

# Emotional and Motivational Engagement at School Transition: A Qualitative Stage-Environment Fit Study

Journal of Early Adolescence

2016, Vol. 36(1) 54–85

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DOI: 10.1177/0272431614556348

jea.sagepub.com



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## Abstract

Adolescents typically like school less after making age-graded school transitions. Stage-environment fit theory (Eccles & Midgley, 1989) attributes this to a mismatch between developmental needs and new school environments. Our in vivo study provides a basis for future quantitative designs by uncovering the most prevalent stage-environment interactions in adolescents' descriptions about school. Across one school year, adolescents discussed their emotional and motivational engagement. Emotional engagement (i.e., liking) was mainly based on adolescents' emotions interacting with their daily experiences of teachers, peers, and lessons. In comparison, motivational engagement (i.e., value) was attributed to distal interactions between the self-concept and school as a gateway to friendships and a career. Because unique stage-environment interactions occurred for each engagement type and adolescents felt simultaneously engaged and disengaged, we recommend finer grained analyses of measured engagement. Finally, we argue for discerning time periods of preparing for, encountering, and adapting to new environments in stage-environment fit models, in our proposed model of transition phase psychology.

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**Keywords**

affect/emotions, classroom behavior/environment, middle school, school context

School transition is a significant life event for many early adolescents. Often, marked changes in self-perception, attitudes, and behavior are documented in adolescents' first year at a new school (Eccles, Midgley, Wigfield, et al., 1993; Galton, Morrison, & Pell, 2000) suggesting this period is critical to psychological development. Of particular concern is the trend of small to moderate declines in adolescents' feelings about school and the value they attribute to it, observed across the United States, United Kingdom, and other parts of Europe (Symonds & Galton, 2014). These feelings can be conceptualized as emotional and motivational engagement as we outline in our literature review.

Although declining engagement may be part of a longer term slope noted across the middle school and high school years (Wang & Eccles, 2011), adolescents' feelings and values tend to dip immediately after transition or decline more steeply then (Galton, Hargreaves, & Pell, 2003; Wigfield & Eccles, 1994). This suggests four things. First, adolescents may feel less positive about school as biological and social changes prompt a normative developmental shift in emotional responses and attitudes. Second, the environmental features of post-transition schools, for example, having subject specialist teachers, may engender more negative emotion than their pre-transition counterparts. Third, both factors might interplay to create a sudden loss of enthusiasm about school. Fourth, the act of transferring to a new school might provoke unique psychological responses that influence engagement, as we explicate in our emergent theory of transition phase psychology, discussed at the end of this paper.

Stage-environment fit (SEF) theory (Eccles & Midgley, 1989) works the first three mechanisms into a process. It envisions the characteristics of early adolescent psychology and changes between pre- and post-transition school environments as separate continuums. Interactions between the continuums are compared across transition. The change in quality of these interactions, for example, moving from a positive to negative state, is proposed to affect the overall "fit" between adolescents and their school environment. In this research, we perceive emotional and motivation engagement as indicative of the fit between adolescents' psychology and school environment. Research shows that these engagement types are influenced at school transition by the match between autonomy and classroom decision-making opportunities (Mac Iver, Klingel, & Reuman, 1986), the contribution of relationships with

peers and teachers to autonomy, relatedness, and competency (Zimmer-Gembeck, Chipuer, Hanish, Creed, & McGregor, 2006) and the move to vocational versus academic schools (Salmela-Aro, Kiuru, & Nurmi, 2008). Emotional engagement also predicts self-perception development in the post-transition year (Zoller Booth & Gerard, 2014).

Despite the substantive value of these findings, the body of extant SEF research is limited in the following ways. First, the models examined relationships between a handful of premeditated variables. In truth, we know little about the range of SEF interactions that might influence engagement. Second, the models are based on SEF theory developed from a review of quantitative associations between self-perceptions and school environment conducted 30 years ago (Eccles, Midgley, & Adler, 1984). Here, it may be that other and more recent associations are imperative to SEF processes. Also, although that review demonstrated how particular associations repeated across studies, this is only proxy evidence of how psychology and environment might have interacted. This is because unmeasured variables might have better explained the trends had they been included in the reviewed studies. Also, we cannot rule out that the reviewed associations and those found in recent models were not coincidental, as they were tested for significance in a manner designed exclusively for random samples but were worked from convenience data (Gorard, 2014). Finally, no prior SEF research tested interactions across transition and non-transition samples. Therefore, there is no way of identifying whether school transition is accountable for the mismatches proposed by SEF theory. Rather, mismatches might also be typical of moving between grades at this age. Given these limitations, it is necessary for stage-environment interactions to be observed in naturally occurring data gathered from transition and non-transition groups for the theory to be validated and brought up to date. Our study took on this challenge by using grounded theory which is an *in vivo* method of analysis that builds categories and relationships based on regularities the fieldworker “literally sees” in spoken or enacted data (Glaser & Strauss, 1967, p. 40) to uncover a range of stage and environment interactions in same-aged adolescents who remained at the same school or transferred into their first year of secondary school in England.

## **Theoretical Perspective on Stage-Environment Fit**

In 1938, Benedict observed that “age-graded cultures characteristically demand different behavior of the individual at different times of his life” (p. 165). Inspired by this observation, Higgins and Parsons’ (1983) review of age-graded phenomena in Western society noted how environmental differences between elementary and junior high schools could affect adolescent

socialization. Soon after, Eccles et al. (1984) reviewed declines in adolescents' motivation at transition and proposed that a developmental mismatch between typical features of junior high school environments (e.g., multiple specialist teachers) and adolescents' psychological characteristics (e.g., desire for autonomy) was occurring. In 1989, Eccles and Midgley formulated this hypothesis as the SEF theory. The theory builds on Hunt (1975) who introduced the notion of matching to describe person-environment interactions, such as academic ability and teacher control, that produce desirable behavioral outcomes such as achievement. SEF theory extends Hunt's perspective by introducing chronology, as it conceptualizes how person and environment can have typical interactions according to their respective developmental and age-graded characteristics.

