

Running Head: IDENTITY STATUSES, SELF-ESTEEM, AND FAMILY CONTEXT

Further Insight into Adolescent Personal Identity Statuses: Differences Based on Self-Esteem, Family Climate, and Family Communication

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Abstract

Introduction: During adolescence, youngsters are faced with the challenging task of forming an identity. This process can be either supported or hindered by adolescents' family context. The present study used a six-process model of personal identity including the five identity processes described by the dual-cycle model of identity (exploration in breadth, commitment making, exploration in depth, identification with commitment, and ruminative exploration) as well as a sixth identity process of reconsideration of commitment, commonly described in the three-factor model of identity. In the current investigation, we sought to evaluate how adolescents in identity statuses derived from this six-process model differed based on psychological adjustment, perceived family climate, and family communication.

Method: A total of 1,105 Swiss adolescents ($M_{age} = 15.08$; 51% female) completed self-report questionnaires at one time point. Using a person-centered approach, identity statuses were empirically derived and unique profiles for each identity status were identified.

Results: We identified six identity statuses: Achievement, Foreclosure, Ruminative Moratorium, Reconsidering Achievement, Troubled Diffusion, and Carefree Diffusion. Statuses with the highest degree of commitment showed the most positive profiles of psychological adjustment and perceived family climate, whereas those with the lowest levels of commitment demonstrated the most negative ones. Adolescents in the Reconsidering Achievement status, however, reported high levels of both parental support and psychological control.

Conclusion: The use of the six-process model of identity allowed for the derivation of six identity statuses and provided further insight into how adolescents in different identity statuses confront identity-related issues in the context of their family.

Keywords: adolescent disclosure, family climate, identity processes, identity statuses, self-esteem, parental solicitation

The central developmental task during adolescence is the development of a coherent sense of identity (Erikson 1968). Adolescents construct this sense of self in continuous interaction with their environment (Erikson, 1968), with their family being one important context (Noller, 1994). During these adolescent years, and especially towards the end of mandatory schooling, questions concerning their future education and professions are often at the heart of identity formation (Porfeli, Lee, Vondracek, & Weigold, 2011). It is during key life moments such as these that supportive interactions with one's immediate context may be of particular importance for fostering optimal identity development (Koepke & Denissen, 2012). Herein, drawing upon contemporary models of identity development (Crocetti, Rubini, & Meeus, 2008; Luyckx, Goossens, Soenens, & Beyers, 2006), the first aim of the present study was to empirically derive identity statuses in a sample of Swiss adolescents in their final year of mandatory schooling. Second, we examined differences between these identity statuses in terms of family functioning (i.e., family climate and family communication) and self-esteem.

Models of Identity Formation

One of the most important models for understanding personal identity formation is Marcia's (1966) identity status model. Drawing upon Erikson's (1968) writings on ego identity development, Marcia proposed that identity formation be understood as a function of two underlying dimensions: exploration (i.e., the process of exploring different identity alternatives in varying life domains) and commitment (i.e. the adherence to a set of values and beliefs). The degree to which adolescents engage in these two identity processes could then be used to assign adolescents to one of four identity statuses (Marcia, 1966): *Achievement* (strong commitments after a period of exploration), *Moratorium* (exploration of alternatives without current strong commitments), *Foreclosure* (strong commitments without active exploration), and *Diffusion* (lack of active exploration and commitments).

More recently, two process-oriented models of personal identity have been proposed: the dual-cycle model of Luyckx and colleagues (Luyckx et al., 2008; Luyckx, Goossens, Soenens,

et al., 2006) and the three-factor model of Meeus, Crocetti and colleagues (Crocetti, Rubini, & Meeus, 2008; Meeus, van de Schoot, Keijsers, Schwartz, & Branje, 2010). The dual-cycle model (see Table 1) unpacks Marcia's (1966) dimensions of exploration and commitment into three dimensions of exploration (*exploration in breadth*, *exploration in depth* and *ruminative exploration*) and two dimensions of commitment (*commitment making* and *identification with commitment*). Through the use of person-centered analyses Luyckx and colleagues (Luyckx et al., 2008; Luyckx, Goossens, Soenens, et al., 2006; Schwartz et al., 2011) empirically derived Marcia's four original identity statuses (Achievement, Foreclosure, Moratorium, and Troubled Diffusion; see Table 1) as well as a second type of diffusion, Carefree Diffusion, characterized by low levels on all five identity dimensions, with an untroubled apathetic approach toward identity. Adolescents in these empirically derived statuses have demonstrated differing psychosocial profiles, with adolescents in highly committed statuses (i.e., Achievement and Foreclosure) generally being characterized by higher levels of self-esteem and satisfaction with life, whereas adolescents in statuses characterized by lack of commitments and high ruminative exploration (i.e., Moratorium and Troubled Diffusion) demonstrated lower levels of self-esteem and higher levels of internalizing and externalizing symptoms (Crocetti, Luyckx, Scignaro, & Sica, 2011; Luyckx et al., 2008; Schwartz et al., 2011).

