Published in final edited form as:

J Moral Educ. 2020 ; 49(4): 496–511. doi:10.1080/03057240.2019.1669545.

Patterns and Implications of Values Similarity, Accuracy, and Relationship Closeness between Emerging Adults and Mothers

Benjamin L. Bayly [Postdoctoral Fellow],

Prevention and Methodology Training Program, Pennsylvania State University.

Matthew F. Bumpus [Associate Professor]

Department of Human Development, Washington State University.

Abstract

This study evaluated associations between similarity in personal values, accuracy of values perceptions, and relationship closeness among emerging adults and their mothers (dyads = 99). Contrary to previous studies, values similarity and accuracy were largely unrelated to relationship closeness. This was reinforced by Latent Profile Analysis (LPA), which revealed three unique patterns of values similarity, values accuracy, and closeness between emerging adults and mothers: 1) high relationship closeness, similar values and accurate perceptions; 2) moderate relationship closeness, dissimilar values and inaccurate perceptions; and 3) low relationship closeness but similar values and accurate perceptions. Subsequent analyses revealed different implications for emerging adults' wellbeing from different profiles. Emerging adults from the subgroup with low relationship closeness but high values similarity and values accuracy had more problematic drinking behaviors than the other profiles and lower positive affect.

Keywords

values; emerging adulthood; parent-child relationships; latent profile analysis

Values are chosen, long-term, desired, qualities of life. Through Schwartz's (1992) seminal work, we understand that values shape our priorities and while the endorsement of specific values vary, values are viewed as a universal concept. Values are not physical, attainable objects, but are instead abstract ideals that can direct our actions on a moment-to-moment basis (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). Acceptance and Commitment Training (ACT), an intervention that encourages non-judgmental acceptance and mindfulness, is a commonly used framework to explain the importance of commitment to values (Hayes et al., 2006). From an ACT perspective, awareness and commitment to individual values plays a vital role in individual wellbeing (Hayes et al., 2006), a belief that has been empirically supported as studies have found that both clarity in values and alignment between values and actions are beneficial for a range of outcomes including

depression and anxiety, substance use, and pain tolerance (see Öst, 2008; Powers, Vöröding, & Emmelkamp, 2009 for reviews).

Past research has demonstrated individual values are formed through multiple contexts, including biology, temperament, culture, as well as social factors (e.g., parents and peers; see Hitlin & Piliavin, 2004 for review). The study of intergenerational values transmission (e.g., parents' values influencing their children's values) is important as values transmission carries implications for the individual and their relationships and is thought to be an important mechanism in shaping a culture and society for future generations (see Schönplflug, 2008). Because of the potential implications of intergenerational values transmission, parenting has been a predominant focus for researchers interested in values development (Grusec & Kuczynski, 1997). Parents influence values in multiple ways including through parenting styles, modeling behaviors, and communication (Coard, Wallace, Stevenson, & Brotman, 2004; Pagano, Hirsch, Deutsch, & McAdams, 2003; Schönplflug, 2001). While the majority of work on values of children and adolescents has focused on parents' role in the values development of their offspring, it is important to note that more recent work has emphasized that children and adolescents have agency in the values they accept and reject and they can also influence values of their parents (Knafo & Galansky 2008; Sameroff, 2009). Given the implications of intergenerational values transmission and the empirical evidence suggesting the important role values play in individual wellbeing, understanding the processes by which values emerge is important.

Parent-Child Relationships and Values Similarity

Values are typically shared between parents and their offspring when there is familial cohesion, warmth, and emotional bonding between parents and children (Roest, Dubas, & Gerris, 2009). Additionally, authoritative parents (i.e., parents who are warm and responsive and exert control in a supportive manner) have been shown to have adolescents who are more willing to internalize their parents' values, and similarly, their parents are more likely to adopt their adolescents' values (Pinquart, Silbereisen, & Rainer, 2004; Schönplflug, 2001). Authoritarian parents (i.e., parents who are low in warmth and are controlling in a negative manner) are less likely to adopt their adolescents values (Schönplflug, 2001); however, there is research to suggest that adolescents with authoritarian parents often form either very similar values due to a lack of autonomy or very dissimilar values to their parents due to rebellion (Rohan & Zanna, 1996). This would suggest that the route to values similarity is important, as there are likely different implications for individuals who choose to adopt similar values to their parents because they feel they have a close relationship compared to individuals who adopt similar values simply due to the amount of negative control exerted by their parents (see Yap, Pilkington, Ryan & Jorm, 2014).

While multiple studies have found values similarity to be more likely to occur within close relationships, correlations between family variables and values vary considerably (see Pinquart et al., 2004). One possible reason for this is that family relationships (e.g., cohesion and closeness) have often been measured with composite scores (e.g., Roest et al., 2009). An alternative approach would be to assess family relationship constructs and family members' values from multiple perspectives. In a study by Alfieri and Barni (2014), the authors looked

at individual reports of relationship closeness (conflict, admiration, and satisfaction) and found the construct only explained a small portion of the variance in values similarity ($R^2 = .05$ for father-emerging adult similarity and $R^2 = .14$ for mother-emerging adult similarity; Alfieri & Barni, 2014). Although individual reports of the relationship were utilized in the Alfieri (2014) study, the authors only measured actual values similarity (i.e., comparing the reports of individual values across family members) and not perceived values similarity (i.e., comparing reports of individual values to perceptions of another family member's values). The relationship between values similarity and family relationships can be further unpacked by evaluating individual reports of perceived values similarity, actual values similarity, and individual perceptions of relationship quality. For example, a dyad may not hold similar values, but they perceive the other family member has similar values and they report high levels of relationship closeness. In contrast, it is possible that a dyad holds very similar values, but this is unknown by the family members, and they report high levels of relationship closeness. Including individual perceptions of values similarity, in addition to actual values similarity, with individual reports of relationship closeness carries important implications as it would allow us to better unpack the question of whether relationship closeness is related to possessing similar underlying characteristics and motivations or if it is more a relevant to the belief that you have something in common with a family member.