In a personal communication, J. Eccles (June 19, 2009) explained that her use of the word stage in SEF referred to psychological characteristics that reflected a systematic change in physical and social development. Accordingly in her descriptions of SEF, early adolescent characteristics were the physical and hormonal changes associated with pubertal development and increased cognitive capacity, desire for autonomy, focus on identity issues, self-focus, self-consciousness, and peer orientation; and the need for a safe environment in which to enact these changes (Eccles et al., 1989). We considered these constructs as important to our qualitative investigation. However, we also included adolescents' in the moment representations of their psychology such as identity descriptions, motivational rationales, and basic psychological needs (e.g., Deci & Ryan, 1985) to facilitate our search for new regularities which might be operationalized as adolescent characteristics in the study context. Concerning the environment, Eccles and colleagues gave examples of grade-related changes that mismatched with adolescents' developmental characteristics, but did not issue these as a prescription for all SEF studies. Given our *in vivo* approach, we wished to accommodate a wide range of environmental factors, therefore, conceptualized the environment in SEF as exceeding the school ecosystem. Bronfenbrenner's (1986) person-process-context-time model suggests that a normative life transition such as changing schools may influence development (in this case emotional engagement) across multiple developmental contexts, including school, family, neighborhood, and the media, at different levels of time. Building on Bronfenbrenner's model, Rimm-Kaufman and Pianta (2000) suggested that children's relationships with people in these contexts operate as a dynamic system of influence on the child, which affects their school adjustment. With this in mind, we considered all physical and relational contexts as potential environmental factors. Third, similar to Bronfenbrenner's notion of nested environmental systems (e.g., micro, meso) theorists have proposed that environmental

factors comprise people's *immediate* daily experiences, *proximal* settings such as school and home, and *distal* environments such as national economic contexts (Magnusson & Stattin, 2006). Using all the frames of reference above, we considered that environmental factors issuing from a range of contexts might have influenced school emotional engagement at different levels of time and experience.

Finally, we give our perspective on what constitutes interactions in SEF by drawing on causal inference theory from epidemiology (i.e., Hernán & Robins, 2015). Here, interactions can be causal or bi-directional and require two or more variables, that is, emotional engagement ( $x$ ), friendly teachers ( $y$ ), and self-esteem ( $z$ ). Causality can be inferred when, for example, the aspect of emotional engagement ( $x$ ) attributed to having friendly teachers ( $y$ ) is missing when teachers are unfriendly (i.e., a lack of  $y$ ). Bidirectional interactions, on the other hand, involve three factors ( $x$ ,  $y$ , and  $z$ ). Here, an interaction between friendly teachers ( $x$ ) and self-esteem ( $y$ ) can be said to occur when a third variable, that is, emotional engagement ( $x$ ) is in some part dependent on their concurrence. From a qualitative perspective, causal and bi-directional links between factors are represented in speech by connective words and phrases (e.g., because) and are indicated by the proximity of clauses and sentences (e.g., I like school, my teachers are friendly). Much quantitative research assumes that variables interact when their measured levels systematically coincide across a sample. However, it may be that these correspondences are coincidental. Also, these analyses tell us little about the many ways in which  $x$  might relate to  $y$  other than by measured level. Although we do not use causal inference theory to structure our analysis, we utilize it as a theoretical basis for identifying a range of qualitative interactions in children's speech.

## Theoretical Perspective on School Engagement

School engagement has been conceptualized by Fredricks, Blumenfeld, and Paris (2004) as a multicomponent construct, consisting of emotional, cognitive, and behavioral engagement. Emotional engagement is described as both *emotional responses* "including interest, boredom, happiness, sadness, and anxiety" (p. 63) in the classroom, and *attitudes* toward school, teachers, and learning. The authors observed that attitudes to school are often measured as a mixture of emotional responses, affective states, and evaluations of subdomains of school (e.g., I am bored in lessons, I like my friends, I value mathematics). These evaluations include how useful, interesting, and valuable children find school, constructs that are integrated as the expectancy-value theory of motivation (Eccles et al., 1983).

More recent stances on emotional engagement view emotional responses as the antecedents of engagement, rather than part of it (Eccles & Wang, 2013; Pekrun & Linnenbrink-Garcia, 2013). This is because emotions are the “the synergistic response of multiple independent body systems in response to a stimulus” (Nelson, Lau, & Jarcho, 2014 p. 99), that is, a *reactive* state, rather than the *action* of being invested in something which is a central tenet of engagement theory (Fredricks et al., 2004). In classrooms, emotions are triggered by the cognitive experience of doing work (e.g., frustration, curiosity), by thinking about work in relation to self (e.g., pride, anxiety), by work content (e.g., empathy with a protagonist), and by relationships (e.g., loving a classmate; Pekrun & Linnenbrink-Garcia, 2013).

Furthermore, critiques of the three dimensional engagement theory have reduced engagement to cognitive and behavioral activity in the educational context, such as paying attention and turning up to class (Eccles & Wang, 2013). This prevents cognitive abstractions such as attitudes, identity, and beliefs from being considered as engagement. However in our view, constructing, storing, and using these abstractions constitutes investment or lack thereof in school. This view follows the tenet that mental perceptions are dynamic, therefore constitute as activity (e.g. Markus & Wurf, 1987). Also, mental perceptions have elements of continuity and discontinuity (Lerner, Lerner, von Eye, Ostrum, Nitz, Talwar-Soni et al., 1996) ergo continuity signifies continued mental investment in that element of the perception. For example, adolescents with strong attitudes toward school are more actively invested in school experiences (i.e., hating, loving) than those who have an absence of feeling or evaluation (i.e., not caring, neutral). In this perspective, attitudes count as engagement. We intend to explore this notion in a future publication.

However, there is still a definition issue with whether the attitudes described by Fredricks and colleagues are emotional. Attitudes are defined by their use of criteria to evaluate objects (Potter & Wetherell, 2008). In our perspective, if those criteria are emotions, such as pride, joy, and affective states such as liking (e.g., “I am proud of my school,” “I like my school”), then those attitudes can be said to be *emotional*. However, criteria such as value, importance, and respect are essentially non-emotional. Although we might have feelings relating to these evaluations, they are a second-order phenomenon and are not the abstractions themselves. Therefore, we consider this set of non-emotional criteria as *motivational* engagement. Here, we work expectancy value theory (Eccles et al., 1983) into the concept of motivational engagement outlined as intrinsic and extrinsic motivation and goals by Pekrun and Linnenbrink-Garcia (2013).

To summarize, we separate *motivational engagement* and *emotional responses* from *emotional engagement* which together formed Fredricks and colleagues' (2004) definition of emotional engagement. In our view, emotional engagement is emotionally laden mental investment in an object. This definition encourages using a range of emotional criteria to judge schooling, including more intense feelings of anxiety, depression, hatred, and love, which are rarely included in multidimensional school perception measures. We discern these phenomena from non-emotional evaluative criteria, such as value, importance, and usefulness, which are better described as motivational engagement. Both engagement types are used in the analysis.