The three-factor model of personal identity (Crocetti, Rubini, & Meeus, 2008; Meeus et al., 2010) puts forth a model with two forms of exploration, *in-depth exploration* and *reconsideration of commitment*, and a single dimension of *commitment*. As compared to the dual-cycle model and Marcia's original conceptualization, the three-factor model assumes that adolescents enter into adolescence with a set of already formed commitments (Crocetti, 2017; Crocetti, Branje, Rubini, Koot, & Meeus, 2017). Thus, in-depth exploration and commitment of the three-factor model parallel exploration in depth and identification with commitment of the dual-cycle model. Reconsideration of commitment, for its part, can be seen as an evaluation and comparison of current commitments that may no longer seem satisfactory with other possible alternatives (Crocetti, Rubini, & Meeus, 2008).

Identity statuses have also been derived using the three-factor model (Crocetti, Schwartz, Fermani, & Meeus, 2010; Meeus et al., 2010), once again finding Marcia's four original statuses (Achievement, Foreclosure, Troubled Diffusion, and Moratorium; see Table 1) along with a new meaningful distinction of a second type of moratorium, Searching Moratorium, in which adolescents have already formed commitments, but are reconsidering these commitments for possible new alternatives (Crocetti & Meeus, 2015). Adolescents in statuses derived from the three-factor model also demonstrated unique psychosocial profiles, with adolescents in highly committed statuses demonstrating the most adaptive profiles, whereas adolescents in statuses characterized by the lack of commitments demonstrating the least adaptive profiles (Crocetti, Rubini, & Meeus, 2008; Schwartz et al., 2011). Interestingly, adolescents characterized by the simultaneous presence of commitment dimensions and reconsideration (i.e., Searching Moratorium) appear to fall somewhere in the middle (Crocetti, Rubini, & Meeus, 2008; Schwartz et al., 2011).

While the dual-cycle and three-factor models differ in terms of the extent to which adolescents enter into this developmental period with commitments, with the three-factor model suggesting adolescents begin with a set of preliminary commitments, whereas the dual-cycle model proposes that exploration begins from a lack of pre-existing commitments (Crocetti, 2017; Luyckx, Schwartz, Goossens, Beyers, & Missotten, 2011), both models include, either implicitly or explicitly, the dynamic of maintaining or abandoning identity commitments. Thus, while reconsideration of commitment is not explicitly defined by a separate dimension in the dual-cycle model, it is, however, represented by the recursive arrow typically added to pictorial representations of the model (see Luyckx et al., 2011) to indicate that identity formation starts over again when initial commitments are abandoned. Adding the dimension of reconsideration of commitment from the three-factor model to the dual-cycle model would allow for the explicit measurement of this important aspect of identity formation along with the five other identity processes in the dual-cycle model. The evaluation of these six identity processes would provide

a more thorough and detailed understanding of the recursive and dynamic aspect of identity formation.

In this light, in a recent examination of the dual-cycle model, Zimmermann and colleagues (2015) proposed that the dimension of exploration in depth of the dual-cycle model be further refined into two dimensions: a “true” exploration in depth, entailing a thorough evaluation in order to better understand one’s current commitments, and a second dimension similar to the reconsideration of commitment of the three-factor model (Crocetti, Rubini, & Meeus, 2008). In the present study, this combined model composed of commitment making, identification with commitment, exploration in breadth, exploration in depth, reconsideration of commitment, and ruminative exploration, is referred to as the six-process model of identity. Recently, evidence supporting the validity of a six-process model of identity formation has been offered by studies conducted in Finland (Mannerström, Hautamäki, & Leikas, 2017), Georgia (Skhirtladze, Javakhishvili, Schwartz, Beyers, & Luyckx, 2016), Greece (Mastrotheodoros & Motti-Stefanidi, 2017), and Belgium (Beyers & Luyckx, 2016). However, these studies focused on late-adolescents and young-adults, who are further along in the process of identity formation. In the present study, we focused on middle-adolescents in Switzerland at a critical moment in their life (i.e., the end of mandatory schooling) and examined differences between identity statuses in regard to self-esteem and family functioning, in terms of both family climate and family communication.

Identity, Family Climate, and Family Communication

During the adolescent period of self-discovery, parents may support adolescent identity formation in a variety of ways: more generally by supporting exploration and encouraging the making of commitments that fit well with their personal values (i.e., by offering a supportive family climate), or more specifically through dialogue with adolescents, including asking questions, being available and open to adolescent disclosure, and exchanging points of view (i.e., by encouraging family communication).

A number of studies have sought to identify how family climate relates to identity formation (e.g., Beyers & Goossens, 2008; Crocetti et al., 2017). Past research has suggested that adolescents whose parents are autonomy-supportive and refrain from using psychological control, are more often able to explore and integrate identity commitments into their sense of self (Albert Sznitman, Van Petegem, & Zimmermann, 2018; Beyers & Goossens, 2008). Through the encouragement of adolescent autonomy, parents allow adolescents to get to know themselves and to figure out what their personal values and goals are, thus ultimately encouraging them to make congruent identity choices (Soenens et al., 2007; Soenens & Vansteenkiste, 2011). Parents who intrude on adolescents' internal thoughts and feelings and enforce a certain way of thinking or acting, are more likely to inhibit adolescents' ability to be attuned to their inner self, making identity-related decisions more difficult (Luyckx, Soenens, Vansteenkiste, Goossens, & Berzonsky, 2007). Thus, the general family climate may play an important role in adolescents' personal identity formation.

