're upset with me. And it's really nothing that you can joke about, because that can leave a big scar for me." Another commented that other kids "tried to get to me when I was little, and I ended up beating the crap out of some kid for it and no one ever did it again… Someone tried to tell me you're … not as good as me because your parents, your parents threw you out."

Implications for Adopted Persons, Research, Parenting, and Clinical Work

As adopted young people often point out, they did not choose to be adopted. Nevertheless, adoption is an important feature of their lives about which they must make meaning (Grotevant, 1992; Grotevant & Von Korff, 2011). Distinctive aspects of the adoption situation, especially those involving gaps in knowledge about their background and the necessity of coordinating multiple, emotion-laden relationships, play important roles in how they answer the central questions of adoptive identity. We hope that these findings will provide some insights for adopted persons that might help them understand and normalize their own situations and circumstances.

In the broader field of identity development research, further attention should be paid to the distinctive identity-related challenges facing young people with other assigned identities, such as those relating to culture, race, gender, or sexual orientation (e.g., Kim, Suyemoto, & Turner, 2010) and how those specific challenges might be linked to adjustment outcomes over time. Further developmental research is also needed on intersectionality of identities (e.g., Abes, Jones, & McEwen, 2007), since it is not uncommon for young people to

experience complex sets of identities, in which one's whole identity is not simply the sum of its parts.

We hope that this research will make adoptive parents better informed about the challenges that their developing children might face, especially during the adolescent years. Ongoing, open communication will support the development of their youth into adulthood. Our interview data have also shown us that adolescents and young adults think about their adoptions very frequently, even though they do not necessarily initiate discussions about it with their parents. In fact, they often inhibit the desire to raise adoption issues with their adoptive parents or their birth parents, for fear of upsetting them (Garber, French, & Grotevant, 2015; Wrobel, Grotevant, Samek, & Von Korff, 2013). Data from this study and the earlier work of Dunbar make it clear that there are significant individual differences in adoption concern among adolescents; parents may have one child who is significantly preoccupied by adoption issues, whereas another may not be interested, at least at that point in time. The children in our study were placed as infants from low-risk backgrounds; children placed following maltreatment or institutionalization have significant additional sets of issues to integrate into their emerging sense of identity. In addition, transracially adopted children must also integrate racial and ethnic experiences as well as their own developing ethnic identities.

Our results also have implications for clinical intervention with adopted individuals who experience adjustment difficulties, particularly during the adolescent years. Although it has been known for some time that adopted persons seek mental health services with greater frequency than the general population (e.g., Juffer & van IJzendoorn; 2005; Miller et al., 2000), it is only recently that those using such services have begun to look specifically for clinicians who are adoption-competent; in other words, having had specific training in understanding adoption and how they can best respond to the needs of clients who have experienced adoption (Atkinson, Gonet, Freundlich, & Riley, 2013; Riley & Meeks, 2006). Given the multiple potential sources of negative affect and the possibility that certain experiences, such as dissatisfaction with contact, may not be equally distressing to all adoptees, it may be necessary for adoption-related interventions to be personalized to address the aspects that are uniquely distressing for the adoptee. By utilizing a person-centered approach and focusing on these negative aspects, mental health professionals may address the underlying issues that may be associated with maladaptive psychological adjustment.

Strengths and Limitations

This is the first study to have used longitudinal data to link adoptive identity in adolescence with adjustment outcomes across a major developmental transition, to emerging adulthood. Incorporation of a low-risk sample meant that explanations such as maltreatment and institutionalization could be ruled out as sources of psychopathology. An additional strength is that the study utilized a person-centered approach to categorize participants into four identity types that varied across the six identity dimensions. Such an approach allowed us to account for individual differences in adoption experiences within the sample. Adopted individuals may vary highly on a number of constructs that may influence their ability to

fully make meaning of the adoption (e.g. contact with the birth family, openness in communication with adoptive parents, negative experiences with peers). In addition, adopted individuals vary in how they make meaning of these adoption experiences. The person-centered approach provided a way to acknowledge this variability when linking identity and adjustment.

The primary limitation of the study involves the generalizability of the results. The current study utilized a sample of individuals domestically adopted during infancy. Almost all (over 95%) adoptees were White and raised in middle-class heterosexual families that were of the same race as themselves. Thus, the generalizability of these findings to other forms of adoption, including international adoption, transracial domestic adoption, and adoption by same-sex parents, is unknown. These forms of adoption often involve the intersection of adoptive identity with other aspects of identity such as race, introducing additional identity-related challenges that may influence adjustment. In addition, cluster analysis solutions are specific to the sample on which they are based; therefore, replication of these findings with other samples will be important. Lastly, past studies indicate that domestically adopted individuals display higher levels of both internalizing and externalizing behaviors than internationally adopted individuals, suggesting that some internationally adopted individuals may experience certain protective factors (Juffer & van IJzendoorn, 2005). Future research should identify and incorporate these unique identity factors and examine whether the results of the current study replicate in those populations.

