Becoming European: Adolescent's development and understanding of being European in Germany

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For mom, dad and Sophie.

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Abbreviations

EU	European Union
NRW	North-Rhine Westphalia
OSF	Open Science Framework
H1/H2/…	Hypothesis 1/Hypothesis 2/…
T1/T2/…	Time Point 1/Time Point 2/…
U-MICS	Utrecht-Management of Identity Commitments Scale
LGCM	Latent Growth Curve Model
LCA	Latent Class Analysis
DSEM	Dynamic Structural Equation Model
CFI	Comparative Fit Index
TLI	Tucker-Lewis Index
RMSEA	Root Mean Square Error of Approximation
PSR	Potential Scale Reduction Factor
CI	Confidence Interval
MCMC	Markov Chain Monte Carlo Chains
BIC	Bayesian Information Criterion
aBIC	Sample Size Adjusted BIC
LRT	Likelihood Ratio Test

Abstract

During adolescence, young people are stimulated to rethink who they are and who they want to become considering their overall strengths and talents. They do so within various different identity domains (e.g., which career to choose), including those related to their belonging to social groups (e.g., gender, nationality). Within the European context, one potentially important social group identity is the European identity. On the one hand, adapting a European identity is assumed to be a crucial factor for securing the continuous stability of the European Union. On the other hand, a European identity could act as a potentially unifying umbrella identity for the ethnically diverse people living in Europe. Past research on European identity rarely examined its development, but focused on cross-sectional associations. Therefore, how European identity develops across different time-scales, what adolescents think being European means, and how this content relates to identity processes as well as other predictors remains mostly unexamined. This dissertation aimed to address these gaps by answering four research questions: (1.) How does European identity develop on the mid- and short-term time scale? (2.) How are daily processes related to mid-term change? (3.) How does media influence daily processes of European identity development? (4.) What does it mean to be European? These four research questions were addressed in three empirical studies.

In the first study, I examined adolescents' European identity formation on a short- and mid-term time scale, and the time-scales' interrelations. To assess identity formation, I considered three processes of identity formation: commitment, in-depth exploration and reconsideration of commitment. I conducted latent growth curve analysis and assessed rank-order stability and profile similarity for both time-scales. I ran conditional LGCMs to examine both time-scales' associations with each other. I found a significant increase of all identity processes from the beginning to the middle of the school year and a significant decrease from the middle to the end of the school year. Across ten days, growth curves varied for the identity processes. Stabilities were high for both time-scales. Commitment at the beginning of the school year was negatively associated with fluctuations in commitment half a year later. Fluctuations of commitment were associated with a decrease in commitment from the middle to the end of the school year.

In the second study, I examined daily media influences on European identity commitment and affects towards the EU, as well as indirect effects via populistic attitudes. Negatively perceived political media content can foster populistic attitudes, which in turn negatively affects European identity commitment and affect towards the EU. I estimated the hypothesized associations using multilevel structural equation models and dynamic structural equation models. Neither populistic attitudes nor negative media content were significantly associated with European identity commitment within days or across days. However, negative media content was associated with higher populistic attitudes and indirectly associated with negative affect towards the EU on the same day.

In the third study, I examined adolescents' understanding of being European and how it relates to intolerance towards refugees and newly arrived people, EU support, and other predictors including identity processes. It is commonly assumed that European identity is defined in an ethnically inclusive and civic manner. Therefore, it should be associated with positive intergroup attitudes and support for the EU. However, it is an open question whether adolescents conceptualize a European identity ethnically inclusive or civically. European identity content was assessed via open-ended answers and five close-ended questions. The answers were content coded and together with the close-ended questions included in latent class analysis. Three European identity classes emerged: a *living-based* (47%), a *culture & value-based* (27%) and an *ancestry-based class* (26%). Classes did not differ with regard to EU support, but to intolerance (highest: ancestry-based, lowest: culture & value-based). Class membership was significantly associated with commitment and in-depth exploration, i.e., participants in an ancestry-based class showed highest levels of commitment and participants in the ancestry- or living-based class showed higher levels of in-depth exploration than those in the culture & value-based class.

My results highlight the importance of examining different time-scales and different identity domains to capture European identity development comprehensively. They further indicated that short-term fluctuations are associated with long-term development. These short-term fluctuations seem to be unaffected by negative media content, at least across ten days. Finally, my results indicated that adolescents differed in their understanding of being European and that it is important to consider how youth define Europeanness to understand European identity's effect on adolescents' views.

Chapter I

1. Introduction

Identity formation is a key developmental task during adolescence (Erikson, 1950, 1968). Biological, cognitive, and social changes during this period stimulate adolescents to think about themselves and the person they want to become in their respective society. During adolescence, young people explore and try out various identity roles usually starting from a preliminary idea of who they are. This preliminary idea is based on parental or peer values and norms (Crocetti, 2017), e.g., conceptualizing oneself as a dentist, because one's parents are dentists. These values and norms are increasingly questioned as adolescents search for self-defined identifications across various domains in life (e.g., educational, interpersonal; Vosylis et al., 2018) in accordance with their strengths and views about themselves. To go back to the example above, an adolescent might reconsider becoming a dentist after learning more about chemistry in school and discovering their talent in the subject. As a result, they might conceptualize themself as a chemical engineer.

The various identity domains also include those related to adolescents' belonging to different social groups (Tajfel & Turner, 1979), such as gender, ethnicity, or nationality. While adolescents identify with several social groups (Roccas & Brewer, 2002), the groups' salience may vary depending on personal or situational circumstances. For example, adolescents' nationality might not be a very salient social identity within that respective nation, but it might become salient in other national contexts. To be more specific, an adolescent might not feel very Austrian within Austria, but as soon as they enter Germany, they might identify as Austrian due to experienced differences in behaviors and ways of speaking. One potentially important social identity within the European context is the European identity.

The importance of identifying with Europe, hypothetically, is twofold. First, identifying with Europe is considered to be a crucial factor for securing the continuous stability of the European Union[1] (EU; Habermas, 2014; for empirical evidence see e.g.,

[1] In the literature, being European is often equated to being a citizen of the EU. However, adolescents can feel European without being attached to the EU, if they e.g., conceptualize European identity more

Ciaglia et al., 2018; Vries & van Kersbergen, 2007). Second, it has been argued that within a Europe that is increasingly ethnically diversifying, a European identity could act as a potentially unifying common in-group identity (Konings et al., 2021). In practice this means that e.g., Austrian and German adolescents could both identify as European, thereby, feeling a sense of belonging together. This feeling of belonging together could also manifest within a European nation (e.g., ethnic minority and ethnic majority adolescents in Belgium; e.g., Agirdag et al., 2016). When examining adolescents' identification with Europe, a study across eight EU countries showed that a large share of adolescents and young adults (30% to > 50%) either identified to a similar extent with Europe and with their nation, or even identified more strongly with Europe than with their nation (Landberg et al., 2018). Which would, generally speaking, sound promising, if identifying as European has the theorized benefits.

Previous studies on European identity mostly used cross-sectional designs (e.g., Agirdag et al., 2012; Brummer et al., 2022), which offer little evidence on how adolescents developed their European identity. For example, how does a European identity develop across a 5-year period and which factors influence it? Are their developmental patterns specific to the European identity domain? Furthermore, previous studies mostly focused on how strong someone identified as European, but not whether they explored its meaning or are considering alternatives to being European. So far, only one study examined European identity from a developmental perspective using a longitudinal study (Jugert et al., 2021). As a result, examining developmental processes of European identity is a gap in the current literature that needs to be addressed.

By extension, researchers should also consider different time-scales for studying European identity development. Developmental processes manifest differently depending on the chosen time-scale, e.g., while reevaluating one's identity commitments is positively linked to higher commitments a year later, both processes are negatively linked on the same day. This means that doubting one's commitment to a certain career path coincides with a lower commitment to that path on the same day.

as a geographical identity. Evidence for diverse understandings of being European can be found in chapter II, section 7.3. Implications of this assumption will be discussed in chapter III, section 8.3.2.

But a period of doubt and revision is associated with a higher commitment to the same or other career path a year later. Thus, results should not be cross-generalized across time-scales (Lichtwarck-Aschoff et al., 2008), but different time-scales should be examined conjointly. Additionally, only by examining them conjointly can researchers systematically investigate the assumption that momentary fluctuations (e.g., day to day) and long-term development are interrelated (Bosma & Kunnen, 2001; Lichtwarck-Aschoff et al., 2008). While the literature on the development of other identity domains offers a good picture on mid- (e.g., months) to long-term identity formation processes (e.g., years; Greischel et al., 2018; Schubach et al., 2016, for a review see van der Gaag et al., 2016), and some results on interrelations of different time-scales (e.g., Becht et al., 2017; Becht et al., 2021; Klimstra, Luyckx, et al., 2010), no comparable body of research exists for European identity development. As mentioned, only one study examined European identity development and only across a one-year period (Jugert et al., 2021). Differences in short- and mid-term development or their interrelations remain unexamined.

Derived from the gaps of the studies on European identity development, two main research questions of this dissertation were:

R1: How does European identity develop on the mid- and short-term time-scale?

R2: How are daily processes related to mid-term change?

These research questions addressed mean-level changes stabilities across the short- and mid-term time-scale. Thus, I examined more static aspects of identity development. Following Lichtwarck-Aschoff et al. (2008), identity formation can occur along two dimensions, a macro versus micro and a static versus dynamic dimension (see chapter I, section 3). As mentioned above, most studies on identity development focused on mid- to long-term development often by assessing mean-level changes (Meeus, 2011), thereby, addressing the macro-static dimension. The micro-dynamic dimension, which would include a focus on intraindividual variability across shorter time-scales, remained understudied. Intraindividual variability expresses itself, when the mean of a process remains stable over time, but daily fluctuations around the mean can be observed (McNeish & Hamaker, 2020). As an example: when examining adolescents across ten days regarding their European identity commitment, we might observe little to no

mean-level changes. However, we might observe that they differ in their levels of commitment on day one compared to day two and so on. Zooming in on those processes can offer valuable insights on how identity develops on a day to day level, and which daily predictors affect it (Ong & Burrow, 2017).

One such a daily predictor is likely media. It is increasingly common for adolescents to spend a considerable amount of their day online (e.g., Odgers & Jensen, 2020), thus their digital experiences play a major role in influencing the development of identity. Since these media effects are likely short-lived (McKinney & Chattopadhyay, 2007), small observation windows (e.g., hours, days) should capture the dynamic between identity commitment and media. Based on this consideration and gaps in the literature, my third research question was:

R3: How does media influence daily processes of European identity development?

So far, all my research questions aimed to asses developmental processes of European identity formation. What they neglect, similarly to previous research on (European) identity formation, is (European) identity content (McLean, Syed, Yoder, & Greenhoot, 2016). While it is certainly important to study *how* identity develops, the concept of identity remains empty, if we do not consider *what* develops. Part of identity formation is to explore identity commitments with their meanings, discuss them, or revise the content if it is not perceived as fitting one's overall talents and skills (Erikson, 1968). McLean, Syed, Yoder, and Greenhoot (2016) postulated further that examining identity content only descriptively in form of an apriori defined identity domain would offer little information on how identity commitment and exploration potentially differ per domain or its content. Arguably, developmental patterns might depend on adolescents' conception of being European (e.g., civic, ethnic, personal), e.g., an adolescent who defines their European identity in regard to political institutions and values might explore their identity more if those values are discussed in media than an adolescent defining their identity in regard to ancestry. Qualitative studies implied a diverse and rich understanding of being European (e.g., geographical, institutional, see Cores-Bilbao et al., 2020; Schäfer, 2020; Slavtcheva-Petkova, 2013), but those did not connect European identity with other predictors or outcomes. Based on this gap, my fourth research question translated to:

R4: What does it mean to be European?

In the following chapter, I will provide an overview of relevant theoretical concepts and empirical findings (sections 2-5). In chapter II, I will provide background information on the empirical studies and present the studies themselves. In chapter III, I will provide a summary of the results in light of the four research questions, deliberate strengths and limitations, and implications for future studies.

2. Identity Formation in Adolescence

In the following, I will introduce underlying theories, models, and theoretical concepts regarding identity formation for this dissertation. I will begin with Erikson's (1950) psychosocial development, followed by Marcia's (1966) identity status paradigm. Afterwards, I will introduce the three-factor model of identity formation (Crocetti, Rubini, & Meeus, 2008) with a focus on the European identity domain and its particularity as social identity (Tajfel & Turner, 1979).

2.1. Erikson's Psychosocial Theory: Fundaments of Identity Formation

Most work on identity formation in adolescence and young adulthood is to an extent traceable to Erik Erikson's psychosocial theory of human development (Erikson, 1950). He postulated that individuals develop through eight stages across the lifespan (see Table 1), with each stage being accompanied by biological (e.g., maturation) and societal (e.g., entry in the workforce) change. Each stage marks a turning point within a crucial period of increased vulnerability but also heightened potential (Erikson, 1968). While stages are situated in crucial periods in time, they generally can be resolved at a later time point as well (e.g., in adulthood instead of adolescence). However, the resolving of each stage has effects on individuals' development and mastery of subsequent stages. Erikson (1950) hypothesized that the successful resolving of each stage results in a healthy sense of self and the acquisition of basic virtues. The failure to do so, however, would result in an unhealthy sense of self, which impedes the resolving of later stages.

Table 1

Erikson's (1950) Eight Stages of Psychosocial Development from Infancy to Late Adulthood.

Stage	Basic Conflict	Description
Infancy	Trust vs. mistrust	Trust or mistrust that basic needs will be met (e.g., affection)
Toddlerhood	Autonomy vs. shame/doubt	Develop a sense of independence
Early childhood	Initiative vs. guilt	Take initiative in some activities
Middle childhood	Industry vs. inferiority	Develop self-confidence in abilities or sense of inferiority
Adolescence	Identity vs. confusion	Experiment with and develop identity and roles
Early adulthood	Intimacy vs. isolation	Establish intimate relationships with others
Middle adulthood	Generativity vs. stagnation	Contribute to society and be part of a family
Late adulthood	Integrity vs. despair	Assess and make sense of life and meaning of contributions

Note. Adapted from Erikson (1950).

The main task during adolescence is identity synthesis versus identity confusion. Due to biological, cognitive, and social changes that accompany puberty, adolescents are prompted to rethink previous childhood commitments and reorient themselves (Erikson, 1950). Thus, adolescence is characterized as a period of reflection on identity, partially by trial and error, whereby past patterns are examined, some discarded and others integrated into the emerging adolescent identity (Kroger & Marcia, 2011). Identity synthesis, the successful resolve of this stage, is referred to as "the perception of the selfsameness and continuity of one's existence in time and space and the perception of the fact that others recognize one's sameness and continuity" (Erikson, 1968, p. 50). Resolving this stage includes a progressive feeling of continuity between childhood experiences, conceptualizations of future lives, and balancing own ideas with what others perceive adolescents to be (Erikson, 1950). Others and society at large, thus, provide a matrix for development that presents adolescents a structure in their search for commitments and potential roles to choose from (Kroger & Marcia, 2011). Successful identity synthesis was found to relate to positive developmental outcomes (e.g., life satisfaction; Crocetti, Rubini, & Meeus, 2008). If this stage cannot be resolved, a sense

of *identity confusion* is the result. Identity confusion describes that adolescents failed to choose their own commitments or hold meaningful identifications that provide them with a sense of direction (Erikson, 1968). Furthermore, adolescents contrast rather than synthesize their various identity alternatives, which can drive them to decide definitely and totally for one identity over all others. Identity confusion can result in maladaptive behavior, such as anxiety, aggression, or low levels of affective and cognitive empathy (Meeus, 2011).

In the following section, I describe one of the most prominent operationalizations of Erikson's theory on identity development: the identity status paradigm (Marcia, 1966).

2.2. Marcia: Identity Status Paradigm

Erikson's writings offer a rich and comprehensive theory on identity development and life-cycle development in general, but do not offer ways to empirically operationalize their constructs. Among the first theorists that provided such an operationalization was Marcia (1964) with his identity status paradigm. Based on the differentiation of identity synthesis versus identity confusion, Marcia proposed four distinct identity statuses that were defined by the presence or absence of two developmental processes: *exploration* (originally called *crisis*) and *commitment* (Marcia, 1964, 1966). Exploration refers to adolescents' questioning and exploring of current identity commitments, sorting through alternatives, and trying out new roles. Commitment refers to the degree of personal investment regarding relevant identity domains (e.g., job, relational), including firm identity choices and engagement in activities to implement those (Kroger & Marcia, 2011). Marcia (1966) initially framed identity statuses as "individual styles of coping with the psychosocial task of forming an ego identity" (p. 558). Thus, identity statuses are ongoing individual processes with which adolescents handle the task of establishing, maintaining, and, if necessary, revising their identity (Marcia, 1966; Waterman, 1988). The four statuses are identity achievement, foreclosure, moratorium, and diffusion (see Table 2).

- *Achievement*: Adolescents in the achievement status have made firm identity commitments after a period of identity exploration, i.e., an adolescent that has chosen an occupation after seriously considering different career choices

or deviated from what others have planned for them (Marcia, 1964). The identity achievement status most closely relates to Erikson's identity synthesis (Marcia, 1966). Even though commitments are currently firm, adolescents might be prompted to revise their identity commitments (e.g., due to changes in social contexts; Watermann, 1988).

- *Foreclosure*: Adolescents in the foreclosure status have made identity commitments without a prior period of identity exploration (Marcia, 1966). Rather than exploring different choices, their commitments coincide with their surroundings without seriously questioning them. Comparable to adolescents in the achieved status, commitments are perceived as (sufficiently) rewarding. In contrast to them, commitments are less firm and adolescents feel more threatened in situations in which their chosen commitments fail. It has been argued that foreclosure might also indicate that existing goals, values or beliefs do not always have to be questioned, i.e., if current commitments are successful and provide meaning and purpose in life (Waterman, 1988).
- *Moratorium*: In contrast to both previous statuses, adolescents in the moratorium status are characterized by currently showing no identity commitments (Marcia, 1966). They are, however, actively exploring identity alternatives in search for identity commitments. Adolescents might enter moratorium, if their old commitments do not fit to their developing norms or their surroundings. Moratorium is often the status that precedes the achievement status. If no commitments can be chosen, adolescents might experience stress and negative developmental outcomes (e.g., low life satisfaction).
- *Diffusion*: While adolescents in the moratorium status are actively searching for identity commitments, adolescents in the diffusion status have not yet explored identity alternatives, nor have they made a commitment. They are characterized as being relatively directionless, sometimes unconcerned about their lack of commitments and easily swayed by external influences regarding an identity (Kroger & Marcia, 2011). Identity diffusion most closely relates to Erikson's identity confusion (Marcia, 1966).

Table 2
Identity Statuses based on Presence or Absence of Exploration and Commitment.

	Exploration present	Exploration absent
Commitment present	Achievement	Foreclosure
Commitment absent	Moratorium	Diffusion

Adolescents' belonging to an identity status is associated with different personality and psychosocial characteristics. Studies found that adolescents in an achieved identity status have high self-definition clarity, self-esteem, high satisfaction with life, and psychological well-being (for reviews see Kroger & Marcia, 2011; Schwartz et al., 2013). Adolescents in the foreclosure identity status also showed positive associations with self-esteem and low levels of internalizing symptoms, but showed also positive associations with authorianism. Further, their self-esteem was vulnerable to negative information about their identity (Marcia, 1966), indicating a fragility of identity commitments. Moratorium was associated with highest anxiety scores and depressive symptoms, but also with openness and curiosity (Kroger & Marcia, 2011; Schwartz et al., 2013). Diffusion was associated with low self-esteem, absence of self-direction and agency (Schwartz et al., 2013), as well as externalizing symptoms, and illicit drug use (Schwartz, Luyckx, & Vignoles, 2011). Taken together, identity achievement is the most adaptive status, while identity diffusion is the least adaptive status.

2.2.1. Identity Status Development

The identity status paradigm includes implicit assumptions on normative identity status transitions (Waterman, 1982). The transition from adolescence to adulthood normally includes a progressive strengthening of one's identity. Consequently, identity statuses should occur on a continuum, starting with statuses with low commitment and exploration on the one end and statuses with high commitment and exploration on the other end. This means that adolescents likely start in the diffusion status, followed by foreclosure or moratorium, and should end in achievement[2]. The statuses are assumed

[2] Notably, foreclosure and moratorium are not theoretically orderable along the continuum, but instead occupy a similar space on the continuum Meeus (2018).

to differ in their stability, i.e., how long an adolescent remains in a certain status, with Identity moratorium as the most unstable status.

As an example, for occupational identity: a young person reaches adolescence with no idea or plan about their desired occupational career. They have not though about whether they would want to become a baker, accountant, or the like. Thus, our adolescent is in a status of identity diffusion. Upon entering adolescence, they might be questioned more and more by their parents on which career they want to choose. Furthermore, schools might encourage the adolescent to find a career fitting to their overall talents and interests. If the adolescent thinks about different career choices and explores alternatives, they enter identity moratorium. After this period of exploring alternatives, if the adolescent makes a career choice, they commit to an occupational path. Thus, they end in the identity achievement status.

The example above describes a normative, progressive identity status transition (Waterman, 1982). However, the adolescent in our example might have also latched on the first career option they found without ever seriously exploring different options. They might have, therefore, entered foreclosure. Additionally, while the adolescent at the end of our example is in the achievement status, regressive shifts (e.g., achievement to moratorium, Kroger et al., 2010) could happen as well or might happen at a later point. These regressive shifts can be caused by life cycle events (e.g., dismissal from job) that prompt individuals to rethink and sometimes revise their identity commitments (Erikson, 1968; Kroger et al., 2010).

Identity status transitions occur in different domains of identity concerns (e.g., cultural, Kranz & Goedderz, 2020; regional, Schubach et al., 2017). For example, an adolescent can think about their occupational choices, while at the same time try out different gender roles. Empirical studies generally showed that identity matures across domains (see for reviews Kroger et al., 2010; Meeus, 2018), i.e., over time, the number of adolescents in identity diffusion decreased and in identity achievement increased. However, identity domains do not necessarily develop congruently (Vosylis et al., 2018). For example, an adolescent may be foreclosed in regard to occupational identity, in moratorium regarding relational identity, and achieved in regard to cultural identity.

2.2.2. From Identity Statuses to Dual Cycle Models

Even though the identity status paradigm includes implicit assumptions on identity development, one needs to keep in mind that identity statuses are individual styles of coping with the task of identity formation (Waterman, 1982, 1988). Thus, they are snapshots of adolescents' current style of coping with the task of identity formation and were not meant to capture developmental change. Identity processes, e.g., how adolescents question and change their identity (Crocetti, 2017), are not captured adequately by the identity status paradigm (Meeus, 2018; van Hoof, 1999; Waterman, 1982). Furthermore, systematic reviews (Kroger et al., 2010; Meeus, 2018) found no evidence that identity maturation unfolded as a stepwise development along the identity status continuum. To capture developmental processes, theorists proposed dual cycle models of identity formation (e.g., Crocetti, Rubini, & Meeus, 2008). These models kept Erikson's conception of identity and Marcia's identity statuses, but focused on the underlying processes of identity formation. In the following section, I will elaborate on the dual cycle model of Crocetti, Rubini and Meeus (2008) and discuss the model's assumption on development.

2.3. Dual Cycle Models: A Way to Capture Development

The dual cycle model of Crocetti, Rubini and Meeus (2008), also referred to as three-factor identity model, is currently one of the major theoretical models on how identity is developed. It expanded Marcia's identity status paradigm by focusing on developmental processes of identity formation. In other words, instead of examining current states of identity formation, it focuses on the dynamics by which adolescents form, evaluate, and revise their identity (Crocetti, Rubini, Luyckx, & Meeus, 2008). The model includes three interacting identity processes: commitment, in-depth exploration, and reconsideration of commitment.

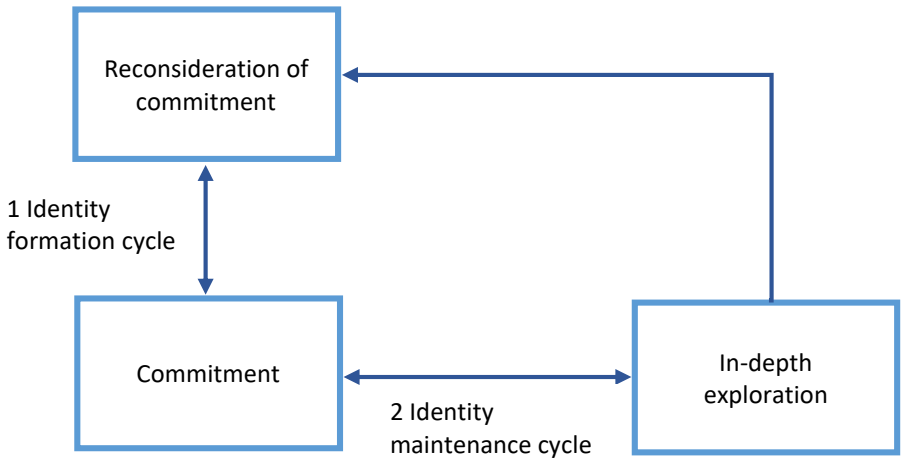
- *Commitment* refers to firm identity choices that individuals have made and the self-confidence derived from those.
- *In-depth exploration* refers to the extent to which individuals think about their commitments, reflect upon them, and explore their commitments.

- *Reconsideration of commitment* represents the process of comparing current commitments with possible alternative ones, because the current ones are no longer satisfactory.

