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Phase-Adequate Engagement at the Post-School Transition

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Please cite as:


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This research was partially funded by the Jacobs Foundation and the Academy of Finland (Grants 134931, 139168).
Abstract
The transition from general education (e.g., high school) to vocational and tertiary education (e.g., college, vocational school), or to the labor market presents a number of developmental challenges. These challenges include making career choices and, more broadly, managing the transition. Coping with these challenges depends on the individual, their social network, and wider societal, cultural, and institutional conditions. This paper discusses the informative value of developmental regulation, career development, and identity theories, for conceptualizing phase-adequate engagement at the post-school transition. Although previous psychological research has focused on individuals’ career and transition-related engagement and its outcomes, we suggest this picture is limited because little is known about how young people’s engagement is complemented and affected by the behavior of significant others and shaped by structural constraints and opportunities. Implications for future developmental research are discussed.

Keywords: phase-adequate engagement, career development, regulation, identity, context
Phase-Adequate Engagement at the Post-School Transition

Traditionally, research on career choices and development in adolescence and emerging adulthood has revolved primarily around questions, such as: What are the precursors and effects of high versus low educational and occupational aspirations? What factors influence the subject area of the career paths people choose? What predicts successful and satisfying career choices and transitions? Various theories have been used to understand, model, and analyze transitions that individuals make throughout their lives. In this paper we introduce a new perspective on transitions based on the concept of phase-adequate engagement. We define phase-adequate engagement as intentionally engaging in behavior that is appropriate to meeting the demands posed by the transition situation at hand. While educational and occupational attainment can be seen as the cumulative outcome of the choices made during a series of educational transition, we focus specifically on the post-school transition which is critically important for young people’s career development. The post-school transition is defined as leaving general education and entering college, work, an apprenticeship, or other types of tertiary or vocational education. In linking phase-adequate engagement to the post-school transition, we first discuss what phase-adequate engagement is and how it relates to career development as a major developmental task of adolescence and young adulthood. We then review theories relating to developmental regulation, career development, and identity which are central components in understanding phase-adequate engagement, and derive five principles of phase-adequate engagement. In the second part of the paper we discuss avenues for future research emanating from the five principles.

What is Phase-Adequate Engagement?

Our definition of phase-adequate engagement draws on Baltes and colleagues’ (Baltes,
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Staudinger, & Lindenberger, 1999) work on adaptive development. Accordingly, adequacy refers to the maximization of transition benefits and minimization of opportunity costs that are present in the individuals’ transition context. As we discuss below, these benefits and costs come in many forms including, but not limited to, well-being and mental health, status attainment, and satisfaction with the transition pathway taken. Our perspective has the potential to capture the mechanisms linking interpersonal context (e.g., parents, peers, and others) and social structure (e.g., the educational system, the economic situation, social class, and gender) to people’s behavior during transitions. In defining phase-adequate engagement at the post-school transition, we consider this transition as an externally mediated temporal phase in which environmental cues (e.g., high-school graduation, end of vocational education) channel engagement efforts. Thus, we focus on phase as an external entity not an internal state that an individual is in, due to developmental processes. Finally, engagement is defined as attempts by the individual to maximize those opportunities for transition benefit and to minimize the costs (opportunity, well-being, and social) present in the post-school transition. We define engagement in terms of intentional and positive behaviors that emerge from a sense of control (Savickas, 2011) or a sense that a person can act as an agent to influence important outcomes.

As we will detail later, there is no one adequate engagement process leading to a successful post-school transition. For example, consider two young people in their final school year, Paula and Barbara. Having always been interested in both arts and sciences, Paula knew from a young age that she would follow in her mom’s footsteps and become an architect. As school graduation approaches, she explores the courses of study at different colleges, and having made sure that she fulfils the entrance requirements Paula picks a college and enrolls. Barbara, on the other hand, has difficulties finding out what career would suit her. She has looked into several occupations
Phase-adequate engagement but still has not found anything she feels passionate about. Nonetheless, since she could imagine herself working as a medical doctor, she opts to do a voluntary year in a hospital after school in order to determine whether she would be well suited to this profession. During that year Barbara discovers her interest in physical therapy and eventually chooses this as her career. Although both individuals engaged in different ways, their engagement is phase adequate and results in both being satisfied with their career choices.

Career Choice as a Developmental Task

The post-school transition is a major developmental milestone and is associated with a number of developmental tasks (Nurmi, 2001; Oswald & Clarke, 2003; Zarrett & Eccles, 2006). Based on culturally and historically shared age-graded expectations about the timing and ordering of various life transitions (Elder, 1998; Hagestad & Neugarten, 1985), normative developmental tasks provide the basis for considering behaviors as adaptive or maladaptive (Masten & Curtis, 2000). As first defined by Havighurst (1948), developmental tasks arise at critical points in individuals’ lives, with successful accomplishment resulting in benefits to well-being and progress toward reaching future tasks (Roisman, Masten, Coatsworth, & Tellegen, 2004; Schulenberg, Bryant, & O’Malley, 2004; Zarrett & Eccles, 2006). More recently, the transition to adulthood has been increasingly associated with uncertainty and heterogeneity in the timing of meeting the various developmental tasks linked to this transition (Seiffge-Krenke & Gelhaar, 2008). The post-school transition, however, represents a critical transition point that is still relatively clear in terms of its timing (generally externally mandated via the completion of high school or other full-time schooling)(see Crockett & Beal, this issue). The exact timing can differ depending on the specific educational system the young person is in or enters during earlier high school transition points (e.g., vocational or university track). Nevertheless, there are
usually clear transition markers that are linked to these different trajectories that represent the convergence of several developmental tasks associated with a number of different life domains (Zarrett & Eccles, 2006). A developmental task of particular importance to this time-specific transition is that of making career decisions and formulating different educational and/or vocational pathways in relationship to those decisions (Erikson, 1968; Zarrett & Eccles, 2006). Choices about career trajectories made at the post-school transition are critical given their influence on outcomes over the course of adult life (Checchi, 2006).

**Conceptualizing Phase-Adequate Engagement**

Three major lines of research are useful to address with respect to post-school phase-adequate engagement: developmental regulation theories (Baltes & Baltes, 1990; Brandtstädter & Rothermund, 2002; Heckhausen, Wrosch, & Schulz, 2010; Nurmi, 2004; Salmela-Aro, 2009), career development theories (Hirschi & Läge, 2007; Savickas, 2005; van Esbroeck Tibos, & Zaman, 2005; Vondracek & Porfeli, 2008; Young, Marshall, Domene, et al., 2008) and theories of personal identity development (Crocetti, Rubini, & Meeus, 2008; Luyckx, Goosens, Soenens, & Beyers, 2006; Kunnen, Bosma, & van Geert, 2001; see Schwartz, Donnellan, Ravert, Luyckx, & Zamboanga, 2011, for varying definitions of the term *identity*).

While these theoretical approaches employ different perspectives they all deal (at least to some degree) with the phase-adequate engagement process including efforts to establish career goals and a career identity, efforts made to pursue career goals and express one’s identity at and leading up to the transition point, and efforts made to renegotiate goals and identity commitments where the individual faces barriers and difficulties. Put simply, we argue that when considered together, these three approaches provide a comprehensive account of the range of behaviors that cover key points, both before, during, and after the transition point. Importantly,
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these theories have a strong developmental focus and illustrate current thinking on how young adults approach post-school decisions\(^1\). These theories make predictions about the processes of making career choices and managing career transitions. As the definition of phase-adequate engagement indicates, its primary scope does not concern the questions of *why* people engage in a specific way, e.g., why they choose a specific occupational field (theories with this focus include: social cognitive career theory; Lent, 2005; Lent et al., 1994; Eccles’, 1994; 2009, expectancy value theory of achievement-related choices, and Gottfredson’s, 2005, theory of circumscription and compromise). Rather, phase-adequate engagement addresses the question of *how* people engage in the transition, that is, which goals, strategies, and related identity negotiations they apply and when these behaviors are adequate or inadequate.

With few exceptions, the developmental regulation, career development, and identity lines of research have developed largely in isolation from each other. To fully describe and understand how young people approach career decisions and how they make a successful post-school transition, a comprehensive view of the scholarship associated with these three theoretical frameworks provides fertile ground for future research and practice. Although we extract common conclusions that can be drawn from existing theories, we do not aim to integrate them into a new model. Rather, we argue that theory development is needed to arrive at a fully contextualized model of phase-adequate engagement. This paper is a first step towards this end. Moreover, focusing on a theoretical review and critique, we do not aim to review the entirety of the available empirical literature. We do, however, consider limitations of the discussed theories and explore possible directions for future research on phase-adequate engagement.