Relationship Closeness and Values Accuracy

As with values similarity, having an accurate view of another family member's values may be indicative of the relationship dynamic. From a theoretical perspective, adolescents gain an accurate view of their parents' values by spending time with them (Albert & Ferring, 2012). As such, parenting in a manner that builds strong parent-child bonds and elicits positive emotional responses should increase adolescents' desire to spend time with their parents and promote receptivity to the values messages parents convey, which would ultimately lead in accurate perceptions (see Albert & Ferring, 2012; Knafo & Schwartz, 2003). The idea that cohesive, close parent-child relationships coincide with greater values accuracy has generated some empirical support. For example, Knafo and Schwartz (2003) found that affectionate parenting (i.e., parenting with warmth and acceptance) predicted significantly greater accuracy in adolescents' perceptions of their parents' values. Similarly, Albert and Ferring (2012) found that adolescents and emerging adults had a less accurate view of their mothers' values when they held a negative emotional view towards their mothers. Additionally, it is important to remember that parents and their offspring typically share a social environment and when parents and adolescents have close relationships and spend more time together in a given environment (e.g., attending religious services together) adolescents are more likely to have accurate perceptions of the values their parents hold (see Knafo & Schwartz, 2009).

Two-Step Model of Values Internalization

Values accuracy and values similarity appear to be linked as parents who clearly convey their values to their children either verbally through conversations or through modelling behaviors are more likely to have children that adopt similar values (Hitlin & Piliavin, 2004). as it is difficult for children Additionally, connections between values accuracy,

relationship closeness, and values similarity is consistent with the two-step model of values internalization (Grusec & Goodnow, 1994), which posits that for adolescents to develop the same values as their parents they need to: 1) know what their parents value; and 2) accept those values. Transmission of similar values between parents and children can break down at either step. For example, it is difficult for adolescents to adopt similar values to their parents when they do not know what their parents value. Conversely, adolescents may be aware of what their parents value, but they actively choose to reject these values resulting in values dissimilarity (Grusec & Goodnow, 1994). Essentially, when adolescents understand what their parents value (i.e., values accuracy) and have a desire to adopt those values as their own (which is influenced by the parent-child relationship) values similarity is likely to occur.

Emerging Adulthood

Values similarity and accuracy research has often been conducted with adolescents (Barni, Alfieri, Marta, & Rosnati, 2013). Emerging adulthood (i.e., the developmental period between adolescence and adulthood; Arnett, 2000) remains an understudied period with respect to values similarity, values accuracy, and the parent-emerging adult relationship (Barni et al., 2013). Although the research is not as extensive as with adolescents, there is reason to believe that values similarity and accuracy continue to relate to relationship closeness during emerging adulthood. For example, while the research comparing levels of values similarity during adolescence to similarity during emerging adulthood is mixed (see Roest et al., 2009) there is research to suggest that emerging adults tend to have more similar values to their parents than adolescents (Barni et al., 2013). This increase in similarity may be indicative of developmental changes in that emerging adults are moving toward adulthood and as a result are more likely to possess similar values to other adults (i.e., their parents; Barni et al., 2013); however, others have attributed the increase in similarity to a decrease in parent-child conflict during the transition to emerging adulthood as well as an increase in emerging adults' acceptance of their parents' values (Roest et al., 2009; Scabini, Marta, & Lanz, 2006). Both of which would be consistent with previous work that has suggested great values similarity and accuracy between children and their parents when there is a close parent-child relationship (e.g., Knafo & Schwartz; Roest et al., 2009).

Emerging adulthood is conceptualized as a time of values clarification and crystallization (Arnett, 2000). It is also a time when parents and emerging adults often do not live together, making factors such as relationship closeness potentially particularly important in promoting conversations about values and, in turn, possible greater values similarity and accuracy. Given the nature of the unique developmental period, emerging adulthood is a particularly important time to further study values similarity, values accuracy, and relationship closeness.

Current Study

Few studies have included values similarity, perceived values similarity, values accuracy, and individual reports of family relationships in the same study (Albert & Ferring, 2012). Additionally, while the two-step model of values internalization has been employed to understand intergenerational values similarity, it is important to remember that values

development, and by extension values similarity, is influenced by multiple factors. Furthermore, very little is known about potential implications for value similarity that arises through different mechanisms (i.e., authoritative vs authoritarian parenting). In the current study, we attempt to address these gaps in the literature. Specifically, we had three goals: 1) examine individual reports of values similarity, values accuracy, and relationship closeness with dyadic data from a sample of emerging adults and their mothers; 2) utilize latent profile analysis (LPA) to identify unique patterns of similarity, accuracy, and relationship closeness among emerging adults and their mothers; 3) assess differences in emerging adult wellbeing across latent profiles. We hypothesized that: 1) values similarity (perceived and actual) and values accuracy would relate to individual and composite reports of relationship closeness; 2) unique subgroups of emerging adult-mother dyads would emerge from our LPA with varying levels of values similarity, accuracy in perceptions, and relationship closeness; 3) high levels of values similarity, values accuracy, and relationship closeness would predict better emerging adult wellbeing.