Crocetti, Rubini and Meeus (2008) proposed that young people enter adolescence with preliminary identity commitments in at least the interpersonal (e.g., friends) and ideological (e.g., political ideology) domain (Meeus et al., 2010). The preliminary identity commitments represent childhood identifications derived from parents or significant others that were neither explored or questioned yet. During adolescence, young people evaluate and reconsider their preliminary identity commitments, and try to find satisfying commitments. After adolescents made a commitment, they continue exploring and evaluating their commitments. Thus, identity formation can be captured in two cycles (Meeus, 2011): an identity formation cycle (1) and an identity maintenance cycle (2) (see Figure 1).

Figure 1

Depiction of the two Identity Cycles. If In-Depth Exploration Leads to Uncertainty in Identity Commitment, Adolescents can Re-Enter an Identity Formation Cycle.



The identity formation cycle is characterized by the processes commitment and reconsideration of commitment (Crocetti, 2017). Adolescents compare their preliminary or current identity commitments with more fitting alternatives. If the former are perceived as no longer satisfactory, they can be revised or changed. After choosing

identity commitments, adolescents maintain them by reflecting on their meanings and compare them with their overall talents and potentials. Thus, they enter the identity maintenance cycle, which is characterized by the processes of commitment and in-depth exploration. Identity development is assumed to be a life-long task, meaning that identity is not once achieved and never revised again. Instead, when in-depth exploration leads to uncertainty, adolescents can reenter an identity formation cycle.

2.3.1. Links Between Identity Processes and Psychosocial Functioning

Research has shown that each identity process is accompanied by distinct associations with psychosocial functioning. *Commitment* has been found to be associated with healthy adjustment and psychosocial resources. For example, commitment related to resilient characteristics of personality, such as extraversion and emotional stability (Crocetti, Rubini, & Meeus, 2008; Hatano et al., 2016; Morsünbül et al., 2014), or high self-concept clarity and self-esteem (Crocetti, Rubini, & Meeus, 2008). Furthermore, commitment was strongly associated with indicators of mental health and adjustment (e.g., low levels of internalizing problem behavior, Hatano et al., 2016; Morsünbül et al., 2014; high levels of life satisfaction, Sugimura et al., 2015).

In-depth exploration has been found to be associated with both positive and negative outcomes of psychosocial functioning. These findings mirror its opposed functions, once for maintaining identity commitments, and once for re-evaluating current commitments. In-depth exploration related positively to characteristics of personality, such as agreeableness, conscientiousness, openness to experience (Crocetti, Rubini, & Meeus, 2008; Hatano et al., 2016; Morsünbül et al., 2014), or active social cognitive strategies, and negatively to emotional stability. Furthermore, it was positively associated with internalizing symptoms (Crocetti, Rubini, & Meeus, 2008; Morsünbül et al., 2014). Overall, exploration relates to maintaining existing commitments, but can also contribute to doubting current commitments.

Reconsideration of commitment has been found to be negatively associated with resilient personality traits, such as agreeableness and extraversion (Hatano et al., 2016; Morsünbül et al., 2014), or with self-concept clarity and self-esteem (Crocetti, Rubini, & Meeus, 2008). Reconsideration is furthermore negatively associated with indicators of

mental health and adjustment (e.g., high levels of internalizing and externalizing problem behavior, Hatano et al., 2016; low levels of life satisfaction Sugimura et al., 2015). Generally, high levels of reconsideration of commitment are associated with distress for individuals and could be indicative of an unstable personality structure (Crocetti et al., 2008).

2.3.2. Identity Statuses in the Three-Factor Identity Model

Dual cycle models allow to examine identity statuses (see section 2.2.) next to formation processes. They extent Marcia's (1966) conceptualization by defining identity statuses by the combination of commitment, exploration, and reconsideration, and each process' respective level, e.g., all processes high versus all processes low. In comparison, the original conception of identity statuses is based on the presence or absence of commitment and exploration alone. The dual cycle model's statuses are usually calculated by using person-centered methods (e.g., latent class analysis; Meeus et al., 2010). While Marcia (1966) postulated four identity statuses, the number of statuses based on the three-factor model has been found to vary depending on identity domain, although five statuses seem to be rather common, even across cultures (e.g., Italy, Crocetti et al., 2012; Japan, Hatano et al., 2016). These five statuses are: achievement, early closure, moratorium, searching moratorium, and diffusion (see Figure 2).

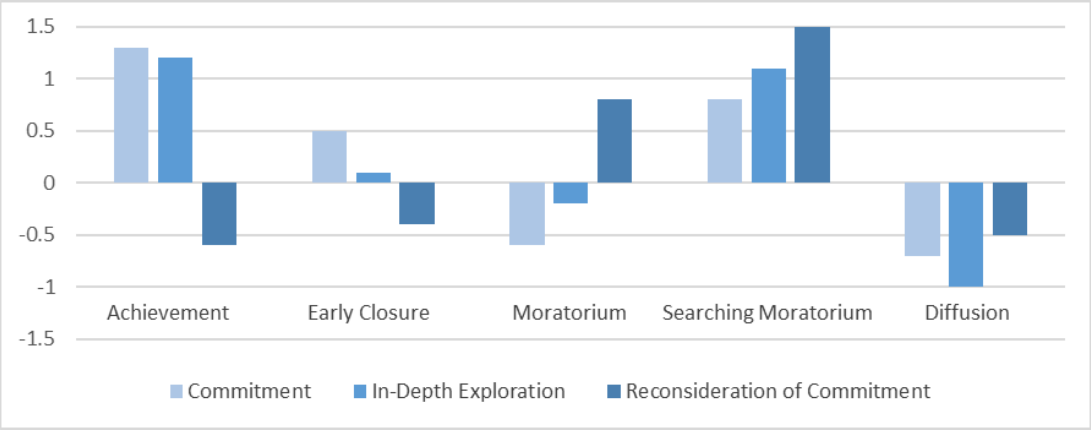
- *Achievement*: Adolescents with an achieved identity score high on commitment and in-depth exploration, but low on reconsideration of commitment. These adolescents have made a firm identity choice and continue exploring their choice. Adolescents with an achieved identity have the highest levels of adjustment compared to all other statuses (Crocetti, Rubini, & Meeus, 2008; Hatano et al., 2016; Morsünbül et al., 2014).
- *Early Closure*: Adolescents with an early closed identity score moderately high in commitment and low on both in-depth exploration and reconsideration of commitment. These adolescents did not question or explore their commitments yet, but rather kept previous commitments. The lower levels of commitment compared to identity achievers might imply that adolescents do not fully identify with their early closed commitments. However, adolescents

with an early closed identity have similar levels of adjustment to individuals with an achieved identity (Crocetti, Rubini, & Meeus, 2008; Hatano et al., 2016; Morsünbül et al., 2014), implying an adaptive function of early closure.

- *Moratorium*: Adolescents in the moratorium status score low on commitment, low to moderate on in-depth exploration and high in reconsideration of commitments. These adolescents are currently struggling to find identity commitments without a prior commitment to rely upon. Another moratorium status can be distinguished (see the following).
- *Searching Moratorium*: Adolescents in the searching moratorium status sore high on commitment, in-depth exploration, and reconsideration of commitment. Adolescents try to find new identity commitments, but do so from a more secure basis, i.e., prior commitments. Compared to adolescents in the moratorium status, adolescents in the searching moratorium status reported less internalizing and externalizing problems, and more life satisfaction (Crocetti, Rubini, & Meeus, 2008; Morsünbül et al., 2014). Searching moratorium might be a status in which existing commitment are revised, because they are no longer satisfactory, while moratorium might depict the struggle to find an identity commitment at all.
- *Diffusion*: Adolescents with a diffused identity score low on commitment, in-depth exploration and reconsideration of commitment. Adolescents have not chosen any identity commitments, but have also made no effort to achieve any yet. Adolescents with a diffused identity report low to moderate levels of adjustment (Hatano et al., 2016).

Figure 2

Identity Statuses by Their Levels of Identity Process Adapted From Crocetti, Rubini, Luyckx, and Meeus (2008).



One major difference between Marcia's (1966) original identity statuses and the identity statuses based on the three-factor model is the differentiation of two distinct statuses of moratorium: moratorium and searching moratorium. Studies found that moratorium could be both an adaptive and maladaptive status; while these findings remained ambiguous with Marcia's identity statuses, the differentiation in two distinct forms of moratorium shed some light on its opposing effect (Crocetti, Rubini, Luyckx, & Meeus, 2008). More explicitly, adolescents in searching moratorium are considered to be in an adaptive identity status, i.e., searching from a secure basis for a better fitting identity commitment, while adolescents in moratorium are considered to be in a maladaptive status, i.e., they struggle to find a commitment.

2.3.3. Global vs. Domain-Specific Identity Development

Identity processes and identity statuses are usually researched for identity domains separately (e.g., cultural identity, Kranz & Goedderz, 2020; regional identity, Schubach et al., 2017; relational identity, Crocetti, Rubini, & Meeus, 2008). Examining identity development on a global level runs the risk of overlooking domain-specific identity processes. After all, identity domains do not necessarily develop at the same time (Vosylis et al., 2018). For example, at the beginning of adolescence young people might already have preliminary identity commitments in the interpersonal (e.g., friends) and

ideological (e.g., political ideology) domain (Meeus et al., 2010). In other identity domains, no commitment might be present yet (Kroger et al., 2010), indicating no prior relevance of this domain for adolescents' conceptions of themselves. Studies generally suggested low congruence in identity processes between different domains, e.g., the congruence between vocational (e.g., commitment to one's job) and interpersonal identity (e.g., commitment to one's best friend) was found to be small with only 18% of all participants showing high commitment in both domains (Luyckx et al., 2014).

Nevertheless, longitudinal studies found general developmental patterns (Meeus, 2019). On the one hand, identity statuses were mostly stable over time, i.e., adolescents remained in the same identity status across years (Meeus et al., 1999). On the other hand, if change occurred, it was mostly in the direction of identity maturation, e.g., from diffusion to moratorium. Developmental patterns can differ regarding their transitions from one status to another and respective endpoints. For example, Meeus et al. (1999) found that societal identity development (e.g., educational identity) was characterized by an increase in identity closure instead of achievement across time. In comparison, relational identity development was characterized by an increase in identity achievement across time. Another difference was that the number of moratoriums remained higher for societal identity, but decreased for relational identity. The authors argued that the identity's content and hence the perceived usefulness to reflect on the commitment can influence identity formation. In the case above, adolescents might have to accept their educational identity, because they cannot change schools easily, and therefore never invest in exploring their educational identity. They might, however, be able to search for new friends. Therefore, exploring alternatives might become more attractive.

To sum up, it is important to study specific identity domains instead of generalizing findings from one domain to another. While some identity domains are well studied (e.g., educational or interpersonal domain, see for example Hatano et al., 2020; Negru-Subtirica et al., 2023), others remain understudied, including the European identity domain. To be more precise, only one study done by Jugert et al. (2021) examined the development of European identity in adolescence. The majority of studies on European identity examined it cross-sectionally or without a foundation in theories on identity

formation (e.g., Agirdag et al., 2012; Brummer et al., 2022). This dissertation wants to address this gap by offering insights on European identity development grounded in Eriksonian identity development (Erikson, 1968) operationalized by the three-factor identity model (Crocetti, Rubini, & Meeus, 2008). In the following, I will define how I understand European identity and elaborate on its importance.

2.4. European Identity in Adolescence

In this dissertation, the European identity is understood as both a personal identity and a social identity, whereby the latter is the subjective description or categorization of the self in terms of social group membership (e.g., gender, nationality) (Tajfel & Turner, 1979). Adolescents can identify themselves with several social groups at the same time (Roccas & Brewer, 2002). Personal identity and social identity have been addressed in different lines of research (Crocetti et al., 2018). Despite theoretical differences, Crocetti et al. (2018) argued that both personal identity and social identity share theoretical communalities, which allows to examine personal identity development similarly to social identity development. In next paragraphs, I will shortly describe the theoretical underpinnings of both personal identity and social identity, followed by a summary on communalities between personal and social identity. After that, I will address why a European identity is relevant identity domain and what we know about it.

2.4.1. The Interconnection of Personal Identity and Social Identity

Research on personal identity is rooted in Erikson's (1950, 1968) psychosocial theory (see section 2.1.). The formation of an identity is part of life cycle development and it is a continuous and dynamic process (Crocetti et al., 2018). Based on Erikson's (1950, 1968) conception of identity, Marcia (1966) formulated his identity status paradigm (see section 2.2.), on which current dual-cycle models with their focus on dynamic and iterative processes of identity development are built upon (e.g., three-factor identity model; Crocetti, Rubini, & Meeus, 2008; see section 2.3). In those models, identity formation is captured by two iterative cycles: identity formation cycle and identity maintenance cycle. Importantly, identity processes operate in several domains at the

same time as adolescents need to find meaningful commitments in various domains (e.g., education, work, relation, e.g., Schubach et al., 2017).

Research on social identity is rooted in social identity theory (Tajfel & Turner, 1979), which aims to explain how and why individuals join social groups. In other words, while personal identity theories illustrate structures and processes of one's own identity, social identity research mostly focused on the motivational and social cognitive processes underlying one's identity (Crocetti et al., 2018). Every social group process is characterized through: social categorization, social identification, social comparison, and group distinctiveness.

- *Social categorization* refers to the process by which individuals categorize themselves and others in ingroups and outgroups. This process offers a fast and efficient way of providing information about others while at the same time reducing uncertainty.
- *Social identification* is the feeling of identification with the ingroup. It includes the awareness of one's membership (cognitive component), the value attributed to the membership (evaluative component), and affective experiences linked to the group membership (affective component; Ellemers et al., 2002).
- *Social comparison* describes how individuals learn about themselves through comparison with others. This learning is guided by a pressure toward uniformity on the ingroup-level, and trying to maximize differences on the outgroup-level.
- *Group distinctiveness* describes ingroup-outgroup comparisons along meaningful dimensions that allow group members to appreciate their own ingroup. The need for establishing or maintaining positive self-esteem from group membership forms the basis for enhancing group distinctiveness (Tajfel, 1982).

Self-categorization theory expanded social identity theory by focusing more closely on underlying cognitive processes at the basis of social identity (Turner et al., 1987). It posits that individuals self-categorize at different levels of identity: a subordinate level, which relates to personal identity, an intermediate level (e.g., group membership), and

a superordinate level (e.g., larger groups such as humanity). The different levels were assumed to be antagonistic, i.e., an increased identification on the group level decreases identification on the personal level. However, evidence suggested that the different levels are non-exclusive (see for example the common ingroup identity model, Gaertner et al., 1993, or dual identity models, Dovidio et al., 1998), e.g., an adolescent might feel very committed to being German (intermediate identity) and being European (superordinate identity). Summing up, social identity models describe individual's tendency to distinguish human beings in terms of ingroup and outgroup members, which can lead to favouring the former over the latter.

Even though the theoretical foundations of personal identity and social identity differ, there are certainly some commonalities. First, both personal identity and social identity depend on the interaction between individual processes and social factors, e.g., contextual availability of commitment choices or social groups (Crocetti et al., 2018). Identity is the means through which individuals commit themselves to social reality. Therefore, both personal identity commitment and social identification with groups is rooted in individual's need to be meaningfully connected to the world. Second, personal commitment and identification with important social groups can reinforce each other (e.g., Ellemers et al., 1999). Albarello et al. (2018) found that the more adolescents identified with their classmates or friends outside of school (social identification), the more they increased in their identity commitments in the interpersonal domain (personal identity) over time. Third, the processes of in-depth exploration and reconsideration of commitment are arguably similar to the processes of social comparison and group distinctiveness (see for an elaboration Crocetti et al., 2018), i.e., both in-depth exploration and reconsideration of commitment imply processes of social comparisons at the interpersonal and intergroup level. Following from those commonalities, it can be concluded that personal identity and social identity are intertwined. Combining both research areas could offer interesting insights for both areas.

2.4.2. Does Being European Matter?

When asking adolescents and young adults about their identification with Europe and their nation, between 30% to >50% identified to a similar extent with Europe and their nation, or even identified more strongly with Europe than with their nation (Landberg, 2018). Conversely, this means that a large share of adolescents and young adults did not identify with Europe or at least not stronger than with their nation. This implies a limited relevance of a European identity for adolescents and leads to the question: why then study European identity development?

Identifying as European has commonly been theorized to have positive effects on popular support for the EU (e.g., Ciaglia et al., 2018), i.e., higher support for the EU with increasing identification, and on intergroup relations (Konings et al., 2021), i.e., less ingroup favoritism with increasing identification. Regarding the former, the EU is regularly faced with questions regarding its democratic legitimation, as can be seen by low EU election turnout and an increase in right-wing nationalist movements across Europe. One major factor for the continuing stability of the EU might be the adaption of a European identity by its citizens (Habermas, 2014). Therefore, one reason why it is relevant to study European identity development is to understand how it can be fostered in adolescents - the future citizens of the EU (for a discussion on the difference between European and EU citizen, see chapter III, section 8.3.2.).

Regarding the second effect, a European identity could act as a potential "unifying collective identity in ethnically diverse contexts" (Brummer et al., 2022, p. 178), such as the European continent. Migratory movements towards Europe increased ethnic diversity in many European nations (Crul, 2016), rendering it necessary to take actions against ingroup favoritism and for social inclusion of all social groups within Europe. One of those actions could indeed be to foster a European identity. Following the common ingroup identity model (Gaertner et al., 1993), individuals from different social groups, e.g., nationalities, can feel a sense of belonging together if they share a common superordinate identity, such as a European identity. For example, I as a person identifying as Austrian might have prejudices against someone I perceive as German[3].

[3] Note: In Austria, we have a friendly rivalry against Germans. The social groups in this example can be substituted by any other group, such as ethnic majority and ethnic minority within a country.

However, if I categorize myself and the other as European, I might feel that we – an Austrian and a German – belong to the same social group and therefore reduce my prejudices. This positive effect relies on the assumption that a European identity can be acquired by individuals from different social groups, i.e., that being European means something ethnically inclusive.

Both assumed positive effects – firstly on popular support for the EU, secondly on intergroup relations – share an assumption, which is not often tested: a European identity is civically and ethnically inclusive defined. However, evidence for those positive effects is mixed and several studies even found opposed associations (e.g., Fleischmann & Phalet, 2016; Landberg et al., 2018; Licata & Klein, 2002; Visintin et al., 2018), i.e., that participants identifying as European showed higher intolerance towards immigrants then participants not identifying as European (Licata & Klein, 2002). An explanation for these mixed findings is that the meaning of being European can vary and the identity's specific content is associated differently with measures of EU support and social inclusion. Previous studies on European identity, however, rarely included measures of European identity content and focused only on levels of identification (e.g., Agirdag et al., 2016; Erisen, 2017; Fligstein et al., 2012; Hasbún López et al., 2019), or used a simplified civic versus ethnic dichotomization (Bruter, 2003).

Summing up, it is difficult to answer with all certainty why European identity development should be studied. To do so, researchers would need to assess the content of European identity in a more complex manner than previously done. Therefore, the last aim of this dissertation is to examine what adolescents understand being European means and to test how different understandings relate to measures of EU support and social inclusion.

3. The Role of Time

"The conscious feeling of having a personal identity is based on two simultaneous behaviors: the perception of selfsameness and continuity within the process of change" (Erikson, 1968, p. 160)

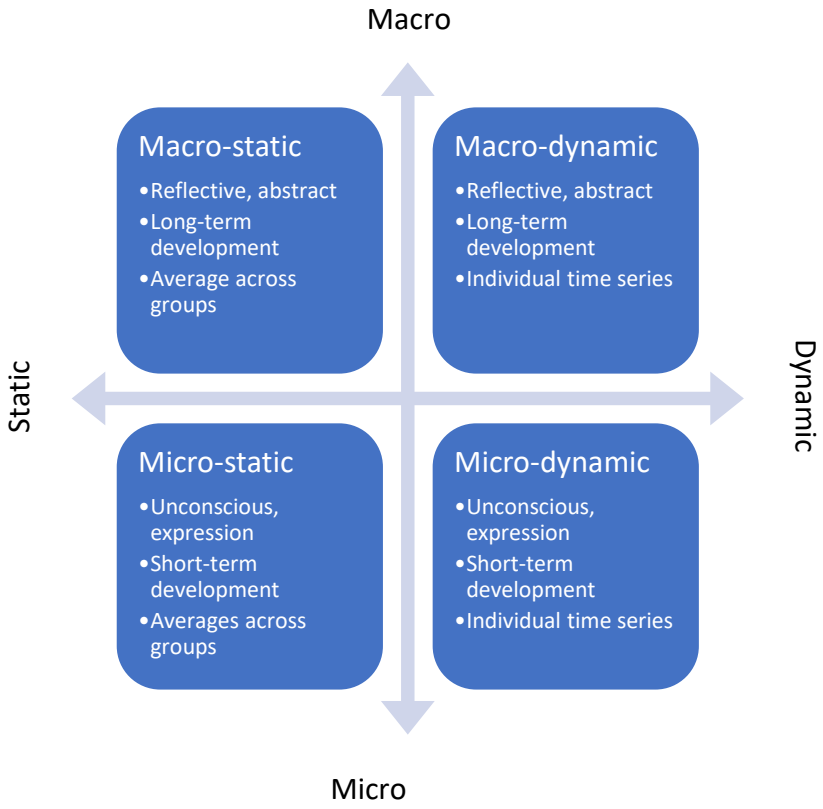
Time plays a pivotal role in developmental processes such as identity formation. A person maintains and revises their identity commitments across the life-span, which can lead to changes in the perception of who they are. At the same time, the developing individual experiences a feeling of self-sameness and continuity through those changes (Lichtwarck-Aschoff et al., 2008). This self-sameness can also be perceived by others, i.e., although a child grows up into an adult, its parents can still identify them as their once little child. One framework to understand time's role in identity development was proposed by Lichtwarck-Aschoff et al. (2008). Their framework is based on a dynamic systems approach and includes two dimensions (see Figure 3). Within a dynamic systems approach, identity can be considered to emerge spontaneously out of real-time interactions between individuals and their environment, i.e., it includes self-organizing properties. At the same time, identity was and becomes a stable structure, which then guides real-time interactions (van Geert, 1998, 2011). Consequentially, the different levels of the dynamic system bidirectionally interact with each other without one being clearly the cause of the other.

Lichtwarck-Aschoff et al.'s (2008) two dimensions include the differentiation in micro-macro and static-dynamic processes. The micro-macro dimension refers to the differentiation between an aggregated time-level (macro), and one that is rooted in daily experiences (micro; Klimstra & Schwab, 2021). The aggregated time-level usually describes changes on a mid- (e.g., months up to a year) or long-term time scale (e.g., years). Notably, those identity processes are based on individuals' reflections and abstract thoughts on their lives, including accumulated daily experiences. The short-term time scale (e.g., hours or days) captures the level where interactions between person and context take place. Identity processes at this level include experiences, feelings, and interactions situated in contexts (Lichtwarck-Aschoff et al., 2008). The differentiation in micro and macro is not based on absolute distinctions, but on qualitative differences in the mechanisms that govern the events at the concerned time

scale. The static-dynamic dimension refers to the differentiation between processes focusing on associations between variables and properties (static), and focusing on change (dynamic). An identity processes is static, if one dependent outcome (e.g., identity commitment) and one to several independent (e.g., family relations) variables are examined together at a particular point in time. Thus, it is characterized by an absence of considering earlier events in time since assessing structural associations is the research's aim. Conversely, an identity process is dynamic, if researchers aim to examine how identity evolves from one state in time to another state later in time. These changes can occur at any moment and might thus change or fluctuate over any time interval.

Figure 3

Two-Dimensional Framework for the Study of Identity Development Adapted from Lichtwarck-Aschoff et al. (2008).



The differentiation results in four forms of time: macro-static, macro-dynamic, micro-static, and micro-dynamic. Each form has distinct underlying identity processes, and should be assessed on different time-scales and with different methods (Klimstra & Schwab, 2021; Lichtwarck-Aschoff et al., 2008). Additionally, findings from one time form, e.g., macro-static, should not be cross-generalized to another, e.g., micro-dynamic. In regard to the micro-macro dimension for example, identity commitment and identity reconsideration were found to be negatively correlated with each other on the same day (Klimstra, Luyckx, et al., 2010), but higher levels of reconsideration were positively associated with commitment three to six months later (Becht et al., 2017). In regard to the static-dynamic dimension, the association found on a group level can differ greatly from associations found on an individual level (Hamaker et al., 2005), i.e., some individuals might have reversed developmental patterns to the average ones.

Despite the processes' distinctiveness depending on time, they are assumed to be interconnected (Bosma & Kunnen, 2001; Lichtwarck-Aschoff et al., 2008; for empirical evidence see Becht et al., 2021; Klimstra, Luyckx, et al., 2010). This interconnection can be exemplified along the micro-macro dimension: daily situated experiences (micro) should eventually aggregate to change in the mid- or long-term. At the same time, these daily situated experiences should be guided by identity on the macro level.

Going back to the current state of research on identity formation, most research focuses on macro-static processes (Klimstra & Schwab, 2021; e.g., Greischel et al., 2018; Schubach et al., 2016), even though studies trying to examine micro or dynamic process (e.g., via intensive longitudinal designs) became more common (e.g., Becht et al., 2017; Becht et al.; Dietrich et al., 2013). However, those studies mostly focused on educational and relational identity development and not on identity domains that function also as social identities, such as the European identity domain. There is only one study in regard to European identity that examined its development with a macro-static approach (Jugert et al., 2021). Studies that systematically examine short-term European identity development or dynamic development are so far missing.

4. Contextual Influences on Identity Formation

Development, including identity formation, is situated in social contexts (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2007), i.e., the choice of school track can influence later career options and therefore affect adolescents' exploration of work commitments. As a result, social contexts should explicitly be considered when studying development. In the following, I will describe one context that is particularly relevant for this dissertation in more detail, namely media.