\(^1\) Naturally, the number of theories to be reviewed must be limited. We thus restricted our review to theories that have been developed throughout the past 20 years. For the roots of these theories we refer to the respective publications.
The paper first reviews theories related to developmental regulation in terms of setting, pursuing, and changing goals. The second section reviews career theories that address career decisions and transition processes and theories offering contextual considerations relevant to phase-adequate engagement. The third section reviews theories of identity development which, although typically not specifically concerned with career choices and transitions, are informative for conceptualizing phase-adequate engagement.

**Developmental Regulation Theories**

In this section we introduce theories of developmental regulation, including the model of selection, optimization, and compensation (Baltes & Baltes, 1990), the model of assimilative and accommodative coping (Brandtstädter & Rothermund, 2002), the motivational theory of life-span development (Heckhausen et al., 2010), and the life-span model of motivation (Nurmi & Salmela-Aro, 2006).

**Baltes and colleagues’ model of selection, optimization, and compensation.** With the original aim of studying successful aging, Baltes and colleagues (Baltes & Baltes, 1990; Freund & Baltes, 2002) proposed the model of selection, optimization, and compensation (SOC) which has recently been applied to intentional self-regulation in adolescence by Lerner and colleagues (Gestsdottir & Lerner, 2008; Lerner, Freund, De Stefanis, & Habermas, 2001). In the SOC model, selection refers to the setting or the reconstruction of goals. Behaviors of goal setting are called elective selection, and behaviors of reconstructing goals are called loss-based selection. Moreover, whereas optimization behaviors pertain to the acquisition and the investment of goal-relevant means, compensation encompasses the use of alternative behaviors for counteracting loss when goal-relevant means are blocked. Within the SOC model, the role of the interpersonal context (e.g., the interaction of the young person with their parents) has been introduced under
the label of collective SOC (Baltes & Carstensen, 1999), which denotes shared SOC processes between two or more individuals. For example, some young people might select and pursue transition-related goals, e.g., “finding out about their career interests”, together with their parents.

Lerner and colleagues also link the strategies of SOC to identity development in adolescence (Lerner et al., 2001). In their identity-as-regulation principle, these authors stress that “identity development involves relations between the person and social/cultural context and, as such, involves the regulation of these relations” (p. 35). Accordingly, identity development is seen as having an intentional component that can be linked to SOC processes (see also Eccles and Barber, 1999, for a similar discussion of identity and activity choices). For example, the selection of career goals involves active role search processes or, in other words, involves career exploration.

Brandstätter and colleagues’ model of assimilative and accommodative coping. Also within the context of successful aging, Brandstätter (2009; Brandstätter & Rothermund, 2002) proposed a dual-process model of coping with discrepancies between factual and desired developmental outcomes. These discrepancies arise due to life-span changes in intrapersonal processes and contextual affordances, such as developmental tasks (cf. Pinquart, Silbereisen, & Wiesner, 2004). Brandstätter posits that individuals can employ two kinds of coping strategies to achieve congruence between factual and desired outcomes. Through assimilative coping individuals actively change the situation in order to achieve their goals. However, if in light of constraints the assimilative strategies fail, this type of coping is assumed to be maladaptive as it prevents the individual from goal disengagement and reorientation. At this point, accommodative coping strategies come into play. Through accommodative coping individuals adjust their goals
Phase-adequate engagement and aspiration levels to given situational constraints.

Brandtstädter (2009) proposes that if individuals manage to balance assimilative and accommodative coping, adaptive development will result. Brandtstädter and colleagues also emphasize individual differences in which those with strong self-efficacy beliefs and outcome expectations tend to stick to assimilative coping strategies and do not switch to accommodative strategies until rather late in the transition. Similarly, having a goal that is closely connected to one’s personal identity will result in a tendency to pursue that goal tenaciously rather than adjusting it when facing barriers.

**Heckhausen and colleagues’ motivational theory of life-span development.**

Heckhausen, Wrosch, and Schulz (2010) describe action cycles of setting, striving for, and disengaging from developmental goals as recurring cycles throughout an individual’s life. Developmental goals are seen as the internal representation of developmental tasks that are bound to normative transitions, such as graduating from high school. The authors further assume that individuals who set and strive for developmental goals that are consistent with current developmental tasks maximize their chances of goal attainment. The three action phases—goal setting, goal striving, and goal disengagement—are separated by two transitions: (a) the formation of an intention brings the individual from a state of deliberating about possibilities to a volitional state of pursuing the set goal (see Gollwitzer, 1990); and (b) the developmental deadline characterizes a point of rapidly decreasing chances for goal attainment. The closer an individual gets to a deadline, such as school graduation, the more she perceives the imminent loss of opportunities, and the more intense her striving becomes to achieve the developmental goal. Taken together, the three action phases and the two transition types provide a common transition pathway.
Heckhausen and colleagues (2010) further identify the typical behaviors (control strategies of goal engagement and disengagement) individuals use during this process. These behaviors differ in relation to whether they make goal acquisition more or less likely. Typically goal engagement strategies are proposed to be adaptive, but when a developmental deadline is passed (Heckhausen et al., 2010) or when facing obstacles that are too great to overcome (Wrosch, Scheier, Carver, & Schulz, 2003), goal disengagement becomes important. Using disengagement strategies without having passed the developmental deadline, or when the chances for goal attainment are good, is considered inadequate. Also inadequate is the use of engagement strategies towards a goal after the individual has passed the deadline for reaching that goal.

**Salmela-Aro and Nurmi’s life span model of motivation during critical life-transitions.** Salmela-Aro (4-C model, 2009, 2010) and Nurmi (2004) describe the regulation of critical life transitions, well-being adjustment (Salmela-Aro) and self-development (Nurmi) in terms of five processes (see also Nurmi & Salmela-Aro, 2006). First, social environments set age-graded norms and standards that structure the timing of critical life transitions (channeling), thus individual action is bound to developmental tasks and transitions. Second, youths are active in their development (choices/selection) by means of setting and pursuing personal goals in accordance with current developmental tasks (Nurmi, 2004; Salmela-Aro, 2009, 2010), by employing strategies of planning, decision making, and problem-solving, as well as by exploring identity-relevant information and committing themselves to a future life path (Nurmi, 2004). Third, changing demands or going through specific phases of a transition can make prior goals inefficient and futile (Nurmi & Salmela-Aro, 2006). In such instances, individuals need to adjust their goals and strategies to the new situation in order to maintain or regain well-being (Salmela-Aro et al., 1992; 2000) (compensation/adjustment). Compensation can also involve preparing
oneself for possible setbacks (Salmela-Aro, Mutanen, & Vuori, 2011). Fourth, after individuals have received feedback about the outcomes of their engagement, or when they find themselves in a certain life situation, they integrate the experiences and new information into their self-concept (reflection; Nurmi, 2004). Both Nurmi and Salmela-Aro assume that constructing and reconstructing personal goals in accordance with current developmental tasks and transitions contributes to the attainment of developmental goals and well-being.

In addition, Salmela-Aro (co-agency or co-regulation, 2009) and Nurmi (co-development, 2004) propose that (self-)development and the regulation of transitions are also embedded in young people’s relationships to their parents, peers, and teachers. Salmela-Aro (2009, 2010) suggests that (a) goals are often shared with others, and (b) having supportive social ties benefits goal striving and attainment. Nurmi (2004) stresses that (a) the role of people in one’s social context always manifests in mutual influences, and (b) that other people influence all processes of self-development (channeling, selection, etc.). Nurmi also suggests different mechanisms for co-development with specific interaction partners, such as parents and peers.

**Summary and critique.** The models of developmental regulation point to two modes of agentic behavior: goal engagement and goal adjustment/disengagement, respectively (see also Boerner & Jopp, 2007). These models not only offer the means by which individuals go about reaching their preferred post-school destination, but also how they respond to goal failures in the face of overwhelming obstacles and how they exit from post-school goal striving or re-consider their transition goals. Moreover, some of these models stress that the timing of goal engagement and disengagement is important for adaptive development (Heckhausen et al.; Salmela-Aro/Nurmi), and that the bounds of human adaptability depend on societal constraints and opportunities (Brandtstädtter et al.; Heckhausen et al.). This is particularly important for the post-
school transition during which the nature of the education system can trigger transition attempts at different developmental points and ages. The theories reviewed in this section extensively elaborate on the structure and developmental dynamics of goal and regulation related aspects of phase-adequate engagement. Moreover, the contextualized nature of the phase-adequate regulation processes is stressed.