## The Present Study

This research aimed to uncover which stage-environment interactions had the most common influence on children's emotional and motivational engagement with school by using an in vivo approach to collecting and analyzing data. Our study was conducted across one school year and had an emergent interview schedule. For these reasons, we could not identify how stage of development altered between grades and instead conceptualized it as the elements of adolescents' psychology that repeated naturalistically within the set of interviews. We elicited stage-environment interactions specific to transition by comparing two same-aged groups of adolescents (in Grade 6, U.K. Year 7), who had either transferred into their first year of secondary school (Grades 6-10; transition) from a more simplistic primary school environment or were in the familiar surrounds of their third year of middle school (Grades 4-7; non-transition). We elicited engagement perceptions with open-ended questions, then used grounded theory and numeric analysis to answer the following questions.

**Research Question 1:** How did adolescents describe their emotional and motivational engagement toward school?

**Research Question 2:** What were adolescents' rationales for their engagement?

**Research Question 3:** Which stage and environment factors most frequently interacted in adolescents' engagement rationales?

Although we were not able to identify how our sample developed via SEF across transition, we did flesh out the post-transition component of SEF which might inform future studies of SEF as a process.

**Table 1.** Descriptive Statistics for Year and Target Groups.

	Non-transition		Transition	
	Year	Targets	Year	Targets
Number	55	10	197	10
Age $\bar{X}$ ( <i>SD</i> )	11.72 (0.30)	11.68 (0.32)	11.70 (0.29)	11.61 (0.25)
Female %	63.60	60.00	50.30	40.00
White %	96.20	100.00	90.60	100.00
Pubertal %	66.70	40.00	68.00	90.00
W1 Engagement $\bar{X}$ ( <i>SD</i> )	3.19 (0.44)	3.23 (0.53)	3.06 (0.33)	3.05 (0.68)
W2 Engagement $\bar{X}$ ( <i>SD</i> )	3.13 (0.39)	3.30 (0.40)	3.05 (0.39)	2.90 (0.76)

## Method

### Participants

All Grade 6 adolescents from one middle school (Grades 4-7; non-transition) and one secondary school (Grades 6-10; transition) in the East of England were approached to participate in the study. Adolescents who returned consent forms ( $N = 252$ ) were surveyed regarding their gender, pubertal status, and school perceptions at the start of the fall term (Wave 1) and middle of the summer term (Wave 2; Table 1). From these adolescents, we selected 2 groups who were involved in a longitudinal interview study. Each group was designed to represent the “strata” of results in their school (Teddle & Yu, 2007, p. 90) for the above measures. This was done to improve the generalizability of interview findings to the wider Grade 6 populations. Pubertal status and gender were used as criteria because extant research demonstrates their systematic influence on person-environment fit processes that associate with attitude to school at transition (e.g., Miller, 1986; Roderick, 2003) and we wanted to capture any such variation in our sample.

First, we created 9 theoretical groups based on the strata of gender (*boy/girl*), pubertal onset (*yes/no*), and school perceptions level (*high*: above or *low*: below, the mean of that year group; Table 2). Then, we identified all adolescents who fit those groups for each school. We provided schools with a respective list and requested that schools choose 1 participant per group and 1 more to ward against attrition, who were suitable for involvement in a longitudinal interview and observation study held across 3 school terms (fall, spring, and summer). The transition school supplied us with a list of 10 appropriate adolescents, and the non-transition school provided us with 9. We compensated for this imbalance by including a boy without survey data in the



**Table 2.** Target Adolescents.

H-Y-M	H-Y-G	H-N-B	H-N-G	L-Y-B	L-Y-G	L-N-B	L-N-G
Non-transition							
Gus	Ayesha Yasmin	James Bobby	Deirdre		Joanna	Indiana Alex	Lauren
Transition							
Billy	Ruby		Stacy	Jacob	Jane		
Brian	Chloe			Kevin			
Matthew				Charlie			

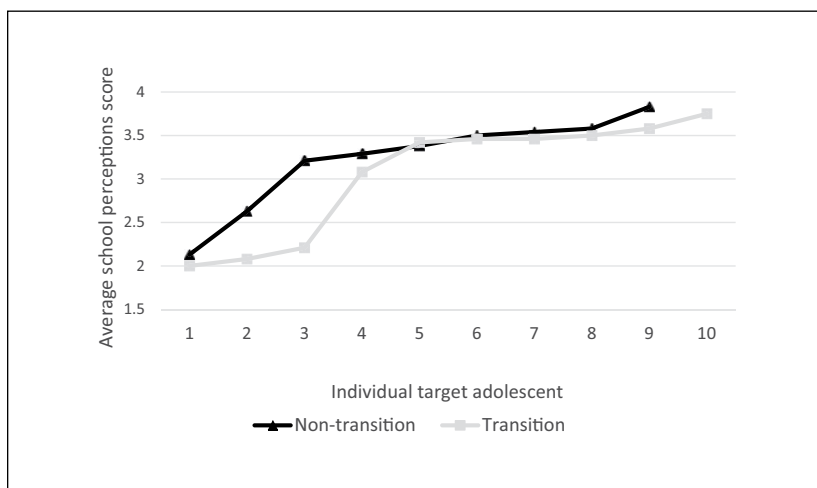
Note. H = High; Y = reported pubertal onset; N = has not reported pubertal onset; G = girl; B = boy.

non-transition school group, who was chosen by a vulnerable group member who requested a friend in the study. This yielded 20 participants in total. The 19 participants with survey data were not significantly different to all other survey respondents in gender, pubertal status, or W1 school perceptions, and had a range of W1 school perceptions scores (Figure 1). There was no attrition across the year.

## Measures

**School perceptions.** A 24-item school perceptions measure evaluated feelings about school, learning, friends, and teachers on 5-point Likert-type scales (disagree-agree). The measure included subjective environmental observations (e.g., “nobody takes any notice of me”) and psychological evaluations (“sometimes I feel lost and alone”) for each domain. Average scores represented school perceptions (W1  $\alpha = .94$ , W2  $\alpha = .94$ ). In both schools, adolescents had positive school perceptions across the year on average ( $\bar{X}$  score of 3 out of 4; Table 1). These were slightly higher in the middle school although this was only significant at W1 ( $t = 1.957$ ,  $df = 71.784$ ,  $p = .054$ ).