Method

Participants

First-year college students in the western United States and their mothers (dyads $N = 99$) completed an online survey at the start of emerging adults' second college semester. The emerging adult sample ($M_{AGE} = 18.6$; $SD = .53$), primarily identified as female (80%) and European American (74%; Asian 8%; Pacific Islander 7%; African American 5%; Latinx 4%; American Indian 1%), and the majority lived in on-campus dormitories (84%). Although females are over-represented in this sample, the distribution of race and ethnicity is comparable to the larger student population at the university. The mother sample primarily identified as European American (74%; Asian 9%; Latinx 5%; African American 3%; Pacific Islander 2%; American Indian 1%; 5% did not report race/ethnicity).

Procedure

Students were recruited through informational sessions for first-year college students and from an introductory course comprised solely of first-year students. Students indicated their interest in the study by providing their name, email, and parent's email on an index card. Interested students and their parents were then emailed a link to the online survey. Students were given \$5 if they completed the survey without a parent and \$10 if both they and their mother completed the survey.

Measures

Values.—The values questionnaire used was inspired by the Schwartz Value Survey (SVS), which has been tested and validated in 63 countries (Schwartz, 1992). Schwartz's (1992) work was extremely important as the SVS established ten comprehensive, motivationally distinct values that are present within and across cultures. In the current study, emerging adults and mothers indicated the importance of 20 value items that were representative of the ten SVS universal values (universalism, benevolence, tradition, conformity, security, power, achievement, hedonism, stimulation, self-direction) and would resonate with college students. Some of the values items were taken directly from the original SVS (e.g.,

creativity, health) and others were modified to be more relevant for current college students (e.g., social power was changed to prestige). The list of values items in the current study was first piloted using a different sample of college students to ensure that no values items were overly skewed. Additionally, in the pilot sample of students, qualitative data was collected to ensure that the list of values items were interpretable and relevant for college students. Each of the 20 value items used in the current study mapped on to one of the basic values from SVS. Values items consisted of: creativity (self-direction), open-mindedness (self-direction), fun (hedonism), religion/spirituality (tradition), excitement (stimulation), belonging to a group (conformity), safety (security), learning (self-direction), caring about the earth (universalism), accepting others (benevolence), health (security), career achievement (achievement), love (benevolence), experiencing new things (stimulation), independence (self-direction), academic achievement (achievement), altruism (benevolence), cultural practices/maintaining cultural practices (tradition), prestige (power), and stability (security). Responses were given on a 7-point scale (1=not at all important and 7=extremely important). Additionally, each participant was asked to rate how important they thought each value was to the other family member.

Perceived Values Similarity. A perceived similarity score was created for emerging adults and mothers by taking the absolute value of the difference between their responses for a given value and how they perceived the other family member would rate the importance of the same value. Similarity scores were averaged across all 20 values with scores closer to '0' reflecting greater perceived similarity (emerging adults $M = .86$; $SD = .44$; $\alpha = .74$; mothers $M = .95$; $SD = .40$; $\alpha = .88$ in the current study).

Actual Values Similarity. Actual values similarity scores were created by taking the absolute value of the difference between how family members rating of the same value's importance. Again, these similarity scores were averaged across all 20 values with scores closer to '0' indicating greater values similarity ($M = 1.14$, $SD = .31$; $\alpha = .85$ in the current study).

Values Accuracy. Accuracy scores for emerging adults and mothers were created by calculating discrepancies between a family member's perception of the other family member's values and the other family member's actual reports for all 20 values. Scores were averaged across all values (scores closer to '0' indicated greater accuracy; emerging adults $M = 1.13$, $SD = .40$, $\alpha = .88$; mothers $M = 1.06$, $SD = .32$, $\alpha = .84$ in the current study).

Relationship Closeness.—Emerging adults and mothers completed the ten-item Mother-Adolescent Closeness Report (Buchanan, Maccoby, & Dornbusch, 1991). Sample items for emerging adults included: "how openly do you talk with your mother?" and "how close do you feel to your mother?" Mothers answered similar questions that were reworded appropriately (e.g., "how openly does your son/daughter talk with you?"). Responses were given on a 5-point scale (1 = not at all, 5 = very). This scale has acceptable construct validity (Buchanan et al., 1991) and has shown to have good reliability in a sample of emerging adults (Padilla-Walker, Nelson, Madsen, & Barry, 2008; emerging adults $\alpha = .85$; mothers $\alpha = .73$ in the current study). We calculated both individual reports of relationship closeness,

and consistent with previous studies of values similarity and family relationships (e.g., Roest et al., 2009), a composite score that consisted of the mean between emerging adults and mothers' reports (emerging adults $M = 4.28$, $SD = .59$; mothers $M = 4.55$, $SD = .39$; composite $M = 4.42$, $SD = .40$).