The four theories of developmental regulation are meta-models that make general predictions. To arrive at testable hypotheses concerning the post-school transition, they need to be translated and refined to this specific context and domain (for an example see Nagy, Köller, & Heckhausen, 2005). Some have already been applied to the post-school transition (Heckhausen et al., Salmela-Aro/Nurmi) whereas others have not (Brandtstädter et al., Baltes et al.). Higher levels of post-school transition-related goal engagement have been empirically shown to have positive consequences for goal attainment (for example, obtaining an apprenticeship), satisfaction with one’s major choice, and well-being (e.g., Dietrich, Jokisaari, & Nurmi, 2012; Haase, Heckhausen & Köller, 2008; Schindler & Tomasik, 2010; Vasalampi, Nurmi, & Salmela-Aro, 2009). Moreover, well-being benefits have been found when young people reconstructed their goals in accordance with their success in finding employment after school graduation (Nurmi & Salmela-Aro, 2002). Therefore, an empirical base exists to aid in the theoretical translation and refinement process into post-school transition terms.

From a phase-adequate engagement perspective, there is a need to apply some of the models more specifically to the post-school transition, particularly in the case of Brandtstädter and Baltes, with a focus on the factors which are associated with adequate and inadequate engagement. For example, research is needed to identify the factors associated with young people who make the transition from assimilative to accommodative coping too early or too late.
Likewise, research that identifies optimization strategies which are particularly relevant for the post-school transition are likely to be of considerable value for identifying adequate engagement strategies. Furthermore, the following issues could be addressed from the perspective of developmental regulation. First, more empirical research on the processes of goal adjustment and disengagement is needed to examine their benefits and costs. Second, by examining the associations between vocational identity development and goal setting, engagement, and adjustment, future research could test the theoretical propositions made by Brandstädter (2009) and Lerner et al. (2001) on the links of identity and regulation within the post-school transition context. Third, little is known about possible benefits of co-regulation (e.g., with peers or parents) and the mechanisms through which these might occur.

**Career Development Theories**

The second review section introduces career development theories, including career construction theory (Savickas, 2005), models of career decision-making (Hirschi & Läge, 2007; van Esbroeck et al., 2005), the developmental-contextual model of career (Vondracek et al., 1986), and the model of joint action projects (Young et al., 2001).

**Savickas’ career construction theory.** Building upon the seminal work of Super (1957), Savickas’ (2002, 2005, 2011) career construction theory has three building blocks, addressing the *why* of career (making meaning of one’s career through life themes), the *what* of career (vocational personality), and the *how* of career (career adaptability). Savickas (2005) argues that career construction processes are triggered by vocational developmental tasks and transitions, such as high-school graduation. The readiness and resources for the successful mastery of current and anticipated career tasks are subsumed under the concept of career adaptability, i.e., the ability to self-regulate one’s career-related behaviors (Savickas, 2011). Career adaptability
Phase-adequate engagement consists of four facets: (a) becoming aware of the developmental career task and establishing a sense of future orientation (career concern); (b) actively and autonomously making decisions (career control); (c) exploring the self and the world of work as well as the fit between them (career curiosity); and (d) establishing self-efficacy and self-esteem regarding the mastery of the career task (career confidence).

Savickas (2002) asserts that during adolescence exploration is the chief coping behavior for the mastery of current career tasks. In adolescence, there are three consecutive vocational tasks that align with different kinds of exploration (see Gati & Asher, 2001, for a similar idea): (a) during the crystallization of one’s self-concept, in-breadth exploration is important to gain tentative ideas about how one could fit within an anticipated work role; (b) during specification of occupational choice, in-depth exploration is important for comparisons of alternatives and the declaration of a vocational choice; and (c) during actualization, individuals take concrete actions in order to implement their choice.

**Hirschi and Läge’s and van Esbroeck and colleagues’ models of career decision making.** Hirschi and Läge (2007) combine previous decision making models from the contemporary career development literature (e.g., Gati & Asher, 2001; Germeijs & Verschueren, 2006; van Esbroeck et al., 2005) into one model. They propose that a process of choosing a career occurs in a series of several phases that range from becoming aware, via generating and reducing possible career options, to being decided and firmly committed (see Hirschi & Läge, 2007, for details). Among others, Hirschi and Läge explicitly differentiate between two kinds of career exploration activities—in-breadth and in-depth—that are undertaken in different phases of the decision making process (see also Gati & Asher, 2001; Germeijs & Verschueren, 2006; Patton & Porfeli, 2007; Porfeli & Skorikov, 2010). Whereas in-breadth exploration pertains to
seeking very broad information, for instance, about many different occupations, in-depth exploration refers to considering the characteristics of one occupation of interest in greater detail and in thinking about the degree to which it is suitable for the person.

The dynamic model of career decision making by van Esbroeck and colleagues (2005), assume that there is no predetermined order in which individuals go through the decision making process. Thus, although committing oneself to a career choice is the endpoint of the decision process, this process can start with any other activity. However, van Esbroeck et al. acknowledge that a starting point for the decision process is necessary to make a career decision, which is reminiscent of Hirschi and Läge’s (2007) phase of becoming concerned about career choice.

Vondracek and colleagues’ developmental-contextual model and Ford’s motivational systems theory. With the aim of providing a comprehensive and integrative meta-theoretical framework for life-span career development, Vondracek, Lerner, and Schulenberg (1986) proposed their developmental-contextual model. Instead of viewing context and individual as separate entities and/or viewing either of them as having primacy in human development, the person-in-context is the unit of analysis. Therefore, optimal developmental outcomes result from the dynamic interaction between the individual and the context (Vondracek & Porfeli, 2002). Individual differences in (career) development largely result from differences in timing, that is, when an individual with given characteristics (e.g., being prepared to make a career choice) meets a contextual stimulus (e.g., the end of schooling; cf. Porfeli, Niles, & Trusty, 2005). The developmental-contextual view acknowledges that contexts (both interpersonal and structural) are interlinked and hierarchically arranged (Porfeli & Vondracek, 2009), but does not specify the particular processes and mechanisms of how effective person-context functioning is achieved. Filling this gap, the developmental-contextual model was integrated with Ford’s (1987) living
systems framework resulting in dynamic systems theory (Ford & Lerner, 1992) and motivational
systems theory (Ford, 1992). Vondracek and colleagues state that effective person-in-context
functioning is the most important element of successful career development (Vondracek &
Porfeli, 2008). According to motivational systems theory, effective functioning is defined as “the
attainment of a personally or socially valued goal in a particular context” (Ford, 1992, p. 66) or,
more broadly, as “the attainment of relevant goals … using appropriate means and resulting in
positive developmental outcomes” (p. 67). This definition makes a particular feature of the
developmental-contextual and developmental/motivational systems models clear. The person-in-
context system, being a unit of motivational and biological processes, the individual’s skills, and
the environment, accounts for varying individual pathways and development in diverse contexts
(Ford, 1992). Motivation is assumed to be the most critical component of that system, and
emerges from three interacting sources, i.e., individuals’ goals, their emotions, and their goal-
related agency beliefs (Ford, 1992).

**Young and colleagues’ model of joint action projects.** Young and colleagues (Young,
Marshall, Domene et al., 2008; Young, Valach, Ball et al., 2001) conceptualized career
development in adolescence in terms of joint projects carried out with significant others –
primarily parents – thus extending personal project theory (e.g., Little, 1983) by suggestions for
mechanisms through which career projects are constructed and pursued together. A joint career
project encompasses a series of goal directed and intentional actions undertaken together by both
the adolescents and their parents. Thus, the post-school transition represents a jointly constructed
project which is pursued within mutual interactions. The joint project is part of the adolescents’
and parents’ goal hierarchy. For parents, the joint project pertains to their “parenting project”; for
adolescents, it pertains to their “growing-up/identity project” (Young et al., 2001).
**Summary and critique.** Whereas some career development models specifically address the decision making process when choosing a career (Savickas; Hirschi/Läge; van Esbroeck et al.), others point to the particular role the context plays in young people’s career development (Vondracek et al.; Young et al.). There is an emphasis on intentional regulation effort, which implies that a successful post-school transition requires the activation of vocational behavior—particularly identity and regulation processes—which is developed not only in schooling but also in joint projects with significant others. The contribution of the career development theories to phase-adequate engagement is that they highlight the importance of and interaction between identity and regulation. Moreover, the theories reviewed in this section indicate that the context dependence and contextualized nature of phase-adequate engagement need to be taken seriously into account. Empirical research in the career literature has shown that higher levels of career adaptability dimensions, such as career exploration and commitment, have positive consequences for choice implementation and satisfaction with the chosen option (e.g., Germeijls & Verschueren, 2007; Kracke & Schmitt-Rodermund, 2001), albeit there is a need for more longitudinal studies that follow young people’s pathways through the post-school transition.