**Pubertal status.** An emotionally sensitive measure of early adolescent pubertal status (MEAPS) was designed and piloted in collaboration with a middle school headteacher (Symonds, 2009). The measure aimed to gather information on pubertal timing, without embarrassing children who might later be interviewed. Children reported whether they had noticed any adult changes happening to their bodies (e.g., adult body hair, adult upper-body development, female period, change in voice; yes, no, unsure), and if so, in which school year (Grades 4, 5, 6, 7, or unsure) and part of that year (Term 1,



**Figure 1.** Target adolescents' school perceptions' scores.

Christmas holiday, Term 2, Easter holiday, Term 3, summer holiday, or unsure) these were first noticed. Grade 7 was included to ensure that participants were not answering randomly, as only Grade 6 adolescents were surveyed. The measure can be used to create nominal groups ("pubertal," "non-pubertal," and "unsure") and an ordinal pubertal scale (e.g., Year 5, Term 1–Year 8, Term 3). Nominal groups were used to select participants. In both schools, a similar majority of adolescents had noted first pubertal changes occurring (Table 1).

**Gender.** Children indicated whether they were a boy or a girl.

### *Interview Procedure and Protocols*

Children were interviewed 4 times: once in Terms 1 (October) and 2 (February) and twice in Term 3 (May and July) for 30 min (80 interviews in total). Data on engagement were generated in two ways. First, we asked specific open-ended questions regarding emotions, affective states, and non-emotional attitudes toward school (Table 3). Second, we asked a range of open-ended questions on school, friendships, and home life which prompted additional discussion on engagement. Interviews were conducted in a quiet room near the school offices. The design of interview schedules was emergent rather than repeated, in line with the exploratory nature of the study.

**Table 3.** Engagement Interview Questions.

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October	<p>What things are important to you about school?</p> <p>What is it about these things that makes them important?</p> <p>If someone just like you was to come to this school, what might you tell them that they would like about it?</p> <p>If someone just like you was to come to this school, what might you warn them about?</p> <p>What makes you happy/unhappy about school?</p> <p>Why does this make you happy/unhappy?</p>
February	<p>Has how you feel about school changed since we last talked?</p> <p>If so, how so? If not, why do you say this?</p> <p>What do you need at school to feel happy?</p>
March	<p>Children chose three topics to discuss from the following:</p> <ul style="list-style-type: none"> <li>• School transition</li> <li>• School physical and organizational environment</li> <li>• The learning environment and learning</li> <li>• School behavior policies and expectations</li> <li>• School peers</li> </ul>
July	<p>Is there anything about school that does not fit well with growing up?</p> <p>Is there anything about school that fits well with growing up?</p> <p>Has the way you feel about school changed as you are getting older?</p>

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Each schedule was designed to reflect important psychological phenomena and methodological issues that were illuminated by former sessions. Together the interviews provided a rich body of data on different aspects of engagement that might not have been captured by a more highly structured design.

## Analysis

The 80 interview transcripts were uploaded into the NVivo 8 qualitative data software. This software allows for selected text to be marked as one or more user defined codes. All data on engagement, including children's responses to the engagement interview questions and descriptions of school or school factors, were extracted for analysis. On completion, the engagement data contained 9,407 words and views from all 20 participants.

We then coded the engagement data into emotional and motivational engagement. First, we identified where adolescents used emotions as criteria to judge school and school experiences. They often used words and

phrases such as “like, enjoy, good, fun, happy and nice,” and “boring, don’t like, annoying and difficult.” Positive judgments were coded as *emotional engagement*, and negative ones as *emotional disengagement*. Adolescents also described their attitudes toward school using non-emotional words such as “important” and rationales such as “school gives you what you need to learn.” These were coded as *motivational engagement*. This category was not split into valence groups, as it held very few negative data (i.e., worthless).

Next, we used the first 3 steps in Charmaz’s (2006) approach to grounded theory to identify stage and environmental factors and their interactions, within the engagement data. First we generated initial codes by reading the transcripts word by word and line by line to judge the meaning of individual portions of data. We recognized *environmental* factors as nouns not referring to the body or mind (i.e., teacher) and *stage* factors as the use of pronouns (i.e., my temper), self-related nouns (e.g., temper), verbs, and adjectives (e.g., felt bad) to describe thoughts and feelings. This first step yielded 35 initial codes (Tables 4 and 5).

Second, we grouped these into focused codes that had the greatest potential to categorize the data “incisively and completely” (Charmaz, 2006, p. 57). Stage factors were generally *emotional* or referred to the *self-concept*, as we describe later. The environmental factors were divided into *people* (e.g., peers and teachers), *activities* (e.g., practical lessons), *organization* (e.g., timetables), and *physical environment* (e.g., school size). We used these divisions in our next step of axial coding.

Third, we created relationships between codes. When initially coding the data, we binned statements containing various factors (e.g., I like school when teachers make me happy) into multiple codes (e.g., teachers and happiness). To create axial codes, we used a matrix search tool to cross-tabulate the stage and environment codes, within each type of engagement (Table 6). This followed the principle of three factor statistical interactions to answer our research question of which stage-environment interactions were most prevalent in adolescents’ engagement.

In the above three steps, we developed codes that best described the whole sample’s perceptions. We mined these for group differences by creating matrixes of the frequencies of participants in each school/gender who mentioned each area (e.g., *anxiety*:  $n = 3$ , girls  $n = 1$ , transition  $n = 3$ ). We also observed qualitative group differences when reading through each code (e.g., only transition children worried about making new friends). We report these differences for the first two research questions, then elucidate them for the third.

**Table 4.** Stage Factors by Number of Adolescents.

Factors	Total	Engagement	Disengagement	Motivational	Transfer total	Transfer girls	Transfer boys	Non- transfer total	Non- transfer girls	Non- transfer boys
<b>Stage</b>										
<b>Self-concept</b>										
Future Career	17	3	0	17	8	2	6	9	5	4
Knowledge	11	11	0	0	5	2	3	6	3	3
Growing up	5	5	0	0	5	3	2	0	0	0
Hobbies	5	3	1	0	0	0	0	5	3	2
Competence	4	3	1	1	1	0	1	3	0	3
Gaining respect	2	4	0	2	1	0	1	1	0	1
Independence	2	0	0	1	1	0	1	1	0	1
Being noticed	1	0	0	1	1	0	1	0	0	0
<b>Emotions</b>										
Enjoyment	15	12	6	0	7	4	3	8	4	4
Conflict	8	0	8	1	3	2	1	5	3	2
Relatedness	8	6	0	0	3	2	1	5	4	1
Interest	7	3	3	0	4	2	2	3	2	1
Autonomy	6	3	3	0	3	2	1	3	2	1
Companionship	4	4	0	11	4	2	2	0	0	0
Work pressure	4	3	1	0	4	1	3	0	0	0
Safety	3	1	3	0	2	1	1	1	0	1
Anxiety	3	0	4	0	3	1	2	0	0	0
<b>Out-of-school contexts</b>										
Home life	4	2	1	1	1	1	0	3	1	2
Unsupervised play	2	0	1	0	1	1	0	1	0	1