Given the interactional nature of identity formation, parent-adolescent communication is also at the heart of this development process. In fact, it is via interaction and continuous feedback from one's environment that one constructs one's sense of who one is (Bosma & Kunnen, 2001; Luyckx, Goossens, & Soenens, 2006). By disclosing, discussing and exploring doubts and considerations with one's parents, adolescents may be better able to figure out whether certain options are suitable choices for their future. It is through his constant give and take from one's environment that one tackles identity questions (Kunnen & Metz, 2015). Therefore, not only is the general family climate important to one's identity formation, but also the degree and quality of interactions with parents and the information that is shared between them. However, relatively little is known in regard to how family communication relates to personal identity, with the exception of one study of Crocetti, Rubini, Luyckx, and Meeus (2008) finding adolescents in highly committed statuses to have a better quality of communication. Hence, we aimed to explore between-status differences in family

communication, in terms of perceived parental solicitation (i.e., asking questions), and adolescent disclosure and secrecy.

The Present Study

The first aim of this study was to empirically derive identity statuses using the six-process model of personal identity. We expected a six-cluster solution including Troubled Diffusion and Carefree Diffusion, in line with previous findings using the dual-cycle model (Luyckx et al., 2008; Zimmermann et al., 2015), Searching Moratorium and Moratorium, as reported in previous studies using the three-factor model (Crocetti, Schwartz, Fermani, Klimstra, & Meeus, 2012; Meeus et al., 2010), as well as Achievement and Foreclosure.

The second aim was to examine between-status differences in terms of self-esteem. We hypothesized that statuses characterized by the highest levels of commitment (i.e., Achievement and Foreclosure) would report the highest levels of self-esteem and those statuses characterized by lower levels of commitment and higher levels of ruminative exploration (i.e., Ruminative Moratorium and Troubled Diffusion) would report the lowest levels of self-esteem.

The final aim was to investigate differences in perceived family climate and family communication. We expected that adolescents in statuses characterized by high levels of commitment and exploration (i.e., Achievement) would report a supportive family climate (high in autonomy support and low in psychological control), whereas adolescents in statuses characterized by high levels of commitment without exploration (i.e., Foreclosure) as well as those high in ruminative exploration (i.e., Moratorium and Troubled Diffusion) would report higher levels of psychological control. In regard to family communication, we expected those adolescents more involved in identity-related work (i.e., Achievement) to be oriented towards communicating with their parents (i.e., high levels of parental solicitation and adolescent disclosure) and adolescents unconcerned by identity work (i.e., Carefree Diffusion) to be characterized by lowest levels of communication. In regard to the Searching Moratorium status, we reasoned that given their high levels of commitment, exploration, and reconsideration of commitment, they could either be similar to the Achievement status (given their already formed

commitments and healthy exploration) or alternatively more similar to Moratorium (given their rethinking of already formed commitments).

Method

Participants and Procedures

Participants were 1,105 adolescents (51% female) in their last year of mandatory secondary school (i.e., 9th grade) recruited from school establishments across the Swiss French-speaking canton of Vaud. Parental consent and adolescent assent were obtained before in-class group administration of the study questionnaires. Mean age was 15.08 years ($SD = .64$), with the majority being of Swiss nationality (71%) and French being the predominant language spoken at home (84%). Overall, 1.86% of the data was missing. This data was likely to be missing at random, as Little's MCAR-test was non-significant [$\chi^2(181) = 199.66, ns$]. Therefore, missing data was dealt with through a procedure of expectation-maximization (Enders & Bandalos, 2001).

Measures

Study questionnaires were administered in French and all questionnaire items were rated on a 5-point Likert scale ranging from 1 (*completely disagree/almost never*) to 5 (*completely agree/often*).

Identity processes. The French adaptation of the Dimension of Identity Development Scale (DIDS; Luyckx et al., 2008; Luyckx, Goossens, Soenens, et al., 2006; Zimmermann et al., 2015) was used to assess future plans and life paths on six identity dimensions. Sample items read: 'I have decided on the direction I want to follow in my life' (Commitment Making; 5 items); 'I sense that the direction I want to take in my life will really suit me' (Identification with Commitment; 5 items); 'I think actively about different directions I might take in my life' (Exploration in Breadth; 5 items); 'I regularly talk with other people about the plans for the future I have made for myself' (Exploration in Depth; 2 items); 'I keep wondering, which direction my life has to take' (Ruminative Exploration; 5 items); 'I think about whether my future plans match what I really want' (Reconsideration of Commitment); 3 items. Cronbach's

alphas were .88 for commitment making, .86 for identification with commitment, .80 for exploration in breadth, .35 for exploration in depth, .57 for reconsideration of commitment, and .81 for ruminative exploration. As in other studies (e.g., Skhirtladze et al., 2016; Zimmermann et al., 2015), exploration in depth demonstrated a low reliability. However, given that alpha coefficients decrease with fewer items (Iacobucci & Duhachek, 2003), it is more appropriate to consider the inter-item correlations of this 2-item scale. This was .21 ($p < .001$), which is comparable to previous research (e.g., Zimmermann et al., 2015), and in the range of .15-.50 as recommended by Clark and Watson (1995).