Further, from a phase-adequate engagement perspective, future research could address the following issues. First, although some theories point to a specific ordering of steps to be taken in career decision making (see Hirschi/Läge, Savickas/Super), others argue against such an ordering (van Esbroeck et al.). So far there is no clear empirical base either in favor of or against the ordering hypothesis. As one example, results by Porfeli, Lee, Vondracek, and Weigold (2011) indicate that the assumption of in-breadth exploration preceding in-depth exploration may be too simplistic. Second, future research could link the decision making process to the timing-related constraints inherent in the post-school transition to make predictions about when
engagement is adequate. Such research would explore which steps were critical in the lead up to school graduation, for example, to manage the transition out of secondary schooling. Third, although some content theories of career choice (e.g., Gottfredson, 2005; Lent et al., 1994) address the fact of limited options for career choices due to socialization and external conditions (e.g., labor market conditions), this issue has not found entry into the process models of career development in terms of specific predictions. Future work could center on integrating the content (what type of choices young people make) with the process (how they go about making their decisions) perspective.

**Theories of Identity Development**

The third review section introduces theories of identity development, including the dual-cycle model (Luyckx et al., 2006), the three-dimensional model of identity development (Crocetti et al., 2008), and the dynamic systems model of commitment development (Kunnen et al., 2001).

**Luyckx and colleagues’ dual-cycle model and Meeus and colleagues’ three-dimensional model of identity development.** Current models of identity development by Luyckx, Goosens, Soenens, and Beyers (2006) and Crocetti, Rubini, and Meeus (2008) emerged from Marcia’s (1966) proposition of two fundamental dimensions of identity development, i.e., exploration and commitment. These dimensions have been refined in two overlapping ways by the two research groups (see Porfeli et al., 2011, who offer a model that is essentially a sum of these theories). The dual-cycle model (Luyckx et al., 2006) assumes that individuals initially make commitments (Marcia’s original paradigm of commitment formation) and later on identify with them (commitment evaluation). Before commitments are made, individuals explore their options in-breadth. After they are committed, individuals explore existing commitments in-
depth, thereby strengthening or re-evaluating these commitments. Luyckx, Schwartz, Berzonsky and colleagues (2008) also introduced the inadequate engagement concept of ruminative exploration where individuals are stuck in the exploration process as a result of being concerned about the “right” identity choice (see Schwartz et al., 2011; see also Salmela-Aro, Read et al., 2012). In contrast, Meeus and colleagues (Crocetti et al., 2008) note that individuals not only manage their commitments through in-depth exploration, but also through questioning and rethinking present commitments. This process of reconsideration includes assessing whether commitments need to be changed. A process that can represent adequate engagement with transition demands.

**Kunnen and colleagues’ dynamic systems model of commitment development.**

Kunnen, Bosma, and van Geert (2001) describe the development of competing identity commitments as a function of the sequence of events relevant to an individual’s commitments and an individual’s tendency to assimilate or accommodate. Kunnen’s model assumes that age-graded expectations and tasks, such as the post-school transition, trigger commitment-relevant events that support or challenge existing commitments (Kunnen & Bosma, 2000; see also Grotevant, 1987). Enduring challenge may lead to identity conflict that is characterized by an increase in exploration and a decrease in the strength of the current commitment (see also Kerpelman, Pittman, & Lamke, 1997, for a similar idea). Eventually, new commitments emerge. Kunnen et al. (2000; 2001) posit inter-individual differences in how individuals cope with identity conflicts. However, according to the model, generally individuals assimilate first and later accommodate or withdraw from the identity formation task (Kunnen & Bosma, 2000). The process of identity assimilation refers to adjusting the conflicting information to fit one’s existing commitments. Identity accommodation, by contrast, means that individuals adjust their
commitments. However, some individuals distance themselves from the demanding environment and do not try to face an identity conflict.

**Summary and critique.** The reviewed models of personal identity development represent only a part of the vast identity literature (for reviews see Meeus, 2011; Schwartz et al., 2011). The predominant view in identity research is that exploration precedes commitment (Luyckx et al.; Marcia), though the empirical basis for this assumption is weak (see Meeus, 2011). Except for Kunnen and Bosma (2000), who mention transitions as triggers for identity processes, identity models are not specifically concerned with the post-school transition. However, the general models of identity development are useful for studying the processes involved in developing a vocational identity, i.e., commitment and exploration, and possible mechanisms of change therein (Kunnen et al.). Moreover, these models suggest that adaptive behavior is characterized not by the mere intensity of exploration per se but by the type of exploration in combination with making firm commitments (Luyckx et al., Meeus et al.). When facing the post-school transition, ruminative exploration or continuing reconsideration of one’s commitment is likely to be inappropriate. The theories reviewed in this section elaborate on the structure and the developmental dynamics of the identity related aspects of phase-adequate engagement.

Taking a phase-adequate engagement perspective, identity research could address the following issues. First, to arrive at testable hypotheses on the role of identity processes at the post-school transition, the general identity models need to be applied to the domain of career (see Porfeli et al., 2011) and to the particular factors triggered by school graduation. Second, the developmental regulation models (reviewed above) challenge the classic view of identity development which assumes that identity emerges through exploration and choice among relatively unrestricted opportunities (Cooper, 2011). In contrast to this assumption, as research in
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line with the content theories of career choice shows, identity choices are limited by social structural constraints (see Eccles, 1994, 2009; Gottfredson, 2005; Lent, 2005). Third, future research could link identity work to the timing-related constraints inherent in the post-school transition, and could, fourth, study the benefits of commitment and exploration on transition outcomes. Having reviewed relevant theories of developmental regulation, career, and identity development, the next section summarizes common conclusions in five propositions of phase-adequate engagement.

**Five Propositions of Phase-Adequate Engagement**

Even though various theoretical approaches are useful for a comprehensive view on phase-adequate engagement at the post-school transition, few attempts have been undertaken to bring together these approaches (see Dietrich & Kracke, 2011). In some instances, prior research has established ties between the lines of theory described above, although not specific to the context of the post-school transition (cf. Kracke & Heckhausen, 2008; Nurmi, 2004; Porfeli & Savickas, 2011). Links between the development of intentional self-regulation and identity have been proposed (e.g., Brandtstädter, 2009; Gestsdottir & Lerner, 2008; Schwartz et al., 2005), such as that individuals need the ability to form abstract representations of the self (i.e., identity representations) in order to set and pursue developmental goals. Moreover, exploration and commitment have been framed as means for agentic self-development (e.g., Kracke & Heckhausen, 2008; Lerner et al., 2001; Nurmi, 2001, 2004) involving the development of one’s self-concepts (Savickas, 2005). Although not all of the reviewed theories tap the idea of phase-adequate engagement specific to the post-school transition, they all are informative about its components and processes. In the following, we will summarize the reviewed theoretical models in a conception of phase-adequate engagement at the post-school transition in five propositions.
These propositions are the result of the common themes identified across the theories of developmental regulation, career development, and identity development.

**The transition-as-cue principle.** The age-graded developmental task of career choice and the approaching post-school transition trigger individuals’ intentional efforts towards task accomplishment (Heckhausen et al., 2010; Nurmi, 2004; Salmela-Aro, 2009), prompt identity development (Grotevant, 1987; Kunnen & Bosma, 2000), and stimulate vocational planning, exploration, and decision making (Kracke & Schmidt-Roodermund, 2001; Savickas, 2005). Thus, we can hypothesize that career task engagement (in terms of appropriate engagement and disengagement, see following propositions) is moderated by life course cues, increasing as young people approach the post-school transition, and decreasing after the transition to post-school destinations. Accordingly, prior research has shown that transition-related goal engagement, career exploration and commitment are particularly pronounced, even increasing when adolescents approach school graduation (e.g., Germeijs & Verschueren, 2006; Haase et al., 2008; Noack, Kracke, Gniewosz & Dietrich, 2010). Similarly, adolescents increasingly adjust their occupational aspirations to their personal resources (i.e., school grades) as they get closer to this school transition (Heckhausen & Tomasik, 2002; see also Tynkkynen, Tolvanen, & Salmela-Aro, this issue). These findings suggest the central importance of experiences, identity development, and learned vocational behavior developed during schooling, as this period generally precedes the transition to work life. According to developmental task theory (Havighurst, 1948), where young people have adaptively engaged in the academic domain, they are more likely to adaptively engage in the domain of career choice. Conversely, those who are disengaged from schooling might not begin to engage with post-school transition demands as school graduation approaches (see also Cooper, 2011). It is, therefore, difficult to understand
individuals’ career development without reference to their experiences in formal schooling and other achievement domains.