4.1. Media as Socialisation Context

Relevant social contexts for adolescents are considered to be family, peers, school or media (Eckstein, 2019; Greenstein, 1965). Especially media is one of the main contexts outside of school in which adolescents are confronted with Europe-related topics (Ejaz, 2019). Europe is rarely relevant for adolescents' everyday life and also meeting other Europeans can be challenging outside vacation times or (social) media. Furthermore, it is increasingly common for adolescents to spend a considerable amount of their day online (e.g., Odgers & Jensen, 2020), thus their digital experiences play a major role in influencing the development of identity.

Following agenda-setting theories (McCombs & Valenzuela, 2021), adolescents are to some extent influenced by media's agenda setting independent of whether they consume content actively or passively. Although media cannot determine what and how people think about certain topics, they certainly influence what topics are seen as important and how people feel about those topics (e.g. Cappella & Jamieson, 2010; Schuck, 2017; Vreese & Boomgaarden, 2006). Hence, media are a powerful source of information on various historical events and topics, including those outside the own country. Accordingly, specific historical events (e.g., beginning of a war) can shape adolescents' development. There is ample evidence for associations between media content and identity commitments (e.g., Ejaz, 2019; Weßels, 2007). Nevertheless, research has mostly examined those associations with panel or longitudinal studies (e.g., one-year lag between assessments). This is problematic, because media effects are likely short-lived (McKinney & Chattopadhyay, 2007) and need closely spaced observations to be measured adequately. Further, processes on the micro dimension (Lichtwarck-

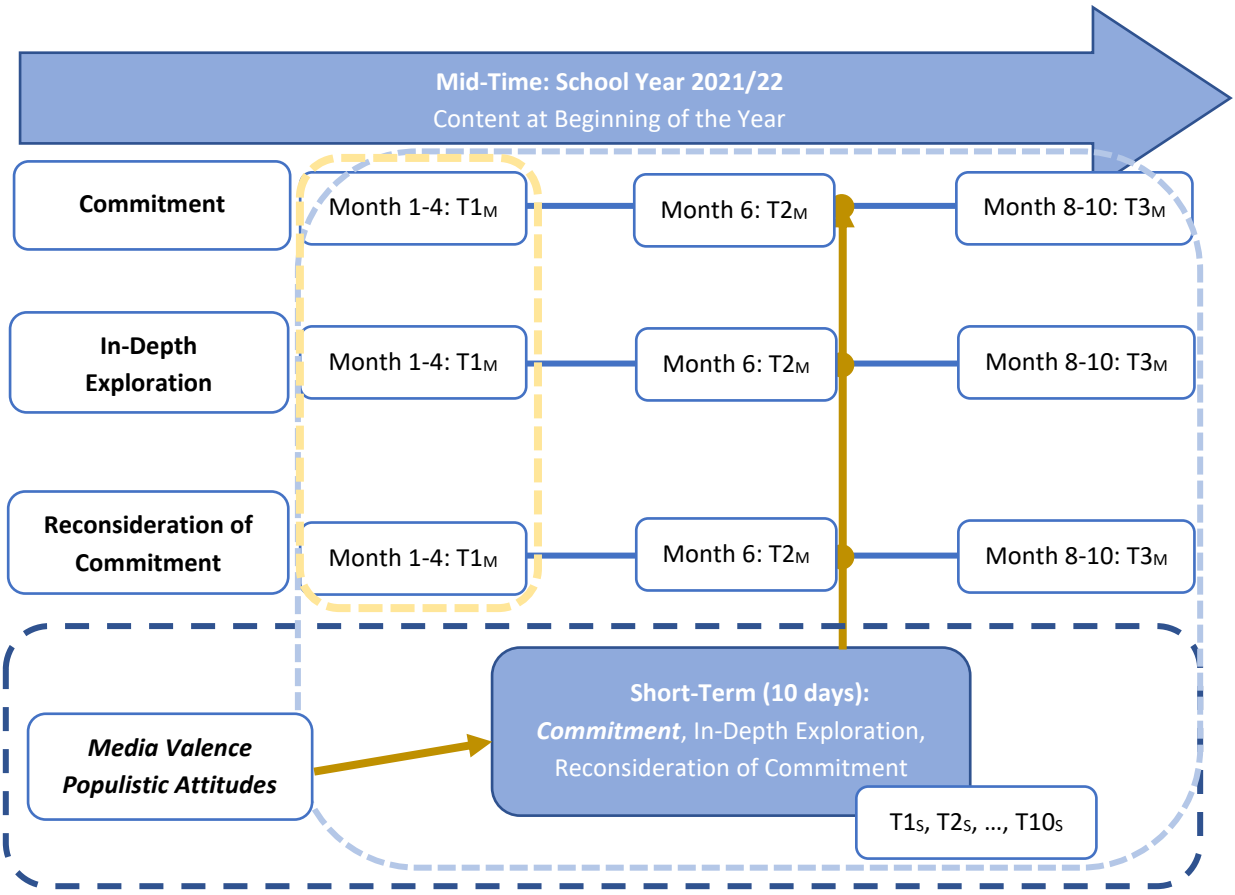
Aschoff et al., 2008) and with a focus on intraindividual change remain understudied. This dissertation aims to address this gap by examining micro development of European identity and the influence of media content.

5. Aims of this Dissertation

The current state of research shows several gaps when it comes to European identity development. Even though commitment to a European identity has been argued to be important for the sustainability of the EU or intergroup relations, there is only limited evidence regarding its development. This is especially true for identity development on the micro dimension and regarding identity content. Based on the literature review, I delineated four research questions that were addressed in three empirical studies (see Figure 4): (1.) How does European identity develop on the mid- and short-term time scale? (2.) How are daily processes related to mid-term change? (3.) How does media influence daily processes of European identity development? (4.) What does it mean to be European?

Figure 4

Overview of Measures, Studies and Time-scales. Light Blue: Study 1. Dark Blue: Study 2. Golden: Study 3. Months Start from the Project's First Month.



5.1. Study 1: Short- & Mid-Term Development and Their Interrelations

In the first study (chapter II, section 7.1.), I examined adolescents' European identity formation on a short- and mid-term time scale, and the time-scales' interrelations. Identity formation across various identity domains is a key developmental task in adolescence. Within Europe one potentially important identity domain is the European identity. It is considered important due to its assumed positive effects on EU support and intergroup relations. Since European identity development has previously been studied by only one study and only across a school year, I aimed to contribute to our understanding of European identity development by examining two time-scales separately and conjointly: a short-term (ten-days) and a mid-term time scale (school year). More specifically, I explored developmental trajectories of European identity across both time-scales, and whether and how daily processes are associated with developmental trajectories across one school year.

5.2. Study 2: Media as Predictor of Daily Identity Processes

In the second study (chapter II, section 7.2.), I focused on short-term dynamics between European identity commitment or affects towards the EU and predictors on a daily level. More specifically, I examined effects of media valence on both outcomes mediated by populistic attitudes. Media is a very important social context for adolescents' development, as it is increasingly common for adolescents to spend a considerable amount of their day online. Negative tone of media news has been found to increase populistic attitudes, which can over a longer period decrease European identity commitment or increase negative affect towards the EU. This association is explained by the assumed interconnection of European identity or affect with the EU, and support for the EU. I examined the associations using short-term, intensive longitudinal data. By assessing the constructs of interest daily across ten consecutive days, I could examine whether there is a systematic coupling between the ups and downs of media use and commitment or affect in a random snapshot of adolescents' everyday lives.

5.3. Study 3: European Identity Content

In the third study (chapter II, section 7.3.), I examined adolescents' understanding of being European, and how it relates to intolerance towards immigrants, EU support, and other predictors including identity processes. One major part of identity formation is to explore the meaning of an identity, discuss its content, and evaluate the identity's content fit to oneself. These contents can differ from person to person. Identifying as European has often been theorized to have positive effects on popular support for the EU and intergroup relations due to its civic conception. However, few studies that examined those associations operationalized European identity content, even though qualitative studies indicated a rich understanding of being European. In this study, I addressed this gap by implementing a person- and content-centred approach to examine German adolescents' understanding of being European. Furthermore, I examined how content is related to EU support and tolerance towards refugees and newly arrived people, as well as how it relates to identity processes.

In the following, I will describe the overall project of this cumulative dissertation. Afterwards, I will present all three studies of this cumulative dissertation. All study's hypotheses and statistical analyses have been preregistered, and a preprint was made available.

Chapter II

6. The Research Project

6.1. Data Collection

This dissertation is embedded in the cooperation project “JUROP - Youth and Europe: Between Cohesion and Polarization” conducted by the Friedrich-Schiller University of Jena, the University of Duisburg-Essen, and the Institute for Democracy and Civic Society Jena. The project was approved by the ethics committees of the University of Duisburg-Essen and the Friedrich-Schiller University of Jena (FSV 21/047). JUROP stretched over one school year (2021/2022) and included a longitudinal paper-pencil questionnaire with one measurement point at the beginning (T1) and one at the end of the school year (T2). Between the two measurement points was a daily diary study across ten school days including a baseline assessment of trait items from the assessed state items (see Figure 5).

We sampled schools via e-mail and telephone in two German federal states: North-Rhine Westphalia (NRW, West Germany) and Thuringia (East Germany). If schools indicated interest, we sent them further information and informed consent forms for students and their parents. After active informed consents have been obtained, research team members visited participating schools and administered a paper-pencil questionnaire during school hours (average duration ~ 60 minutes; T1: September 2021 to January 2022).

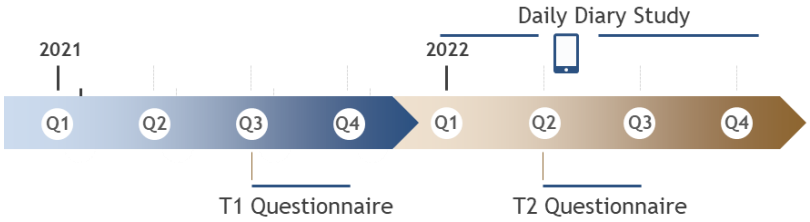
Participants could indicate on their informed consent, whether they wanted to participate in the daily diary study (January 2022 to February 2022). During the study, we sent participants daily text message invitations on their smartphones to an online questionnaire on 10 consecutive school days (2 x 5 days without weekends). Participants without own smartphones could borrow one from the research team. The invitations were sent out after school hours (5 p.m.) followed by up to two reminders at 6 p.m. and 7 p.m. Participants could answer between 5 p.m. and midnight every day. The same 16 questions were asked every day. All daily diary participants received a 25€ coupon as

compensation upon participation and another 15€ coupon after filling out eight questionnaires.

For T2, research team members visited participating schools again and administered a paper-pencil questionnaire during school hours (average duration ~ 60 minutes) between April 2022 and July 2022. All participating classrooms were compensated with 100€ for their class fund and first results were discussed with participants, if schools were interested.

Figure 5

Timeline of JUROP's Longitudinal and Daily Diary Study.



6.2. Participants

The T1 sample of JUROP encompasses *n* = 1,206 participants from 31 schools and 89 classes. The T2 sample encompasses *n* = 1,041 participants from the same schools and classes (attrition rate = 13%). Eighty-seven percent of the adolescents participated at both measurement points. Participants were on average 14.4 years old (SD_{age} = 0.6, Female = 52%, Male = 47%, Diverse = 1%). Most students were enrolled in college-bound high schools (58%, non-college-bound secondary schools: 17%, comprehensive schools: 25%). Most participants indicated that they and their parents were born in Germany (73%, *ethnic majority*; NRW: 57%; Thuringia: 88%).

The daily diary study used a subsample of our total participants. We randomly invited *n* = 400 participants from which *n* = 371 participated in the daily diary study. Participants were on average 14.2 years old (*SD* = 0.6) and 60% were female (39% male, 1% diverse). Most students were enrolled in college-bound high schools (64%), vocational schools (8%) or comprehensive schools (28%). The majority were ethnic majority members (73%).

7. Empirical Studies

7.1. Study 1

Mayer, A.-M., Crocetti, E., Eckstein, K., Noack, P., & Jugert, P. (submitted). Becoming European. Mid- and short-term development of European identity in adolescents. https://doi.org/10.31219/osf.io/d9t6v

Abstract:

Within Europe, European identity formation is considered as important, as it is linked to EU support. To understand whether and how adolescents identify with Europe, we examined three processes of identity formation (commitment, in-depth exploration, and reconsideration of commitment) on a short- and mid-term time scale, and their interrelations. A total of 371 German adolescents (M_{age} = 14.24, SD_{age} = 0.55, 60.37% females) participated in a longitudinal study and in a ten-day daily diary study. We conducted latent growth curve analysis (LGCM) and assessed rank-order stability and profile similarity for both time-scales. We ran conditional LGCMs to examine associations of both time-scales. We found a significant increase of all identity processes from the beginning to the middle of the school year and a significant decrease from the middle to the end of the school year. Across ten days, growth curves varied for the identity processes. Stabilities were high for both time-scales. Commitment at the beginning of the school year was negatively associated with fluctuations in commitment. Our results highlight the importance of examining different time-scales and different identity domains for understanding identity development in adolescence. They further indicate that short-term processes are associated with long-term development.

Keywords: European identity, longitudinal, latent growth curve analysis, short- and mid-term development, identity processes, daily diary, adolescents

Introduction

Identity formation is a key developmental task during adolescence (Erikson, 1950, 1968). Young people enter this period of life with a set of preliminary identity commitments (e.g., childhood identifications) that are based on parental or peer values and norms (Crocetti, 2017). These values and norms are questioned in adolescence as youth search for self-defined commitments across various life domains (e.g., educational, interpersonal; Vosylis et al., 2018). Among these identity domains are also those related to adolescents' belonging to different social groups (Tajfel & Turner, 1979) such as gender, ethnicity, or nationality (Crocetti et al., 2018). Within Europe one potentially important social identity is the European identity.

Identifying with Europe is considered to be a crucial factor for securing the future of the European Union (EU; Habermas, 2014; for empirical evidence see e.g., Ciaglia et al., 2018; Hooghe & Marks, 2004; Vries & van Kersbergen, 2007). After all, the EU's continuity significantly builds on the support of its younger, and hence future generations (Hooghe & Marks, 2004). When examining adolescents' identification with Europe, a study across eight EU countries showed that a large share of adolescents and young adults (30% to > 50%) either identified to a similar extent with Europe and their nation, or even identified more strongly with Europe than with their nation (Landberg et al., 2018). The large share of adolescents identifying with Europe would constitute a positive finding for the future of the EU. However, approximately a quarter of young people also reported no or low identification with Europe. A limitation of previous studies on European identity (e.g., Agirdag et al., 2012; Brummer et al., 2022) is that most examined only one identity dimension (i.e., commitment or identification with Europe) using cross-sectional designs and, therefore, offer little evidence on European identity development. However, identity is not achieved once and then remains unchanged, rather individuals can explore their identities, reflect upon, revise, or change them (Crocetti, 2017). Thus, it is of utmost importance to longitudinally tackle developmental processes of stability and change in European identity.

Furthermore, we need to consider different time-scales in the development of European identity. So far, research on identity development mainly focused only on mid- to long-term development (e.g., change over one year; Greischel et al., 2018; Schubach

et al., 2016, for a review see van der Gaag et al., 2016), and only few studies examined different time-scales conjointly (e.g., Becht et al., 2017; Becht et al., 2021; Klimstra, Luyckx, et al., 2010). Regarding adolescents' European identity, there is only one study that examined its development by drawing on a mid-term time scale (Jugert et al., 2021).

To consider the effect of time is crucial for a comprehensive understanding of identity development. First, processes across longer periods of time (e.g., months) manifest differently than processes across shorter periods of time (e.g., days; Klimstra & Schwab, 2021). Results should not be cross-generalized across time-scales (Lichtwarck-Aschoff et al., 2008), but different time-scales should be considered, when examining developmental processes. Second, this separation would allow to systematically examine the assumption that momentary fluctuations and development change are interrelated (Bosma & Kunnen, 2001; Lichtwarck-Aschoff et al., 2008). In line with this reasoning, the current study contributes to our understanding of European identity development. It does so by examining two time-scales, a short-term and mid-term time scale, and their association. Thereby, it offers novel insights into how developmental processes of European identity manifest on different time-scales, and whether short-term processes influence mid-term processes.

European Identity in Adolescence

Building on Erikson's psychosocial theory (Erikson, 1950) and Marcia's identity status paradigm (Marcia, 1966), the three-factor identity model from Crocetti, Rubini, and Meeus (2008) is currently one of the major theoretical models on *how* identity is developed. It proposes three dynamic processes of identity development: commitment, in-depth exploration, and reconsideration of commitment. *Commitment* refers to making enduring choices and the self-confidence derived from these choices. *In-depth exploration* refers to the extent to which adolescents think about their current commitments and reflect upon their meanings. *Reconsideration of commitment* refers to the comparison of current commitments with possible alternatives, if the current ones are perceived as no longer satisfactory (Crocetti, 2017). In this model, young people are assumed to enter adolescence with preliminary identity commitments regarding ideological (e.g., political ideology) and interpersonal domains (e.g., friends), which are not yet explored or questioned. In other domains, those preliminary identity

commitments might not exist (Kroger et al., 2010), indicating no prior relevance of this domain for adolescents' conceptions of themselves. During adolescence, young people evaluate and reconsider their identity commitments, and try to find satisfying identity commitments (Crocetti et al., 2017). If those are found, adolescents would validate their commitments by reflecting on their meaning, explore them, and invest in maintaining them.

As part of the three-factor identity model, the specification of identity domains (e.g., cultural, Kranz & Goedderz, 2020; regional, Schubach et al., 2017) addresses the essence of *what* is being developed. Identity domains within a person do not necessarily develop simultaneously (Vosylis et al., 2018). Accordingly, the congruence between vocational (e.g., commitment to one's job) and interpersonal identity (e.g., commitment to one's best friend) was, for example, found to be small with only 18% of all participants showing high commitment in both domains (Luyckx et al., 2014). Thus, it is important to study specific identity domains instead of generalizing findings from one domain to another. While some identity domains are well studied (e.g., educational or interpersonal domain, see for example Hatano et al., 2020; Negru-Subtirica et al., 2023), others remain understudied, including the European identity domain. Given the role attributed to the formation of a European identity among young people for securing the stability of the EU, it is pivotal to study its development particularly close to its emergence in adolescence (Barrett, 2007) and across different time-scales.

Looking at Identity Development Through Different Time-scales

Development unfolds across time, rendering it necessary to consider the role of time in identity development. To facilitate the understanding of the role of time, Lichtwarck-Ashoff et al. (2008) described a framework for identity development based on dynamic systems theory. One dimension of their framework that is particularly relevant for research on identity is the differentiation between an aggregated time-level, and one that is rooted in daily experiences (Klimstra & Schwab, 2021). The aggregated time-level describes changes in a mid- (e.g., months up to a year) or long-term time scale (e.g., years). Identity processes at this level include individuals' reflections and abstract thoughts on their lives, including accumulated daily experiences. The short-term time scale (e.g., hours or days) captures the level where interactions between person and

context take place. Identity processes at this level include experiences, feelings, and interactions situated in contexts (Lichtwarck-Aschoff et al., 2008). Identity processes on both time-scales are assumed to be interconnected (Bosma & Kunnen, 2001; Lichtwarck-Aschoff et al., 2008; for empirical evidence see Becht et al., 2021; Klimstra, Luyckx, et al., 2010). First, daily situated experiences should eventually aggregate to change in the mid- or long-term. Second, these daily situated experiences should be guided by identity on the aggregated level. Even though processes on different time-levels are interrelated, the expression and manifestation of identity processes vary depending on the chosen time level. For example, commitment and reconsideration were found to be negatively correlated with each other on the same day (Klimstra, Luyckx, et al., 2010), but higher levels of reconsideration were positively associated with commitment three to six months later (Becht et al., 2017).

Despite the need to consider different time levels, most studies on identity development focused on mid- to long-term development (e.g., Greischel et al., 2018; Schubach et al., 2016). In regard to European identity, only one study examined its development across a mid-term time scale (Jugert et al., 2021). Studies that systematically examine short-term European identity development or processes at both levels simultaneously are missing. To assess short-term and mid- to long-term development, multiple indicators of change and stability (Bornstein et al., 2017), such as mean-level change, rank-order stability, and profile similarity, can be used.

Mean-Level Changes

Longitudinal research on adolescents' development commonly focused on patterns in mean-level changes (e.g., Bornstein et al., 2017). Mean-level changes have mostly been studied for mid- (within a year, e.g., Pop et al., 2016) and long-term identity development via longitudinal studies (for a review see Branje et al., 2021; Meeus, 2011), although daily assessments have become increasingly popular. Longitudinal studies indicated that identity development is rather stable from adolescence to young adulthood irrespective of the examined domain, i.e., adolescents with strong identity commitments remain strong in their commitments. When studies found developmental change, it was mostly in the direction of identity maturation, i.e., an increase in commitment and exploration, and a decrease in reconsideration. Developmental

change in the direction of identity regression, although less common, was also observed, i.e., a decrease in commitment and exploration, and an increase in reconsideration (e.g., within a year; Pop et al., 2016). Studies on day-to-day mean-level changes indicated that adolescents generally show relatively high and stable mean-levels in their identity processes (Becht, Nelemans, et al., 2016).

Rank-Order Stability

Another parameter to capture identity development is rank-order stability. It refers to the extent to which inter-individual differences are stable over time (Bornstein et al., 2017). In other words, rank-order stability indicates whether the relative position of an adolescent within a group remains the same over a period of time, even if the group mean increases or decreases on that trait (Mroczek, 2010). For example, if one adolescent is higher in identity commitment than another one at the beginning of the school year, and still shows relatively higher levels of identity commitment at the end of the school year, this would indicate high rank-order stability. The review on longitudinal studies of identity development of Meeus (2011) indicated that rank-order stability has medium (> .30) or large (> .50) effect sizes for survey periods between half a year and four years in adolescent samples, with shorter periods and older samples showing higher rank-order stability.

Profile Similarity

A complementary parameter to rank-order stability is profile similarity (Roberts et al., 2001). Profile similarity is a person-centered index capturing intra-individual consistency in a cluster of psychological dimensions. For example, if an adolescent scores high on commitment, moderate on exploration, and low on reconsideration at the beginning of the school year, and shows the same intra-individual rank-order at the end of the school year, this would be indicative of a consistent profile. Profile similarity for identity is high during adolescence, but it increases with age (e.g., Klimstra, Hale, et al., 2010), and it is likely higher for shorter time-scales compared to longer time-scales.

Current Study

This study aimed to explore developmental trajectories of European identity across one school year (mid-term time scale, Aim 1) and ten consecutive school days (short-

term time scale, Aim 2), and whether and how daily processes are associated with developmental trajectories across one school year (Aim 3). To achieve these aims, we concentrated on students attending 9th grade in two German federal states: North-Rhine Westphalia (NRW, western Germany), primarily focusing on the Ruhr area, and Thuringia (eastern Germany). We selected the 9th grade because schools are required to teach EU- and Europe related topics to a similar extent across school tracks at that time in both federal states (e.g., QUA-LiS NRW, 2022; THILLM, 2022).

To address Aim 1 and Aim 2, we examined developmental trajectories for commitment, exploration, and reconsideration considering mean-level change, rank-order stability, and profile similarity. Based on the reviewed literature, we expected to either find stability or progressive changes in identity processes on the mid-term time scale (**H1**). In case of identity progression, commitment and exploration were expected to increase, while identity reconsideration was expected to decrease across the school year. During the ten consecutive school days, we expected mostly stable identity processes, meaning that we did not expect significant changes in mean-levels (**H2**; Becht et al., 2021). Regarding rank-order stability, we expected medium-sized rank-order stabilities for our mid-term time scale and generally higher rank-order stabilities for our short-term time scale (**H3**). Similarly for profile similarity, we expected medium profile similarity for our mid-term time and higher profile similarity for our short-term time scale (**H4**; for a review of longitudinal studies see Meeus, 2011, 2019; for stabilities for short-term time scale see e.g., Becht et al., 2021; Klimstra, Luyckx, et al., 2010).

To address Aim 3, we examined the association of daily fluctuations of European identity processes with developmental trajectories from the beginning to the end of the school year. Arguably, longer term identity development is intertwined with daily interactions (Lichtwarck-Aschoff et al., 2008), and including these daily interactions can further our understanding of identity development. For commitment, we expected that higher levels of daily fluctuations would relate to lower levels of commitment half a school year later, as it would be indicative of unstable identity commitments (**H5**; Lichtwarck-Aschoff et al., 2008). We examined associations of daily fluctuations in exploration and reconsideration exploratively. In these analyses, we controlled for demographics (gender, school track) and contextual characteristics (region). The study's

hypotheses and statistical analyses were preregistered (https://osf.io/arqnz/?view_only=afa833861aee47d8a7969acd8f7d9209).

Materials and Methods

Participants

The present study was part of a larger research project (*JUROP*) conducted in Germany (see supplemental material for further information). It included a longitudinal paper-pencil questionnaire with two measurement points (T1 & T3) and an online ten-day daily dairy study with a baseline assessment (T2) between the two main surveys (T1 & T3). The sample of the current study is comprised of 371 adolescents. Participants were on average 14.24 years old (*SD* = 0.55) and 60.38% were female (38.81% male, 0.54% nonbinary, 0.27% missing). They were enrolled in the 9th school grade of college-bound high schools (64.42%), vocational schools (7.82%), or comprehensive schools (27.76%). Most students were ethnic majority members (72.77%, they and their parents were born in Germany), followed by second-generation immigrants (17.78%, at least one parent was born in another country), and first-generation immigrants (4.85%, they were born in another country; missing = 4.60%).