**Table 5.** Environmental Factors by Number of Adolescents.

Factors	Total	Engagement	Disengagement	Motivational	Transfer			Non-transfer		
					total	girls	boys	total	girls	boys
Environment										
People										
Teachers	14	6	10	0	7	4	3	7	4	3
Friends	12	12	3	11	7	3	4	5	5	0
Bullies	5	0	4	0	2	1	1	3	2	1
Older children	3	1	2	0	3	0	3	0	0	0
Activities										
Education	13	0	0	14	5	2	3	8	4	4
Theoretical lessons	12	3	9	1	5	3	2	7	2	5
Practical lessons	11	10	0	2	5	1	4	6	3	3
Extracurricular	3	2	0	1	0	0	0	3	2	1
Break and lunchtime	2	1	0	1	0	0	0	2	1	1
Organization										
Being disciplined	4	0	4	0	1	0	1	3	1	2
Movement	2	2	0	0	2	2	0	0	0	0
Uniform	2	0	2	0	1	1	0	1	1	0
Timetables	2	0	1	0	1	1	0	1	0	1
Equipment	1	3	1	0	1	1	0	0	0	0
Physical environment										
Buildings and grounds	6	3	2	0	3	0	3	3	1	2
Commute	3	2	1	0	2	1	1	1	1	0

**Table 6.** Stage-Environment Interactions by Number of Adolescents.

Factor interactions	Total	Transfer total	Transfer girls	Transfer boys	Non-transfer total	Non-transfer girls	Non-transfer boys
<b>Motivational engagement</b>							
Self-concept and activities	13	5	2	3	8	4	4
Emotions and people	8	5	3	2	3	3	0
Emotions and activities	4	2	1	1	2	1	1
Self-concept and people	2	2	1	1	0	0	0
Emotions and organization	1	0	0	0	1	1	0
Self-concept and organization	0	0	0	0	0	0	0
Self-concept and environment	0	0	0	0	0	0	0
Emotions and environment	0	0	0	0	0	0	0
<b>Emotional engagement</b>							
Emotions and people	12	6	4	2	6	4	2
Emotions and activities	10	3	1	2	7	3	4
Self-concept and activities	7	3	1	2	4	1	3
Self-concept and people	5	4	2	2	1	0	1
Emotions and organization	2	2	1	1	0	0	0
Self-concept and organization	1	1	1	0	0	0	0
Self-concept and environment	1	0	0	0	1	0	1
Emotions and environment	0	0	0	0	0	0	0
<b>Emotional disengagement</b>							
Emotions and people	10	5	2	3	5	3	2
Emotions and activities	5	3	3	0	2	1	1
Self-concept and activities	3	0	0	0	3	0	3
Emotions and organization	3	1	1	0	2	1	1
Self-concept and people	2	2	0	2	0	0	0
Emotions and environment	2	2	0	2	0	0	0
Self-concept and organization	0	0	0	0	0	0	0
Self-concept and environment	0	0	0	0	0	0	0

## Results

### *Research Question 1: How Did Adolescents Describe Their Emotional and Motivational Engagement Toward School?*

As expected, adolescents used a range of emotional criteria to evaluate school and school experiences. These included specific emotions, that is, “I enjoy coming to school” (Lauren, non-transition), “It can be really boring” (Charlie, transition) and affective states such as “nice,” “comfortable,” and “rushed.” Nearly all adolescents felt positive about some aspect of school ( $n = 18$ ) and three-quarters expressed some negative emotion ( $n = 15$ ). However, seven had mixed emotional attitudes, for example, Lauren (non-transition) said “I don’t actually want to come to school in the morning, but then when it’s half-way through the day it’s not so bad really, because you see all your friends.”

Adolescents also evaluated school using non-emotional criteria. In particular, many discussed whether school was useful or important to them ( $n = 19$ ). Here, they positioned school as an entity, that is, as a social institution, whereas emotionally they evaluated it as a daily activity. Often, their motivational and emotional evaluations were the same valence. For example, Alex’s feelings about school life were “good” because “otherwise you won’t learn much for the future” (i.e., school as an entity). However, for others there was a discrepancy. Five adolescents valued school but did not enjoy it. Bobby found school “a bit boring” and that “It gives you what levels you are and helps you.” There were no transitions nor gender differences in the way adolescents expressed their overarching emotional and motivational engagement.

### *Research Question 2: What Were Adolescents’ Rationales for Their Engagement?*

*Environmental factors.* Across schools, adolescents’ attitudes were influenced by specific school factors (Table 5), and their difference to primary school. The most relevant aspects of school for engagement were school people and activities. Here, teachers ( $n = 14$ ), friends ( $n = 12$ ), theoretical and practical lessons ( $ns = 12$  and  $11$ ) and the relevance of school education for future career ( $n = 13$ ) were most often mentioned. Organizational and physical aspects of school were less common. Only transition adolescents mentioned older children, movement between lessons and school equipment as integral to engagement.

*Self-concept factors.* We identified self-concept factors when adolescents used pronouns to describe their ego identity (Côté & Levine, 2002) for example, “I



like school when *I* get good grades.” Most often, adolescents evaluated school against a self-related standard (e.g., getting good grades) that had implications for their psychological well-being (e.g., success or failure). These self-related issues often aligned with the adolescent characteristics described by Eccles and colleagues (1989). We coded them as future career, knowledge, gaining respect, growing up, competency, hobbies and interests, independence, and being noticed. Across schools, adolescents mostly evaluated school in relation to their future careers ( $n = 17$ ) and to their goal of obtaining knowledge ( $n = 11$ ). More often, non-transition adolescents discussed schools’ relevance to their hobbies and interests (non-transition  $n = 5$ , transition  $n = 0$ ). Only transition adolescents noted that growing up was significant for their feelings about school ( $n = 5$ ).

**Emotional factors.** Adolescents rationalized that experiencing different emotional responses made them feel a certain way about school, for example “I like *fun* lessons”, where “like” is the attitude, and “fun” is the emotional response. Most children did not explain their emotions in detail, therefore, follow-up prompts were often used (e.g., what do you mean by fun?). The emotional data were of two broad types. First were closely related words such as fun and enjoy and their antonyms, for example, boredom. This range of words was coded as enjoyment/dislike. Second were emotions that regarded personal or social states of being (e.g., I like school when my teachers support me). We categorized these using appropriate terms from both Eccles and colleagues’ (1989) list of early adolescent needs (e.g., autonomy) and Ryan and Deci’s (2000) self-determination theory (e.g., relatedness), as companionship, relatedness, social conflict, autonomy, interest, pressure, and safety. Most often, adolescents mentioned enjoyment/dislike emotions as contributing to their engagement ( $n = 15$ ). After this were social conflict ( $n = 8$ ) and relatedness ( $n = 8$ ), variety ( $n = 7$ ) and autonomy ( $n = 6$ ). Anxiety, work pressure, and the need for companionship were mentioned only by transition adolescents.