Dependent Variables.—We used self-reported alcohol use as an indicator of **behavioral wellbeing** because a high number of first-year students report drinking and heavy episodic drinking (five or more drinks in an evening; HED) and HED is a risk factor for multiple additional risk behaviors including: driving while intoxicated, injury, unsafe sexual activity, and physical fights; White & Hingson, 2014). Additionally, HED in college has been shown to increase risk for later alcohol dependence and is a leading cause of morbidity and mortality (Miller, Naimi, Brewer, & Jones, 2007). Students reported how frequently they drank in the past 30 days (0-9; 0=not at all, 9=everyday; $M=2.34$; $SD=2.24$), the typical number of drinks consumed when drinking (0-9; 9=9 or more drinks; $M=2.75$; $SD=2.67$), and HED frequency (0-9; 0=not at all, 9=every day; $M=1.43$; $SD=2.22$). **Emotional wellbeing** was assessed with the Positive and Negative Affect Scale (PANAS; Crawford & Henry, 2004), which consists of the 10-item positive (e.g. proud, alert) and 10-item negative (e.g. hostile, jittery) affect scales. Responses are given on a 5-point scale (1=very slightly/not at all; 5=extremely; positive affect $M = 3.48$; negative affect $M = 2.21$) and the PANAS has good reliability and construct validity (Crawford & Henry, 2004; $\alpha=.88$ positive affect; $\alpha=.89$ negative affect in the current study).

Results

Values Similarity, Values Accuracy, and Relationship Closeness

To examine relations between values similarity (perceived and actual), values accuracy, and relationship closeness (individual reports and composite), we conducted bivariate correlations (Table 1). Actual values similarity was unrelated to the composite and individual reports of relationship closeness. Additionally, emerging adults' perception of similarity was not associated with either emerging adults' reported relationship closeness or the closeness composite score. Mothers' perceptions of similarity, however, was positively correlated with their reports of closeness and the closeness composite score. Accuracy and relationship closeness (individual reports and composite) were unrelated in this sample.

Latent Profile Analysis

LPA is a latent variable mixture model used to identify unique subgroups of participants based on similar response patterns to multiple continuous variables (Magidson & Vermunt, 2004). We selected our LPA indicators based on the two-step model of values internalization (Grusec & Goodnow, 1994) which outlines the importance of adolescents: 1) knowing what a parent values (i.e., values accuracy) and 2) wanting to adopt those values (which is largely influenced by the parent-adolescent relationship). Indicators included: mothers' reported closeness, emerging adults' reported closeness', mothers' accuracy, emerging adults' accuracy, and actual values similarity. We ran LPA models with 1 to 7 profiles and assessed model fit using Bayesian information criterion (BIC), Akaike information criterion (AIC), and Consistent AIC (CAIC; Table 2). LPA models were assessed using 1000 random start

values with 50 iterations and were fit with Latent Gold version 5.1 (Vermunt & Magidson, 2016). We selected the 3-profile solution as it was the solution with the lowest BIC, was more parsimonious than subsequent solutions, and subsequent solutions each had a subgroup comprised of only 1% of the sample. We termed the three profiles: “Close, Similar, and Accurate” (42%); “Somewhat Close, Dissimilar, and Inaccurate” (37%); and “Not Close but Similar and Accurate” (21%; Table 3).

Profiles Predicting Emerging Adult Wellbeing

To test differences between latent profiles we utilized the 3-step weighted analysis introduced by Bolck, Croon, and Hagenaars (BCH; 2004). Using the BCH approach weights the likelihood of participants’ membership in each latent profile based on their posterior probabilities. We then conducted weighted analyses to compare estimated mean scores on our wellbeing outcomes. Results revealed that emerging adults from the Not Close but Similar and Accurate subgroup drank more frequently than both the Close, Similar, and Accurate and Somewhat Close, Dissimilar, Inaccurate subgroups ($p < .05$); consumed more alcohol when drinking than the Close, Similar, and Accurate subgroup ($p < .05$) and Somewhat Close, Dissimilar, Inaccurate ($p < .10$); engaged in HED more frequently than the Close, Similar, and Accurate subgroup ($p < .10$); and had lower positive affect than those in the Close, Similar, and Accurate subgroup ($p < .10$; Table 4).

Discussion

Values Similarity, Values Accuracy, and Relationship Closeness

Our first research goal was to add to the values literature by utilizing individual reports of relationship closeness as well as perceived values similarity. Based on previous studies linking relationship closeness with values similarity and accuracy (e.g., Albert & Ferring, 2012; Roest et al., 2009) we hypothesized that emerging adults and their mothers would report greater relationship closeness when they also reported possessing similar values and had a more accurate view of what one another valued. However, our first hypothesis was largely not supported; only mothers’ reports of relationship closeness was significantly correlated with their perceived values similarity. The fact that the composite score of closeness was unrelated to actual similarity in values, suggests that perceptions of values similarity, specifically mothers’ perceptions of values similarity, is more relevant to relationship closeness than actual value congruence. Additionally, it appears the connection between perceiving similar values and closeness is different for emerging adults and their mothers. One possible explanation is that mothers who believe their emerging adults have not adopted similar values to their own may attribute this to a breakdown in their relationship. The acceptance of parental values was once conceptualized as the hallmark of successful parenting socialization (Grusec & Davidov, 2007). If this attitude was held by mothers, they may have interpreted differences in values as being indicative of “unsuccessful” parenting and a less close relationship. Emerging adults on the other hand may not give as much credence to values similarity and see values similarity as functioning outside of the realm of relationship quality. Along similar lines, it is important to recognize that mothers and emerging adults may have different goals relevant to relationship closeness and values similarity. In the intergenerational-stake hypothesis (Bengtson & Kuypers, 1971;

Giarrusso, Du, & Bengtson, 2004) researchers make the case that parents and their emerging adult children have different motivations in their relationships due to the differences in their developmental stages. According to the intergenerational-stake hypothesis, parents desire a continuation of their own values through their children and a continuation of a strong parent-child bond, whereas emerging adult children seek autonomy to establish their own values (Bengtson & Kuypers, 1971). From this theoretical perspective it is possible that mothers see dissimilar values as coinciding with a more distant relationship. Conversely, emerging adults may not view dissimilar values as a negative component relevant for their relationship closeness as their goal in this developmental stage is to establish their own values (independent from their parents) and they may view a lack of autonomy in their values development as a consequence of a negative relationship with their parents.