Procedure

This research was approved by the ethics committees of the University of Duisburg-Essen and the Friedrich-Schiller-University Jena (FSV 21/047). We contacted schools via e-mail and telephone. If schools indicated interest, we sent them further information, including informed consent forms for students and their parents. After active informed consents were obtained, research team members visited participating schools and administered a paper-pencil questionnaire during school hours (average duration ~ 60 minutes, T1, September 2021 to January 2022, *n* = 1,206). Participants could indicate with their informed consent, whether they wanted to participate in the daily diary study (T2, January 2022 to February 2022). From those, we randomly invited *n* = 400 participants from which *n* = 371 participated in the daily assessments. During the study, we sent participants daily text message invitations on their smartphones to an online questionnaire with 16 questions on 10 consecutive school days (2 x 5 days without weekends). Participants without own smartphones could borrow one from the research

team. The invitations were sent out after school hours (5 p.m.) followed by up to two reminders at 6 p.m. and 7 p.m. Participants could answer between 5 p.m. and midnight every day. All daily diary participants received a 25€ coupon as compensation upon participation and another 15€ coupon after filling out eight questionnaires. For T3, research team members visited participating schools again and administered a paper-pencil questionnaire during school hours (average duration ~ 60 minutes) between April 2022 and July 2022. All participating classrooms were compensated with 100€ for their class fund and first results were discussed with participants, if schools were interested.

Measures

European Identity – Questionnaire Measures

We assessed European identity with a shortened version of the Utrecht-Management of Identity Commitments Scale (U-MICS; Crocetti et al., 2008) adapted for European identity (Noack & Macek, 2017). The scale included nine items, three for each identity process: commitment (e.g., "I feel a strong connection to Europe", ω = .76/.77/.82, T1/T2/T3), exploration (e.g., "I think often about what it means to be European", ω = .66/.75/.70, T1/T2/T3), and reconsideration (e.g., "My attitudes and thoughts about Europe are changing", ω = .66 /.69/.75, T1/T2/T3). All items were scored on a 5-point Likert scale (1 = *do not agree at all*, 5 = *fully agree*).

European Identity – Daily Diary Measures

We repeatedly assessed participants' daily European identity with adapted items from the U-MICS daily diary scale (Becht, Branje, et al., 2016; Klimstra, Luyckx, et al., 2010). The scale included one item for each identity process: commitment ("I felt European"), exploration ("I often thought about what being European means"), and reconsideration ("My attitudes and thoughts about Europe are currently changing"). All items were scored on a 5-point Likert scale (1 = *do not agree at all*, 5 = *fully agree*).

Fluctuations in Short-Term Identity Processes

To examine the influence of short-term identity processes on mid-term identity processes, we calculated intraperson standard deviations averaged across the daily diary study's ten school days for each European identity process (3 predictors in total,

see also Klimstra, Luyckx, et al., 2010). Higher values indicate higher intraperson fluctuations across the ten school days.

Demographic Variables

We included gender (1 = female, 2 = male; nonbinary removed due to small sample size), federal state (1 = NRW, 2 = Thuringia), and school track (college-bound high school, vocational school, comprehensive school; dummy-coded) as control variables into the models.

Data Analysis

Descriptive statistics, rank-order stability, and profile similarity were computed using IBM SPSS Version 29.0 for windows. We conducted the main analyses in M*plus* 8.10 (Muthén & Muthén, 1998-2017) using the Maximum Likelihood Robust (MLR) estimator (Satorra & Bentler, 2001). For preliminary analysis, we tested whether participants commitment, exploration, and reconsideration on both time-scales showed longitudinal measurement invariance. We compared configural invariant models (i.e., same pattern of free and fixed factor loadings) with metric invariant models (i.e., factor loadings equal across time points), and scalar invariant models (i.e., factor loadings and intercepts equal across time points) (Putnick & Bornstein, 2016). To evaluate model fit, we considered the Comparative Fit Index (CFI) and the Tucker-Lewis Index (TLI; both > .900), and Root Mean Square Error of Approximation together with its 95% confidence interval (RMSEA; < .080; Byrne, 2013). For model comparison, we considered both the χ^2-square difference test and changes in fit indices (ΔCFI ≥ -.010, and ΔRMSEA ≥ .015; Chen, 2007). To study the development of commitment, exploration, and reconsideration across one year and across ten school days, we conducted univariate Latent Growth Curve Models (LGCM)[4] for each identity process on each time-level (mid-term: 3 LGCMs with 3 measurement points; short-term: 3 LGCMs with 10 measurement points). LCGM

[4] In our preregistration, we planned to conduct multivariate LGCM for both time-scales. However, model fit was poor for multivariate LGCM across one school year. Therefore, we chose to model univariate LGCMs for the mid-term time scale, and, to ease comparability across time-scales, the short-term time scale.

provides mean-levels (i.e., intercepts), rates of change (i.e., slopes) and variability of these parameters (Duncan et al., 2006). Across one year, we estimated no-growth, linear, and piecewise growth models. Across the ten consecutive school days, we estimated no-growth, linear, quadratic, and free growth models. Model fit and model comparison were assessed with the same indices as presented above (Byrne, 2013). To assess rank-order stability, we calculated Pearson's test-retest correlations with observed variables (i.e., correlation beween commitment at T1 and T2, at T2 and T3). To assess profile similarity, we calculated q-correlations (e.g., Block, 1971). Coefficients equal to or higher than .30 signify moderate stability (Meeus, 2011), while coefficients equal to higher .60 signify high stability (Mroczek, 2010).

Additionally, we tested the significance of differences in rank-order stability and profile similarity using Fisher *r*-to-*z* transformation to convert correlation coefficients into z-scores and compare them for statistical significance. On the mid-term scale, we compared stabilities of T1-T2 and T2-T3. On the short-term scale, we compared T1-T2 and T9-T10 (both weeks), T1-T2 and T4-T5 (first week), T6-T7 and T9-T10 (second week), and adjacent time points. After model selection, we reran our selected mid-term LGCMs including fluctuations scores as predictors (conditional LGCMs). We additionally controlled for gender, school track and federal state. First, we tested each predictor separately for each process (see supplementary material Table S6). Second, we included all significant predictors in one conditional LGCM for each process. Furthermore, as part of a not preregistered exploratory analysis, we examined, whether identity fluctuations predicted mean-level changes between T2 and T3 using a multivariate multilevel model with cross-level interactions. We did so to focus specifically on the association of identity fluctuations and change alone, thereby reducing model complexity. On the within-level, we defined a latent slope for mean-level changes between T2 to T3 that could vary between participants. On the between-level, we regressed latent slopes of mean-level changes on European identity fluctuation scores.

Results

Descriptive statistics and correlations of all study variables are reported in the supplemental materials (Tables S1 and S2). Configural and metric longitudinal measurement invariance as well as partial scalar invariance were established for

commitment, exploration, and reconsideration. These results are also reported in the supplemental materials (Table S3). M*plus* syntaxes and data to reproduce the study's results are available at the project's OSF page (https://osf.io/b6cy2/?view_only=08719b7725334674b01d8838868bfcd9).

Development of European Identity Across Different Time-scales

Mean-Level Changes. Across the school year, a piecewise growth model fit best for all three identity processes, which was contrary to our expectations (commitment: $\chi 2(2) = 7.334$, CFI = .970, TLI = .955, RMSEA = .085 [.025, .154]; exploration: $\chi 2(2) = 1.257$, CFI = 1, TLI = 1, RMSEA = .000 [.000, .090]; reconsideration: $\chi 2(2) = 0.638$, CFI = 1, TLI = 1, RMSEA = .000 [.000, .073]). As can be seen from Figure 6, all processes showed a significant increase between T1-T2 and a significant decrease between T2-T3, as well as significant variations in initial levels of commitment, exploration, and reconsideration (see Table 3 for detailed results of growth estimates). The results indicate that participants increased in the three processes from the beginning to the mid of the school year and decreased again from the mid to the end of the school year. Furthermore, they varied in their initial values.

Across the ten days, we selected linear growth models for commitment and reconsideration (commitment: $\chi 2(50) = 67.120$, CFI = .986, TLI = .987, RMSEA = .032 [.000, .050]; reconsideration: $\chi 2(50) = 70.941$, CFI = .985, TLI = .986, RMSEA = .035 [.012, .052]) and quadratic growth model for exploration: $\chi 2(46) = 34.823$, CFI = 1, TLI = 1, RMSEA = .000 [.000, .018]. The mean-level changes were overall small and could therefore be interpreted in line with our hypothesis (H2). As can be seen in Table 3 and Figure 7, commitment significantly decreased over time. Exploration first significantly decreased over time, but significantly increased again. We found no significant mean-level change for reconsideration. We found significant variability in initial levels of commitment ($b = 0.531$, $SE = 0.049$, $p < .001$), exploration ($b = 0.646$, $SE = 0.073$, $p < .001$), and reconsideration ($b = 0.699$, $SE = 0.061$, $p < .001$). Furthermore, there was significant variability in slopes for commitment ($b = 0.004$, $SE = 0.001$, $p < .001$), exploration ($b = 0.053$, $SE = 0.014$, $p < .001$; quadratic factor: ($b = 0.001$, $SE = 0.000$, $p < .001$), and reconsideration ($b = 0.005$, $SE = 0.001$, $p < .001$). Overall the results suggest

that participants varied in their initial values of all three processes and varied in steepness or direction of mean-level change.

Table 3

Unstandardized Growth Estimates for Short- and Mid-Term European Identity Development.

	Intercept		Slope T1-T2		Slope T2-T3	
	M(*SE*)	*σ2*(*SE*)	*M*(*SE*)	*σ2 (SE)*	*M*(*SE*)	*σ2*(*SE*)
Mid-Term						
Commit.	2.88***(0.05)	0.42 (0.04)	0.52***(0.05)	/	-0.51***(0.05)	/
Exploration	2.08***(0.04)	0.32 (0.03)	0.38***(0.04)	/	-0.29***(0.04)	/
Recon.	2.35***(0.05)	0.27 (0.03)	0.43***(0.05)	/	-0.46**(0.05)	/
	Intercept		Slope		Curvature	
Short-Term	*M*(*SE*)	*σ2*(*SE*)	*M*(*SE*)	*σ2*(*SE*)	*M*(*SE*)	*σ2*(*SE*)
Commit.	3.80***(0.04)	0.53 (0.05)	-0.02**(0.01)	0.00 (0.00)	/	/
Exploration	2.76***(0.06)	0.65 (0.07)	-0.05*(0.02)	0.05 (0.01)	0.01*(0.00)	0.00 (.00)
Recon.	2.87***(0.05)	0.70 (0.06)	-0.01 (0.01)	0.01 (0.00)	/	/

Note. Commit. = Commitment. Recon. = Reconsideration of commitment. For all mid-term identity LCGMs, residual variances of slopes had to be fixed.
***p < .001, **p < .01, *p < .05

Figure 6

European Identity Development Across one School Year.

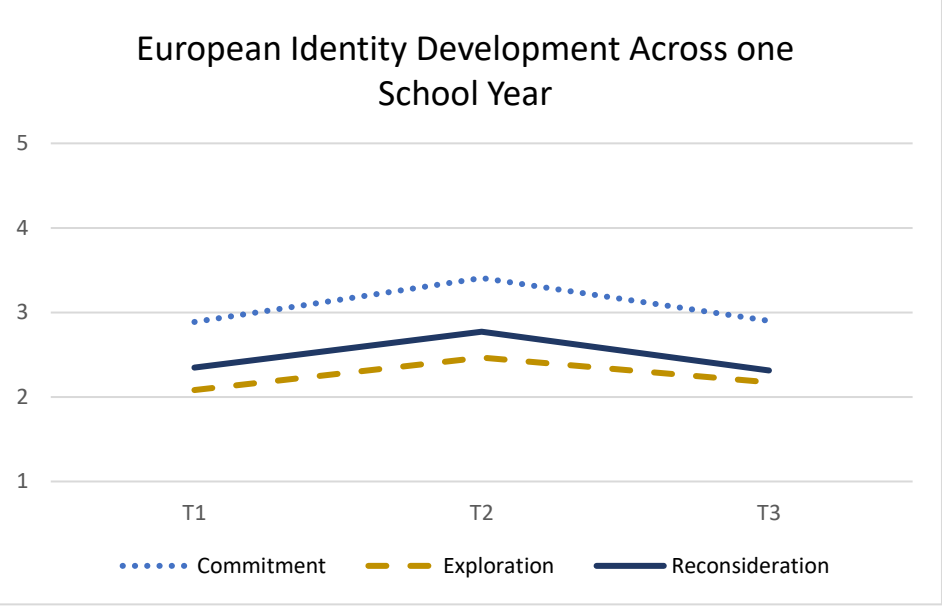
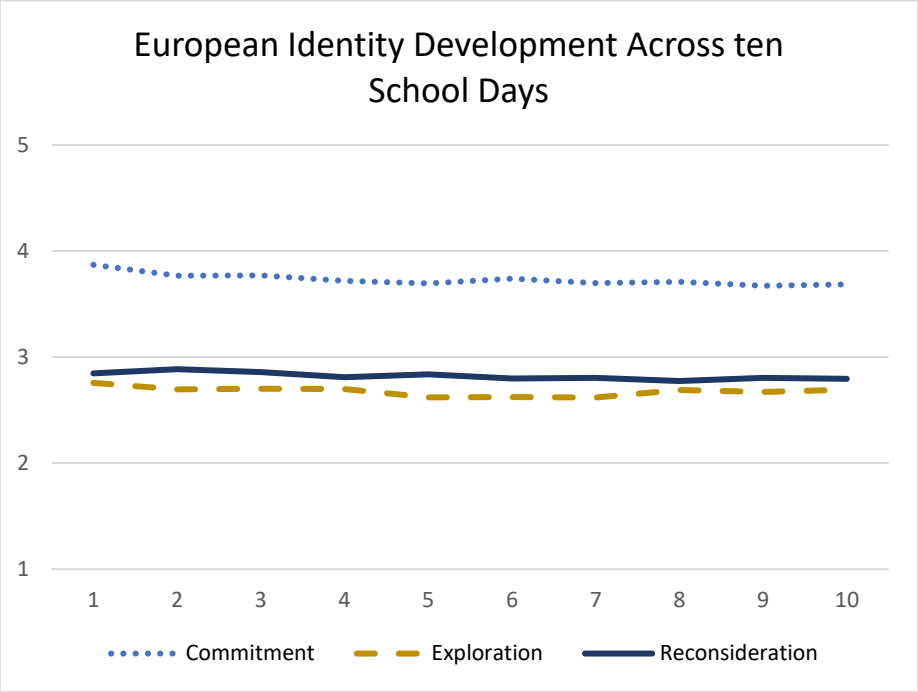


Figure 7

European Identity Development Across ten Consecutive School Days Without the Weekend.



Rank-Order Stability. Across one school year, rank-order stability was moderate to high (see Table 4) and did not differ across time points. This means that e.g., an adolescent high in commitment at the beginning of the school year in comparisons to other adolescents, would still show higher commitment at the end of the school year. Across the ten days, rank-order stability was generally higher (see Table 4) and stability significantly increased from the beginning to the end of the study period (commitment: z = -3.87, p < .001, exploration: z = -4.13, p < .001; reconsideration: z = -4.40, p < .001). Results were in line with our hypothesis (H3). Stability increased especially during the first week (T1-T5) and did not significantly increase during the second week. Comparisons of adjacent correlations did not show any difference in strength except for T7-T8 to T8-T9 stabilities, of which the latter where significantly higher for all three processes (commitment: z = -2.03, p = .042, exploration: z = -2.61, p = .009; reconsideration: z = -2.25, p = .024). This implies that the rank-order of participants, i.e., their rank in regard to commitment, became more stable across the ten days.

Profile Similarity. Across one school year, profile similarity was moderately high with no significant differences in profile similarity across time points (see Table 4), i.e., a participant that scored high on commitment, moderate on exploration, and low on reconsideration at the beginning of the school year, showed the same intra-individual rank-order at the end of the school year. Across the ten days, profile similarity was high across all time points (see Table 4). Results were in line with our hypothesis. Profile similarity significantly increased from the beginning to the end of the study period (z = - 2.98, p = .003), especially during the first week (T1-T5) and did not significantly increase during the second week. Adjacent correlations did not differ in strength. This implies that the within-person configuration of commitment, exploration, and reconsideration became more stable across the ten days.

Table 4

Rank-Order Stability and Profile Similarity for Short- and Mid-Term Development.

Short-Term									Mid-Term	
T1-T2	T2-T3	T3-T4	T4-T5	T5-T6	T6-T7	T7-T8	T8-T9	T9-T10	T1-T2	T2-T3
European identity commitment										
.51	.60	.64	.70	.69	.61	.64	.72	.69	.54	.50
European identity exploration										
.51	.58	.64	.70	.69	.61	.64	.74	.70	.50	.45
European identity reconsideration										
.51	.60	.64	.70	.69	.61	.63	.72	.71	.39	.41
Profile Similarity										
.72	.76	.73	.79	.81	.82	.83	.80	.81	.55	.50

Note. T = Time.

All correlations were significant at $p < .001$

Interaction Between European Identity Processes at Short- and Mid-Term Time scale

Confirmatory Analysis. Daily fluctuations of commitment were negatively and significantly associated with initial values of commitment (b = - 0.47, p = .004). This indicates that participants with lower levels of commitment at the beginning of the study showed less stable commitment during the daily diary period. Fluctuations of exploration and reconsideration were not significantly associated with growth

parameters (see Table 5). Regarding our control variables, we found that participants identifying as female showed significant lower slopes for commitment from T1 to T2 compared to male participants (b = -0.20, p = .040), meaning that their increase in commitment was lower compared to the increase of participants identifying as male. For reconsideration, participants in vocational schools showed a significant higher increase from T1 to T2 (b = 0.62, p < .001) and significant lower decrease from T2 to T3 (b = -0.44, p = .014) compared to participants in comprehensive schools and college-bound high schools. This means that the former showed lower levels of reconsideration at T1, showed a higher increase between T1 and T2 and higher decrease between T2 and T3 than the latter. Regarding reconsideration, participants from Thuringia showed significant higher initial levels at T1 (b = 0.25, p = .003) compared to participants from NRW.

Table 5

Conditional LGCMs with Significant Predictors Only and Unstandardized Estimated Parameters.

	European identity commitment			European identity exploration			European identity reconsideration		
	Intercept	Slope T1-T2	Slope T2-T3	Intercept	Slope T1-T2	Slope T2-T3	Intercept	Slope T1-T2	Slope T2-T3
Fluc. com.	-0.47**	-0.01	-0.20	-0.27	0.13	0.08	/	/	/
Gender									
Female	0.08	-0.20*	-0.01	0.11	-0.14	0.06	/	/	/
School track									
College-bound	/	/	/	/	/	/	-0.02	0.04	0.02
Vocational	/	/	/	/	/	/	-0.33	0.62***	-0.44*
Federal state	0.16	-0.01	-0.14	/	/	/	0.25**	-0.14	-0.15

Note. T = Time. References are male and comprehensive schools. Participants identifying as nonbinary were removed from analysis due to small sample size (n = 2). Non-significant univariate predictors are marked with /.
European identity commitment: $\chi^2(2) = 4.36$, CFI = 0.99, TLI = 0.94, RMSEA = 0.06, [0.00, 0.14], SRMR = 0.04.
European identity exploration: $\chi^2(2) = 1.49$, CFI = 1, TLI = 1, RMSEA = 0.00, [0.00, 0.10], SRMR = 0.03.
European identity reconsideration: $\chi^2(2) = 0.64$, CFI = 1, TLI = 1, RMSEA = 0, [0.00; 0.08], SRMR = 0.01.
*** p < .001, **p < .01, *p < .001

Exploratory Analysis. Fluctuations in commitment were negatively associated with mean-level change of commitment (b = -0.25, 95% Credible Interval [-0.36, -0.13]), meaning that participants with higher short-term fluctuations in identity commitment had a higher decrease in commitment from T2 to T3. No other associations were significant. Tables and information on the model can be found in the supplemental material 1, Table A1.

Discussion

Adolescence is a crucial period for identity development across different domains. To better understand how adolescents develop a European identity, we examined (1) developmental trajectories on the mid-term, (2) and short-term time scale, and (3) whether short-term processes are associated with those developmental trajectories. The results contribute to our understanding of European identity development and highlight the importance of considering different time-scales and domains when examining identity development.

European Identity Development Across Different Time-scales

In regard to mid-term development (Aim 1), we found a significant increase of all three identity processes from the beginning to the middle of the school year and a significant decrease from the middle to the end of the school year. This growth pattern was contrary to our assumptions (H1). We expected either gradual identity maturation or little change during the observation period as suggested by research focusing on other identity domains (e.g., Meeus, 2011, 2019) or stability of European identity statuses across time (Jugert et al., 2021).

One explanation could be that adolescents did not engage in identity formation for their European identity yet, and were therefore susceptible to external influences (e.g., school curricula; Kroger & Marcia, 2011). In the study's period, adolescents learned for the first time about Europe- and EU-related topics in school. This could have sparked interest, including exploration of meanings of being European and reconsideration of what has been known. Further, German school curricula aim to foster a European identity and positive attitudes towards Europe (e.g., QUA-LiS NRW, 2022; THILLM, 2022), which might have increased commitment. The decrease in all three identity processes could be interpreted as reduced interest after the initial spark. Future studies could collect daily data on identity processes and experiences in school (e.g., today's topics) to examine the influence of curricular factors on identity formation. The specific macro-context might also have contributed to our unexpected growth patterns, which could hint at the importance of considering distal contextual factors (e.g., societal events; Bronfenbrenner & Morris, 2007), when studying development (see also Bobba et al., 2023; Gniewosz et al., 2013).

The start of the Russian-Ukrainian war took place shortly after our mid-school year assessment and was a salient issue in social and political discourse. A highly discussed war on the European continent might have led to feelings of uncertainty and threat for German adolescents. During times of uncertainty, individuals are prompted to engage in exploration and even reconsideration (Erikson, 1968). Perceptions of threat towards perceived in-group members can additionally increase commitment (e.g., higher European Union identity during Russia's invasion of Crimea 2014; Gehring, 2022). The following decline from middle to end of the school year might be indicative of the reduced salience and a return to more usual levels of European identity processes. Since we did not include any explicit measures for contextual factors (e.g., news consumption and consumed content, number of articles or tweets in the survey period), our interpretation, however, must remain speculative. We encourage future studies to collect data across longer periods of time to capture identity development across different stages of adolescence and include measures of socio-political conditions to control for macro-contextual effects.

In regard to short-term development (Aim 2), we found a significant decrease in commitment, significant decrease but later increase in exploration, and no significant change for reconsideration. All changes, however, were small in size and could be interpreted as negligible, which would be in line with our expectations (H2) and align with previous research examining short-term identity development (Becht, Nelemans, et al., 2016). Hence, identity formation on the short-term time scale could be interpreted as a stable process (McNeish & Hamaker, 2020).

Regarding both indicators of stability, we found for both time-scales moderate to high rank-order stability and profile similarity with generally higher stabilities for the short-term time scale. This is in line with our hypotheses 3 and 4. Further, this finding is in line with previous research on personal identity (rank-order stability across 6 months: .38 to .74; one year: .48 to .54, for a review see Meeus, 2011), ethnic-racial identity (rank-order stability across 6 months: .51 to .70, one year: .29 to .59; for a review see Meeus, 2011), and educational and interpersonal identity (rank-order stability from early to middle adolescence: .37 to .39; profile similarity from early to middle adolescence: .73; Klimstra, Hale, et al., 2010). European identity formation, hence, can

be defined as a rather stable process similar to identity formation in other domains. The higher stability for the short-term time scale can be explained by the far shorter time lag between measurements. Stability is generally inversely related to the time lag between assessments (Crocetti et al., 2021), resulting in higher stabilities across days than across months. It should be noted that rank-order stability and profile similarity increased from the first to the last measurement occasion, mostly within the first week. While one explanation could be that we captured the solidification of identity processes across time, we cannot rule out that the increasing stabilities might also reflect methodological artifacts (e.g., memory effects). Longer observation periods or repeated short-term assessments are needed to disentangle memory effects from actual short-term developmental processes.

Interaction of Short- and Mid-Term Development

With regard to Aim 3, we found that lower levels of commitment at the beginning of the school year were associated with higher short-term fluctuations in commitment half a year later. Our findings partially support the assumption of identity theory that short-term processes are associated with long-term development (H5; Bosma & Kunnen, 2001; Lichtwarck-Aschoff et al., 2008). Further, they indicate that adolescents with stable commitments are likely to maintain strong commitments over time (Klimstra & Schwab, 2021; Lichtwarck-Aschoff et al., 2008), i.e., show less fluctuations in commitment. On the aggregated time-level, identity includes adolescents' reflections and abstract thoughts on their lives. If these provide a feeling of sameness and continuity (Erikson, 1950), adolescents' might be able to maintain firm commitments across time and situations.

That a firm sense of identity is associated with long-term stability in commitment has also been found in other studies (for educational and interpersonal identity; Becht, 2017, Klimstra, 2010). However, in those studies fluctuations in reconsideration (instead of commitment) were significantly associated with change in commitment over time. The authors argued that fluctuations in reconsideration could signify a moratorium-like state, in which adolescents might still hold to current commitments and at the same time search for new ones. An explanation for the difference could be that our adolescents still had to choose whether to commit to a European identity and did not

have a European identity already that they could have reconsidered. This explanation could be tested in future studies by including identity statuses, when examining identity development.

In our exploratory analysis, we furthermore found that higher fluctuations of commitment were associated with a decrease in commitment between the middle and the end of the school year. Feelings of instability regarding one's European identity might reflect a moratorium-like state, in which adolescents reconsider their current conceptions on European identity and explore other options (Klimstra & Schwab, 2021). Accordingly, their commitment would first decrease and maybe at a later point in time (e.g., a year later) increase again, if adolescents made a new commitment. Other findings generally support the idea that stable daily processes are associated with maintaining identity commitments (Lichtwarck-Aschoff et al., 2008). For example, Becht et al. (2021) found that adolescents with low daily commitment levels as well as fluctuations in daily reconsideration were more likely to show lower levels of identity commitment in emerging adulthood than others. These associations were found for the interpersonal and educational domain.