### **Research Question 3: Which Stage and Environment Factors Most Frequently Interacted in Adolescents’ Engagement Rationales?**

To identify stage-environment interactions, we used a matrix search tool to cross-tabulate the stage and environmental codes within each type of engagement (Table 6). We detail the most frequent interactions below.

*Motivational engagement.* There was remarkable similarity in adolescents' motivational engagement across schools, with two main rationales mentioned. First, school was thought most important for adolescents' future careers ( $n = 13$ , girls  $n = 6$ , transition  $n = 5$ ). "And does school give you what you need?" (Interviewer). "It does, you need to have education to get a good job when you're older" (Lauren, non-transition). Four boys across schools linked this interaction to specific identity-related desires. They explained that finding a good job, thus being at school, was important to them for acquiring future respect, competence, and financial independence. Only Matthew (transition) vocalized that school was important for being noticed by teachers, which marked a continuation of his expectations from primary school where he topped his class.

Second, adolescents valued school as a place to spend time with friends ( $n = 8$ , girls  $n = 6$ , transition  $n = 5$ ). At the heart of this interaction was emotional support. "My friends [are important] because they trust me and we're all one group and we like each other" (Ayesha, transition). No adolescents connected school organization or physical environment to motivational engagement.

*Emotional engagement.* Adolescents' emotional engagement rationales tied to a wider range of stage-environment interactions. Primarily, these were between adolescents' emotions and experiences with people at school. Mainly in the non-transition school ( $n = 6$ , transition  $n = 2$ , female  $n = 4$ ), teachers were described as "nice," "friendly," and "kind." In both schools, adolescents were engaged when they spent time with friends, who provided companionship and protection from other adolescents. Because of friends, Chloe and Stacy (transition) enjoyed school more than staying at home. "I like school cause when it's holidays and you're not going away, it's a bit boring and you'd like to be at school with all your friends" (Stacy).

Transition adolescents referred to a wider range of friendships, perhaps as they were making new connections. These included classmates, older friends, and peers in vertical tutor groups. For Ruby, Matthew, and Billy, being friends with older children was seen as a marker of social status. "[I]t makes you feel a bit more important if you say hi to some Year 11 [*Grade 10*] while they're walking down the corridor with all their mates" (Matthew).

Across schools, adolescents liked school when their lessons elicited positive emotions ( $n = 10$ , girls  $n = 4$ , transition  $n = 3$ ). Most often these were practical lessons including physical education (PE), music, art, drama, domestic science, and practical science which generated feelings of fun, challenge, and competence. Adolescents liked the autonomy of choosing their own working groups and having a variety of learning experiences which activated their situational interest in learning. There were also links between enjoying lessons and the self-concept, for example, Bobby (non-transition)

remarked that, "I like PE so I could be a teacher for PE. The teachers are saying I'm a good coach."

Only transition children reported greater enjoyment of school activities in Grade 6 (Year 7). Stacy liked being able to move between class. "Here after the lesson you get up, walk to your next lesson. It's like free space . . . In primary school you just sat there." They also appreciated more advanced equipment and challenging work. "In [*primary school*] science about the most dangerous practical we did was with yeast and sugar but now we're using Bunsen burners and dangerous chemicals!" (Matthew). Three adolescents felt engaged by a change in work pressure due to being placed in set ability streams. Some liked being pushed harder (Matthew, Stacy) while others enjoyed easier work (Keith).

Furthermore, adolescents liked feeling more grown up as a result of the transition. Four adolescents, including Kevin, felt more grown up by comparing themselves with pre-transition children: "I think when you move up you feel more mature, even though you might not be. You just feel more mature because you feel like you've left everyone else behind." Others felt more mature due to changes in the classroom environment. In two interviews, Ruby recounted the story of how her teacher ordered her to get up by herself when she fell off a chair. "In primary school the teachers would come over and still treat you as a baby." Stacy felt more grown up because of the increased focus on academic success: "When it comes to big school it's not messing about time anymore."

**Emotional disengagement.** In both schools, teachers were the primary source of adolescents' emotional disengagement. Adolescents disliked being disciplined by teachers and having their autonomy restricted. There were fewer positive perceptions about teachers in the transition context, with only two girls issuing positive statements in the first term. Non-transition adolescents found their teachers to be fairly emotionally supportive. "[I]t's like a kind of friend and it's like a parent but not as strong" (Joanna, transition). In comparison, transition adolescents had more impersonal relationships with their teachers. "They're just there to do their job, they're not there to be like your best friend" (Samantha, transition). Often, transition adolescents felt that their learning needs were neglected due to stereotyping and behavior management. "They're horrible to the nasty pupils they don't really like and they won't tend to help as much" (Charlie, transition). "Because some teachers, cause they have other people to deal with, they sometimes just leave you there and you don't understand" (Stacy, transition).

Friendships also contributed to emotional disengagement. In both schools, girls disliked arguing with their female friends: "When I'm having arguments

with my friends it just isn't a fun place to be. You just want to be at home, watching Tele, eating popcorn" (Stacy, transition). In comparison, more boys felt disengaged due to being bullied. Indiana (non-transition) was targeted by older boys who "can be quite angry and . . . push you about" while Charlie (non-transition) was put off school entirely: "I don't like school at all, you get bullied too much."

Many adolescents also disliked theoretical lessons such as English, mathematics, theoretical science, geography, history, and modern foreign languages. This was because in comparison, in practical lessons you were "actually doing stuff" (Kevin). In the transition school, the new workload was perceived as too demanding by several students "I feel like I'm overworked most of the time" (Jacob, transition). Also, initial feelings of excitement about the new lessons wore off in the third term for Brian and Billy who were placed in lower ability groups.

New features of school organization had a negative impact on some transition students. Samantha was flustered by the change to a fast-paced timetable and responsibility for her own equipment. "I would like to actually relax and not worry about 'oh God I've forgotten that'" while Matthew and Charlie were afraid of older children, and were nervous about the size of their new school "Whoo, really it's a big school" (Matthew).