Self-esteem. The 5-item Global Self-Worth subscale of the Self Perception Profile for Adolescence (Harter, 1988; Zimmermann, Mantzouranis, & Biermann, 2010) was used to assess adolescents' perception of their self-worth. A sample item reads 'I am often disappointed in myself' (reverse coded). The scale demonstrated adequate internal consistency ($\alpha = .83$).

Perceived autonomy support. Perceived autonomy support was assessed using the 7-item Autonomy Support subscale of the Perceptions of Parents Scale (Grolnick, Ryan, & Deci, 1991; Mantzouranis, Zimmermann, Biermann-Mahaim, & Favez, 2012). A sample item reads 'My parents help me to choose my own direction'. As in previous studies (e.g., Soenens et al., 2007), it demonstrated adequate reliability ($\alpha = .74$).

Perceived psychological control. The 8-item Dependency-oriented psychological control subscale from the Dependency-Oriented and Achievement-Oriented Psychological Control Scale Soenens, Vansteenkiste, & Luyten, 2010; Mantzouranis et al., 2012) was used to assess adolescents' perception of the parental use of control aiming to maintain interpersonal closeness and relatedness (e.g., 'My parents are only happy with me if I rely exclusively on them for advice'). The scale demonstrated acceptable internal consistency ($\alpha = .78$).

Responsiveness. The degree to which parents are perceived as involved, responsive, and loving was measured using the 7-item Acceptance-Rejection subscale from the Child Report of

Parent Behavior Inventory (Schaefer, 1965). A sample item reads ‘My parents are able to make me feel better when I am upset’. The scale demonstrated good internal consistency ($\alpha = .87$).

Perceived parental solicitation. We assessed the extent to which parents ask questions concerning their children’s activities using the 5-item Parental Solicitation Scale of Stattin and Kerr (2000). A sample item reads ‘During the past month, how often have your parents started a conversation with you about your free time?’. The internal consistency was .60, in line with previous studies (Keijsers, Branje, VanderValk, & Meeus, 2010).

Adolescent information management. We measured adolescent disclosure, the spontaneous sharing of information by adolescents with their parents, and secrecy, the concealing of information from parents, using the 3-item disclosure dimension (e.g., ‘If you are out at night, do you spontaneously tell your parents what you have done that evening?’) and the 2-item secrecy dimension (e.g., ‘I keep much of what I do in my free time secret from my parents’) from the Child Disclosure Scale (Stattin & Kerr, 2000). Both subscales demonstrated acceptable internal consistency ($\alpha = .65$ for Disclosure and $\alpha = .74$ for Secrecy), comparable to previous research (Keijsers et al., 2010).

Results

Preliminary Analyses

Table 2 provides means, standard deviations, and correlations among study variables.

Empirically Derived Identity Statuses

Cluster analysis was conducted on the six identity dimensions using a two-step procedure (Gore, 2000). Prior to conducting the analysis, scores on identity dimensions were standardized. In the first step of the cluster analysis, Ward’s Hierarchical clustering procedure was applied based on squared Euclidian distances. In the second step, the cluster centers were used as non-random starting points for a *k*-means non-hierarchical iterative clustering procedure to optimize the cluster solution. We considered five- to nine-cluster solutions. The six-cluster solution was selected based on the step-wise criterion and on explanatory power (the clustering solution had to explain close to 50% of the variance at the least in each of the identity dimensions; Milligan

& Cooper, 1985). Figure 1 presents the final cluster solution. The cluster solution accounted for 60% of the variance in commitment making, 55% of the variance in identification with commitment, 51% of the variance in exploration in breadth, 50% of the variance in exploration in depth, 51% of the variance in ruminative exploration, and 45% of the variance in reconsideration of commitment.

Drawing upon past research (Crocetti, Rubini, Luyckx, et al., 2008; Luyckx et al., 2008; Zimmermann et al., 2015), we assigned cluster labels based on the standardized scores for the six identity dimensions within each cluster. We found evidence for an Achievement cluster ($n = 202$), which was characterized by high scores on both commitment dimensions, moderately high scores on exploration in breadth and exploration in depth, and very low scores on ruminative exploration and reconsideration of commitment. The Foreclosure cluster ($n = 138$) was characterized by moderately high scores on commitment making, moderate scores on identification with commitment, low to very low scores on exploration in breadth, ruminative exploration, and reconsideration of commitment, and scores near the average on exploration in depth. Searching Moratorium ($n = 208$) was characterized by moderately high scores on commitment dimensions as well as exploration in breadth and exploration in depth, high scores on reconsideration of commitment, and moderate scores on ruminative exploration. Moratorium ($n = 298$) was characterized by moderately low scores on commitment dimensions, moderately high scores on ruminative exploration and reconsideration of commitment, as well as scores near the mean on exploration in breadth and exploration in depth. Carefree Diffusion ($n = 165$) was characterized by very low scores on exploration in depth, moderately low scores on reconsideration of commitment, low scores on both commitment dimensions, and scores around the mean for exploration in breadth and ruminative exploration. Lastly, Troubled Diffusion ($n = 94$) was characterized by very low scores on commitment dimensions, exploration in breadth, and exploration in depth, moderately low scores on reconsideration of commitment, and moderate scores on ruminative exploration.

Adolescent Self-Esteem, Perceived Family Climate, and Family Communication.