We found no other significant association between short- and mid-term measures. Drawing on other studies with daily measures of identity processes (e.g., Becht et al., 2017; Klimstra, Luyckx, et al., 2010), we expected at least an association between fluctuations of reconsideration and levels of commitment at a later time point. As mentioned above, both commitment and reconsideration are part of the identity formation cycle. Arguably instability in one of them could lead to change in commitment across a longer period of time. It could be that the importance of the specific process of identity formation varies depending on the identity domain. Alternatively, the variance in fluctuations in reconsideration might have been too small to be detected. Future studies should continue examining identity formation in other domains to pinpoint whether different daily processes are more relevant for developmental change in some domains than others.

Limitations and Future Directions

Our results provide first insights into the development of an understudied identity domain and highlight the importance to reflect upon assessed time-scales and to

examine different time-scales conjointly to get a comprehensive understanding of identity development (Klimstra & Schwab, 2021; Lichtwarck-Aschoff et al., 2008). Despite the study's strengths, including its longitudinal design for two time-levels, use of established scales, and assessment of between- and within-person variance, it has some limitations. First, the three-wave design of the mid-term time scale did not allow us to test non-linear trajectories other than piecewise growth. Future studies should include more waves of data collection, preferably across longer periods of time to better capture developmental changes. This would also allow to examine, European identity throughout adolescence or emerging adulthood, in which a European identity might become more relevant. We also encourage researchers to examine different time-scales in one model, e.g., with multilevel SEM (Brose et al., 2022). Second, we collected data only in Germany. Considering that socio-political context can influence development, future studies could compare European identity development across different national contexts. As an extension, it could be interesting to examine whether contextual factors influence adolescents' European identity development differently depending on their conceptions of what it means to be European (e.g., civic, ethnic, personal). Thereby, we could asses, what exactly changes across time.

Conclusion

Taken together, our results highlight the importance of examining different time-scales, as well as different identity domains for comprehensively understanding identity development in adolescence. Furthermore, short-term processes are likely associated with long-term development. On the one hand, high levels of commitment were associated with less fluctuation in commitment half a year later. On the other hand, higher fluctuations in commitment were associated with lower commitment levels half a year later. These findings imply that strong commitments provide a feeling of sameness and continuity across time and situations, and that wavering commitments might relate to a loss of such a feeling.

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7.2. Study 2

Mayer, A.-M., Neubauer, A. B., & Jugert, P. (2023). What is in the news today? How media-related affect shapes adolescents' stance towards the EU. *Journal of Adolescence*, 95, 1553–1563. https://doi.org/10.1002/jad.12225

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Abstract:

Adolescence is regarded as a formative period for political development. One important developmental context is media. Negatively perceived political media content can foster populistic attitudes, which in turn decreases support of political institutions, such as the EU. Because media valence effects are short-lived, this study examined intra-individual associations of media valence with European identity commitment and affect towards the EU, as well as indirect effects via populistic attitudes across 10 days. We implemented a 10-day daily diary study with 371 adolescents from Germany (January to February 2022). Adolescents were on average 14.24 years old (*SD* = 0.55) and 60.4% were female. We estimated the hypothesized associations using multilevel structural equation models and dynamic structural equation models. We found significant associations between populistic attitudes and negative affect towards the EU on the same day and the next day. The lagged effect became non-significant, when including both same day and lagged effects into one model. Populistic attitudes were not significantly associated with European identity commitment within days or across days. Negative media content was associated with higher populistic attitudes on the same day and indirectly associated with negative affect towards the EU (*b* = -0.01, 95% CI [-0.010, -0.004]). Negatively perceived political media content was associated with higher populistic attitudes and more negative affect towards the EU concurrently. Our results imply that media plays an important role for adolescents' development.

Keywords: Daily diary, political socialisation, media effect, identity commitment

Introduction

Adolescence is believed to be a formative period for the development of stable political orientations (*Impressionable Years hypothesis,* Sears & Levy, 2003), as adolescents reach a stage, in which they are cognitively able to focus on social and political questions, form opinions, and develop a political identity. These political orientations include opinions, behaviors etc. for national and supranational politics (e.g. European Union). While a strong political identity is generally associated with lower levels of political skepticism and discontent, it is furthermore relevant for adolescents' support for the EU (Weßels, 2007). Considering the general rise of populistic and Eurosceptic attitudes within the EU (Hameleers et al., 2017; Mazzoleni, 2008), and adolescents' susceptibility for populistic messages (Sinczuch et al., 2021), this study aims to contribute to our understanding of political socialization of adolescents through media and how media affects EU support-related outcomes.

Media is a very important social context for adolescents' political socialization and acquisition of political identities (Eckstein, 2019). Adolescents are at the same time active searchers (e.g., deciding to read news), as well as passive consumers (e.g., reception of news on one's time line) and their views on political questions can be influenced by media content and tone of that content (Schuck, 2017). It is argued that consuming media can lead to more political engagement through cognitive mobilization (Norris, 2000), while it can also increase general anti-establishment feelings, political disaffection and alienation (Mazzoleni, 2008).

Media effects are likely short-lived (McKinney & Chattopadhyay, 2007) and need closely spaced observations to be measured adequately, as for example in *intensive longitudinal designs* (ILDs, e.g., experience sampling method, daily diaries). Previous studies focusing on media effects on outcomes of political socialization have mostly relied on panel and longitudinal designs (e.g. McKinney et al., 2014; Vreese & Boomgaarden, 2006), thereby overlooking potential day-to-day processes that might eventually lead to changes in attitudes or development over a longer time period. We aim to address this gap by examining these day-to-day processes, and shed some light on differences between adolescents in within-person political socialization processes. To do so, we will examine the within-person dynamics among media valence, populistic

attitudes, negative affect towards the EU, and European identity commitment in a ten-day daily diary study. This approach allows us to examine fluctuations and systematic couplings in these constructs on a short (day-to-day level) timescale and to capture these constructs closer in time to when they happen in real life.

Media as Socialization Context

Individuals develop within social contexts (Bronfenbrenner, 1981). Especially relevant for political development are family, peers, school or media (Eckstein, 2019; Greenstein, 1965). When developing opinions about the EU and Europe, media is probably one of the main contexts outside school in which adolescents are confronted with the two (Norris, 2000). EU and Europe related topics are rarely relevant for everyday life, and also meeting other Europeans can be quite challenging outside vacation times or (social) media. Following agenda-setting theories (McCombs & Valenzuela, 2021), adolescents are to some extent influenced by media's agenda setting independent of whether they consume political content actively or passively; although media cannot determine what and how people think about certain topics, they certainly influence what topics are seen as important and how people feel about those topics (e.g. Cappella & Jamieson, 2010; Schuck, 2017; Vreese & Boomgaarden, 2006).

In explaining how media affects political development, two paths can be differentiated. The first path is assumed to be a virtuous circle (Norris, 2000), in which media consumption has a positive impact on political knowledge, engagement and trust. The second path is a vicious circle (*Spiral of Cynicism Hypothesis,* Cappella & Jamieson, 2010), in which media consumption fuels political apathy and cynicism. Both paths are assumed to be self-reinforcing, and might be dependent on tonality or valence of reported content (Schuck, 2017). Media valence can have short-term behavioral effects (e.g., on vote choice), but can also negatively affect trust in politicians in the long run (Kleinnijenhuis et al., 2006).

Media, Populism and the EU

Research on adults and adolescents aged 16 and older has shown that negative media valence is positively associated with political orientations, such as political alienation, distrust and populistic attitudes (Cappella & Jamieson, 2010; Galpin & Trenz, 2018;

Vreese, 2007). These are in turn detrimental for the support of political institutions (e.g. EU) as well as its proxies (e.g. European identity commitment, affect towards the EU).

EU support can be affected by those political orientations in two ways: first, these political orientations tend to extrapolate from lower (national) to higher (EU) order political institutions, as for instance distrust in one's own government extrapolates to distrust towards the EU (Armingeon & Ceka, 2014; Ruelens & Nicaise, 2020). Arguably, populistic attitudes towards one's own government could also increase populistic attitudes towards higher-order political institutions, such as the EU. Second, populism and Euroscepticism tend to coincide in contemporary Europe (Rooduijn & van Kessel, 2019; Vreese, 2007).

Negative political orientations can affect EU support as well as proxies of EU support, such as European identity commitment (Weßels, 2007) and affect towards the EU. European identity commitment is not only strongly associated with EU support, but also theorized as being relevant for the long-term stability of positive attitudes towards the EU and European integration (Habermas, 2014; Risse, 2010). Even though European identity commitment tends to be relatively stable and might even act as a buffer against populism (Hameleers et al., 2017; Weßels, 2007), it eventually deteriorates, if populistic attitudes are experienced over a longer period of time (Weßels, 2007). Affect towards the EU is associated with EU support and arguably fluctuates more than European identity commitment. Populistic attitudes likely have an impact on those fluctuations, such that populistic attitudes generate or amplify existing negative emotions, like anger and fear (Nguyen et al., 2022). Those negative emotions are negatively associated with EU support (van Spanje & Vreese, 2011; Verbalyte & Scheve, 2018).

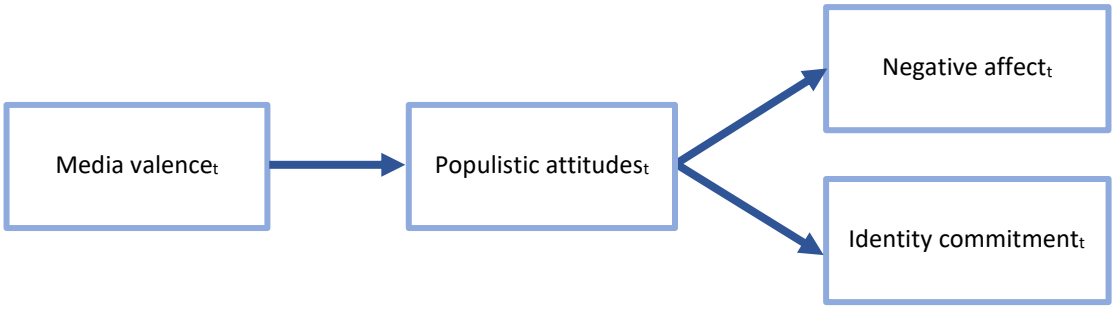
The Present Study

We examine daily effects of media valence on two proxies of EU support, European identity commitment and negative affect towards the EU, mediated by daily populistic attitudes in a sample of adolescents. Specifically, we hypothesize that negative perceived media valence will positively predict populistic attitudes and indirectly negatively predict European identity commitment on the same day and next day at the within-person level. We also hypothesize that negative perceived media valence will

positively predict populistic attitudes and indirectly positively predict negative emotions towards the EU on the same day and next day at the within-person level (see Figure 8).

Figure 8

Media Valence is Assumed to be Indirectly Associated to Identity Commitment and Negative Affect via Populistic Attitudes. We Included Effects Across Days (t-1 to t) When Testing the Associations Between Mediator (Populistic Attitudes) and Both Outcomes. The Mediation Model Included Only Same Day Effects.



Hence, we predict that on days on which adolescents perceive more negative media valence than they usually do, they will report higher than usual populistic attitudes and in turn, higher negative emotions towards the EU and lower European identity commitment than they usually do. We assume media effects to be mediated by populistic attitudes as negative media valence can foster political alienation and cynicism (Manucci, 2017), thus increase individual's populistic attitudes. Evidence for the assumed associations has been found for adult or late adolescence samples (usually 16 to 25). We want to examine these associations with younger adolescents (age around 14), because this group has been found to have developed first political orientations (Torney-Purta, 2002). Furthermore, we want to examine these associations using short-term, intensive longitudinal data. By assessing the constructs of interest daily across ten consecutive days we can examine whether there is a systematic coupling between the ups and downs of media use and political attitudes in a random snapshot of adolescents' everyday lives (Bolger et al., 2003). This methodology has rarely been used in studies focusing on media effects on outcomes of political socialisation, yet it has potential to further our understanding of political socialisation in adolescence and the specific influence of media-related affect.

Material and Methods

Study hypotheses and statistical analysis were registered after data collection and partial data access using a template for experience sampling methodology (ESM) research (Kirtley et al., 2022) (https://osf.io/huqc9/?view_only=dbaf62b7a6c8490292ee34b5a983fd4d). Prior knowledge of the data can be retrieved from the section "Sampling Plan" and included a qualitative assessment of political content, frequencies of days on which political content was seen, heard or listened to and six random individual trajectory plots for European identity commitment.

Participants

The present study was part of a larger study (*JUROP*) with *n* = 1,206 (51.7% female, 46.8% male, 1.5% diverse; M_{age} = 14.39, SD_{age} = 0.02) adolescents that aimed to assess behaviours and attitudes towards EU and Europe and factors that influenced those. *The Study* stretched over one school year (2021/2022) and included a longitudinal paper-pencil questionnaire with two measurement points and a daily diary study in between the two measurement points. A random sample of *n* = 400 out of the total of 1,206 adolescents of *JUROP* was invited to participate in a daily diary study. Out of those, *n* = 371 adolescents agreed to participate and constitute the sample used for the present analyses. Demographic data was obtained from the longitudinal questionnaire. All other measures reported in the present work were collected in the daily diary part of *JUROP*. Students who did not have access to an own smartphone could borrow one from the research team. Participants[5] were on average 14.24 years old (*SD* = 0.55) and 60.4% were female (38.8% male, 0.5% diverse). Most students were born in Germany (90.8%) and were enrolled in college-bound high schools (64.2%), vocational schools (7.8%) or comprehensive schools (27.8%)[6]. The majority of our students were ethnic majority

[5] Students of the complete sample were on average 14.39 years old (*SD* = 0.64) and 51.7% identified as female (46.8% male, 1.5% divers). Most students were born in Germany (86.4%), and were enrolled in college-bound high schools (58.3%), vocational schools (16.9%) and comprehensive schools (25.4%). The majority of our students were ethnic majority members (75.5%), followed by second-generation immigrants (17.6%) and first-generation-immigrants (6.7%).

[6] School types in Germany include college-bound tracks (e.g. college-bound high school), vocational tracks (e.g. vocational schools) or schools combining vocational and college-bound tracks (e.g. comprehensive school). The first school type ranges from grade 5 to 12 (13 in some federal states), while the other two range from grade 5 to 10 (with variations between federal states).

members (72.8%), followed by second-generation immigrants (17.8%) and first-generation immigrants (4.9%, missings = 4.5%).

Procedure

Participants were recruited via their respective schools (e-mails, telephone and class visits). Participating students came from two federal states, Thuringia (Eastern Germany), and North-Rhine-Westphalia (Western Germany) and visited schools from different academic tracks (college-bound high schools, vocational schools or comprehensive schools). During 10 consecutive school days (first cohort: January 24, 2022, until February 4, 2022, second cohort: January 31, 2022, until February 11, 2022) participants received daily text message invitations on their smartphones to an online questionnaire. The invitations were sent out at 5 p.m. (after school hours) and up to two reminders were sent at 6 p.m. and 7 p.m. Participants could answer between 5 p.m. and midnight every day. In every daily questionnaire, participants answered the same 16 questions. The compliance rate was adequate, with 2,942 out of 3,710 (371 adolescents x 10 days) questionnaires completed, corresponding to a compliance rate of 79.3%.

Before the daily diary study, participants had to complete the paper-pencil questionnaire in which we included demographic information and baseline measures. Participants received a 25€ coupon after starting and another 15€ coupon after completing their questionnaire on a minimum of eight days as compensation for participating in the daily diary study.

Measures

Media Valence of Political Content

Students were asked on each day via an open-ended question what political content they had seen, heard or read about that they found particularly interesting (“We are interested in content that you have seen, read or listened to in different media (e.g., TV, Instagram, Twitter, news magazines). Which political content was particularly interesting for you today?”). They then rated this specific content on a five-point Likert scale ranging from -2 (*very negative*) to 2 (*very positive*). Valence ratings on days without political content were recoded as zero. A value of zero therefore means either neutral or no political content on a given day. In general, all open answers were considered to

be political. To assess, if the task was understood correctly, two research team members screened all open responses consensually and discussed potential unpolitical content. If both team members judged a content as unpolitical (e.g. “Gaming”, “Isaac Newton is reborn”, “Germany’s Next Top Model”), it was recoded as not political. This was the case for 16 out of 1428 events (1.1%). Disagreement was resolved by discussion and if it could not be resolved, the initial report by the participants, who reported the event as a political event, was retained (5 out of 1428 events in total: 0.4%).

Populistic Attitudes

Daily populistic attitudes were measured with three items adapted from Schulz et al. (2018) (“When I think back to today’s political events, then I think that… 1.) politicians have lost contact with their citizenry, 2.) politicians should listen more to their citizenry, 3.) the citizenry should be asked for political decisions”) and one newly created item (“4.) Today I was mad at politicians”). We created the fourth item to balance the two dimensions *anti-elitism* (Item 1 and 4) and *popular sovereignty* (Item 2 and 3) from Schulz et al.’s scale. All items were rated on a five-point Likert scale ranging from 1 (*do not agree at all*) to 5 (*fully agree*). The within-person internal consistency was estimated as ω_{within} = .50 and the internal consistency on the between-level was estimated as $\omega_{between}$ = .78.

Negative Affect towards the EU

Daily negative affect towards the EU was measured with three items: anger (German: *Wut*), fear (*Angst*) and rejection (*Ablehnung*). Participants rated on a five-point Likert scale from 1 (*do not agree at all*) to 5 (*fully agree*) to what extent they had felt these emotions towards the EU today. The within-person internal consistency was estimated as ω_{within} = .44 and the internal consistency on the between-level was estimated as $\omega_{between}$ = .87.

European Identity Commitment

Participants’ daily European identity commitment was assessed with a single item from the U-MICS daily diary scale (Becht, Branje, et al., 2016; Klimstra, Luyckx, et al., 2010) (“We want to ask you, what your current feelings towards the EU and Europe are. How much do you agree with the following statements? 1.) I feel European”).

Participants could rate their level of identification on a five-point Likert scale from 1 (*do not agree at all*) to 5 (*fully agree*).

Data Preparation and Data Analysis

Before our analysis, we checked whether there was a linear time trend in any of the four study variables across the ten days. This was done to ensure that the stationary assumption of the statistical model was met (see McNeish & Hamaker, 2020). To that end, we conducted multilevel regression models with day as a predictor for media valence, populistic attitudes, European identity commitment and negative affect towards the EU in M*plus* 8.8 (Muthén & Muthén, 1998-2017).

For our main analysis, we calculated both multilevel structural equation models (same day effects) and two-level dynamic structural equation models (lagged effects, and same day & lagged effects) (DSEM; McNeish & Hamaker, 2020) separately for both outcomes (negative affect towards the EU and European identity commitment) in M*plus* 8.8 (Muthén & Muthén, 1998-2017). Both types of modelling allow accounting for the nested data structure with daily assessments on Level 1 nested within adolescents on Level 2.[7] Models included 1.) same-day effects models, 2.) lagged effects models, 3.) same-day and lagged effects models and 4.) same day mediation models. In all models we began with a model assuming fixed effects of time-varying predictors only, then included random effects for regression coefficients, and then added random residual variances (location-scale models). Including random effects for regression means that effect sizes can vary across participants, that is, adolescents vary in strength and direction of the assumed associations. Location-scale models allow the residual variances to differ across participants, meaning that we can account for differences in within-person variability across participants (McNeish & Hamaker, 2020). Between-person variation in residual variances indicates that the amount of day-to-day fluctuation in the variables that is not explained by all predictors in the model differs between adolescents.

[7] DSEM is currently restricted to two-level models and therefore we did not add adolescents' classes or schools as an additional level of nesting. Notably, intra-class correlations of our variables on both the class-level and the school-level were overall low (estimates between .00 and .07), suggesting that there is only limited information on the class or school level in the data collected.

The hypothesized associations were only modelled on the within-level. On the between level, we estimated fully saturated models, meaning that random intercepts and random slopes were estimated as being correlated without specifying any direction of the associations. In case of convergence issues, we dropped the correlations among random slopes from the model. We only tested for mediation, if significant associations between mediator (populistic attitudes) and outcome (negative affect towards the EU, European identity commitment) were found. For a description of all estimated models, please see the supplemental material A.

We estimated all models using the Bayesian estimator in M*plus* with two Markov Chain Monte Carlo (MCMC) chains and a burn-in period of 50%. The use of Bayesian MCMC is required, because DSEM are sufficiently complex that traditional frequentist estimators like maximum likelihood (ML) often encounter convergence issues or are intractable (Muthèn & Asparouhov, 2012). We started with 2,000 iterations keeping only every 5th iteration (thinning factor = 5) (for more detailed explanation on the model specifications and Bayesian estimation in M*plus* please see Hamaker et al., 2018).

If the model did not successfully converge, we gradually increased thinning factor or the number of iterations. To check for local solutions, we doubled the number of iterations per model and compared the results of the two models. If the two models differed, we doubled again. Convergence was inspected by using the Potential Scale Reduction Factor (PSR < 1.1) and by inspecting Bayesian parameter trace plots and autocorrelation plots. Parameters whose 95% credible interval did not cover zero were interpreted as statistically significantly different from zero. For the M*plus* syntaxes of our models, please see supplemental material B.

Missing Data

To account for unequal time intervals and design-based missingness (no measurements on weekend days), days were coded with respect to their actual differences (i.e., the first Friday is coded as day 5, the second Monday as day 8). Design based and other missing data were estimated by a Kalman filter approach, as implemented per default in M*plus* (see Hamaker & Grasman, 2012). Broadly speaking, the Kalman filter makes a prediction of the next observation based on all information available up to the current observation. The prediction is compared to the actual

observation and updated. If there is no observation, the Kalman filter continues with the prediction it had for the next observation and updates it with the next observation.

Results

Table 6 shows descriptive statistics for and within-correlations among media valence, populistic attitudes, European identity commitment and negative affect towards the EU. Intraclass correlations (ICC) were high, except for media valence, meaning that populistic attitudes, European identity commitment and negative affect towards the EU were highly correlated from day to day within participants.

Table 6

Within- and Between-Descriptive Statistics for Predictor, Mediator, and Outcomes.

	n	Media Valence	Populistic Attitudes	European Identity Commitment	Negative Affect towards the EU
	371	-0.21 (SD_{within} = 0.79, $SD_{between}$ = 0.45)	3.31 (SD_{within} = 0.38, $SD_{between}$ = 0.55)	3.73 (SD_{within} = 0.48, $SD_{between}$ = 0.74)	2.30 (SD_{within} = 0.39, $SD_{between}$ = 0.67)
		Correlations			
Populistic attitudes		-0.13			
European identity commitment		-0.03	0.04		
Negative affect towards the EU		-0.07	0.12	-0.04	
ICC		.24	.68	.70	.75

Note: The first row depicts sample means of person means (SD are provided in parentheses). Scale for media valence: -2 (*very negative*) to 2 (*very positive*), scale for others: 1 (*fully disagree*) to 5 (*fully agree*). Means were calculated on the basis of person means per variable. Within-person correlations for the variables are given (ICC).

Confirmatory Analysis

Multilevel regressions with study day as predictor of media valence, populistic attitudes, European identity commitment and negative affect towards the EU yielded no significant linear time trends (R^2 < 1% for all).

Next, we tested whether populistic attitudes on the previous day or same day is associated with European identity commitment or negative affect towards the EU. If the association between populistic attitudes (t or t-1) and an outcome (t) was significant, we

calculated a same day mediation model for that outcome. Regarding same day effects, the most complex and still converging model was a random effects models with a random slope. European identity commitment was not associated with populistic attitudes on the same day (*b* = 0.03, 95% CI [-0.03, 0.09], R^2 = .05), but negative affect towards the EU was significantly positively associated with populistic attitudes on the same day (*b* = 0.13, 95% CI [0.07, 0.18], R^2 = .06). Participants showed higher negative affect towards the EU on days when they reported higher populistic attitudes (see Table 7).

Table 7

Same Day Effects Between Populistic Attitudes and Outcomes.

	European Identity Commitment		Negative Affect towards the EU	
Parameter	Posterior Median	95% credible interval	Posterior Median	95% credible interval
Fixed Effect				
pop. att. t → outcome t	0.03 (0.02)	[-0.03, 0.09] (-0.02, 0.07)	0.13* (0.11*)	[0.07, 0.18] (0.07, 0.15)
Random Variance				
pop. att. t → outcome t	0.09	[0.05, 0.14]	0.06	[0.04, 0.10]
Res. Var.	0.22	[0.21, 0.24]	0.14	[0.14, 0.15]

Note. Table depicts unstandardized coefficients (standardized coefficients in parentheses), pop. att. = populistic attitudes, Res. Var. = residual variance, * = non-null credible interval.

Regarding lagged effects, the most complex and still converging model was a random effects model with (four) random slopes. All autoregressive effects were significant. European identity commitment on t-1 was significantly and positively associated with European identity commitment on day t (*b* = 0.31, 95% CI [0.24, 0.38]). We found similar autoregressive effects for negative affect towards the EU (*b* = 0.33, 95% CI [0.26, 0.40]) and populistic attitudes (Europ. comm. model: *b* = 0.32, 95% CI [0.26, 0.39], negative affect model: *b* = 0.35, 95% CI [0.28, 0.41]).