## Discussion

### *Which Stage-Environment Interactions Most Commonly Influenced Emotional and Motivational Engagement?*

Extant SEF research has examined a small number of stage and environment interactions pertaining to engagement. Zimmer-Gembeck et al. (2006) demonstrated the importance of relationships with teachers, when they found these influenced adolescents' emotional and cognitive engagement both directly and as moderators of competence, autonomy, and relatedness which predicted engagement. Peer relationships also strongly predicted the self-determination variables. Our in vivo data support this model, as the most common stage-environment interactions influencing emotional engagement and disengagement were between people at school (teachers, peers) and adolescents' emotions of enjoyment, social conflict, companionship, relatedness, and autonomy. Internationally, there is a trend for worsening relationships with teachers and improved relationships with peers after transition (e.g., Feldlaufer, Midgley, & Eccles, 1988; Wargo Aikins, Bierman, & Parker, 2005; trends reviewed by Symonds & Galton, 2014). Together these findings suggest that teachers may be accountable for a major portion of the decline in

attitudes toward school described in the introduction. In contrast, the trend for better peer relationships might alleviate it. Further study on these issues is warranted.

The second most common interactions for emotional engagement and disengagement were between school activities (theoretical and practical lessons, lunch and break time, extracurricular) and adolescents' feelings of enjoyment, interest, autonomy, and work pressure. Like Mac Iver and colleagues (1986), we found that engagement was linked to the match between adolescents' needs for autonomy and the amount they were awarded at school. Our data also fit well with other U.K. in vivo research where students cited variety and imagination in lesson delivery, having a chance to discuss work in lessons and working at their own pace as integral to school enjoyment (Gorard & Huat See, 2011).

Enjoyment was the most powerful mechanism behind emotional engagement and disengagement in our study. However, few studies have investigated enjoyment as an emotional response (Pekrun, Goetz, & Titz, 2002). More often it is used as an evaluative criterion for school attitudes. Because of this, we know something of how school enjoyment interacts with other variables, but little about how it is created. Furthermore, enjoyment is rarely studied developmentally. There may be qualitative age differences in enjoyment that contribute to school engagement. For example, mainly boys in our study felt bored by sitting still and writing in lessons. Potentially early adolescence is a peak period for boredom in males who have youthful energy but lack the self-regulation of older adolescents. More research on enjoyment as an emotional response is critical in order to improve school experiences and subsequent life outcomes for students, for when students are bored in lessons they are less likely to achieve (Pekrun, Hall, Goetz, & Perry, 2014).

There was a smaller range of stage-environment interactions for motivational engagement. Similar to the other engagement types, adolescents valued school as a place to obtain positive emotions generated by relationships with peers. Most of all, adolescents valued school as a gateway to their future careers. Developing a career identity is a critical task of adolescence (Erikson, 1968) and is the basis of school reform movements that award personalized vocational or academic learning to students in a bid to improve engagement (Tomlinson, 2004). However, career identities are often overlooked as a predictor of student engagement, despite many 11- to 12-year-olds having fairly well-established careers schema that link to their perceptions of school (Atherton, Cymbir, Roberts, Page, & Remedios, 2009). Interestingly, adolescents' rationales for motivational engagement were similar between schools.

School transition influenced two main distinctions in emotional engagement and disengagement between groups. First, there were qualitative

differences in the interaction of adolescents' emotions with teachers, peers, and school activities. Transition adolescents had more negative perceptions of teachers which fits the international trend for a loss of teacher relatedness as discussed. Meanwhile, their engagement was stimulated by making a wider range of friendships. This adds a breadth dimension to sociometric findings of increased numbers of friendships across the post-transition year (Newman Kingery & Erdley, 2007). Adolescents were also inspired by new lessons with better equipment for learning, similar to other U.K. studies of transition to secondary school (Galton et al., 2000). Second, transition adolescents noted more associations between school environment and their self-concepts. This might have occurred because school transition encourages adolescents to focus on aspects of themselves that are threatened by the change in environment, such as their academic identities (Gniewosz, Eccles, & Noack, 2011), and use more stable aspects of the self-concept such as gender, to reconstruct their identities (Jackson & Warin, 2000). As elsewhere (Measor & Woods, 1984), moving schools made adolescents feel more mature. It also made them nervous, excited, and threatened by differences in school organization and built environment. These novel interactions are characteristic of the post-transition "adaptation phase" of psychology, as we discuss later.

### *Implications for Measurement Models*

Future studies of engagement should note that in our research, adolescents felt simultaneously positive and negative about their school experiences, and had a disconnect between valuing school and feeling good about going there. This concurs with prior findings of attitudes holding contradictory schema (Potter & Wetherell, 2008), such as liking and disliking school at the same time. It also supports holding expectancy value (focusing on value, importance, and interest; Eccles et al., 1983) separate from emotional attitudes (e.g., liking school), and indicates that there may be interesting person-centered profiles within the expectancy value framework. It has already been suggested that engagement and disengagement be studied separately (Martin, 2013): a viewpoint that has been taken up by those studying the influence of engagement (e.g., Wang & Fredricks, 2014) and disengagement (e.g., Henry, Knight, & Thornberry, 2012) on school dropout. However, too often, school perception measures convolute engagement types (Symonds, 2014), such as the Longitudinal Study of Young People in England where adolescents evaluate their boredom and enjoyment in lessons (emotional responses) and indicate whether school and lessons are a waste of time (motivational engagement)

**Table 7.** Stage-Environment Fit and the Pre-and Post-Transition Psychological Phases.

Stage psychology		Phase psychology		Environment	Fit
Emotional responses Like/dislike Enjoyment/boredom Love/hate Anxiety/comfort Need for autonomy Etc.	Preparation Emotional responses Reluctance/eagerness Fear/excitement Etc.	School experiences Teachers Peers Lessons Timetables Etc.			Emotional engagement Liking school Disliking school Enjoying school Etc.
Self-concept Need for identity Need for competency Need for self-esteem Etc.	Self-concept Expect to grow up Expect to develop career identity Evaluate coping skills Etc.	School as an entity Qualifications Social setting Etc.			Motivational engagement Valuing school School is important School is useful Etc.
Encounter & Adaptation					
		Emotional responses Help evaluate threat/safety, e.g., anxiety, calmness Resonate with preparation expectations, e.g., satisfaction, relief, disappointment Etc.			
		Self-concept Expect to have grown up Competency reformation Strive to obtain social support in new peer group Etc.			

on a 12-item scale. Better results may stem from segregating constructs as we illustrate in Table 7.

A finer distinction between engagement types might also help clarify the contribution of specific predictors. For example in our study, social conflict contributed to emotional disengagement but its absence was not important for emotional engagement. Likewise, adolescents were engaged by emotional support from teachers and peers but were not disengaged by lack thereof. Some interactions were even more independent to positive or negative sides of a scale, such as anxiety and school organization which only contributed to disengagement. Quantitative models might obtain stronger associations if they regress different engagement constructs (i.e., liking, valuing, interest, enjoyment) and their negative forms on the same predictors.