A MANOVA was conducted with cluster membership as an independent variable and family climate variables (responsiveness, autonomy-support, psychological control), family communication variables (parental solicitation, information disclosure and secrecy), and adolescent self-esteem as dependent variables. Statistically significant multivariate cluster differences were found, $F(35, 4183) = 5.27, p < .001, \eta^2 = .04$. Follow-up univariate F -values, η^2 -values, and pair-wise comparisons (using Tukey's Honestly Significant Difference test) are shown in Table 3.

In regard to cluster differences, on parental responsiveness, Achievement and Searching Moratorium scored highest and Troubled Diffusion lowest, although Troubled Diffusion did not differ significantly from Carefree Diffusion. Furthermore, Searching Moratorium reported significantly higher levels of responsiveness than did Moratorium. On autonomy support, Achievement scored highest and differed significantly from Foreclosure, Moratorium, Carefree Diffusion and Troubled Diffusion (who scored lowest), although not significantly different from Carefree Diffusion. Achievement did not differ significantly from Searching Moratorium, but once again Searching Moratorium reported significantly higher levels of autonomy support than did Moratorium. On psychological control, Achievement scored lowest and differed significantly from Searching Moratorium and Carefree Diffusion who scored highest, although not significantly different from Foreclosure, Moratorium, or Troubled Diffusion. On parental solicitation, Searching Moratorium scored highest, however, not significantly different from Achievement or Moratorium and were significantly different from Troubled Diffusion who scored lowest. In terms of information disclosure, Achievement and Searching Moratorium scored highest and were significantly different from Troubled Diffusion who scored lowest, although not significantly different from Foreclosure or Carefree Diffusion. Moratorium fell in the middle and did not differ significantly from Achievement and Searching Moratorium nor from Foreclosure and Carefree Diffusion. On secrecy, Achievement and Searching Moratorium scored lowest and significantly different from Troubled Diffusion who scored highest. Foreclosure, Moratorium, and Carefree Diffusion scored in the middle, and were not

significantly different from either Achievement and Searching Moratorium nor Troubled Diffusion. Lastly, on self-esteem, Achievement, Foreclosure, and Searching Moratorium scored highest and significantly different from Troubled Diffusion who scored lowest.

Discussion

One of the main challenges throughout adolescence is developing a coherent sense of identity, and in doing so, deciding upon a number of choices regarding one's future life path. Using a large sample of Swiss adolescents in their last year of mandatory schooling, we tested whether we could distinguish different profiles based on how adolescents tackled these identity issues, and we examined whether these identity profiles differed in terms of self-esteem, general family climate, and family communication. We found evidence for six identity clusters, generally converging with previous research (Crocetti, Rubini, Luyckx, et al., 2008; Luyckx et al., 2008; Skhirtladze et al., 2016). In addition, these clusters differed in terms of self-esteem, the extent to which adolescents perceived their family environment as warm, supportive, and controlling, as well as the extent to which parents solicit and adolescents keep secret and disclose information.

In support of our first objective, the six-process model of identity allowed us to extract Marcia's four original identity statuses as well as a second type of diffusion, in line with the dual-cycle model (Luyckx et al., 2008), and a second type of moratorium, in line with the three-factor model (Crocetti et al., 2008). First, our results revealed a distinction between a troubled form and a carefree form of diffusion. These two diffusion statuses differ mainly in terms of the way adolescents deal with identity issues: carefree-diffused adolescents seem to be truly uninterested in identity work (as reflected in their generally low scores on all identity dimensions), whereas their troubled-diffused counterparts attempt to explore and are seemingly trying to tackle identity issues. However, worry and rumination seem to take over, hindering their ability to advance in the identity formation process (Schwartz, Luyckx, & Crocetti, 2015). Second, our results also revealed both the dark and bright sides of moratorium (i.e., Moratorium and Searching Moratorium, respectively). Compared to the Moratorium status, characterized by

the absence of commitments, Searching Moratorium is characterized by the presence of commitments and the exploration of potential new identity alternatives (Crocetti & Meeus, 2015). Given that the Moratorium status is characterized by high levels of ruminative exploration, and in line with Luyckx and colleagues (2008), we will refer to this status as Ruminative Moratorium from here on.

Unlike previous studies with emerging adults, in our mid-adolescent population we identified adolescents in six clusters evidencing what has been found separately for the dual-cycle and three-factor models. Indeed, two recent studies using samples of emerging adults empirically derived identity clusters using a six-process model of identity, though they obtained slightly different results: Skhirtladze and colleagues (2016) derived one type of moratorium and an undifferentiated cluster, whereas Mannerström and colleagues (2017) derived one form of moratorium but three forms of diffusion. Furthermore, in the present study an undifferentiated status was not observed, which in other studies has often been found to contain a large proportion of individuals (e.g., Skhirtladze et al., 2016). This slight variation of personal identity statuses may be a result of cultural differences between Switzerland on the one hand, and Finland and Georgia, on the other. Cultural specificity of personal identity statuses has been reported by Zimmermann and colleagues (2015) who looked at French and Swiss adolescents, finding differences in the degree to which French and Swiss adolescents engage in certain identity processes within each identity status. Furthermore, our findings may also be a result of our more specific focus on mid-adolescence. In fact, almost half ($n=506$) of our mid-adolescent population was best described by a moratorium status (Ruminative and Searching Moratorium), which is in line with previous work finding that early- to middle-adolescence appears to be the period most characterized by adolescents in the moratorium statuses as compared to late-adolescence (Meeus et al., 2010). Moreover, the present study took place during a crucial time point in the lives of these Swiss adolescents (transitioning out of mandatory education), in which identity-related questions are at the forefront.