Acknowledgments

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Table 1

Intercorrelations among continuous variables in internalizing and externalizing models

Variable	Internalizing behavior — W2	Internalizing behavior — W3	Externalizing behavior — W2	Externalizing behavior — W3
Internalizing behavior — W3	0.169			
Externalizing behavior — W2	0.438 ***	0.234 *		
Externalizing behavior — W3	0.119	0.693 ***	0.552 ***	Externalizing behavior — W3
M (SD)	10.60 (7.02)	9.68 (10.00)	10.56 (7.96)	9.38 (9.25)

Note: Correlations, *M*, and *SD* are pooled across ten imputations. N = 145

*
$p < .05$.

**
$p < .01$.

***
$p < .001$.

Table 2

Pooled ANCOVA results with internalizing behavior at Wave 3 as outcome

Source	SS	df	MS	F	Sig.	Partial η^2	Observed power
Identity grouping	1154.46	3	384.82	3.724	0.011[*]	.085	0.87
Gender	14.28	1	14.28	0.089	0.765	.001	0.06
Identity grouping × gender	308.28	3	102.76	0.752	0.522	.024	0.31
INT at Wave 2	121.23	1	121.23	0.719	0.398	.010	0.22
Error	12423.30	‰	–				

‰ The R packages 'miceadds' and 'mice' were used to compute pooled *F* values and significance levels for each variable in the model. Denominator df (error) varied with each calculation and is approximated by ∞ (large number of degrees of freedom). SS, MS, and partial η^2 are averaged over the ten imputed data sets.

[*] *p* < .05.

Table 3

Levels of internalizing behaviors at Wave 3 by identity group membership at Wave 2 and gender

Gender	Unexamined		Limited		Unsettled		Integrated		Total		Overall F
	n	M $(SE; CI)$	n	M $(SE; CI)$	n	M $(SE; CI)$	n	M $(SE; CI)$	n	M $(SE; CI)$	
Male	16	7.90 (2.52; 2.96–12.84)	24	8.28 (2.26; 3.82–12.74)	12	12.63 (3.14; 6.43–18.84)	18	9.22 (2.85; 3.53–14.92)	70	9.51 (1.35; 6.85–12.17)	n.s.
Female	8	4.30 (3.64; 2.86–11.45)	22	6.12 (2.25; 1.69–10.54)	18	16.05 (2.40; 11.35–20.75)	27	11.24 (1.92; 7.47–15.01)	75	9.42 (1.35; 6.78–12.07)	
Total	24	6.10_a (2.21; 1.76–10.43)	46	7.20_b (1.61; 4.03–10.37)	30	14.34_{ab} (1.95; 10.52–18.16)	45	10.23 (1.73; 6.81–13.66)	145	9.47 (.96; 7.58–11.36)	
Overall F	3.724^*										n.s.

Note. M = pooled mean across ten imputations, adjusted for covariate (mean score); SE = pooled standard error across ten imputations, adjusted for covariate. CI = pooled 95% confidence interval. Pooled means in each row that share subscripts are significantly different.

[*]
$p < .05$.

Table 4

Pooled ANCOVA results with externalizing behavior at Wave 3 as outcome

Source	SS	df	MS	F	Sig.	Partial η^2	Observed power
Identity grouping	182.88	3	60.96	0.550	0.648	0.022	0.29
Gender	269.65	1	269.65	3.406	0.066[†]	0.032	0.55
Identity grouping × gender	56.23	3	18.74	0.202	0.895	0.007	0.12
EXT at Wave 2	2933.33	1	2933.33	33.678	0.000***	0.264	0.99
Error	8105.03	‰	–				

‰The R packages 'miceadds' and 'mice' were used to compute pooled F values and significance levels for each variable in the model. Denominator df (error) varied with each calculation and is approximated by ∞ (large number of degrees of freedom). SS, MS, and partial η^2 are averaged over the ten imputed data sets.

***
  $p < .001$.

†
  $p < 0.10$.

Table 5

Levels of externalizing behaviors at Wave 3 by identity group membership at Wave 2 and gender

Gender	Unexamined		Limited		Unsettled		Integrated		Total		Overall F
	n	M (SE; CI)	n	M (SE; CI)	n	M (SE; CI)	n	M (SE; CI)	n	M (SE; CI)	
Male	16	10.12 (2.07; 6.05–14.19)	24	9.82 (2.14; 5.52–14.13)	12	12.41 (2.58; 7.34–17.49)	18	10.83 (2.12; 6.63–15.02)	70	10.79 (1.12; 8.59–13.00)	3.406[†]
Female	8	5.95 (3.16; −.29–12.20)	22	7.60 (1.88; 3.89–11.32)	18	9.66 (1.95; 5.83–13.49)	27	8.52 (1.54; 5.51–11.53)	75	7.93 (1.07; 5.84–10.03)	
Total	24	8.04 (1.89; 4.30–11.77)	46	8.71 (1.48; 5.75–11.67)	30	11.04 (1.66; 7.75–14.32)	45	9.67 (1.31; 7.09–12.26)	145	9.36 (.76; 7.87–10.86)	
Overall F	n.s.										n.s.

Note. M = pooled mean across ten imputations, adjusted for covariate (mean score); SE = pooled standard error across ten imputations, adjusted for covariate. CI = pooled 95% confidence interval.

[†] $p < .10$.