**The appropriate engagement principle.** Young people’s phase-adequate engagement means intentionally engaging in behavior that is appropriate to meeting the demands related to the upcoming post-school transition and thus serves to help accomplish the developmental task of career choice (e.g., Heckhausen et al., 2010; Nurmi, 2004; Salmela-Aro, 2010; Savickas, 2005). Such appropriate engagement includes setting and pursuing transition-related goals, exploring occupational options, and committing oneself to a career path. The developmental regulation models in particular stress the issue of timing: For transition-related engagement to be appropriate it needs to be timed in a way that permits optimal chances for positive transition outcomes. As outlined earlier, phase refers to the timing of the engagement and is externally defined. As such, for transition efforts to be adequate, the timing of young people’s career efforts and behavior, and identity and skill development must be in keeping with this largely externally mandated transition point. Career theories (Hirschi & Läge, 2007; Savickas, 2005) as well as Heckhausen and colleagues’ (2010) model of developmental regulation also indicate that the behaviors which are appropriate depend on the stage in the decision making process the young person is in. The ideas of “narrowing down” possible career options (Hirschi & Läge, 2007; Savickas, 2002, see also Luyckx et al., 2006), increasing one’s commitments (Lerner et al., 2001), or forming an intention for goal pursuit ( Heckhausen et al., 2010) are common themes. However, other theorists have argued that the ordering of steps is not as important as actually engaging in these types of behaviors during the transition process is (van Esbroeck et al., 2005). Regardless, most theories stress the importance of young people’s intentional effort and the need for them to take into account the conditions in which they are making their transition.
**The appropriate disengagement principle.** Adjusting one’s goals, strategies, or existing identity commitments is also phase-adequate behavior, particularly in the case of contextual constraints (Brandtstädter, 2009; Heckhausen et al., 2010; Kunnen et al., 2001; Meeus, 2011; Nurmi, 2004; Salmela-Aro, 2009). Phase-adequate disengagement includes disengaging from unobtainable or inappropriate goals, moving from assimilative to accommodative strategies, and changing existing commitments in light of poor person-environment fit. However, disengagement can also be anticipatory in that individuals prepare for possible setbacks (Salmela-Aro, Mutanen et al., 2012). Difficulties in appropriate disengagement may arise if goals are central to one’s personal identity (Brandtstädter, 2009; Wrosch et al., 2003). Disengagement thus needs to be differentiated from non-engagement. In contrast to non-engagement, such as not wanting to make commitments to post-school plans (cf. Marcia’s, 1966, writings on a diffused identity), appropriate disengagement encompasses active and intentional behaviors of reconstructing previously set goals or reconsidering the commitments one has made. Again, disengagement is most likely to occur and can by hypothesized to be appropriate in the face of certain external constraints (e.g., low opportunities to enter one’s preferred college major, see Tomasik & Salmela-Aro, 2012) or low person-environment fit (e.g., between one’s abilities and the demands of one’s dream job). Like appropriate engagement, disengagement needs to be appropriately timed to permit optimal chances for positive transition outcomes.

**The costs-and-benefits principle.** Going back to our earlier definition of phase-adequate engagement, adequacy can generally be described in terms of maximizing opportunities and/or minimizing costs (Baltes et al., 1999). Phase-adequate engagement is thus beneficial for individuals’ transition success whereas inadequate engagement results in costs for the individual. In this regard, the reviewed theories have focused on different outcomes, and
accordingly empirical research has typically only examined specific relations (e.g., exploration and choice satisfaction, or goal engagement and well-being, or employment status). Transition success has typically been described in terms of educational and occupational attainment (status attainment; e.g., Blau & Duncan, 1976; Hauser, 2010), accomplishment of set goals (e.g., Heckhausen et al., 2010), satisfaction and engagement with the chosen career path resulting from congruent career choices (e.g., Holland, 1997; Savickas, 2005) or general and domain specific well-being (e.g., Heckhausen et al., 2010; Salmela-Aro, 2009). In line with the costs-and-benefits hypothesis, higher levels of transition-related goal engagement, career exploration and commitment have been shown to have positive consequences for choice implementation, well-being, choice (process) satisfaction, and even status attainment (e.g., Dietrich, Kracke, & Nurmi, 2011; Germeijjs & Verschueren, 2007; Grotevant, Cooper, & Kramer, 1986; Haase et al., 2008; Kracke & Schmitt-Rodermund, 2001; Nagy et al., 2005; Salmela-Aro & Nurmi, 1997; Schindler & Tomasik, 2010; Vasalampi et al., 2009; Vuolo, Staff, & Mortimer, this issue). We are not aware of empirical research on the potential costs of inadequate engagement at the post-school transition. For example, what are the consequences of beginning to engage very late in the transition period? Is it costly to explore in-depth a foreclosed career option without having explored other alternatives? Appropriate or phase-adequate disengagement has also received relatively little attention from researchers studying the post-school transition. While the costs of inadequate disengagement before making this transition have been addressed (Tomasik, Hardy, Haase, & Heckhausen, 2009), positive effects of goal adjustment have only been demonstrated in a few cases, for example, when difficulties in finding employment after school graduation arise (Nurmi & Salmela-Aro, 2002; Tomasik & Salmela-Aro, 2012; see also Vuolo et al., this issue). Intervention research in this area, where young people received preparation training for possible
setbacks during the post-school transition, has shown some positive effects on post-transition outcomes (Koivisto, Vuori, & Nykyri, 2007). Although these studies were conducted within the developmental regulation theories, we are not aware of any research concerning benefits of disengagement in the identity or career decision making literature.

The co-regulation principle. Engagement and disengagement behavior associated with the post-school transition not only depends on personal capacities, but also on the behavior situated within the social context (Baltes & Carstensen, 1998; Nurmi, 2004; Salmela-Aro, 2010; Vondracek et al., 1986; Young et al., 2001). According to the theories reviewed, other people influence all types of phase-adequate engagement, such as goal setting, striving, and disengagement, but also identity processes and vocational behaviors (Baltes & Carstensen, 1998; Nurmi, 2004; see also Salmela-Aro & Little, 2007; Dietrich & Kracke, 2011). Specifically, it can be hypothesized, first, that in many cases the developmental goal of career choice more broadly, and particular goals related to the post-school transition are shared with others (Salmela-Aro, 2009; Young et al., 2001; see also Jodl, Michael, Malanchuk, Eccles, & Sameroff, 2001; Meegan & Berg, 2001). Second, even when goals are not shared, bidirectional influences can be assumed to take place between the young person and others in their social context (Nurmi, 2004; Young et al., 2001; Vondracek et al., 1986; see also Lichtwarck-Aschoff, van Geert, Bosma, & Kunnen, 2008). Different mechanisms are likely to be at work for different co-regulation partners (Nurmi, 2004; see also Parker, Lüdtke, Trautwein, & Roberts, 2012). Prominent partners within young people’s social context include parents, peers, and romantic partners (e.g., Malmberg, 1996), but teachers, other adult mentors, and weak ties (Salmela-Aro & Little, 2007) are important as well. Third, co-regulation can have independent benefits and costs in addition to individual engagement: Having supportive social ties, for example, can be assumed to impact possible
transition outcomes directly (e.g., goal attainment; Salmela-Aro, 2010). Empirical research on
the post-school transition (or educational transitions in general) is rare, but the few existing
studies lend support to the different hypotheses pertaining to co-regulation (Dietrich & Kracke,
2011; Dietrich et al., 2011; Kiuru, Nurmi, Aunola, & Salmela-Aro, 2009; Tynkkynen, Nurmi, &
Salmela-Aro, 2010). However, our review showed that, although co-regulation is mentioned in
several theories, its mechanisms are typically not well defined theoretically or empirically.
Hence, there is a need for specific theoretical advancement which focuses on the mechanisms
through which successful or unsuccessful co-regulation takes place.

To summarize, along the lines of developmental regulation, career development, and
identity research we conceptualized phase-adequate engagement as consisting of appropriate
engagement and disengagement. Table 1 and Figure 1 give examples of the multifaceted nature
of phase-adequate engagement at the post-school transition. While the Table shows examples of
adequate and inadequate engagement behaviors as suggested in the theories reviewed up to here,
the Figure highlights the idea that different engagement efforts may be prominent and
appropriate at different points in time. The Figure also points to a theoretical element that our
review has not addressed systematically yet: Phase-adequate engagement and more specifically
the five principles are subject to various macro-contextual influences. In the second part of this
paper we therefore discuss how, when, and for whom engaging with the career task and the
demands of the post-school transition can be considered phase-adequate when regarding post-
transition outcomes.