Contrary to previous studies, values accuracy was also unrelated to relationship closeness in our sample. It stands to reason that feeling close to someone would result in having a better idea of what they value, but that was not supported here. We did find that mothers' values accuracy was significantly related to emerging adults' values accuracy, which could be the result of having some level of reciprocity in the relationship. This aligns with the study by Roest and colleagues (2009) who found a bidirectional relationship of values transmission, suggesting that parents influenced their emerging adults' values and emerging adults influenced their parents' values. It is possible that values accuracy functions in a similar way where emerging adults' accuracy influences parents' accuracy and vice versa.

A Person-Centered Approach to Examining Values

Given the limited number of studies that have looked at the connection between values similarity, values accuracy, and relationship closeness among emerging adults, our second research question pertained to identifying patterns of these variables in emerging adults and their mothers. We conducted LPA with indicators of values similarity, values accuracy, and relationship closeness. Consistent with our second hypothesis, our LPA revealed three unique profiles: a Close, Similar, and Accurate subgroup; a Somewhat Close, Dissimilar, and Inaccurate subgroup; and a Not Close but Similar and Accurate subgroup. The Close, Similar, and Accurate profile is consistent with the two-step model of values internalization. These emerging adults and mothers reported having a close relationship, knew what each other valued, and had similar values. This subgroup is also consistent with previous research that has suggested family relationships are relevant for both values similarity and values accuracy (e.g. Albert & Ferring, 2012; Roest et al., 2009). Unfortunately, given the cross-sectional nature of the data we cannot make conclusions about the temporal precedence of similarity, accuracy, and a close relationship within this subgroup. In these dyads, similar values could have resulted from family members wanting to adopt similar values because of the close relationship, or alternatively, common values may have led to shared experiences and opportunities to strengthen the relationship.

While the Close, Similar, and Accurate profile was consistent with the two-step model of values internalization the other two profiles were not, suggesting that for some emerging adults and their mothers, values similarity, values accuracy, and relationship closeness are not interrelated. For those in the Somewhat Closeness, Dissimilar, and Inaccurate subgroup,

a lack of similarity and accuracy did not appear to be a reflection of a distant relationship. Given the developmental timing of the study, it is possible that these emerging adults are more self-involved and are not currently at a stage in their lives when they are thinking about what is important to their mothers (see Arnett, 2000). Additionally, these emerging adults could also be experiencing shifts in their values that have coincided with the transition to college and the developmental period, which may both reduce values similarity between emerging adults and mothers and make it difficult for mothers to know what their emerging adults now value. An alternative explanation would be that for these dyads, values similarity is not relevant for their relationship. If the dyad has not had conversations around values it would be difficult for the family member to know what is important to the other person (Hitlin & Piliavin, 2004), but it does not mean that the lack of values based conversations was detrimental to their relationships. Again, because the data are cross-sectional we cannot determine if the disconnect between values similarity, values accuracy, and relationship closeness for these dyads is the result of shifts in values or the relationship; longitudinal research would be valuable in better understanding this subgroup of emerging adults and their mothers.

The Not Close but Similar and Accurate subgroup is an interesting one. This profile indicates that 21% of the emerging adult-mother dyads had accurate perceptions of the others' values and possessed similar values, but they did not have a close relationship. This runs counter to the two-step model of values internalization and to previous studies that have found familial relationships are related to values similarity and values accuracy; however, this subgroup is possibly similar to prior research that has shown that adolescents with authoritarian parents often adopt very similar (or very dissimilar) values to their parents (Rohan & Zanna, 1996). It is possible that the Not Close but Similar and Accurate emerging adults had parents who clearly communicated values, but also experienced a great deal of parental control. This could lead to these emerging adults feeling like they do not have autonomy in their own values, which led to the formation of similar values to their parents and accuracy in their perceptions, but potentially at the expense of relationship closeness. It is also important to note that values are determined by multiple factors outside of parenting practices, including biology and culture (Hitlin & Piliavin, 2004). For example, Schwartz (1992) made the case that values that are predominant in a culture are often shared between family members with little effort by parents to encourage values similarity given that the shared culture is likely influencing both the parents and their offspring's values. Additionally, Boehnke and colleagues (2007) make a similar point by stressing the importance of the "Zeitgeist," or the dominant social environment, on values similarity among family members and other researchers have made the case that it is very difficult to understand values similarity between parents and their children without also understanding the social-cultural context around them (e.g., Barni, Ranieri, & Scabini, 2012; Rodgers & Furr, 2018). For the emerging adults in the Not Close but Similar and Accurate group, their similarity in values may have little to do with their emerging adult-parent relationships and instead may ultimately be the result of living in the same social-cultural environment as their parents.