Further, the six-process model of identity allows us to gain better insight into the moratoria

statuses. Whereas prior to the explicit definition of reconsideration of commitment in the dual-cycle model, the three-factor model defined Ruminative Moratorium as being high in reconsideration of commitment (and low in in-depth exploration and commitment), the dual-cycle model defined Ruminative Moratorium as being high in ruminative exploration (and high on exploration in breadth and in-depth, but low on commitment and identification with commitment). When the six-process model of identity is used, what is observed is that the process that is by far predominant for adolescents in the Ruminative Moratorium status is ruminative exploration and not reconsideration of commitment. By contrast, Searching Moratorium is mainly characterized by high levels of reconsideration and high levels on the commitment dimensions. Thus, the Searching Moratorium status appears to be a true reflection of the iterations at the heart of identity formation, representing a transition between having strong commitments and a period of reconsideration and uncertainty about these commitments. This is in line with Meeus, Crocetti, and colleagues' (Crocetti, Rubini, Luyckx, et al., 2008) original conceptualization of the dimension of reconsideration of commitment which aimed at capturing this dynamic aspect of identity formation, a dimension on which adolescents in Searching Moratorium score particularly high. In fact, Waterman (2015), in a critique of process-oriented identity models, proposed an interpretation for the coexistence of exploration and commitment within a single status. One of his claims was that the coexistence of commitment and exploration would be present in individuals transitioning out of a committed status (for example, Achievement) into a non-committed status (for example, Moratorium). In line with the proposition of Waterman (2015), we believe that this cluster may be more clearly labeled as *Reconsidering Achievement*, and will be referred to as such from here on in the present study. Labeling this status as Reconsidering Achievement would more accurately reflect the once strong commitments held by these adolescents that are now put into question.

Our second objective was to investigate the differing profiles of adolescents in each identity status in terms of adolescent self-esteem, perceived family climate, and family communication. In line with our expectations, Achievement and Foreclosure scored highest on self-esteem and

Troubled Diffusion lowest, with Reconsidering Achievement, Ruminative Moratorium, and Carefree Diffusion falling in between. In regard to perceived family climate, Achievement and Reconsidering Achievement demonstrated profiles scoring highest on autonomy support and parental responsiveness, while Troubled Diffusion scored lowest. This is in line with previous findings based on identity dimensions (Luyckx, Soenens, Goossens, & Vansteenkiste, 2007; Luyckx, Soenens, Vansteenkiste, et al., 2007) in which higher levels of commitment were associated with higher levels of support and higher levels of psychological control were associated with lower levels of commitment. Surprisingly, however, Reconsidering Achievement also scored highest on psychological control (along with Carefree Diffusion), whereas Achievement scored lowest. It appears that the general family climate for adolescents in the Achievement status is one high in support and low in control, whereas adolescents in a Troubled Diffusion status are characterized by low levels of support and high levels of control. Surprisingly, adolescents in the Reconsidering Achievement status seem to experience their environment as simultaneously supportive and controlling. This can be distinguished from the Ruminative Moratorium status who experience their environment as high in psychological control, but low in autonomy support and responsiveness.

Family communication also differed between statuses. That is, adolescents in the Reconsidering Achievement status once again demonstrated a similar profile to the Achievement status in terms of adolescent information management, disclosing the most and keeping the least amount of secrets from their parents. On the other hand, Troubled Diffusion disclosed the least and kept the greatest amounts of secrets. Interestingly, however, it was the parents of the Reconsidering Achievement adolescents that solicited information the most from their adolescents, whereas parents of adolescents in the Troubled Diffusion status sought information from their adolescents the least. Thus, the Troubled Diffusion status appears to be characterized by the poorest communication patterns, whereas Achievement and Reconsidering Achievement appears to be characterized by two-directional communication (i.e., parents asking questions and adolescents disclosing information).

This pattern of results is of particular interest as it lends further insight into the complexity of the Reconsidering Achievement status and how it differentiates from Ruminative Moratorium. In certain regards, Reconsidering Achievement demonstrates a similar profile to Achievement being high in autonomy support, responsiveness, and two-way family communication, on the other hand, Reconsidering Achievement also demonstrates high levels of psychological control as does Ruminative Moratorium. Thus, the Reconsidering Achievement status may reflect a time of uncertainty where adolescents want to discuss their hesitations with family members and seek out of further information. Furthermore, this period of uncertainty may not only be stressful for adolescents, but also for parents. Indeed, when adolescents are reconsidering certain previously made commitments, parents may worry and respond through higher levels of psychological control and solicitation to try and get their child “back-on-track” (Hoover-Dempsey & Sandler, 2016).