Also, models might be improved by segregating perceptions of school experiences from school as a sociological entity. In our study, adolescents were emotionally engaged and disengaged by a wide range of emotions generated from their daily experiences in school. In comparison, their motivational engagement was less varied and mainly tied to their view of school as a necessary institution for learning. This view may have developed in tandem with attitudes about school espoused by parents, teachers, and the media. If considering the engagement types as a single construct of school attitudes, these findings concur with ecological systems models that propose psychology is influenced by multiple, linked developmental contexts (Bronfenbrenner, 1986) and the cascading effect of relationships within those contexts (Rimm-Kaufman & Pianta, 2000). However, if we take motivational engagement out of the equation, our data on emotional attitudes were located almost exclusively within the proximal school experience, revealing the power of individual schools to shape emotional engagement and disengagement.

### *New Theoretical Directions*

The difference in stage-environment fit experiences between transition and non-transition adolescents observed in this study lead us to recommend a new time dimension in SEF models. Currently, time is incorporated into SEF theory as the difference between pre-and post-transition experiences and as the separate, external influence of the early adolescent time period. However, in our study adolescents' thoughts and feelings often reflected adaptation to their new environment rather than exogenous developmental characteristics. A powerful example was adolescents' expectation to grow up on entry to Grade 6 (Year 7), which was not mentioned by non-transition adolescents. Only the transition sample sought to confirm their perceptions of increased maturity by comparing themselves with pre-transition children, and by assuming maturity



based on the changes in school environment. This demonstrates that the stage component of SEF includes the interaction of psychological phenomena *created* by the school transition, with school environment.

Extrapolating from our findings, we suggest that these psychological phenomena can be organized into distinct time periods surrounding the transition. Extant theory concerns how older adolescents change their behavior in preparation for leaving school, positioning this as a developmental phase (Dietrich, Parker, & Salmela-Aro, 2012). Nicholson (1987) also conceptualized a preparation phase in his occupational Transition Cycle of preparation, encounter, adjustment, and stabilization to new jobs. The core tasks of Nicholson's phases are to achieve readiness for the new occupation (preparation), cope with the new requirements on entry (encounter), construct person-environment fit in the role (adjustment) and achieve consistent effectiveness (stabilization). Our research here and elsewhere (Symonds, Long & Hargreaves, 2011) verifies the first three phases in school transition samples but after transition there is no evidence of psychological stabilization because unlike for individuals in work contexts, adolescents are continuously adapting to successive changes in curriculum, pedagogy and peer development across post-transition schooling.

Although defining the three phases at the early adolescent school transition is the work of a future article, we briefly introduce them here on the basis of our findings. Here, we build on phase models which focus on older adolescents' volitional activity such as seeking careers advice (Dietrich et al., 2012). In the context of the early adolescent school transition, psychological development at each phase is often an unconscious reaction to the organizational demands of changing schools and the changing expectations of other people. There is less deliberate preparation for transition than identified in samples of school leavers (see for example Dietrich et al., 2012) perhaps because early adolescents have little choice over their transition context.

**Preparation:** at the early adolescent school transition, adolescents' expectations (for a review, see Gray, Galton, McLaughlin, Clarke, & Symonds, 2011) and anxiety (Measor & Woods, 1984) form in response to information conveyed about their prospective school. Also, in preparation they deliberately circulate transition myths which unconsciously educate them about the new social order (Delamont, 1996). In the current research, transition adolescents mentioned expecting to feel older and become more mature before they changed schools, and in similar samples in England others presumed they would progress in their career aspirations once they moved to new lessons at secondary school (Symonds et al., 2011).

**Encounter:** as they encounter their new schools, adolescents strive to protect themselves by looking out for signals of safety and danger (Casey,

Ruberry, Glatt, et al., 2011) and expend energy to gather resources, that is, friendships, creating a platform from which they can invoke positive adaptation. Matthew in this study was initially excited by his new science lessons, whereas Charlie was constantly on the look out for social threat. Also, best friend dyads quickly formed between Jane and Ruby, and Stacy and Chloe in the first term.

Adjustment: finally, adolescents continuously adapt to changes in their school environment as evident in the slopes of attitudes to school and specific types of engagement found in prior studies (e.g., Galton, Hargreaves & Pell, 2003, Wang & Eccles, 2011) and in the shifting sources they use to construct their identities (e.g., Gniewosz et al., 2011; Kinney, 1993). Here, we documented adolescents' emerging dissatisfaction with their transfer school and lessons, related by some to their increasing engagement with out of school contexts.

### *Limitations*

In future qualitative SEF research, stronger studies could be produced with larger and more ethnically diverse samples. Our sample of 20 adolescents was Caucasian, therefore we could not uncover differences in engagement specific to ethnic minorities. Also, more robust findings on factor and interaction frequencies would have been produced with a larger sample. Finally, there was little evidence of out-of-school contexts in adolescents' engagement rationales perhaps because situating the interviews in school inhibited discussion of out-of-school issues. We suggest that future qualitative research question adolescents both in school and at home, in order to draw out a wider range of influences on engagement.

### **Conclusion**

Using qualitative methods, we examined how adolescents' perceptions of their emotional and motivational engagement were influenced by specific stage-environment interactions in schools with and without transition at age 11 to 12 years. Our findings add to theory in two main ways. First, they illuminate the school engagement construct by identifying qualities and predictors of emotional and motivational attitudes. This leads us to recommend finer grained constructs in this type of research. Specifically, measurement models might be improved by studying emotional and motivational engagement separately, by discriminating school as a daily experience from school as an entity (discussed further in Symonds, in press), and by investigating

how different patterns of predictors influence positive and negative forms of engagement.

Second, we added to knowledge on SEF by mapping the most important stage-environment interactions that occurred for different engagement types in transition versus non-transition samples. Like prior research, we found that relationships with teacher and peers were the key determinant of emotional engagement and disengagement independent of transition. This supports educational reform movements that focus on improving relationships and creating more intimate atmospheres for learning.

Third, we suggested an addition to SEF theory, in our model of transition phase psychology which illustrates how person-environment interactions at particular time periods surrounding the transition result in discernable sets of psychological phenomena. These phases give a more detailed perspective on how school transition creates types of SEF at different points in time, and also demonstrate that the act of transition itself helps shape stage of development.

### Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was supported by a grant from the National Middle Schools Forum, UK to the first researcher, in aid of the fight to prevent middle school closures in England.

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