Avenues for Future Research

In the following, we will argue that assessing phase-adequacy is only possible when
considering engagement and disengagement in their interpersonal and wider social context. This
Phase-adequate engagement reflects the widespread consensus that the ways in which individuals cope with developmental tasks or challenges depends on individual and situation-specific characteristics and their reciprocal interaction (e.g., Bronfenbrenner, 1979; Sameroff, 2010; Vondracek et al., 1986). Despite the recognition of the importance of contextual influences in the literature, knowledge about co-regulation and structural influences is limited. Specific theoretical models of how the social contexts interact with different facets of phase-adequate engagement are rare (see Schoon & Silbereisen, 2009, for an exception). Thus, with this paper we aim to set the stage for future theoretical work and empirical research. Because the co-regulation principle is the theoretically weakest of the five, we first return to this topic and exemplify ways to strengthen it. As an example case, we focus on parents and discuss the question of how youths’ reciprocal interactions with them interlink with phase-adequate engagement and eventually bring about the successful mastery of the post-school transition. However, there is a need to approach the influence of peers (selection and socialization effects, see e.g., Kiuru et al., 2009; Nurmi, 2004; Parker et al., 2012; Salmela-Aro, 2010) and others in a similar way. We also discuss the role of the wider context. As an example we elaborate on the importance of considering differences between young people from varying social and cultural backgrounds when determining when engagement is phase-adequate. In this vein we also discuss the predominant research focus on the transition to university and address the necessity of exploring alternate pathways. Again, there is a need to systematically elaborate on other aspects of the macro-context such as issues of transition timing and of economic conditions.

Co-Regulating the Post-School Transition with Parents

In mid- and late-adolescence, parents are the most influential persons for youths’ decisions about their future career path (e.g., Malmberg, 1996; Mortimer, Zimmer-Gembeck, Holmes, &
An increasing body of literature demonstrates that the relationships with parents are influential for young people’s developmental regulation and their career development (see, for overviews, Shanahan, 2002; Tynkkynen, Nurmi, & Salmela-Aro, 2010; Youniss & Smollar, 1985). Despite this conclusion, theoretical conceptualizations of, and empirical research on the actual processes through which parental influences operate are rare. Knowledge about processes and mechanisms requires an in-depth understanding of how development comes about (e.g., Eccles, 2007; Massey, Gebhardt, & Garnefski, 2008; Whiston & Keller, 2004). The following discussion outlines what is known about these processes from research and theory developed partly outside the literature reviewed so far.

In the self-regulation submodel of his developmental contextual theory, Sameroff (2010) asserts that the social contexts engage actively in regulatory activities. Sameroff calls this other-regulation and assumes that the regulation activities of parents are adapted to the developmental stage or situation of the young person in a transactional process. Parents’ regulation is thus influenced by the same institutional (e.g., school, university, and the labor force) and temporal constraints (e.g., approaching graduation) as the young person’s engagement (Eccles, 2007; Nurmi, 2001). As discussed earlier, Nurmi (2001; 2004) elaborates on adolescents’ self-development as embedded in the relationships with parents (labeled co-development). Similar to other researchers (e.g., Eccles, 2007) he discusses two directions of influence. On the one hand, parents can influence their children in three ways: through setting and communicating standards for development, by being tutors and role models for the mastery of developmental tasks, and as a source of feedback and support. On the other hand, adolescents can influence parents in two ways (Nurmi, 2004): The adolescents’ competencies for mastering developmental tasks may
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elicit certain parental behavior. The adolescents’ behavior may also induce stress in their parents which, in turn, influences parents’ thoughts, behavior, and well-being. Thereby career stress is shared in the family (Salmela-Aro, Tynkkynen & Vuori, 2012). Moreover, in their work on joint career projects, Young and colleagues (2001) note that adolescents and parents may or may not share their goals and collaborate for goal attainment (collective SOC, Baltes & Carstensen, 1998; shared goals, Meegan & Berg, 2001; co-regulation, Salmela-Aro, 2009). Hence, through reciprocal interaction (Sameroff, 2010; Nurmi, 2004; Young et al., 2001) parents can influence goal setting (e.g., help identify or specify a goal), goal striving (e.g., support or collaborate on carrying out a set goal), and goal disengagement (e.g., help to determine when a goal becomes untenable) processes (Salmela-Aro & Little, 2007; see also Table 1). These processes of co-regulation are embedded in the relationship and the goal systems of each actor (Baltes & Carstensen, 1998; Young et al., 2001).

A focus on parents’ domain-specific (here: career-related) behaviors is thus crucial when investigating co-regulation at the post-school transition in a developmental fashion. Such domain-specific behaviors have been described as parenting practices (e.g., Darling & Steinberg, 1993; Eccles, 2007; Pomerantz & Eaton, 2001) or involvement (Eccles, 2007; Pomerantz, Moorman, & Litwack, 2007) and need to be differentiated from aggregated views of the parent-adolescent relationship, such as parenting styles (e.g., Darling & Steinberg, 1993) and attachment (e.g., Bowlby, 1967). In contrast to parent-adolescent relations and parenting styles in general, specific career-related parental practices may be elicited or affected by the adolescents’ efforts to successfully master the post-school transition (cf. Pomerantz & Eaton, 2001). Research has just begun to address parents’ specific behaviors in their children’s career choices and transitions (see Dietrich & Kracke, 2009). This is even more the case for processes and
mechanisms through which co-regulation at the post-school transition occurs (Dietrich et al., 2011). As different processes might operate on different levels of analysis (short-term vs. long-term development) and mothers and fathers might have different roles (Dietrich et al., 2011; see also Tynkkynen et al., 2010), theoretical as well as empirical contributions are needed. These could make use of a dynamic systems approach to development (see Lavelli et al., 2005; Lichtwarck-Aschoff et al., 2008), which explicitly acknowledges that development occurs on different time scales (from moment to moment and across longer time intervals) and seeks to link real-time interactions between parents and children—i.e., real-time co-regulation—to long-term developmental patterns.

**Phase-Adequate Engagement in Its Wider Social Context**

The considerations of phase-adequate engagement presented thus far have focused on psychological processes within individuals and the expression of agency as essential elements in predicting post-school transition patterns. However, it is important to note that several of the reviewed theories also provide some exploration of the structural or institutional context the individual is exposed to, which helps shape and define expression of agentic action (Buchmann & Kriesi, 2011). This acknowledgement that the post-school transition happens within macro social and temporal structures (e.g., changes in economic climate and/or government policy) is invaluable to understanding both the relative success of different strategies and what things individuals take into account when engaging in this transition (Hitlin & Elder, 2007). For example, Salmela-Aro (2009; 2010) and Nurmi (2004) indicate the importance of channeling, that is, the role that social structure plays in limiting and directing young people’s behavior toward particular age-graded developmental tasks. Alternatively, Savickas (2005) emphasizes the role social institutions play in triggering transition events that individuals must adequately
engage with. For example, more uncertain economic conditions may encourage young people with the required financial and social resources to remain in formal education (i.e., university) for longer (see Checchi, 2006).

**Structure influences in a rational choice approach to phase-adequate engagement.**

Often the reviewed models, either explicitly or implicitly, utilize a rational choice model to explain how structural features translate into psychological processes when considering the role of context on an individual’s decision making processes and transition-related behaviors. That is, most indicate that individuals undertake meaningful and intentional action to maximize their outcomes during the transition (Boudon, 1998). As such, structure is often characterized as an input into an individual’s decision process which affects the calculation of different costs and benefits of different choices. This is evident in the ideas of compensation and optimization present in the developmental theories of Baltes and colleagues (Freund & Baltes, 2002), assimilative and accommodative coping of Brandstädter (2009), and the concepts of compensation and adjustment in the work of Salmela-Aro (2009) and Nurmi (2004). According to these theories, individuals are aware of constraints and opportunities provided by the context in which they make their post-school transition and incorporate these influences into their decision and planning processes.

The considerations above are reminiscent of expectancy value and cognitively oriented theories of career and activity choice. These have traditionally been used to predict what young people choose—e.g., young women (not) entering engineering and math-related majors in college (empirical examples in this special issue are Parker et al., this issue; Perez-Felkner et al., this issue; Wang, this issue; and Watt et al., this issue)—rather than to examine how they choose and manage career transitions. For example, Eccles and colleagues’ expectancy value model of
achievement related choices (e.g., Eccles, 1994, 2009) posits that individuals select activities in which they expect to succeed and to which they attach a high value or importance. This subjective task value of an activity and the success expectations attached to it are influenced by one’s identity, goals, and other self-beliefs (see Parker et al., this issue) which, in turn, are linked to several factors in an individual’s social environment. Eccles et al.’s model focuses on the processes through which the wider social context impacts choices. Several sets of mediating constructs are related to the interpersonal context, such as, parental practices and beliefs (Eccles, 2007). In a similar vein, although focusing on somewhat different predictors of activity choice (notably self-efficacy), social cognitive career theory (Lent, 2005; Lent et al., 1994) offers explanations of structure influences that provide limits within which young people actively make career choices. From these perspectives, the focus is not on why choices vary across genders, social classes, and ethnicities, but rather on young people’s agentic behavior in why they choose the transition outcomes that they undertake (e.g., Eccles, 1994).