Populistic attitudes on t-1 were not associated with European identity commitment on t (*b* = 0.07, 95% CI [-0.02, 0.15]). However, European identity commitment on t-1 was significantly associated with populistic attitudes on t (*b* = -0.05, 95% CI [-0.102; -0.004]). Higher European identity commitment on the previous day was associated with lower populistic attitudes on the current day. Populistic attitudes on t-1 were significantly

positively associated with negative affect towards the EU on t (*b* = 0.08, 95% CI [0.01, 0.16]). Higher populistic attitudes on the previous day were associated with higher negative affect towards the EU on the current day. No cross-lagged effect of negative affect towards the EU on populistic attitudes was found (see Table 8).

Table 8

Lagged-Effects Between Populistic Attitudes and Outcomes.

	European Identity Commitment		Negative Affects towards the EU	
Parameter	Posterior Median	95% credible interval	Posterior Median	95% credible interval
Fixed Effects				
outcome t-1 → outcome t	0.31* (0.30*)	[0.24, 0.38] (0.24, 0.35)	0.33* (0.32*)	[0.26, 0.40] (0.27, 0.38)
pop. att. t-1 → outcome t	0.07 (0.04)	[-0.02, 0.15] (-0.01, 0.09)	0.08* (0.08*)	[0.01, 0.16] (0.03, 0.13)
pop. att. t-1 → pop. att. t	0.32*(0.32*)	[0.26, 0.39] (0.27, 0.37)	0.35* (0.34*)	[0.28, 0.41] (0.28, 0.39)
outcome t-1 → pop. att. t	-0.05* (-0.06)	[-0.10, -0.00][1] (-0.11, 0.01)	0.01 (0.02)	[-0.04, 0.06] (-0.03, 0.07)
Random Variances				
outcome t-1 → outcome t	0.14	[0.11, 0.18]	0.10	[0.07, 0.14]
pop. att. t-1 → outcome t	0.19	[0.12, 0.27]	0.16	[0.11, 0.23]
pop. att. t-1 → pop. att. t	0.10	[0.07, 0.14]	0.11	[0.08, 0.15]
outcome t-1 → pop. att	0.04	[0.02, 0.07]	0.04	[0.01, 0.07]
Res. Var.	0.19	[0.18, 0.20]	0.13	[0.12, 0.14]

Note. Table depicts unstandardized coefficients (standardized coefficients in parentheses), pop. att. = populistic attitudes, Res. Var. = residual variance, [1]Interval does not cover zero, as it is on a later decimal negative, * = non-null credible interval. Standardized effects in brackets.

The combined model including same day and lagged effects showed similar results as described above. The only difference was that populistic attitudes on t-1 were no longer significantly associated with negative affect towards the EU on t (*b* = -0.03, 95% CI [-0.05; 0.10]), after controlling for populistic attitudes on t. As the models indicated only an association between populistic attitudes and negative affect towards the EU, we estimated the mediation model for negative affect towards the EU only.

Mediation Model

After establishing an association between populistic attitudes and negative affect towards the EU on the within-level on the same day, we tested our mediation hypothesis. The most complex still converging model was a fixed effect model. Media valence was significantly associated with populistic attitudes on the same day (*b* = -0.06, 95% CI [-0.08, -0.04]). Negative media content was associated with higher populistic attitudes on the same day. Media valence also had a significant direct association with negative affect towards the EU (*b* = -0.03, 95% [-0.05, -0.01]). We found a significant indirect effect of media valence on negative affect towards the EU mediated by populistic attitudes (*b* = -0.01, 95% CI [-0.010, -0.004]) (see Table 9). The proportion of the indirect to total effect was 21.9%. Negatively perceived political media content was associated with higher populistic attitudes and more negative affect towards the EU.

Table 9

Same Day Mediation Model with Media Valence as Predictor, Populistic Attitudes as Mediator and Negative Affect Towards the EU as Outcome.

	Negative affect towards the EU	
Parameter	Posterior Median	95% credible interval
Fixed Effects		
med. val. → pop. att.	-0.06*(-0.13*)	[-0.08, -0.04] (-0.17, -0.09)
pop. att → neg. aff.	0.11*(0.11*)	[0.07, 0.15] (0.07, 0.15)
med. val. → neg. aff.	-0.03* (-0.05*)	[-0.05; -0.01] (-0.10, -0.01)
Indirect effect	-0.01*	[-0.01, -0.00][1]
Proportion indirect to total effect	21.9%	

Note. Table depicts unstandardized coefficients (standardized coefficients in parentheses), pop. att. = populistic attitudes, neg. aff. = negative affect towards the EU, med. val. = media valence, [1]Interval does not cover zero, but is on a later decimal negative. *non-null credible interval.

Sensitivity Analysis

Excluding participants that have seen, read or heard political content on three or fewer days ($n_{excluded}$ = 57) did not change our results for the same day or the mediation model. However, the results changed slightly for the lagged effect and the combined model (same-day & lagged-day effect), insofar as that the lagged effect of European identity commitment on populistic attitudes became non-significant.

To investigate possible differential effects of positive or negative media, we conducted an exploratory mediation model with media valence split in two contrasts. For contrast variable one, we dichotomized perceived media valence in negative political content (-1) vs. positive/neutral or no political content (0). For contrast variable two, we dichotomized perceived media valence in positive political content (1) vs. negative/neutral or no political content. We wanted to assess in a more detailed manner, whether seeing negative media content (vs. neutral or no political media content) would have different effects on e.g., populistic attitudes than seeing positive content (vs. neutral or no political media content).While perceived negative media content instead of other media content was significantly associated with populistic attitudes and negative affect towards the EU (directly and mediated), perceived positive media content instead of other media content was not associated with populistic attitudes or negative affect towards the EU (directly or mediated).

All results of the sensitivity analysis can be found in supplemental material A. In addition, exploratory, preregistered analyses examining between-person differences in within-person effects are also reported in supplemental material A.

Discussion

In this study we implemented a ten-day daily diary design, in which we examined the effects of media valence on negative affect towards the EU and European identity commitment, and tested whether this effect is mediated by populistic attitudes. With this study we add to our understanding of political socialisation in adolescence focusing on the effect of media. The assumed associations were closely assessed to when they happened in real life, allowing for a more accurate assessment of the within-person dynamics. It offers a more fine-grained understanding of the interplay of media valence, populistic attitudes and two proxies of EU support on day to day basis.

Our results are in line with the idea that media valence is associated with affect towards the EU mediated by populistic attitudes. Seeing, reading, or listening to negatively framed political content seems to be associated with higher populistic attitudes and more negative affect towards the EU on the same day. Results for same day associations of populistic attitudes and negative affect towards the EU were robust, yet the lagged association (stronger populistic attitudes today predicting tomorrow's

negative affect towards the EU) was no longer meaningful after controlling for the same day effect. This suggests that populistic attitudes have only negative implications for negative affect, if they linger on until the next day. This emphasizes the importance to target dynamic within-person effects on different time-scales to fully understand how they unfold across time.

Contrary to our expectations, we could not confirm our hypothesis that negative media valence is indirectly associated with European identity commitment by populistic attitudes. Populistic attitudes were neither significantly associated with European identity commitment on the next day nor on the same day. One reason could be that adolescents might see being European as something different than being a member of the EU, for example having European ancestry, and therefore their European identity commitment might remain unaffected by negative media that aim towards political institutions. Bruter (2003) showed that civic and cultural components of European identity are differently affected by positive and negative news, not in direction but strength of association. A civic European identity was more strongly affected by negative news than a cultural European identity. Committing to a European identity might be important for long-term stability of positive attitudes towards the EU and European integration (Habermas, 2014; Risse, 2010), but only if it includes a political definition of being European (e.g. being member of the EU).

Another reason could be that European identity commitment did not vary as extensively from day to day, as was indicated by relatively large ICCs. Other studies that implemented daily diary assessments for identity processes found fluctuations on identity commitment also on a day to day level, though the size of fluctuations differed across identity domains (e.g. educational vs. interpersonal; Becht et al., 2021; Klimstra, Luyckx, et al., 2010). It could be that political identities are relatively stable and unaffected by daily influences, but they might change if populistic attitudes cumulate over a longer period of time (Weßels, 2007). Our results provide relevant information as they aid in locating the appropriate time scale across which European identity processes in adolescents might develop. Future studies could implement a longer observation window to potentially increase the amount of within-person fluctuation in European identity commitment.

Considering the significant cross-lagged negative association between today's European identity commitment with tomorrow's populistic attitudes it could also be that European identity commitments are protective against populistic attitudes and, even more, decrease populistic attitudes. This finding would be in line with a 'buffering-hypothesis' (Weßels, 2007). But as the buffering effect disappears after excluding low responders (three or fewer days) this not hypothesized finding has to be interpreted with particular caution.

Overall, our results imply that media valence is linked to adolescents' political development. Study hypotheses and data analyses reported in this work were registered after data collection and partial data access. In line with others scholars (van den Akker & Bakker, 2021; van den Akker et al., 2021) we consider this "post-registration" an important feature to increase transparency and openness in science in cases when more "traditional" pre-registration before the start of data collection is not feasible (as is the case in many large-scale projects). One limitation of our study is that we did not differentiate between neutral and no content. According to the assumption of a virtuous media cycle (Norris, 2000), neutral content has likely positive effects on political engagement and knowledge, thereby being negatively associated with populistic attitudes. Not perceiving any content, however, should not be associated with populistic attitudes. Including days of participants on which no political content was perceived might decrease the effects between media, populistic attitudes and the outcomes, which could explain our non-significant findings for lagged media effects on populistic attitudes and European identity commitment. Judging from our sample's amount of days without political content, we would assume politics is not necessarily part of adolescent's everyday life or at least news consumption, nevertheless, they are affected by media in their political socialisation, when they encounter content. We note, though, that students are not just passive receivers of news, but also active agents in searching for information. Future studies could therefore implement an experimental design in daily diary studies, in which positive, negative or neutral political content is given for each participant on each day. This would help to clarify the causal links among media use and political attitudes. Furthermore, future studies might also consider including passive mobile sensing methods to obtain a more objective measure of adolescents' actual (political) media consumption.

Our study focussed only on stable within-student processes, however, there might be differences on the between-participant level that influence the found associations. An interesting group comparison could be to compare politically engaged vs. not engaged participants. Research with older age groups suggests that highly politically engaged persons are likely less affected by media valence than those who are uninterested in politics and do not actively engage in searching for political content (Vreese, 2007). Those that search for political content vs. those that view it accidental or as part of entertainment might differ as well (Katz et al., 1974). Including measures that assess the frequency of political content perceived per day might be an option. Also, including inter-individual differences such as political orientation might be an interesting direction. Including covariates and specifying associations at the between-person level would certainly add to our understanding of political socialisation, but would require a larger sample size either by increasing number of participants or measured days.

Conclusion

Adolescence is a formative period for the development of political orientations. The present study shows that perceived negative political content is associated with higher populistic attitudes on the same day, which in turn is linked to higher negative affect towards the EU. A similar association could not be found for European identity commitment. Overall, our results suggest that media can influence adolescent's political socialization, especially when media report negatively about political content. Educating adolescents in their media literacy and help them reflect on tone of media and how it affects them could be useful in reducing populistic attitudes.

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7.3. Study 3

Mayer, A.-M., Körner, A., & Jugert, P. (submitted). What does it Mean to be European? How Identity Content Shapes Adolescent's Views towards Immigrants and Support for the EU. https://doi.org/10.31234/osf.io/8znt3

Abstract:

Many scholars assume that European identity is a civic identity and therefore associated with positive intergroup attitudes and support for the EU. However, it is an open question whether adolescents conceptualize European identity civically. We examined adolescents' understanding of being European, and how it relates to intolerance towards immigrants, EU support, and other predictors. Our sample included 1,206 adolescents (51% female, Age: *M* = 14.39, *SD* = 0.02). Twenty-seven percent were ethnic minority adolescents. European and national identity content were assessed via open-ended answers and five close-ended questions. We conducted latent class analysis to identify classes for both identities. Three European identity classes emerged: a *living-based* (47%), a *culture & value-based* (27%) and an *ancestry-based class* (26%). Classes did not differ with regard to EU support, but to intolerance (highest: ancestry-based, lowest: culture & value-based). Class membership was significantly associated with national identity classes, corresponding identity contents were associated, and immigrant status, ethnic minority adolescents belonged more likely to an *ancestry-based class*. Our results indicate that adolescents differed in their understanding of being European and that it is important to consider how youth define Europeanness to understand European identity's effect on adolescent's views.

Keywords: European identity, national identity, latent class analysis, intergroup relations, EU support, adolescents, identity content

Introduction

Identifying as European has been theorized to have positive effects on popular support for the EU (Ciaglia et al., 2018; Hooghe & Marks, 2004) and intergroup relations (Konings et al., 2021), because of its supposedly civic and ethnically inclusive conception. A civic or ethnically inclusive conception implies that a European identity refers to political structures, like rights or laws. Other regional identities, such as national identities, are assumed to be more ethnically exclusively defined, like having a certain ethnic heritage or sharing social similarities (Clycq, 2021). Nevertheless, evidence for positive effects of European identity on intergroup attitudes is mixed and several studies found evidence contrary to it (e.g., Fleischmann & Phalet, 2016; Landberg et al., 2018; Licata & Klein, 2002; Visintin et al., 2018), i.e., that participants identifying as European showed higher intolerance towards immigrants then participants not identifying as European (Licata & Klein, 2002).

One explanation for these mixed findings could be that European identity is not necessarily defined in civic terms, but can also be conceptualized in more ethnic (or mixed) terms, and that the effects of European identity vary depending on its particular meaning or content for the individual. Previous studies on European identity, however, rarely included measures of European identity content and focused levels of identification (e.g., Agirdag et al., 2016; Erisen, 2017; Fligstein et al., 2012; Hasbún López et al., 2019), or used a simplified civic versus ethnic dichotomization (Bruter, 2003). In this study, we address this gap by implementing a person- and content-centred approach to examine German adolescents' understanding of being European. We investigated whether different meanings of being European relate differently to tolerance towards refugees and newly arrived people and EU support. Furthermore, we examined the associations between European identity content and subjective knowledge about the EU, national identity content, immigration status and sociodemographic background (e.g., gender).

Understandings of Being European

We understand European identity as a form of social identity, which is the subjective description or categorization of the self in terms of social group membership (e.g., gender, nationality) (Tajfel & Turner, 1979). Although the processes on the basis of

which individuals make their subjective categorizations may be similar for all individuals, the particular content aspects may differ from person to person. With regard to European identity such content aspects are often dichotomized in ethnic or civic aspects (e.g., Erisen, 2017; Fligstein et al., 2012; Hasbún López et al., 2019). An ethnic content encompasses a shared culture, social similarities or heritage, while a civic content includes political structures, like rights, values or institutions (Bruter, 2003). This dichotomization is likely oversimplified as Ditlmann & Kopf-Beck (2019) have already demonstrated for German national identity. By applying a person- and content-centred approach, they differentiated four classes of German identity content. Two classes corresponded to the civic and ethnic typology, but were more heterogenous, i.e. each included civic and ethnic aspects, and the other two classes included content beyond the typology (e.g., an ideology-based or traits-based class) (Ditlmann & Kopf-Beck, 2019). Qualitative research with young adults also indicates conceptions of being European that go beyond the ethnic-civic typology and generally imply a more complex and mixed understanding of being European (Cores-Bilbao et al., 2020; Schäfer, 2020; Slavtcheva-Petkova, 2013).

Despite the growing interest in exploring the positive impact of European identity on various attitudinal outcomes such as EU-support (Ciaglia et al., 2018; Hooghe & Marks, 2004) or intergroup relations (Konings et al., 2021), previous studies that did not consider identity content failed to consistently prove such positive effects (e.g., Fleischmann & Phalet, 2016; Landberg et al., 2018; Licata & Klein, 2002; Visintin et al., 2018). Qualitative studies, in contrast provided valuable information on European identity content, but did not allow to examine its association with (intergroup) attitudes. Thus, it remains an empirical question whether and which European identity contents might relate to different attitudinal outcomes (i.e., EU-support, intolerance). Similarly, little is known about possible correlates that might predict differences in identity contents.

Predictors of European Identity Content

A first feeling of being European emerges during early adolescence (Barrett, 2007) and is explored in different youth-related social contexts (Bronfenbrenner, 2009), one of them being schools. In schools, adolescents can come in contact with and learn about

the EU and Europe. Following cognitive mobilization theory (Inglehart, 1970), it can be assumed that higher knowledge about the EU and Europe increases identification with Europe (Brummer et al., 2022; Ziemes et al., 2019), although the transfer effect might be limited (Slavtcheva-Petkova, 2015; Verhaegen & Hooghe, 2015). Arguably, knowledge about the EU and Europe might also influence adolescent's understanding of being European, i.e., only students, who know about the EU and its laws, and structures can equate being European with a civic definition.

Another important social context is region or country of residence. In the present study, we examined European identity content in two German federal states, Thuringia and North Rhine-Westphalia (NRW). Germany is an interesting country to study European identity since a European identity was promoted as an alternative to a nationalistic German identity after WWII (Galpin, 2015). Following social identity theory, a person that categorizes themself as a group member can do so with multiple groups at the same time, if the identity contents are compatible (e.g., Spanish and European identity, Medrano & Gutiérrez, 2001). Thus, there might be an overlap between contents of adolescents' national and European identity.

Finally, European identity develops similarly among ethnic majority and ethnic minority adolescents (Agirdag et al., 2016; Brummer et al., 2022; Teney et al., 2016). This is theorized to be due to the civic definition of a European identity, which makes a European identity equally attractive for ethnic majority and ethnic minority adolescents (Erisen, 2017). It is likely that ethnic minority adolescents have a more civic or ethnic inclusive understanding of being European than ethnic majority adolescents, because they would otherwise exclude themselves from being European.

The Present Study

We examined what adolescents living in Germany think about what it means to be European and whether those meanings can be grouped in classes of European identity content by using latent class analysis (LCA). LCA allows to identify groups of participants who have a similar understanding of European identity, and to predict class membership based on other variables. We expected a minimum of two classes to emerge, one more ethnically inclusive and one more ethnically exclusive class. Based on Ditlmann & Kopf-Beck's (2019) study and qualitative studies, we further expected mixed classes, i.e. both

ethnic and civic components, geography-based classes or character-traits-based class. To characterize our classes, we examined how European identity classes relate to intolerance towards refugees and newly arrived people, and EU support. We hypothesized that more ethnically exclusively defined classes would be associated with higher intolerance. We hypothesized that more civically defined classes, especially those including EU institutions and laws, would be associated with higher EU support.

We further examined whether European identity classes can be predicted by subjective knowledge about the EU, national identity class (i.e., LCA-based content classes for German identity) immigrant status and other sociodemographic variables (e.g., gender, school type). Subjective knowledge about the EU and Europe was assumed to be associated with higher probabilities to belonging to classes characterized by European culture, history or EU institutions, values and laws. We further assumed that German identity classes resemble European identity classes, but might differ in the direction that ethnic aspects (e.g., heritage) could be more pronounced (as seen in the German identity classes of Ditlmann & Kopf-Beck, 2019). Assuming a nested structure of European and German identity (Medrano & Gutiérrez, 2001), it is likely that similar content is associated. However, since participants do not necessarily have to identify as European or German to answer our prompt, dissimilar content might also be associated. We also expected differences depending on immigrant status in the way that ethnic minority adolescents have higher probabilities to belong to more ethnically inclusively defined classes of European identity (Erisen, 2017), so that their ethnicity would also be included in the common European in-group.

Methods

Study hypotheses and statistical analysis were preregistered during data collection and before accessing the data (https://osf.io/ruf5e/?view_only=a2e931f7a05f40be9376d79f9ad4cce3). Data, syntax and supplementary material can be retrieved from the osf project page: https://osf.io/a56es/?view_only=5e981f76477740b3b74d3aa3ce12e01b.

Participants

This study was part of a larger study (*JUROP*) that aimed to assess behaviours and attitudes towards the EU and Europe and factors influencing those. JUROP stretched over one school year (2021/2022) and included a longitudinal paper-pencil questionnaire with two measurement points. This study uses data of the first measurement point (n = 1,206) for establishing classes of European identity and data of the second measurement point (n = 1,041) for sensitivity analyses (i.e., cross-validation of classes). Participants were from two German federal states, Thuringia and North-Rhine Westphalia (NRW). Thuringia, which was part of the former German Democratic Republic, has no international border, and can be characterized as mostly rural and ethnically homogenous. NRW and especially the Ruhr area where data collection took place, is located in the Western part of Germany, borders on two European countries (Netherlands and Belgium), and can be characterized as being mostly urban and ethnically heterogenous (Statistisches Bundesamt, 2023).

Participants were on average 14.4 years old (SD_{age} = 0.6, p_{female} = 58%, p_{male} = 47%, p_{divers} = 2%). Most students were enrolled in college-bound high schools (58%, non-college-bound secondary schools: 17%, comprehensive schools: 25%). Most participants indicated that they and their parents were born in Germany (73%, *ethnic majority*, NRW: 57%, Thuringia: 88%).

Procedure

We contacted 219 schools via e-mail and telephone in NRW and Thuringia (NRW: 183, Thuringia: 36). Eligible schools were college-bound high schools, non-college-bound secondary schools and comprehensive schools. Participants were in the 9th grade. If schools showed interest, we sent them information and pre-printed informed consents for students, students' parents and teachers. After receiving informed consent, research team members visited the schools and administered a paper-pencil questionnaire during school hours (T1: 1st September 2021 to 26th January 2022). All participating classes received 100€ for their class fund after completing the second measurement point (T2: 9th May 2022 to 11th July 2022). A total of 31 schools (14%) agreed to participate. This research was approved by the ethics committees of the University *of Duisburg-Essen* and the Friedrich-Schiller-University Jena (FSV 21/047).

Material

Open Question for European Identity and German Identity

To assess the content of European identity and German identity, we asked them the following open-ended questions (adapted from Ditlmann & Kopf-Beck, 2019):

People can have different attitudes towards the place they live in. They also differ in what it means to be German/European. What does it mean for you?

Please take your time and think about what it means to be German/European for you. Write as much or little as you want. Spelling or grammar are irrelevant. There are no right and wrong answers. Being German/European means for me:

Participants were first asked to answer the open-ended question for German identity, succeeded by the question for European identity.

Closed Question for European Identity and German Identity

After both open-ended questions, we included five closed-ended questions about European/German identity content taken from the Eurobarometer studies (European Commission, 2012). Again, we first presented German identity items directly followed by European identity items (introduction: *How important are for you the following characteristics to be defined as [German/European]*: 1.) *being Christian*, 2.) *being born and raised in [Germany/Europe]*, 3.) *having at least one parent that was born in [Germany/Europe]*, 4.) *to feel [German/European]*, 5.) *to master [German/a European language]* (1 = strongly disagree, 5 = strongly agree); European Commission, 2012).

Intolerance Towards Refugees and Newly Arrived People

We assessed intolerance with four items rated on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree): 1.) *Refugees and newly arrived people come here to exploit our welfare state*, 2.) *Refugees and newly arrived people take away the workplace of natives*, 3.) *Refugees and newly arrived people should at some point go back to their country of origin*, 4.) *Refugees and newly arrived people increase the crime rate* (Gniewosz & Noack, 2008) (ω = 0.84; M = 2.4, SD = 1.1). Items were averaged to form a mean score with higher values indicated higher intolerance.

EU Support

In order to capture EU support, participants rated three items on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree): 1.) *Should Germany stay in the EU?* (Strohmeier & Tenenbaum, 2019), 2.) *We should be happy that the EU exists*, and 3.) *I think that living in our country would be better, if there was no EU* (reverse coded) (Noack & Macek, 2017). Items were averaged to form a single score with higher values indicating higher support for the EU (ω = 0.77; *M* = 4.4, *SD* = 0.7).

Subjective Knowledge About the EU and Europe

To assess participants' subjective knowledge about the EU and Europe, we asked them to rate on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree), if they felt able to explain five EU and Europe-related topics (*I feel able to…* 1.) *explain how and why the European unification was started*, 2.) *explain the functions of central European institutions and their collaboration*, 3.) *describe opportunities for political participation for EU citizens*, 4.) *explain terms such as European Union, Eurozone, Schengen area and use them correctly* and 5.) *name most EU countries with their capitals*). Ratings were averaged to form a single score with higher values indicating higher subjective knowledge (ω = 0.74; *M* = 3.3, *SD* = 0.8).

Immigrant Status

For immigrant status, participants had to indicate, if they, one of their parents or both of their parents were born in Germany or another country. If participants and both parents were born in Germany, they were labelled as *ethnic majority*. Otherwise participants were labelled as *ethnic minority.*

Demographics

To investigate variations in the content of European identity, we further included gender (female = 0, male = 1, divers = coded as missing due to small number), federal state (NRW = 0, Thuringia = 1), and school type (contrast one: college-bound high school & comprehensive school = 0, non-college-bound secondary school = 1; contrast two: college-bound high school & non-college-bound secondary school = 0, comprehensive school = 1) as predictors for class membership.

Content Coding

We developed a coding manual for European and German identity based on data from T1. We chose a theory-oriented approach starting deductively with pre-formed codes derived from Ditlmann and Kopf-Beck (2019) and adapting them inductively (Fereday & Muir-Cochrane, 2006). The first author and two research assistants (one late-adult male psychology student, one young-adult female pre-service teacher) adapted the pre-formed codes by coding 80 open-ended answers consensually and discussing necessary revisions. After revision, the research assistants continued coding consensually to ensure a more sensitive adaption and differentiation of codes (Becker et al., 2019). Open-ended answers had to be divided into theme units that expressed single ideas and aspects of a European identity or German identity respectively. After that theme units were coded. Double coding of a theme unit in two different codes was not allowed. Each code could only be assigned once per answer, meaning that research assistants coded whether a given code was present or absent in each answer. Research assistants met with the first author after they coded 200 open-ended answers for discussing coding discrepancies and possible adaptions for the coding manual. This procedure was repeated until all open-ended answers were coded.