Limitations and Future Directions

The findings of the present study should be interpreted in light of certain limitations. First, given that the present study was conducted in the French-speaking part of Switzerland, it is unclear to what extent the results can be generalized to adolescents who live in other European countries or in other regions of the world. Second, given the single-informant methodology employed, reports on family climate and family communication remain the subjective experiences of the adolescent participants. Third, the present study does not allow us to draw conclusions concerning directionality of effect between family climate and family communication with adolescent identity status. The present study allows for the characterization of adolescents within certain identity statuses. Past research has supported reciprocal relationships between family climate and adolescent personal identity formation (Crocetti et al., 2017; Luyckx, Soenens, Vansteenkiste, et al., 2007) and thus bidirectional effects are very likely to be found. Therefore, it would be of interest for future research to explore whether family communication longitudinally relates to identity formation in adolescence, especially in terms of whether certain identity-related processes elicit particular patterns of family

communication or whether, in the reverse direction, patterns of communication better prepare adolescents to tackle identity-related issues. Furthermore, the cross-sectional nature of the present study does not allow for conclusions to be drawn in regard to transitions between statuses and more particularly the transition between Reconsidering Achievement and the other identity statuses (Meeus et al., 2010). Future research should be conducted using the identity statuses derived from the six-process model in order to explore the question of transitions between identity statuses over time. Lastly, we hope that the present study can serve as a starting point for the integration of the two prominent process-oriented identity models. In that respect, we believe that future research should also focus on the development of sufficiently reliable subscales for exploration in depth and reconsideration of commitment subscales, given their low reliability in the present as well as in previous studies (e.g., Zimmermann et al., 2015).

Conclusion

Combining elements of the two dominant models of personal identity allowed for the empirical derivation of two types of moratorium (i.e., Ruminative Moratorium and Searching Moratorium) originally derived from the three-factor model as well as two types of diffusion, originally derived from the dual-cycle model (i.e., Troubled Diffusion and Carefree Diffusion), along with Marcia's Achievement and Foreclosure statuses. These clusters were in turn characterized by unique profiles in terms of adolescent self-esteem, perceived family climate and family communication. Of particular interest, the Reconsidering Achievement status demonstrated a distinct pattern of family communication in terms of both adolescent information-sharing and parental information-seeking as well as a general family climate characterized by high levels of both support and psychological control. These results add to our understanding of how family environments differ based on personal identity statuses of adolescents.

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IDENTITY STATUSES, SELF-ESTEEM, AND FAMILY CONTEXT

Table 1
Summary of Identity Models and Empirically Derived Identity Statuses

Dual-cycle model							Three-factor model						
Identity dimensions		Identity Statuses					Identity dimensions		Identity Statuses				
		A	F	M	TD	CD			A	F	M	SM	TD
commitment making	selection and adherence to initial commitments	high	high	low	low	low	commitment	internalization and integration of commitments	high	high	low	high	low
identification with commitment	integration and identification with commitments	high	high	low	low	low							
exploration in breadth	active general exploration of a wide number of options	high	low	high	low	low							
exploration in depth	continued and more thorough gathering of information about existing commitments	high	low	high	low	low	in-depth exploration	thorough and in-depth exploration of existing commitments	high	low	moderate	high	low
ruminative exploration	continued mulling over different options without being able to come to commitments	low	low	high	high	low							
							reconsideration of commitment	reconsideration of current commitments for alternatives	low	low	high	high	low

Note. A = Achievement ; F = Foreclosure ; M = Moratorium ; TD = Troubled Diffusion ; CD = Carefree Diffusion ; SM = Searching Moratorium. High and low refer to the level of expression of each identity dimension in the corresponding empirically derived identity status.

IDENTITY STATUSES, SELF-ESTEEM, AND FAMILY CONTEXT

Table 2
Means, Standard Deviations, and Correlations Among Study Variables

	<i>M</i>	<i>SD</i>	2	3	4	5	6	7	8	9	10	11	12	13
1. Commitment Making	3.81	0.86	.66**	.22**	.40**	-.02	-.50**	.19**	.21**	-.04	.08**	.13**	-.06*	.16**
2. Identification with commitment	3.63	0.80		.25**	.41**	-.02	-.42**	.25**	.21**	-.04	.07*	.15**	-.10**	.20**
3. Exploration in breadth	3.84	0.72			.34**	.28**	.19**	.13**	.13**	.03	.16**	.17**	-.04	-.01
4. Exploration in depth	3.64	0.85				.25**	-.10**	.27**	.27**	-.03	.16**	.22**	-.04	.07*
5. Reconsideration of commitment	3.21	0.90					.39**	.06*	-.04	.16	.07*	.11**	.01	-.08**
6. Ruminative exploration	3.01	0.97						-.10**	-.15**	.13**	.03	-.01	.12**	-.22**
7. Responsiveness	3.95	0.76							.72**	-.18**	.38**	.51**	-.35**	.30**
8. Autonomy support	3.76	0.64								-.34**	.27**	.40**	-.30**	.30**
9. Psychological control	2.38	0.71									.07*	-.12**	.25**	-.19**
10. Parental solicitation	3.02	0.88										.39**	-.11**	.10**
11. Disclosure	3.55	1.05											-.37**	.15**
12. Secrecy	2.23	1.12												-.25**
13. Self-esteem	3.84	1.02												-

Note. * $p < .05$; ** $p < .01$

IDENTITY STATUSES, SELF-ESTEEM, AND FAMILY CONTEXT

Table 3
Mean-level Differences on Adolescent Self-esteem, Parenting Variables, and Family Communication