A rational choice approach to the post-school transition processes points to several important considerations. First, whereas developmental regulation theories explicitly take into account structure constraints as boundaries for individual action, this is less the case in the career development and identity theories reviewed earlier in this paper. For example, there is often an implicit assumption that individuals have relatively unrestricted options (Cooper, 2011). In fact, as indicated above, content theories of career choice (e.g., Eccles, 1994; Gottfredson, 2005; Lent, 2005) provide rich elaborations of the mechanisms that lead to a limited range of identity options. However, little is known about how appropriate exploration and commitment processes take place where the context limits the options available to young people. Moreover, young people’s adaptive engagement efforts may also vary between different countries. For example,
Schwartz and colleagues (2011) raise the possibility that identity development might differ between European countries, in which the economic system offers a “safety net” for young people who are unable to find work, and the US, in which the post-school transition is more unstructured and no safety net is provided. Second, the rational choice approach points to the need for dynamic theories of phase-adequate engagement that discuss the interaction of individuals and contexts (e.g., Vondracek et al., 1986). A starting point is the acknowledgement that the success of different strategies is, to some degree, context dependent (see the appropriate disengagement principle).

The rational choice model approach is useful for research on the post-school transition as it often accounts for much of the choice behavior that occurs in this setting. That is, individuals in western societies tend to make intentional post-school engagement efforts in situations where many of the structural limits and influences are known and taken into account in the psychological decision process (see Boudon, 1998; Gambetta, 1989). It is likely, however, that in some cases the rational choice model approach to structural influences may be insufficient (see Boudon, 1998, for a review). Gambetta (1989) has conducted one of the most extensive empirical examinations of the role of structure and context on individual choice mechanisms during the post-school transition. Although finding support for a rational choice perspective in many cases, he suggests that there are two situations in which the rational choice perspective may not provide an adequate account of post-school transition processes. First, there are occasions in which post-school destinations are largely constrained by contextual and structural factors. In this case, decisions are largely determined by factors outside the individual’s control and thus the adequacy of engagement efforts is largely unrelated to young peoples’ transition success. Second, there are structural or contextual factors of which individuals are unaware but
which shape their engagement strategies from “behind their backs” (Gambetta, 1989, p.180).

Consideration of these factors is useful in examining two questions: Who engages in the post-school transition adequately? And, for whom is engaging in the post-school transition beneficial?

**Who engages in the post-school transition adequately?** This question considers the role of behind-the-back factors (Gambetta, 1989) that influence young people’s decision processes or affect the development of the skills needed to make adequate engagement efforts. The defining feature of these influences is that individuals do not consider them as inputs into their post-school decision and engagement processes. The existence of such influences suggests the need to explore how psychological resources, such as identity formation, goal setting, striving, coping, planning, and strategizing are distributed and how social structures might affect these distributions (see also Côté’s, 1997, identity capital model). In particular, research and theory on phase-adequate engagement should consider why human agency recapitulates social inequality during the post-school transition. That is, if individuals have the capacity to make rational choices to maximize their outcomes, why it is the case that there appears to be such persistence in post-school educational inequality (e.g., Bailey & Dynarski, 2011; Pfeffer, 2008)?

Let us consider, for example, the role of young people’s social identities which, outside conscious awareness, can alter their motivation to engage with the post-school transition (Oyserman & Destin, 2010). Social identities are based on memberships in different social groups, based on, for instance, ethnicity, social class, or gender. Syed, Azmitia, and Cooper (2011; see also Buchmann & Dalton 2002) suggest that ability grouping at school (tracking) sends the message to lower track students that college is “not for them” (see also Oyserman & Destin, 2010). In such cases, students learn to believe that they do not really have a career choice, but instead need to “take what is on offer”. As another example, Lareau (2003) suggests
Phase-adequate engagement that young people from poor and working class backgrounds learn to be passive and to consider themselves as pawns in the education system. Those who are well-off, however, learn to believe that intentional engagement in educational institutions can result in positive outcomes. Accordingly, social inequalities in adaptive vocational behaviors may result from insufficient resources to develop these behaviors among young people from lower socioeconomic backgrounds (Blustein et al., 2002). Taken together, these examples have a number of implications for the psychological processes and skills that are required to adequately engage in the post-school transition. For example, *appropriate engagement* is heavily based on intentional behavior and requires individuals to be able to generate possible transition pathways, reduce the alternatives, and decide among these options. Adequately or inadequately engaging with the post-school transition might, therefore, be another route through which structural factors, such as social class, contribute to the perpetuation of social inequality (see also Fouad, 2007).

**For whom is engaging in the post-school transition beneficial?** The second question leads us to consider of Porfeli and Vondracek’s (2009) criticism of existing career development literature, which, when applied to the current topic, points to the need to take into account the diversity of individuals for whom the post-school transition is relevant and the wide diversity of different social contexts in which this transition is made. This point has implications for whether engaging in post-school transition strategies, such as exploring different options and choosing between them, is possible and/or valuable in all settings (see also Schwartz et al., 2011). For example, young people from even the most advantaged social background can find their post-school pathways largely determined by the cultural context in which they find themselves. Grodsky and Riegle-Crumb (2010) found that children from an advantaged social origin assumed they would enter university rather than a vocational track and, as a result, applied for a college
position by default rather than going through a decision making process. As such, it may be the case that intentional engagement efforts are likely to be less useful for individuals who are within subcultures that have rigid expectations about post-school destinations. This is not to say all choices are determined. Indeed, it is likely that for those who have a habitus that includes going to college, post-school choices may revolve around what major to do in university or what career to strive for rather than deciding whether to go to university or not. Nevertheless, this college going habitus illustrates cultural constraints regarding the degree of autonomy encouraged in particular career decision making processes which can result in a number of implications for the principles of phase-adequate engagement we have discussed so far.

In the transition-as-cue principle we note that approaching the post-school transition triggers identity formation efforts. The interpretation of the transition point may change for many students who from a very young age have assumed they would attend college. Students from privileged backgrounds may interpret matriculation to university as a natural progression rather than the result of a deliberate and rational decision process. For them, the “real” engagement work may be perceived as occurring during university as students explore different career trajectories through academic majors. As such, the post-school transition is likely to signal very different things with different engagement processes in different populations.

Structural constraints thus do not always operate as inputs into a rational choice process but can influence individuals to undertake post-school explorations as if the choices realistically available to them are more limited than they appear or as if some options do not exist at all (see Gambetta, 1989; Syed et al., 2011). Importantly, the transition success of these constrained engagement processes need not result in negative outcomes. Grodsky and Riegle-Crumb (2010), for example, found that a lack of engagement can “pay-off” in terms of education and status
attainment for young people who always assume they will enter university and do not actively consider alternative post-high school destinations. In addition, the cultural setting and value system in which a young person makes the post-school transition is also an important influence on which types of engagement are most beneficial for different individuals. As Schwartz and colleagues (2011) argue, although making firm commitments is likely considered to be adaptive identity development across cultures, in non-Western collectivist cultures these commitments may not need to be based on exploration but may be derived from the values of significant others or, more widely, from cultural orientations. Again, this limited exploration can potentially have either positive or negative implications for outcomes such as status attainment, depending on the nature of the restricted commitment.

**Transition Pathways Outside of the Transition to University**

One of the major issues with research on the post-school transition is the dominate focus on youth who transition to university. Indeed, less empirical research has focused on those that go into vocational training, who directly enter the labor market, or even those who do go on to further education but take a gap year in between the end of schooling and the commencement of university (Hamilton & Hamilton, 2006). With low skilled jobs increasingly moving out of OECD countries, there is now a greater focus on training young people in high skilled professions. Thus, research focus on this area is important from a policy perspective but is also a welfare issue as the increasing attainment gap between university and non-university educated individuals has resulted from the increasingly poorer outcomes of individuals without university education (Côté, 2006). Finally, as Hamilton and Hamilton (2006) note, the diversity and number of choices available to individuals outside of university pathways leads to a complexity that is not easy to address in empirical research. Nevertheless it is clear that future research will need to
focus increasingly on comparing and contrasting different post-school pathways beyond the traditional focus on university populations. It is therefore appropriate to consider the degree to which the concept of phase-adequate engagement is generalizable across different transition pathways.