Weighting participants' likelihood to fall into each of the three profiles using the BCH approach allowed us to examine differences in wellbeing across the profiles. Those in the

Not Close but Similar and Accurate subgroup had consistently worse outcomes. Emerging adults from the Not Close but Similar and Accurate subgroup drank more frequently and consumed more drinks when drinking than both the Close, Similar, and Accurate and Somewhat Close, Dissimilar, and Inaccurate subgroups. Additionally, they engaged in HED more frequently and had lower positive affect than the Close, Similar, and Accurate emerging adults. The negative outcomes associated with the Not Close but Similar and Accurate subgroup suggest that the mechanism behind developing similar values to your parent matters. It appears that when in the context of a close parental relationship, values similarity and accuracy may promote wellbeing and serve as a protective factor; however, values similarity and accuracy outside of a close parental relationship may be detrimental and indicative of risk for poor wellbeing. While it should be mentioned that some of these findings were at the trend level ($p < .10$) that is likely the result of the sample size and conducting subgroup analyses, as all results were in a similar direction. It would be worthwhile to devote future research efforts towards unpacking implications of values similarity and accuracy in family relationships with lower levels of relationship closeness.

Future Directions

Because emerging adulthood is a time of values exploration and crystallization, it is critical to measure values longitudinally to identify changes in values. While it has been proposed theoretically that emerging adults' values are likely to still be forming and cementing their values, there is a need for more empirical evidence in this area. Examining emerging adults' values at multiple time points would provide valuable information regarding values clarification and processes during this developmental period. Similarly, looking at emerging adults' and their parents' values over time would allow us to look more causally at the associations between values similarity, values accuracy, and relationship quality across family members.

Although our LPA produced unique profiles of values similarity, values accuracy, and relationship closeness, we are forced to speculate about mechanisms that led to a subgroup characterized by high similarity and accuracy, but low relationship closeness. Future studies could shed light on these specific dyads with qualitative interviews to unpack how (and if) values were communicated between family members. For example, if values were emphasized to an emerging adult by highly controlling parents who were not autonomy-granting, this would likely have a different impact on their relationship than if values were clearly communicated in a manner that was warm with an explanation of why these values were important. Additionally, qualitatively measuring the rationale behind emerging adults' values would shed light on if some emerging adults felt they did not have agency in selecting the values they hold. Similarly, this could be unpacked using quantitative methods that measure parenting styles and emerging adults' identity, along with values similarity, values accuracy, and additional measures of the relationship.

Limitations

This study is not without limitations. The sample of students was largely female and only mothers were included in this study. This is particularly problematic as daughters tend to have more similar values to parents than sons (Barni et al., 2011). Including fathers and a

higher percentage of male students would make the study more generalizable and allow for same-gender and different-gender dyad comparisons to be evaluated. Furthermore, being able to examine values similarity and accuracy with a more diverse sample in terms of race and ethnicity would provide a more comprehensive picture of values and family dynamics and improve the external validity of the study. Along similar lines, all emerging adults in the study were first-year college students. While we used the term “emerging adults,” it is important to note that this is a specific subsample of emerging adults and it would be inappropriate to assume these results would hold for emerging adults in different settings (e.g., working full-time and not attending college).

Additional limitations existed because of the measures used; relationship closeness is only one aspect of the emerging adult-parent relationship. Utilizing measures in future studies that capture multiple dimensions of parents-emerging adults’ relationships (e.g. warmth, involvement, communication, cohesion) could better clarify the role of the relationship in shaping family members’ values. Similarly, as alcohol use in college increases the risk for multiple unsafe behaviors, we focused on self-reported alcohol use as an indicator of behavioral wellbeing. However, it should be mentioned that alcohol is only one relevant outcome in college and should be treated as such. Including additional behavioral outcomes in the study may have yielded different results. Finally, our sample size was somewhat limited, which increased the type II error rate. While we did not detect significant relationships between relationship closeness and values similarity and accuracy (outside of mothers’ individual report of closeness and perceived similarity) this could be a result of limited statistical power.

Conclusion

This study enhances the values literature in multiple ways. Our findings suggest that relationship closeness may not be as meaningful for values similarity and accuracy as once thought, as evidenced by largely non-significant correlations as well as our LPA. Additionally, values similarity between and emerging adults does not appear to be the hallmark of “successful” parenting. It appears that emerging adults and mothers can have close relationships without possessing similar values and without knowing what the other family member values. Additionally, comparisons across profiles suggests that values similarity is not always a positive outcome for emerging adults and the mechanism behind values similarity may carry important implications for emerging adult wellbeing.

Acknowledgement:

The first author was supported by awards P50 DA010075 and T32 DA017629 from the National Institute on Drug Abuse. The content is solely the responsibility of the authors and does not necessarily represent the official views of the funding agencies.

Biography

Benjamin L. Bayly is a postdoctoral fellow in the National Institute on Drug Abuse funded Prevention and Training Program (PAMT) at the Pennsylvania State University.

Matthew F. Bumpus is an associate professor in the department of Human Development at Washington State University.