Variables	Cluster						<i>F</i> -value (35, 4183)	η^2
	Achievement	Foreclosure	Searching Moratorium/ Reconsidering Achievement	Ruminative Moratorium	Carefree Diffusion	Troubled Diffusion		
Responsiveness	4.22 ^a (0.06)	3.88 ^b (0.06)	4.20 ^a (0.05)	3.92 ^b (0.04)	3.68 ^{bc} (0.06)	3.56 ^c (0.08)	18.30 ^{***}	.08
Autonomy-support	4.08 ^a (0.05)	3.75 ^{bc} (0.05)	3.94 ^{ab} (0.04)	3.71 ^c (0.04)	3.59 ^{cd} (0.05)	3.49 ^d (0.07)	18.50 ^{***}	.09
Psychological control	2.20 ^a (0.05)	2.26 ^{ab} (0.06)	2.45 ^b (0.05)	2.40 ^{ab} (0.04)	2.45 ^b (0.06)	2.38 ^{ab} (0.08)	3.68 ^{**}	.02
Parental solicitation	3.09 ^{ab} (.07)	2.89 ^{bc} (0.08)	3.29 ^a (0.07)	3.07 ^{ab} (0.05)	2.92 ^{bc} (0.07)	2.75 ^c (0.10)	6.56 ^{***}	.03
Disclosure	3.70 ^a (0.08)	3.37 ^{bc} (0.09)	3.83 ^a (0.07)	3.62 ^{ab} (0.06)	3.38 ^{bc} (0.08)	3.00 ^c (0.11)	10.23 ^{***}	.05
Secrecy	2.10 ^a (0.09)	2.25 ^{ab} (0.10)	2.11 ^a (0.09)	2.37 ^{ab} (0.07)	2.19 ^{ab} (0.09)	2.51 ^b (0.13)	2.59 [*]	.01
Self-esteem	4.08 ^a (0.08)	4.09 ^a (0.09)	3.93 ^{ab} (0.07)	3.63 ^{bc} (0.06)	3.78 ^{abc} (0.08)	3.50 ^c (0.11)	8.35 ^{***}	.04

Note. A cluster mean is different from another cluster mean if the superscripts are different. Standard deviations are in parentheses. * $p < .05$; ** $p < .01$; *** $p < .001$.

IDENTITY STATUSES, SELF-ESTEEM, AND FAMILY CONTEXT

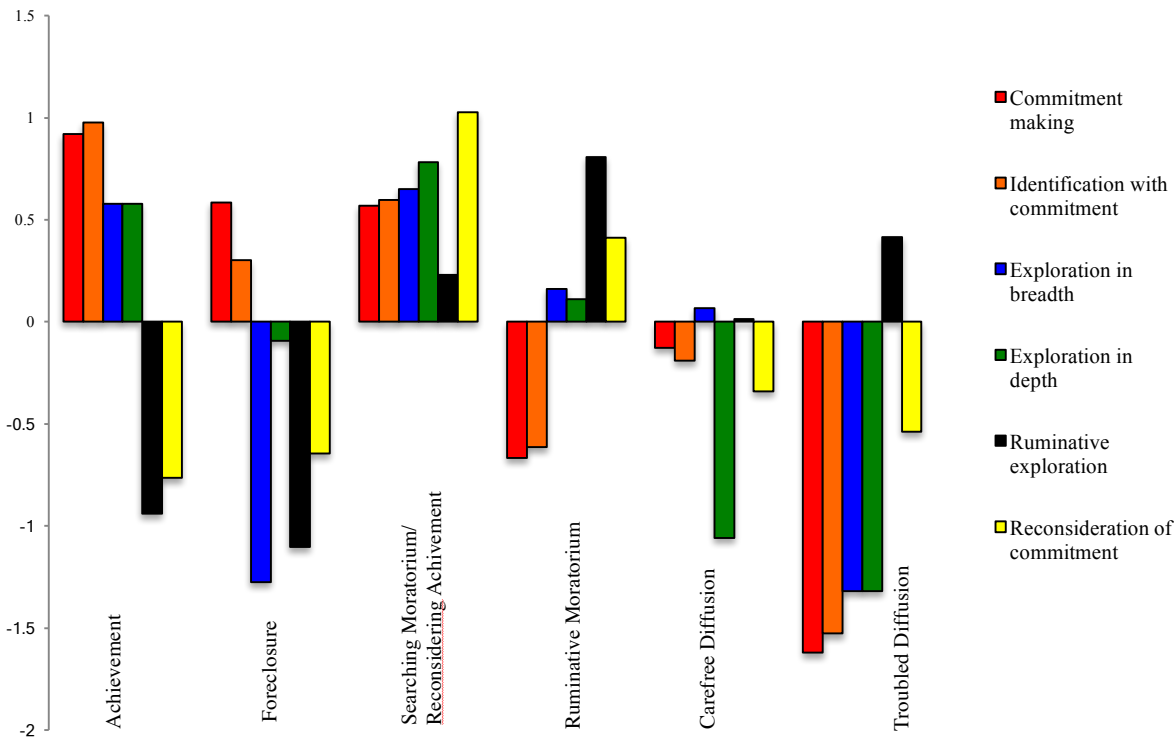


Figure 1. Z scores for the six identity processes in the 6-cluster solution.