All T1 European identity codes were coded consensually and we therefore did not calculate Cohen's Kappa (Cohen, 1960) for the coding scheme based on T1 data. During our coding of T2 European identity codes, we calculated Cohen's Kappa to monitor interrater agreement. We report here Cohen's Kappa for our coding scheme from the last coding round of our T2 coding (n = 754). Code name, description, and examples can be seen in Table 10. For German identity codes, we calculated Cohen's Kappa to monitor interrater agreement while coding T1 data (see supplemental material A).

Table 10

Content Coding European Identity (Open Question): Code Name, % of Mentions, Description and Typical Example.

Code	% of mentions	Description *Category includes statements about*	Example	Cohen's Kappa
Biology	10%	a) Being born in Europe b) One's ancestors being born in Europe c) Having a European phenotype	"Being born in a European country" "Having parents or great parents from a European country" "Light skin"	0.89
Culture/s	8%	a) Existence of a shared European culture b) Similarities between European countries c) Different cultures that are part of Europe d) Feeling European	"Being culturally similar" "Living together with people from many cultures" "Feeling European"	0.81
Language	3%	a) Speaking a European language or wanting to learn one	"Speaking a European language"	0.96
Living	22%	a) To live or grow up in a European country b) Evaluating life in Europe	"Living or growing up in Europe" "Being happy to live here"	0.91
European values & community	14%	a) Having or referencing European values b) Feeling part of a union or community	"Having a union formed by many countries" "Tolerance, modern"	0.84
Governmental systems	9%	a) Having certain governmental systems, participations, voting rights or institutions b) Fulfilling formal requirements for EU citizenship c) Following EU laws	"Sharing sovereignty between states" "Having a European passport" "Good Education"	0.82
Freedom	10%	a) Having rights and freedoms	"Having rights" "Being able to say one's opinion freely"	0.90
Economy & safety	10%	a) Having financial or other securities b) Having economic privileges	"Safety within the EU" "A rich and privileged area"	0.81
Meaningless	3%	a) Considering a European identity to be meaningless	"It means nothing for me"	0.77
Knowledge	2%	a) Knowing about Europe or the EU b) Being interested in Europe or the EU	"Knowing about Europe" "Being interested in Europe"	0.83

Note: Code frequencies are based on T1. Cohen's Kappa for the coding scheme is based on the last coding round of our T2 coding (*n* = 754).

Analytic Strategy

To test whether adolescents understanding of being European can be grouped in meaningful classes of European identity content, latent class analysis (LCA) was conducted. Before analysing, we excluded codes that were mentioned by less than 5% of all participants. This was done to ensure that codes represent a substantial part of the sample. As a result of this, for European identity, three codes (*Language*, *Meaningless*, *Knowledge*) had to be dropped for LCA. In total we included seven codes (0 = not present, 1 = present) and five polytomous items in LCA for European identity. LCA models classes in discrete data by assigning each participant to a class (e.g., ethnic understanding of being European) with a specific probability based on, in our case, the unique combination of codes and response patterns (Goodman, 2009; McCutcheon, 2011).

We used the three-step mixture model approach (Asparouhov & Muthén, 2014; Vermunt & Magidson, 2021) implemented in M*plus* 8.8 (Muthén & Muthén, 1998-2017). In the first step of the modelling approach, only latent class indicators were used for model estimation. In the second step, the most likely class variable was created using latent class posterior distributions obtained during the first step. In the third step, classes were regressed via multinomial logistic regression on predictor variables taking misclassifications in the second step into account (Asparouhov & Muthén, 2014). We included intolerance and EU support in the third step to characterize our class solution. We controlled for the multilevel structure of our data (level 1: n = 1,206 participants, level 2: n = 89 school classes) by using M*plus*' Type = COMPLEX MIXTURE function, which adjusts the standard errors and fit indices for clustering (i.e., students nested in classrooms).

To identify a meaningful class solution, we selected number of classes based on model fit, parsimony and theoretical considerations. For model fit we used the Bayesian Information Criterion (BIC, Schwarz, 1978) and the adjusted BIC (aBIC). Lower values signify a better model fit (Weller et al., 2020). We furthermore inspected entropy (> .7) and the likelihood ratio test. The latter tests whether a model with k classes compared to k-*1* classes fits significantly better (Nylund et al., 2007). Our last criterion was that each class should be substantively meaningful, representing a sufficient number of

students in the sample (> 5%) (Collins & Lanza, 2009). Because statistical criteria alone often do not help to identify the optimal class solution, we took parsimony and theoretical considerations into account, when deciding for the number of classes (Collins & Lanza, 2009).

To examine associations between class membership and our predictors, we conducted multinomial logistic regressions including all predictors separately into the model and afterwards testing all previously significant predictors in a single model to examine unique effects of the predictors.

Deviations from the Preregistration

We did not plan to include the five Eurobarometer items into model estimation, except if less than 300 open-ended answers were fit for LCA. In that case, we planned to use the Eurobarometer items instead and not complementary to the codes. Since 41% (493) of our participants stated nothing in their European identity open-ended answers and the majority of those who stated something mentioned only one (34%, 405) or two codes (20%, 245), we decided to include the Eurobarometer items into model estimation. We did so to ensure we would have enough indicators for LCA, while not losing the richness of meanings from our codes. Furthermore, we originally planned to include ethnic self-identification instead of immigrant status, and classroom diversity based on ethnic self-identification as predictors for class membership. Due to the amount of missing values (*n* = 452; 38%) on ethnic self-identification, we decided to use immigrant status instead and not calculate classroom diversity.

Results

Latent Class Analysis

We selected a model with three latent classes as the statistical criteria (see Table 11 for model results), content and associations with our characterization items were meaningful. BIC was lowest for the three-class solution, while aBIC was lowest for the five-class solution. Since LRT indicated a three-class solution and a fourth for fifth class was not qualitatively different from the classes in the three classes solution, we followed the principle of parsimony and chose the three-class solution. For German identity

classes, we selected a model with three latent classes as both statistical criteria and content were meaningful (see supplemental material A for further details).

Table 11

Goodness of Fit Statistics for European Identity Latent Class Analysis.

Classes	Loglikelihood	*df*	LRT	BIC	aBIC	Entropy
One class	-11077	27	/	22346	22261	/
Two classes	-10703	55	748.44***	21796	21622	0.78
Three classes	-10538	83	329.78*	21665	21402	0.74
Four classes	-10449	111	178.46	21685	21333	0.74
Five classes	-10378	139	141.89	21742	21301	0.74
Six classes	-10338	167	79.17	21861	21331	0.73
Seven classes	-10296	195	83.52	21977	21358	0.72
Eight Classes	-10258	223	75.33	22100	21392	0.73

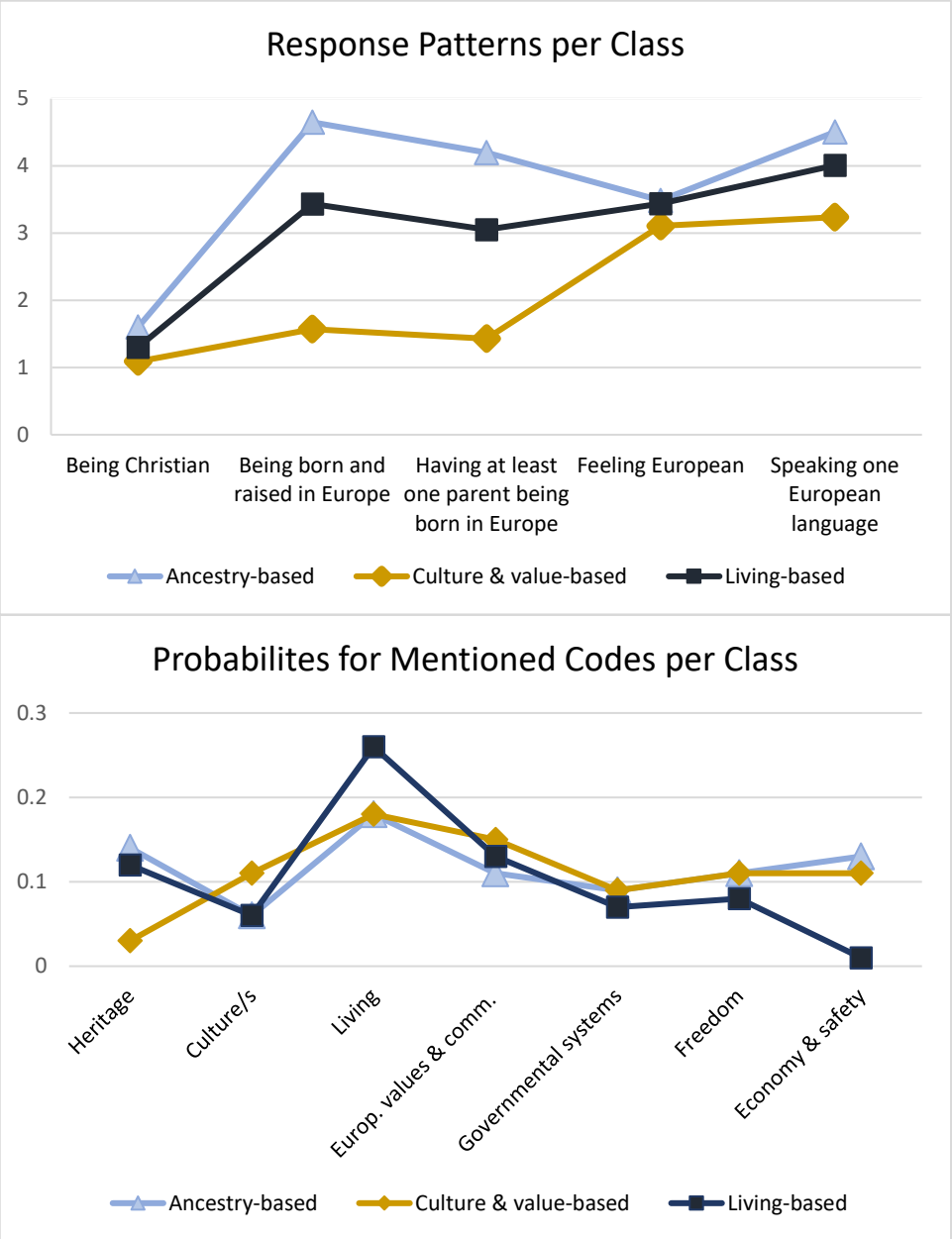
Note. Differences between the LRT of a model with *k* vs. *k-1* classes were significant at ***$p < .001$, *$p < .05$

Class Content

We labelled the largest class *living-based* (47% of participants) because *Living* (code) and the neutral answer options for being born and growing up in Europe, and one's parents being born in Europe (polytomous items) had the highest probabilities in this class. We labelled the next biggest class *culture & value-based* (27%), because *EU values and community*, *Culture/s* (codes) and disagreement with having to be born or one's parents having to be born in Europe (polytomous items) had the highest probabilities in this class. We labelled the smallest class *ancestry-based* (26%) because *Biology, Living* (codes), and agreement with having to be born or one's parents having to be born in Europe (polytomous items) had the highest probabilities in this class (see Figure 9). For a detailed information on German identity class content please see the supplemental material A.

Figure 9

Response Pattern and Probabilities of Mentioned Codes per European Identity Class. Response Patterns are Given as Average per Class (Scale: 1 = Strongly Disagree, 5 = Strongly Agree). Probabilities for Codes Range From 0.01 to 0.26.



Living-based European identity class (47% of participants)

The most frequently mentioned code for the *living-based class* in comparison to the other two classes was *Living* (.26), e.g., "Living or growing up in Europe". Other frequent codes included *Biology* (.12), e.g., "Being born in Europe", and *European values and*

community (.13), e.g., "It means that I belong to something bigger than 'my' country". Participants disagreed more likely with the statement that one had to be Christian to be European in comparison to the *ancestry-based class*, but agreed more likely in comparison to the *culture & value-based class.* They tended to be neutral towards the statements that one had to be born and raised in Europe or that one's parents had to be born in Europe in order to be European. Participants agreed more likely with the statement that speaking a European language was important for being European, but to a lesser extent than participants in the *ancestry-based class.*

Culture & value-based European identity class (27% of participants)

The most frequently mentioned codes for this class in comparison to the other two classes were *Culture/s* (.10), e.g., "Living together with people from many cultures" and *European values and community* (.15). Another frequent code was *Living* (.18). Participants disagreed more likely with the statements that someone had to be Christian, that one had to be born and raised in Europe or that one's parents had to be born in Europe in order to be European. They tended to be neutral towards the statement that one had to speak a European language.

Ancestry-based European identity class (26% of participants)

The most frequently mentioned code for this class in comparison to the other two classes was *Biology* (.14). Other frequent codes were *Living* (.18) and *Economy & safety* (.13). Participants in this class tended to be more neutral towards the statement that one has to be Christian to be European. They agreed more likely to the statements that one had to be born and raised in Europe and that one's parents had to be born in Europe in order to be European. Furthermore, participants agreed more likely to the statement that one had to speak a European language to be European.

Characterisations of Classes: Intolerance and EU Support

Class membership was not significantly associated with EU support (*ancestry*: M = 4.4, SD = 0.8; *culture & value:* M = 4.5, SD = 0.7; *living:* M = 4.4, SD = 0.7). Membership in the *culture & value-based class* and the *living-based class* was significantly negatively associated with intolerance relative to an *ancestry-based class (ancestry*: M = 3.0, SD = 1.2; *culture & value:* M = 1.9, SD = 1.0; *living:* M = 2.4, SD = 1.1). Participants in the

ancestry-based class had the highest mean intolerance, followed by participants in the *living-based class.* Participants in the *culture & value-based class* had lowest intolerance values (see Table 12).

Table 12

Multinomial Logistic Regressions Predicting Membership in Each Identity Class Relative to Ancestry-Based European Identity Class (Using Mplus: R3STEP).

	Culture & value-based		Living-based	
Variable	Coeff.	*SE*	Coeff.	*SE*
EU Support	-0.23	0.17	-0.14	0.13
Intolerance	-1.09***	0.13	-0.54***	0.11

Note. N = 1,132; *df* = 83, *BIC* = 21665. *** $p < .001$

Predictors of Class Membership

Using univariate logistic regressions, we screened for significant predictors of class membership. Significant predictors were then included in the final multivariate model (see Table 13). Subjective knowledge about the EU and Europe was not significantly associated with class membership and was therefore not included in the multivariate regression.

Belonging to the *culture & value-based European identity class* was significantly more positively associated with belonging to a *cultural-* or *civic-based* German identity class[8], and significantly more negatively associated with immigrant status, i.e., participants were more likely ethnic majority members, relative to an *ancestry-based class*. Membership in the *living-based class* was significantly more negatively associated with federal state (students from NRW were more likely in the *living-based class* than in the *ancestry-based class*), gender (females were more likely in the *living-based class* than in the *ancestry-based class*), immigrant status (ethnic majority members were more likely in the *living-based class* and ethnic minority members more likely in the *ancestry-based*

[8] We found three-classes of German identity: *cultural-based* (47% of participants), *ethnic-based* (29%) and *civic-based* (24%). Adolescents in the *cultural-based class* mentioned *Language*, *Freedom* frequently and were neutral towards ethnic heritage being important for being German. Adolescents in the *ethnic-based class* mentioned *Biology* frequently and agreed with ethnic heritage being important for being German. Adolescents in the *civic-based class* mentioned *Living*, *Freedom* frequently and disagreed with ethnic heritage being important for being German.

class), and significantly more positively associated with a *cultural*- or *civic-based class* for German identity relative to an *ancestry-based European identity class* (see Table 13).

Table 13

Multinomial Logistic Regressions Predicting Membership in Each Identity Class Relative to Ancestry-Based Class (Using Mplus: R3STEP).

	Culture & value-based class		Living-based class	
Variable	Coef.	*SE*	Coef.	*SE*
Federal state (0 = NRW, 1 = Thuringia)	-0.39	0.32	-0.64*	0.32
Gender (0 = female, 1 = male)	-0.50	0.29	-0.78**	0.29
Immigrant status (0 = ethnic majority, 1 = ethnic minority)	-1.14**	0.37	-1.64***	0.41
School type (ref: college bound track)				
Vocational track	-0.38	0.37	-0.20	0.27
Comprehensive school	-0.50	0.37	-0.63	0.34
German identity class (ref: ethnic)				
cultural	4.49***	0.65	3.37***	0.41
civic	5.98***	0.65	1.28**	0.44

Note. N = 1,188, (LR) χ^2 = 3,468. * $p < .05$, ** $p < .01$, *** $p < .001$

Exploratory Analysis

Contrary to our expectations, ethnic minority adolescents belonged more likely to an *ancestry-based European identity class*. To investigate one possible explanation, i.e., that ethnic minority adolescents reported what others think being European means without committing to that identity, we ran exploratory analyses examining European identification by European identity class split by immigrant status. Tables and supporting information can be found in supplemental material A. Results suggested that ethnic majority and minority adolescents did not differ significantly in regard to their European identification. Considering European identity class membership, ethnic majority and ethnic minority participants showed similar patterns regarding differences in European identification. Participants belonging to a *culture & value-based European identity class* were significantly less likely to identify as European and participants belonging to an *ancestry-based European identity* were significantly more likely to identify as European compared to both other classes. This suggests that ethnic minority adolescents identify

with Europe to similar degrees as their ethnic majority peers, even though they conceptualise it rather ethnically exclusive.

Sensitivity Analysis

To examine whether our European identity classes can be replicated, we examined whether the same or comparable classes of European identity emerged at the second measurement point of our study. Statistical criteria and theoretical considerations indicated a three-class solution. The same European identity classes emerged with a similar distribution. As at T1, the majority of our sample belonged to a *living-based European identity class* (48%), followed by a *culture & value-based* (31%) and *ancestry-based European identity class* (21%). Notably, slightly more participants had a *culture & value-based* understanding at the second measurement point (see supplemental material A).

Discussion

Adapting a European identity is supposed to have positive effects on intergroup relations (e.g., Clycq, 2021) and EU support (Ciaglia et al., 2018; Hooghe & Marks, 2004) by establishing a shared feeling of we-ness. Yet, evidence for this assumption is mixed. One explanation for the mixed findings could be that different understandings of being European have differential effects on the aforementioned constructs. Therefore, we implemented a person- and content-centred approach adapted from Ditlmann and Kopf-Beck (2019) to probe German adolescents' understanding of being European, and to examine how this understanding relates to intolerance towards refugees and newly arrived people. We further tested whether content classes can be predicted by EU support, subjective knowledge about Europe and the EU, national identity classes, immigrant status and sociodemographic variables.

Three classes of European identity emerged: a *living-based* (47% of participants), a *culture & value-based* (27%) and an *ancestry-based European identity class* (26%). The *ancestry-* and *culture & value-based European identity class* corresponded most closely with ethnic and civic conceptions of being European, however, both classes were more heterogeneously understood. For example, the *ancestry-based class* also included agreement with the importance of speaking a European language to be European, which

is usually attributed to civic conceptions of political identities (Bruter, 2003). Furthermore, the third class, the *living-based class*, included civic and ethnic aspects and cannot be categorized as one or the other. Our results are comparable to Ditlmann and Kopf-Beck's (2019) for German identity, in so far as that their and our results imply that a dichotomization of national or supra-national identities in ethnic vs. civic is an unjust oversimplification.

Participants belonging to different classes of European identity showed different levels of intolerance towards refugees and newly arrived people. In line with our expectations, participants belonging to more ethnically inclusively defined classes, in our case the *culture & value-based European identity*, showed lowest levels of intolerance, while participants belonging to more ethnically exclusively defined classes, the *ancestry-based class*, showed highest levels of intolerance. Our results shed some light on the mixed findings between the association of European identification and intergroup relations (e.g., Agirdag et al., 2016; Erisen, 2017; Fligstein et al., 2012; Hasbún López et al., 2019) by indicating that a European identity can have positive effects on intergroup relations, but it matters how it is conceptualised.

Participants belonging to different classes of European identity showed similar levels of EU support in contrast to our assumption that more civically defined classes, those that include for example EU institutions, would relate more strongly to EU support (Risse, 2015). Since EU related topics are only included in school curricula beginning from the 9th grade in Germany (e.g., QUA-LiS, 2022; THILLM, 2022), adolescents might simply not know enough yet about the EU to associate it with being European. This could also explain the non-significant association between subjective knowledge about the EU and Europe and any of the European identity classes. Another explanation could be that knowledge has only a limited effect on European identity (Slavtcheva-Petkova, 2015; Verhaegen & Hooghe, 2015). Future studies could research older samples to investigate the effect of knowledge on European identity content.

European identity class membership was furthermore significantly and differently associated with membership in German identity classes and immigrant status. In line with social identity theory (Tajfel & Turner, 1979), adolescents showed content-wise compatible European and national identities, meaning that membership to a rather

ethnically exclusively defined German identity was significantly associated with a rather ethnically exclusively defined European identity.

Contrary to our expectations, ethnic minority adolescents belonged more likely to an *ancestry-based European identity class* than to both other classes. Following research that utilizes the civic-ethnic dichotomy (Agirdag et al., 2016; Brummer et al., 2022; Erisen, 2017), we assumed that ethnic minority adolescents would define being European more civically and hence ethnically inclusive, because that would include their or their parent's ethnic heritage. A possible explanation could be that ethnic minority adolescents might not have committed to a European identity, but rather reported what they think others understand as being European. That is, the results could have mirrored society's ethnic exclusive views on being European instead of individual understandings. However, our exploratory analysis indicated that ethnic minority and majority adolescents did not differ significantly in the level of identification as European. Interestingly, adolescents belonging to an *ancestry-based European identity class* were significantly more committed to a European identity, regardless of being ethnic majority or ethnic minority member.

Another explanation could be that our sample was inadequate to detect differences in European identity content for ethnic minority and ethnic majority adolescents. The majority of our ethnic minority sample indicated an identification with an EU member state or Türkiye, whose citizens also reported feeling European (Agirdag et al., 2016). Therefore, most of our ethnic minority adolescents could claim to have European ancestry as well. We encourage further research on ethnic minority samples' European identity by including adequately powered measures of ethnic self-identification. By doing so, one could capture the ethnic diversity and, concomitantly, diverse meanings of European identity more accurately.

Limitations

Our study has several limitations. First, part of the association between German and European identity classes could be explained by sequence effects. All participants had to answer the open item about German identity directly followed by the open item about European identity, which might have made certain identity aspects more salient and therefore more likely to mention than if we would have asked both identities

separately. Future studies could split participants in three groups. One group could answer only the open-ended question for German identity, another group for European identity and the last group for both identities. Comparing class frequencies across the three questionnaire groups would then allow to explain the association of national and European identity more accurately.

Second, another limitation regards the phrasing of our open-ended identity question. As we asked participants, what they think being European means, our classes could represent subjective constructions that they also identify with or what they perceive their surroundings construct being European as. We cannot distinguish whether participants identified with the class they belonged to or not. However, we were not interested in participants self-identification as European. Other researchers interested in European self-identification and construction should rephrase the item by adding a self-reference (e.g., "Do you see yourself as European? Please explain why you do or do not.", see for an example Langer, 2023).

Lastly, we could show that region of residence is associated with different understandings of being European. However, since NRW and Thuringia differ in various aspects (urban vs. rural, ethnically heterogenous vs. ethnically homogenous) it is hard to pinpoint, which characteristic might be responsible for the significant association. Future studies could investigate effects of place of residency by including more fine-grained regional indicators, such as school or neighbourhood ethnic diversity.

Conclusion

Our study highlights that being European can mean different things to different individuals, and that those meanings can have differential associations with intolerance towards refugees and newly arrived people. Specifically, an *ancestry-based* understanding of being European is associated with significant higher levels of intolerance compared to a *culture & value-based* understanding. By implication, educational institutions could already focus on teaching ethnically inclusive national identities to foster a shared feeling of we-ness on the European level. However, European identity meaning seems to be unrelated to EU support for adolescents. Our study further stresses the importance of considering other social identities and their meaning, when examining European identity.

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7.3.1. Additional Analysis

The following analysis was not included in the manuscript or supplemental material of the manuscript. I aimed to examine whether and how the three identity processes correlated to identity content.

7.3.1.1. Additional Material – European Identity Processes

I assessed European identity with a shortened version of the Utrecht-Management of Identity Commitments Scale (U-MICS; Crocetti et al., 2008) adapted for European identity (Noack & Macek, 2017). The scale included nine items, three for each identity process: commitment (e.g., "I feel a strong connection to Europe", ω = .76), exploration (e.g., "I think often about what it means to be European", ω = .66), and reconsideration (e.g., "My attitudes and thoughts about Europe are changing", ω = .66). All items were scored on a 5-point Likert scale (1 = do not agree at all, 5 = fully agree).

7.3.1.2. Analytic Strategy

The model was estimated similarly as described in the study. To examine associations between class membership and predictors, I included the predictors with M*plus*' BCH method in one single model. The BCH method uses a weighted multiple group analysis, in which groups correspond to the latent classes (Asparouhov & Muthén, 2021). First, group specific weights for each observation were computed during the estimation of the latent class model. The estimated BCH weights were then included in a regression model. Results included mean values per class and a chi-square test.

7.3.1.3. Results

Classes differed significantly regarding the three identity process (see Table 14 and Figure 10 for mean values). Participants in the *ancestry-based class* had significantly higher levels of commitment compared to participants in the *living-based*, $\chi^2 = 10.98$, $p = .001$, and the *culture & value-based class*, $\chi^2 = 64.62$, $p < .001$. From the latter two, participants in the *living-based class* had significantly higher levels of commitment compared to participants in the *culture & value-based class*, $\chi^2 = 27.54$, $p < .001$.