References

- Albert I, & Ferring D (2012). Intergenerational value transmission within the family and the role of emotional relationship quality. *Family Science*, 3(1), 4–12.
- Alfieri S, & Barni D (2014). “Do not leave your values at home”: A study of value orientations of Italian emerging adults and their parents. *Psyche (Santiago)*, 23(2), 1–12.
- Arnett JJ (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55(5), 469–480. [PubMed: 10842426]
- Barni D, Alfieri S, Marta E, & Rosnati R (2013). Overall and unique similarities between parents' values and adolescent or emerging adult children's values. *Journal of Adolescence*, 36(6), 1135–1141. [PubMed: 24215960]
- Barni D, Ranieri S, & Scabini E (2012). Value similarity among grandparents, parents, and adolescent children: Unique or stereotypical?. *Family Science*, 3(1), 46–54.
- Barni D, Ranieri S, Scabini E, & Rosnati R (2011). Value transmission in the family: Do adolescents accept the values their parents want to transmit? *Journal of Moral Education*, 40(1), 105–121.
- Bengtson VL, & Kuypers JA (1971). Generational difference and the developmental stake. *Aging and Human Development*, 2(4), 249–260.
- Boehnke K, Hadjar A, & Baier D (2007). Parent-child value similarity: The role of zeitgeist. *Journal of Marriage and Family*, 69(3), 778–792.
- Bolck A, Croon M, & Hagenaars J (2004). Estimating latent structure models with categorical variables: One-step versus three-step estimators. *Political Analysis*, 12(1), 3–27.
- Buchanan CM, Maccoby EE, & Dornbusch SM (1991). Caught between parents: Adolescents' experience in divorced homes. *Child Development*, 62(5), 1008–1029. [PubMed: 1756653]
- Coard SI, Wallace SA, Stevenson HC Jr., & Brotman LM (2004). Towards culturally relevant preventive interventions: The consideration of racial socialization in parent training with African American families. *Journal of Child and Family Studies*, 13(3), 277–293.
- Cox MJ, & Paley B (1997). Families as systems. *Annual Review of Psychology*, 48(1), 243–267.
- Crawford JR, & Henry JD (2004). The Positive and Negative Affect Schedule (PANAS): Construct validity, measurement properties and normative data in a large non-clinical sample. *British Journal of Clinical Psychology*, 43(3), 245–265. [PubMed: 15333231]
- Giarrusso R, Du F, & Bengtson VL (2004). The intergenerational-stake phenomenon over 20 years. *Annual Review of Gerontology & Geriatrics*, 24, 55.
- Grusec JE & Davidov M (2007) Socialization in the family. The roles of parents, in: Grusec JE & Hastings PD (Eds.) *Handbook of socialization: Theory and research* (284–308). New York: Guilford Press.
- Grusec JE, & Goodnow JJ (1994). Impact of parental discipline methods on the child's internalization of values: A reconceptualization of current points of view. *Developmental Psychology*, 30(1), 4.
- Hayes SC, Luoma JB, Bond FW, Masuda A, & Lillis J (2006). Acceptance and Commitment Therapy: Model, processes and outcomes. *Behaviour Research and Therapy*, 44(1), 1–25. [PubMed: 16300724]
- Hitlin S, & Piliavin JA (2004). Values: Reviving a dormant concept. *Annual Review of Sociology*, 30(1), 359–393.
- Knafo A, & Galansky N (2008). The influence of children on their parents' values. *Social and Personality Psychology Compass*, 2(3), 1143–1161.
- Knafo A, & Schwartz SH (2003). Parenting and adolescents' accuracy in perceiving parental values. *Child Development*, 74(2), 595–611. [PubMed: 12705575]
- Knafo A, & Schwartz SH (2009). Accounting for parent-child value congruence: Theoretical considerations and empirical evidence In Schönplüg U (Ed.), *Cultural transmission: Psychological, developmental, social, and methodological aspects; cultural transmission:*

- Psychological, developmental, social, and methodological aspects (pp. 240–268, Chapter xix, 490 Pages). New York, NY Cambridge University Press.
- Magidson J, & Vermunt JK (2004). Latent class models. *The Sage Handbook of Quantitative Methodology for the Social Sciences*, 175–198.
- Miller JW, Naimi TS, Brewer RD, & Jones SE (2007). Binge drinking and associated health risk behaviors among high school students. *Pediatrics*, 119(1), 76–85. [PubMed: 17200273]
- Öst LG (2008). Efficacy of the third wave of behavioral therapies: A systematic review and meta-analysis. *Behaviour Research and Therapy*, 46(3), 296–321. [PubMed: 18258216]
- Padilla-Walker LM (2007). Characteristics of mother-child interactions related to adolescents' positive values and behaviors. *Journal of Marriage and Family*, 69(3), 675–686.
- Padilla-Walker LM, Nelson LJ, Madsen SD, & Barry CM (2008). The role of perceived parental knowledge on emerging adults' risk behaviors. *Journal of Youth and Adolescence*, 37(7), 847–859.
- Pagano ME, Hirsch BJ, Deutsch NL, & McAdams DP (2003). The transmission of values to school-age and young adult offspring: Race and gender differences in parenting. *Journal of Feminist Family Therapy: An International Forum*, 14(3–4), 13–36.
- Pinquart M, & Silbereisen RK (2004). Transmission of values from adolescents to their parents: The role of value content and authoritative parenting. *Adolescence*, 39(153).
- Powers MB, Vöröding MBZVS, & Emmelkamp PM (2009). Acceptance and Commitment Therapy: A meta-analytic review. *Psychotherapy and Psychosomatics*, 78(2), 73–80. [PubMed: 19142046]
- Rogers KH, Wood D, & Furr RM (2018). Assessment of similarity and self-other agreement in dyadic relationships: A guide to best practices. *Journal of Social and Personal Relationships*, 35(1), 112–134.
- Roest AM, Dubas JS, & Gerris JRM (2009). Value transmissions between fathers, mothers, and adolescent and emerging adult children: The role of the family climate. *Journal of Family Psychology*, 23(2), 146–155. [PubMed: 19364209]
- Rohan MJ, & Zanna MP (1996). Value transmission in families. *The Psychology of Values: The Ontario Symposium*, 8, 253–276.
- Sameroff AJ (2009). The transactional model In Sameroff AS (Ed.), *The transactional model of development: How children and contexts shape each other* (pp. 3–21). Washington, DC: American Psychological Association.
- Scabini E, Marta E, & Lanz M (2006). *The transition to adulthood and family relations: An intergenerational perspective*. New York, NY Psychology Press.
- Schönpflug U (2001). Intergenerational transmission of values: The role of transmission belts. *Journal of Cross-Cultural Psychology*, 32(2), 174–185.
- Schönpflug U (Ed.). (2008). *Cultural transmission: Psychological, developmental, social, and methodological aspects*. New York, NY Cambridge University Press.
- Schwartz SH (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology*, 25(1), 1–65.
- Vermunt JK, & Magidson J (2016). *Technical Guide for Latent GOLD 5.1: Basic, Advanced, and Syntax*. Belmont, MA: Statistical Innovations Inc.
- Wang MT, Hill NE, & Hofkens T (2014). Parental involvement and African American and European American adolescents' academic, behavioral, and emotional development in secondary school. *Child Development*, 85(6), 2151–2168. [PubMed: 25156187]
- Whitbeck LB, & Gecas V (1988). Value attributions and value transmission between parents and children. *Journal of Marriage and the Family*, 50(3), 829–840.
- White A, & Hingson R (2014). The burden of alcohol use: Excessive alcohol consumption and related consequences among college students. *Alcohol Research: Current Reviews*, 35(2), 201.
- Wong MM (2008). Perceptions of parental involvement and autonomy support: Their relations with self-regulation, academic performance, substance use and resilience among adolescents. *North American Journal of Psychology*, 10(3), 497.
- Yap MBH, Pilkington PD, Ryan SM, & Jorm AF (2014). Parental factors associated with depression and anxiety in young people: A systematic review and meta-analysis. *Journal of Affective Disorders*, 156, 8–23. [PubMed: 24308895]