An important question in this respect is the degree to which non-university pathways represent an adequate or inadequate engagement process. It is clear from OECD (2010, 2011) education at a glance reports, that by average objective standards (e.g., unemployment rates, status attainment, job retention, protection from economic uncertainty) a university pathway holds advantages in many countries. These advantages have led to important recent research that has focused on processes of undermatching, i.e., on why individuals within particular groups who have the ability and achievement required to enter university do not do so (e.g., Bowen et al., 2010). The findings suggest that while such choices can results from appropriate career exploration, self-concept development, and behavioral engagement they can also be due to poor execution of career exploration strategies (often due to a misunderstanding of the benefits of a university education or a lack of access to quality information on how to evaluate different post-school choices; Bowen et al., 2010; Schneider & Stevenson, 2000). This suggests, that where some undermatching might be expected as a result of phase-adequate engagement, for many, particularly for disadvantaged young people, undermatching is the result of phase inadequate engagement. In contrast, the available research literature also suggests that despite the many advantages of a university education it is not feasible or appropriate for all individuals. In such cases, maintaining the unrealistic or inappropriate goal of attending university may be considered phase inadequate (Schneider & Stevenson, 2000). As such, research is needed that is specifically focused on which transition pathways are appropriate for whom and when changing pathways
(see Tynkkynen et al., this issue) is adequate or inadequate for certain outcomes.

**Implications and Caveats to the Five Principles**

Taken together, the five principles of phase-adequate engagement summarized earlier provide useful guidelines for research during the post-school transition. Nevertheless, structural considerations and constraints can alter psychological decision making, choice implementation, and transition management processes in different ways. In this article we have focused on the wider social context individuals grow up in. As noted earlier, a similar discussion is warranted for, e.g., issues regarding the macro-economic situation including the effects of the current economic crisis on phase-adequate engagement. Indeed, researchers need to be aware of a set of phase-adequate engagement caveats. First, despite the recognized reciprocal influence of parents, peers, and others on young people’s career development, the nature of this influence remains largely unexplored. As such, there is a limited understanding of the mechanisms of co-regulation that foster or hinder individuals’ adaptive engagement with the post-school transition. Moreover, these mechanisms are likely tied to the wider social context, such that, for example, parents who themselves have never experienced a wealth of options for their career choice may be less apt to support their child with choosing post-schooling destinations (Maaz, Trautwein, Lüdtke, & Baumert, 2008; see also Syed et al., 2011). Second, youth may engage with the transition but may be unaware of structural and contextual factors that point them toward a particular choice, and that may influence the success of their engagement efforts. Structural factors, such as the sub-culture or social class that young people grow up in, provide different learning environments which, in turn, can affect whether they develop the motivation and the skills needed to adequately engage in the post-school transition, at least in a way that maximizes their potential outcomes (Oyserman & Destin, 2010; Roderick et al., 2011; see also Eccles et al., 1998, for an
extended discussion in the many ways social class can influence achievement-related choices).
Third, real or perceived structural constraints can effectively lead young people to a particular post-school trajectory regardless of whether they used an adequate or inadequate psychological decision making process. Our discussion on social class influences is only one example here. Gender and ethnicity are other behind-the-back factors that are associated with the post-school pathways of young people (Eccles, 2009; Syed et al., 2011). Finally, apart from university transition, pathways remain under-researched. Discussing the role the wider social context plays for phase-adequate engagement and its outcomes highlights another issue that warrants systematic investigation: the links between the processes of engagement and the content of people’s career choices. This issue is particularly evident in the cases of goal reconstruction and of reconsidering commitments previously made. Here, it is important to consider the content of the goal or commitment an individual disengages from in determining whether this disengagement is adequate or inadequate (although not conducted in a transition context, Ashby & Schoon, this issue, give rich examples of this).

In conclusion, both empirical and theoretical work is needed on the many questions raised in the previous sections, particularly on those questions linked to embedding phase-adequate engagement into larger and wider interpersonal and social contexts. Most importantly, there is a need to move beyond assuming that the benefits of phase-adequate engagement are present in terms of “main effects”. Rather, benefits can only be defined in a given structural setting. Moreover, adequate engagement efforts can benefit one outcome but impair another. Person-in-context fit (Eccles, 2009; Vondracek et al., 1986) thus needs to be carefully defined. This entails the need to broaden the range of possible criteria for a successful post-school transition. For example, in non-Western cultures meeting the needs of the community and significant others
might be an important outcome to consider (see Cooper, 2011; Côté, 1997). Moreover, we need to know whether adequately engaging with the post-school transition moves a young person onto positive pathways regarding future developmental tasks (Havighurst, 1948), including positive learning experiences for career choices in adult life (Savickas, 2005). Taking a holistic view of young people at the post-school transition also implies that research should relate the career-related aspects of this transition to other transitions or tasks taking place at the same time (Buchmann & Kriesi, 2011), such as biological changes (e.g., Albert & Steinberg, 2011) or changes in social relationships and other roles when transitioning from school to work or college (e.g., Garrett & Eccles, 2009; Parker et al., 2012). Such concurrent developmental tasks and transitions are likely to interfere with phase-adequate engagement towards the post-school transition, as, for example, young people need to consider how to spend their engagement resources across different life domains (Heckhausen et al., 2010). A holistic view also entails the accumulation of more knowledge about the relationships between the components of phase-adequate engagement as identified in this review. Similarly, research is needed regarding the role of different engagement configurations and developmental patterns for career development over the life span to answer questions such as: Are there major and minor facets of phase-adequate engagement?

The principles of phase-adequate engagement can be fruitfully applied to other life course transitions in the domain of career as well as in other domains. To that end, relevant theories on typical forms of (dis)engagement and contextual demands need to be reviewed and applied to phase-adequate engagement in the transition context at hand. Haase, Heckhausen, and Silbereisen (this issue), for instance, employ a developmental regulation perspective on the transition from university to working life and demonstrate that well-being costs and benefits of
goal engagement and disengagement depend on employment opportunities. Their study is a good example of a detailed and transition-specific measurement of well-being as it includes well-being in the domain of partnerships which is thought vitally important for young adults. The multi-domain holistic perspective is even more explicit in Wiese and Ritter’s (this issue) study on women returning to work after maternity leave. Here the authors examine the circumstances under which a shift from engagement to disengagement occurs. They employ a strongly contextualized operationalization of disengagement and the costs and benefits that result at the transition they study. Thus, from a phase-adequate engagement perspective, researchers need to be specific when defining the constructs of engagement and disengagement they assume to be appropriate and inappropriate in the particular context they study. Doing so, researchers also need to define the contexts in which it makes sense for individuals to adequately engage at a particular transition point. In addition, researchers need to be careful when defining the outcomes which they assume to be affected by phase-adequate engagement, and when defining whether engagement will benefit or be detrimental to these outcomes. Finally, future research will benefit from comparing different cultural contexts to test the generalizability and applicability of phase-adequate engagement principles internationally. We therefore encourage researchers to conduct multi-context studies. Two excellent examples of how to conduct such studies are present in this special issue (Parker et al., this issue; Watt et al., this issue).
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Phase-adequate engagement


Phase-adequate engagement

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Phase-adequate engagement


Phase-adequate engagement

10.1017/S0954579404040167


Figure Caption

Figure 1

One example of a phase-adequate engagement process (others are possible).
Table 1
Examples of phase-adequate and inadequate engagement behaviors of the individual and corresponding co-regulation behaviors.

<table>
<thead>
<tr>
<th>Phase-adequate engagement</th>
<th>Phase-inadequate engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual engagement</strong></td>
<td><strong>Co-regulation</strong></td>
</tr>
<tr>
<td><strong>a. Transition Awareness</strong></td>
<td>Become concerned about the developmental task and explore in-breadth.</td>
</tr>
<tr>
<td><strong>b. Identity and goal crystallization</strong></td>
<td>Form and strengthen commitments and career and transition goals; explore in-depth.</td>
</tr>
<tr>
<td><strong>c. Transition Management</strong></td>
<td>Goal engagement, planning, and choice actualization.</td>
</tr>
<tr>
<td><strong>d. Goal and strategy adjustment</strong></td>
<td>Adjust goals and commitments, prepare for setbacks, and disengage in the face of obstacles too great to overcome.</td>
</tr>
<tr>
<td><strong>e. Reflection</strong></td>
<td>Integrate experiences and transition outcomes into identity.</td>
</tr>
</tbody>
</table>

*Note.* These behaviors may occur and reoccur at different time points during the transition period. Note that the examples do not refer to behaviors as consecutive steps in a developmental process and that not all behaviors need to be present in an adequate engagement process.