Further, participants in the *ancestry-based class* had significantly higher levels of exploration compared to participants in the *culture & value-based class*, $\chi^2 = 8.68$, $p = .003$, but not to participants in the *living-based class*, $\chi^2 = 0.66$, $p = .415$. Participants in the *living-based* had higher levels of exploration compared to participants in the *culture & value-based class*, $\chi^2 = 4.78$, $p = .029$. The three classes did not differ significantly in regard to reconsideration.

Table 14

Mean Values (Standard Deviation in Brackets) of Commitment, In-Depth Exploration, and Reconsideration of Commitment per Identity Class.

	Ancestry	Culture & Value	Living
Commitment	3.3 (*0.1*)	2.5 (*0.1*)	2.9 (*0.0*)
Exploration	2.1 (*0.1*)	1.9 (*0.1*)	2.1 (*0.0*)
Reconsideration	2.3 (*0.1*)	2.2 (*0.1*)	2.3 (*0.0*)

Figure 10

Mean-Levels of Commitment, Exploration, and Reconsideration per Identity Class.

7.3.1.4. Interpretation

Patterns of identity processes differed depending on the European identity's content. By implication, including identity content, when examining identity development could offer insight in differential developmental patterns per identity content (see chapter III, section 8.2.4. for discussion of the results).

Chapter III

8. Discussion

8.1. Research Summary

This dissertation had four research questions that were pursued in three empirical studies: first, I aimed to assess European identity development, both on a short- (daily across ten days) and a mid-term time scale (one school year). Second, I examined interrelations between short-term processes and mid-term change. Third, to further our understanding of the micro-dynamic side of identity formation, I examined daily influences on European identity commitment. Fourth, I assessed what adolescents think what being European means and how those understandings are related to identity processes, intergroup relations, and EU support.

The first study addressed two research questions, namely European identity development on the short- and mid-term time scale, and how processes on both time-scales are interrelated. Generally, studies on identity formation often assessed identity development on mid- to long-term time-scales (e.g., across a school year; van der Gaag et al., 2016), but neglected shorter-time-scales (e.g., days; for exceptions see e.g., Becht et al., 2017; Becht et al., 2021). Furthermore, studies on European identity in particular used mostly cross-sectional designs (e.g., Agirdag et al., 2012; Brummer et al., 2022) and did not focus on identity development (except Jugert et al., 2021). By modelling European identity formation, the study addressed those two gaps. Furthermore, it is theorized that experiences on the short-term time scale (e.g., everyday interactions or micro-level of identity) accumulate to change on longer time-scales (e.g., perception of oneself over a year or macro-level of identity), while identity on the macro-level guides experiences made on the micro-level (Bosma & Kunnen, 2001; Lichtwarck-Aschoff et al., 2008). To systematically investigate this assumption, the study focused on interrelations between short-term fluctuations and mid-term change as well.

As previously mentioned, studies on identity formation often assessed development on mid- to long-term time-scales and neglected shorter time-scales. However, identity processes manifest differently depending on the chosen time scale and results should

not be cross-generalized across scales (Lichtwarck-Aschoff et al., 2008). Developmental processes on a shorter time scale (e.g., days) are mean-reverting (McNeish & Hamaker, 2020), i.e., although they can fluctuate from day to day, no significant mean-level change occurs during the observation period. Therefore, the second study focused again on the short-term time scale and examined associations between European identity commitment and media.

The third study investigated adolescents' understandings of being European. Identity content has often only been defined apriori by researchers using identity domain (e.g., interpersonal, educational; see for further elaboration McLean, Syed, Yoder, & Greenhoot, 2016). However, meanings of being European can differ from adolescent to adolescent and those different meanings can be associated differently with outcomes such as intergroup relations. Furthermore, it is plausible that developmental patterns differ depending on the specific identity content (e.g., different identity statuses as endpoints of identity formation). Thus, the third study aimed to examine different understandings of being European and how they are associated with identity processes, outcomes for EU support, and intergroup relations.

8.2. General Discussion

In the following, an overview of the results will be given separately for each of the four research questions.

8.2.1. How Does European Identity Develop on the Short- and Mid-Term Time scale?

To answer how European identity develops across a short- and mid-term time scale, I examined mean-level changes, rank-order stability, and profile similarity across ten days and one school year. All three indicators were investigated for commitment, in-depth exploration, and reconsideration of commitment. By using Latent Growth Curve models (LGCM), I could assess interindividual variability in intraindividual patterns of change over time (Curran et al., 2010), i.e., LGCM can estimate the mean growth process for a sample, while also estimating variability in individual growth curves. Rank-order stability and profile similarity are both indicators for stability. The former refers to the

rank-order of an adolescent within the sample in regard to an identity process, i.e., whether an adolescent with high initial levels of commitment in comparison to other adolescents will continue to show high commitment in comparison to others across the observation period. The latter refers to the within-person stability of different identity processes, i.e., whether an adolescent with high levels of commitment, moderate levels of exploration, and low levels of reconsideration would display a similar pattern a year later.

In regard to identity development on the mid-term time scale (one school year), all three identity processes significantly increased from the beginning to the middle of the school year and significantly decreased towards the end of the school year. Thus, they showed an inverse U-shaped growth. Rank-order stability and profile similarity were at least moderate. Reviews on identity development across different domains (Meeus, 2011, 2019) found that identity generally changed little across adolescence. If changes occurred, it was mostly in the direction of identity maturation, i.e., an increase in commitment and exploration, and a decrease in reconsideration. Based on previous evidence, I expected no mean-level changes or changes in the direction of identity maturation, and at least moderate stability of identity processes. Although the results concerning stability were in line with my expectations and similar to other domains, the growth pattern of European identity was different.

Looking at the initial mean-levels of the identity processes, it is possible that adolescents were in a diffusion-like state (Crocetti et al., 2008): Commitment was moderate, and in-depth exploration and reconsideration were low. On a developmental level, this implies that adolescents held some moderate prior commitments towards being European (e.g., from their parents), but did not engage in in-depth exploration yet, nor did they reconsider their prior commitments yet. As a result, external influences could have affected them more easily than someone with firm commitments (Kroger & Marcia, 2011). Notably, one contextual factor during our observation period might have represented such an external influence: Russia invaded the Ukraine around the middle of the school year.

Previous studies (e.g., Bobba et al., 2023; Gniewosz et al., 2013) found effects of distal contextual factors on developmental outcomes in general and on EU citizen identity in

specific (Gehring, 2022). Furthermore, the perceived threat of Russia's invasion might have induced feelings of uncertainty in adolescents, which theoretically could have prompted in-depth exploration and reconsideration of commitment (Erikson, 1950, 1968). Therefore, the beginning of the Russian-Ukrainian war around the middle of the school year might explain some of the unexpected growth. However, this explanation requires two underlying assumptions. First, adolescents had to know about Russia's invasion. Given the presence of the topic in German media at that time, this assumption is likely. Since contextual factors are important influences on development (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2007), I encourage future studies to consider those in some way during their observation period (e.g., counting its mentions in news). Second, adolescents had to define being European as an umbrella identity that includes Ukrainians as ingroup members. Otherwise, the perceived threat should not have affected them in their European identity development, but maybe in their development in another identity domain (e.g., humanitarian identity). Future studies could include participants' definition of identity domains when studying identity development. This would allow to systematically investigate differential developmental patterns and pace depending on content (McLean, Syed, Yoder, & Greenhoot, 2016)

In regard to identity development on the short-term time scale (ten school days), identity processes differed in their growth patterns from each other. Commitment decreased significantly across the ten days, in-depth exploration significantly decreased but later increased again, and no significant change for reconsideration of commitment occurred. Still, all those changes were small in size and could be interpreted as negligible, implying rather stable identity processes. The stability of the processes is further indicated by their high rank-order stability and profile similarity. These findings are in line with previous findings on identity development (see Meeus, 2011) and comparable to other diary studies on identity development (e.g., Becht et al., 2017).

However, similar to the majority of previous studies that focused on short-term identity formation, I might not have assessed micro-level processes of identity, but rather short-term macro-level processes. Klimstra and Schwab (2021) argued that the adequate assessment of micro-level identity should reflect one's sense of commitment and exploration or expressions of those in concrete situations (e.g., reading Europe-

related news), rather than examining reflective processes. Since I relied on the U-MICS' daily diary measures (Becht, Nelemans, et al., 2016; Klimstra, Luyckx, et al., 2010), the assessment focused on reflective processes (e.g., "Today, I felt European") and not on expressions of identity within a situation. Klimstra and Schwab (2021) further argued that future studies that really want to examine micro-level identity should operationalize identity as concrete and discrete thoughts, behaviors and emotions relevant to that identity, e.g., for occupational identity one could use the number of sent applications for jobs. I encourage researchers to theoretically examine potential operationalizations of micro-level identity and discuss them in terms of different identity domains.

8.2.2. How are Daily Processes Related to Mid-Term Change?

Initial levels of commitment (e.g., high vs. low) were related to later fluctuations in daily commitment, i.e., adolescents with high commitment fluctuated less in commitment half a year later. Furthermore, fluctuations in daily commitment were negatively associated with change in commitment levels, i.e., adolescents that fluctuated more in their commitment levels significantly decreased in their commitment levels within the following six months. No other identity process or their fluctuations were associated with each other. Taken together, my results suggest that high levels of commitment are indicative of a strong sense of selfsameness and identity (Erikson, 1950, 1968) regarding being European. Thus, these adolescents can maintain strong commitments over time and are also more stable in their commitments (Klimstra & Schwab, 2021; Lichtwarck-Aschoff et al., 2008). This interpretation is supported by other longitudinal findings (Becht et al., 2021). To more conclusively state these associations between initial levels of commitment, fluctuations in commitment, and change in commitment, future studies should test them in one statistical model, which would require a larger sample size than the one in my study.

Notably, no other identity processes or their fluctuations were associated with each other. Previous studies found levels and fluctuations of commitment to be associated with levels and fluctuations of reconsideration (Becht et al., 2017; Klimstra, Luyckx, et al., 2010). Both processes are considered to be part of an uncertainty-certainty dynamic

(i.e., identity formation cycle; Meeus, 2011). Both processes should concurrently be negatively associated, but over an extended period of time, higher levels of reconsideration should be associated with an increase in commitment. This association mirrors a period of exploring identity alternatives, which precedes an increase in identity commitment (Erikson, 1968; Marcia, 1966). More fluctuations of reconsideration could be associated with lower mean-levels of commitment and higher mean-levels of reconsideration at a later point, as adolescents enter an identity formation cycle (Klimstra et al., 2010). Further, Becht et al. (2017) theorized that fluctuations of commitment could indicate evaluative identity processes and thereby decrease reconsideration over time. This line of reasoning would suggest that exploration and its fluctuations could relate to subsequent higher commitment levels as well.

I have two explanations for the missing association between reconsideration and commitment: (1.) this association is somewhat specific to previous studies and (2.) a European identity might be a closed domain and therefore differs in developmental patterns. Concerning the first aspect, the majority of previous studies used data from the same data set: the RADAR project (e.g., Becht et al., 2017; Klimstra, Luyckx, et al., 2010; Schwartz, Klimstra, et al., 2011). This means that most associations were only found for the operationalization of educational and interpersonal identity within the observation period provided by the project. While the RADAR project's data collection procedure is exhaustive (three weeks of daily assessment per year separated by three months and one annual assessment), it offers only evidence for developmental processes that happen in these observation periods. However, the project offers no theoretical rational on the timing of identity developmental processes. It could be that fluctuations of reconsideration are associated with a decrease of commitment levels across the project's observation period, but that this association would disappear during a longer or within a shorter observation period. Future research could examine how cross-time level interactions differ depending on the timing of assessments, especially for other identity domains than the interpersonal and educational domain. This could also further our theories on the timing of identity development.

Concerning the second aspect, the study of Becht et al. (2017) indicated that cross-time interactions differ for the interpersonal and educational domain. For the

interpersonal domain, fluctuations of reconsideration were relevant in predicting later levels of commitment, while for the educational domain fluctuations of commitment were relevant in predicting later levels of commitment. The relevance of identity processes seemingly differed depending on the examined domain. The authors explained their findings by referring to the domains' relative openness vs. closeness to change (Meeus et al., 1999). This means that adolescents might feel different levels of commitment towards their schools across a year, but since changing schools is not easily accomplished for adolescents they might not engage in serious reconsideration (Becht et al., 2017). In comparison, changing friends is more easily accomplished. Therefore, reconsidering current commitments could be useful for them. A European identity could be a closed identity domain, in the sense that adolescents might perceive being European without an alternative. One either feels European or not. This might partially be caused by the fact that my sample did not engage in exploration or reconsideration yet. Older samples might hold various and more complex conceptualizations of being European, whose content could be revised. To test this explanation, future studies could examine daily dynamics depending on complexity of the identity content or relative openness vs. closeness to change.

8.2.3. How Does Media Influence Daily Processes of European Identity Development?

To focus more closely on short-term identity formation processes, I examined daily European identity commitment and how it is associated with media valence of political content. This association was assumed to be mediated by populistic attitudes. I found no significant concurrent or lagged associations between media valence and commitment, or populistic attitudes and commitment. Considering the significant autoregressive effects of commitment, daily European identity commitment can be assumed to be rather stable and not associated with political media content.

One explanation for the nonsignificant findings could be that my operationalization of European identity was not appropriate for measuring intraindividual variability on a daily basis. The U-MICS' daily diary measures tap into reflective processes, which might not change as much from day to day as compared to expressions of identity would. As a

result, commitment varied less, which made daily associations harder to detect. The relative stability of reflective processes has also been shown in other empirical studies (Becht et al., 2017; Klimstra, Luyckx, et al., 2010), implying that researchers could reconsider their operationalizations of identity processes to capture more varying aspects of identity. Alternatively, future studies could increase the number of observations per participants to increase the power to detect intraindividual variability within reflective processes. Finally, it could also be interesting to examine both reflective and expressive operationalizations of identity conjointly. For example: does stability really differ for the two operationalizations? Do these two aspects interact with each other on a daily basis?

Another explanation could be once again, that the understanding of what being European means had an effect on the association. In European identity research, a strong identification with Europe is theorized to be important for EU support (Habermas, 2014). This assumes that a European identity overlaps with an EU citizen identity. Thus, it might be affected by negative attitudes towards the EU, such as antiestablishment feelings and populistic attitudes (Weßels, 2007). Since being European can mean different things to my participants and those meanings were not differentiated, associations between predictors and European identity commitment might have been attenuated. For example, the study of Bruter (2003) has shown that different conceptualizations of European identity are affected differently by positive or negative political news, i.e., a civic European identity was more strongly affected by negative news than a cultural European identity. Future studies could consider identity content, particularly for domains whose contents might be differentially related to certain predictors (e.g., political attitudes and a European identity).

8.2.4. What Does it Mean to be European?

Based on open-ended answers on what it means to be European, I could identify three classes of European identity content: living-based, culture & value-based, and ancestry-based. Classes differed in content (e.g., relatively more mentions of European values and community for the culture & value-based class) and associations with predictors. Class membership was not associated with EU support suggesting similar

importance of the EU for all adolescents. In comparison, intergroup relations were significantly associated with class membership. Specifically, adolescents in the ancestry-based class showed the highest levels of intolerance and participants in the culture & value-based class the lowest levels of intolerance.

Regarding identity formation processes, I exploratively examined associations between content and levels of commitment, in-depth exploration and reconsideration of commitment. Adolescents did not differ in terms of reconsideration. Adolescents in the culture & value-based class showed the lowest levels in exploration and commitment, i.e., neither did they think much about their European identity yet, nor did they particularly identify as European. Adolescents in both other classes showed higher levels of exploration and commitment, with adolescents in the ancestry-based class showing the highest levels of commitment. Mean-levels were moderate for those two classes as well, i.e., even though participants in the ancestry-based class identified most strongly with being European, their identification was still only moderate and exploration rather low. Results indicated that identity processes can differ depending on identity content (see section 8.3.1. for further discussion). Future studies could implement measures of identity content in longitudinal studies to examine different developmental patterns depending on identity content.

The study also offers evidence that contrary to common conceptions of being European, is not equivalent to being an EU citizen. Further, a European identity is not per se a more ethnically inclusive identity. Thus, identifying as European might not be sufficient for EU support or positive intergroup relations, but it is dependent on the identity's content (see section 8.3.2).

8.2.5. Contribution in General

This dissertation offers valuable insight regarding identity development in a previously understudied identity domain: the European identity. It further provides evidence for developmental processes on a short- and mid-term time scale, and how those are interrelated. Additionally, I particularly focused on daily dynamics of identity formation and potential daily predictors. Finally, this dissertation highlights the importance of considering identity content, when studying development. Additionally,

all studies' hypotheses and statistical analyses were preregistered and their material to reproduce the results are openly available on osf (please see the links provided in the respective studies).

8.3. Future Directions

In the next sections, I want to discuss future research directions with reference to limitations in my dissertation. These include: (1.) a focus on identity content and not just identity domain, (2.) the difference between being a European and an EU citizen, and (3.) operationalizations approaches for identity depending on the chosen time scale.

8.3.1. From Descriptive to Content

As mentioned on several occasions throughout the dissertation, one important future direction in identity research would be to include identity content when studying identity development (McLean, Syed, Yoder, & Greenhoot, 2016). During adolescence, young people begin to take ownership of their lives by selecting commitments that are consistent with how they conceptualize their current and past selves (Erikson, 1968). These commitments are chosen by exploring different roles and beliefs in various domains and integrating those roles in a meaningful manner (McLean, Syed, & Shucard, 2016). As a result, the specific content of a domain might vary from person to person. This variation can be seen for example in my third study (Mayer, Körner, & Jugert, submitted): while some adolescents viewed being European in terms of ancestry, some viewed European in terms of culture and values. Additionally, these different contents were differently associated to identity processes. The vast majority of research on identity formation defines identity domains a priori, i.e., adolescents were asked about their educational identity (e.g., Hatano et al., 2020; Pop et al., 2016). Whether these domains were relevant for adolescents or what their educational identity included remained unexamined. Both aspects are arguably important to understand developmental patterns, i.e., the qualitative study of McLean, Syed, Yoder, and Greenhoot (2016) found that identity processes varied by identity content and relevance of domain.

From the studies combining content with identity processes, the majority adapted a qualitative approach (e.g., McLean, Syed, & Shucard, 2016; McLean, Syed, Yoder, & Greenhoot, 2016) following the narrative identity model (McAdams, 2001). I argue that including identity content in quantitative studies would benefit research on identity formation as well. By adapting a quantitative approach, large sample sizes are more easily acquired. This in turn eases the possibility to achieve generalizability. Furthermore, a quantitative approach allows to examine interrelations of content and processes, and differential associations to other outcomes, e.g., intergroup relations. How to best implement identity content within a questionnaire study is still an unanswered question. In this dissertation, I included an open-ended item regarding what being European means for adolescents as well as close-ended items. However, differently worded questions or other methods to assess content might lead to different results.

To conclude, I encourage researchers to include assessments of identity content in their quantitative studies. I want to do this not from a position where I present a definite answer on how to best do it. Rather, I want to suggest that we as researchers would benefit from investigating how different understandings of an identity might affect interrelations or could even lead to different results, e.g., contrary to common assumptions, intergroup relations benefit only from a culture & value-based understanding of being European and not from identification as European in general. Furthermore, the research field of identity development could benefit from a more nuanced understanding of how identity processes coincide with content and what explains the accordance. For example, why were adolescents more committed to a European identity, when they had an ancestry-based understanding of being European? Taken together, including content in the research of identity development offers interesting and important new directions.

8.3.2. European is not Equal to Being an EU citizen

A related topic that I want to discuss further is the conceptualization of a European identity. In studies on European identity, identification with Europe is often theorized to be important for EU support (Habermas, 2014) and for intergroup relations (e.g.,

Brummer et al., 2022), i.e., by feeling European, EU citizens will support EU institutions. Similarly, it is assumed that by feeling European all people living in Europe will perceive each other as part of the same ingroup, which in turn decreases prejudices and outgroup bias. These associations implicitly include the assumptions that a European identity is defined civically and more ethnically inclusive. Therefore, adolescents include EU institutions (e.g., Savvides & Faas, 2016) and values such as humanitarianism or diversity, instead of a need to have certain ancestry (Clycq, 2021) in their conceptualization of being European.

Regarding the association between European identity and EU support, this suggests a certain overlap between a European identity and an EU citizen identity. However, being European and being an EU citizen are two distinct categories, despite often being used interchangeably (Bergbauer, 2018). The EU is a political and economic union of some European countries that have elected to join a union to foster economic cooperation. Contrastingly, Europe is a continent with a diverse range of countries and cultures, which extend beyond EU member states. For example, Türkiye is not part of the EU. At the same time, part of Türkiye is situated in Europe and its citizens reportedly identify as Europeans (Agirdag et al., 2016). As a result, associations between European identity and EU support remain unclear if the identity's content is not included in the study. The frequently applied differentiation of civic versus ethnic aspects of European identity helps to clarify the associations. Nevertheless, individual conceptions of being European or a national citizen can differ more extensively than just being either civic versus ethnic (e.g., Ditlmann & Kopf-Beck, 2019; Slavtcheva-Petkova, 2013).

Regarding the association between European identity and intergroup relations, this suggests that when someone identifies as European, they are to some extent tolerant or open to ethnic diversity. Especially in comparison to individuals identifying with their nation, being European should be defined ethnically inclusive, i.e., independent of a certain ethnic heritage of having to share social similarities (Clycq, 2021). Evidence for positive effects of European identity on intergroup attitudes is mixed and several studies found evidence contrary to it (e.g., Fleischmann & Phalet, 2016; Landberg et al., 2018; Licata & Klein, 2002; Visintin et al., 2018), i.e., that participants identifying as European showed higher intolerance towards immigrants than participants not identifying as

European (Licata & Klein, 2002). In times of increasing resistance against migration and refugees in many European countries and support of antiimmigration laws, it seems unreasonable to assume that a European identity will be beneficial for intergroup relations. Here as well, researchers could benefit from including identity content when examining the relation between European identity and intergroup relations. By doing so, we could systematically investigate, which contents schools could foster in adolescents to contribute to a more tolerant society.

Finally, I want to add that there is awareness for these conceptual differences (Bergbauer, 2018). However, in some studies European identity content is still just assumed without being tested, which in turn confounds associations and complicates explaining results. Again, I would encourage researchers to include a measure of identity content when studying European identity and its associations to other variables.

8.3.3. Towards a Micro-Conception of Identity

Another reoccurring limitation discussed in my dissertation is the conception of identity on the micro-level. As argued by Klimstra and Schwab (2021), the U-MICS' daily diary scale might not really assess micro-level identity, but rather macro-level identity measured on shorter time intervals. They argue that micro-level identity expresses itself in terms of concrete and discrete thoughts, behaviors and emotions relevant to that identity. This means that the assessment should reflects one's sense of commitment and exploration or expressions in the given situation (e.g., reading Europe-related news), rather than examining reflective processes. Therefore, similar to the majority of other studies on short-time identity formation, my dissertation expanded our knowledge on macro-level identity rather than micro-level identity. This expansion is a valuable contribution to research on identity development, however, several questions regarding micro-level identity process remain unanswered.

Important steps to address the gaps in the literature would be (1.) to create measures of micro-level identity and validate them, and (2.) to apply them in studies. So far, there is one study from Dietrich et al. (2013) that assessed short-term educational identity with items reflecting concrete commitment- and exploration-relevant acts. For example, they asked participants to name majors they were considering and whether they sent

out applications. Similar items could be formulated for other identity domains, although the operationalization could be challenging for identity domains that are less salient for individuals. For example, EU- and Europe-related topics are not too important for early adolescents in their everyday live, and they are not often confronted with those topics in schools or at home either (Mayer et al., 2023). Future studies will need to consider how concrete expressions of identity might look like for their targeted sample.

8.4. Conclusion

This dissertation aimed to gain more insight into identity development of a currently understudied identity domain, the European identity. Despite its assumed importance for the sustainability of the EU or intergroup relations, there is only limited evidence regarding its development. Furthermore, I aimed to examine identity development across different time-scales with a focus on short-term development, and the different time scale's interrelations. Finally, I aimed to include identity content in the study of identity development.

The first study examined how European identity development unfolds on a short- and mid-term time scale, and how processes on both scales interact. It could be shown that while European identity is rather stable across both time levels, patterns in mean-level changes differ depending on the chosen time scale. Results further indicated that levels, fluctuations, and change in identity processes are interconnected. The second study focused on the short-term time scale and how daily factors affect daily identity commitment. I found no associations of commitment and any of the predictors. This could indicate that commitment is relatively stable and resistant against daily influences over a shorter period of time. The third study indicated that adolescents understood being European in a variety of ways and that those understandings relate differently to developmental processes and other outcomes. The study highlights the importance of considering identity content when studying identity processes.

All in all, this dissertation contributed to our understanding of identity development and offered possible future directions for researchers interested in identity development in general or European identity formation in specific. Furthermore, its findings stressed the importance of considering identity content, when studying identity

development, but also associations between identity and other outcomes. This might be of special interest for adolescents' educators, insofar as that the promotion of a European identity alone will not automatically result in open-minded and humanitarian definitions of being European. Instead, adolescents are equally likely to adapt an ancestry-based understanding of being European, which in turn is related to intolerance. Hence, school curricula and teachers could aim to foster a European identity that is based on humanitarian values, acceptance of diversity, and acknowledgment of human rights. Based on the potential effect of distal contextual factors (in this dissertation: start of the Russian-Ukrainian war) educators could be more sensitive towards those medial topics and discuss them in a critical manner within lessons. Even though European identity commitment was rather unaffected by daily political content across ten days, it might deteriorate over a longer period of time due to political mistrust, alienation, or populistic attitudes. Those could be attenuated by discussing threatening political incidence with adolescence.

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