Table 1

Correlations between values similarity, values accuracy, and relationship closeness

	Closeness Composite	Mother Closeness	Emerging Adult Closeness	Actual Values Similarity	Mother Perceived Similarity	Emerging Adult Perceived Similarity	Mother Values Accuracy	Emerging Adult Values Accuracy
Closeness Composite	--							
Mother Closeness	.72***	--						
Emerging Adult Closeness	.88***	.31**	--					
Actual Values Similarity	-.01	-.01	-.01	--				
Mother Perceived Similarity	.22*	.46***	-.01	.35**	--			
Emerging Adult Perceived Similarity	.17	.05	.20	.20	.11	--		
Mother Values Accuracy	.01	.19	-.10	.36**	.47***	.25*	--	
Emerging Adult Values Accuracy	.05	-.06	.09	.62***	.16	.41***	.41***	--

Note: Values similarity and accuracy correlations are presented as increases in the variable reflecting greater similarity and accuracy (e.g., increased mother closeness correlates with increased mother perceived values similarity);

* $p < .05$

** $p < .01$

*** $p < .001$

Table 2

LPA fit statistics for 1 – 7 profile solutions

Number of Classes	Number of Parameters	AIC	BIC	CAIC
1	10	460.7263	486.6775	496.6775
2	21	395.2631	449.7606	470.7606
3	32	362.8772	445.9210	477.9210
4	43	349.1250	460.7152	503.7152
5	54	343.4500	483.5865	537.5865
6	65	328.6049	497.2877	562.2877
7	76	322.7987	520.0278	596.0278

Table 3

Three profile solution: means and paired comparisons

	Overall Mean	Close, Similar, and Accurate (42%)	Somewhat Close, Dissimilar, and Inaccurate (37%)	Not Close but Similar and Accurate (21%)	Paired Comparisons (Mean Differences)
Mother Reported Closeness	4.55	4.75	4.45	4.31	1 > 2 ^{***} , 3 ^{***}
Emerging Adult Reported Closeness	4.28	4.63	4.17	3.76	1 > 2 ^{***} , 3 ^{***} ; 2 > 3 [*]
Mothers' Accuracy	1.06	.95	1.28	.88	2 < 1 ^{***} , 3 ^{***}
Emerging Adults' Accuracy	1.13	.95	1.50	.88	2 < 1 ^{***} , 3 ^{***}
Actual Values Similarity	1.14	.99	1.38	1.00	2 < 1 ^{***} , 3 ^{***}

Note: For values similarity and accuracy scores closer to '0' reflect greater similarity and accuracy;

* $p < .05$;

*** $p < .001$

Table 4

Means for Drinking and Affect Outcomes by Latent Profile

Variable	Whole Sample	Close, Similar, and Accurate	Somewhat Close, Dissimilar, and Inaccurate	Not Close but Similar and Accurate	Paired Comparisons
Drinking frequency (0-9; 0=not at all, 9=everyday)	2.31	2.01	2.07	3.34	3 > 1 [*] , 2 [*]
Typical number of drinks consumed when drinking (0-9; 0=none, 9=9 drinks or more)	2.70	1.96	2.80	4.07	3 > 1 [*] , 2 [†]
HED frequency (0-9; 0=not at all, 9=everyday)	1.45	.88	1.72	2.12	3 > 1 [†]
Positive affect (1-5 scale)	3.47	3.63	3.39	3.30	3 < 1 [†]
Negative affect (1-5 scale)	3.79	3.81	3.78	3.77	ns

ns= non-significant;

[†] $p < .10$;^{*} $p < .05$