Motivation and Emotion (2020) 44:159–174
https://doi.org/10.1007/s11031-019-09809-2

ORIGINAL PAPER

Towards a wider conception of autonomy support in adolescence: The contribution of reflective inner-compass facilitation to the formation of an authentic inner compass and well-being

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Published online: 26 November 2019

Abstract
Ample research has demonstrated the benefits of basic autonomy supportive practices (e.g., perspective-taking, choice, minimizing-control) for adolescents' psychosocial functioning. Herein, we posit that there is one additional autonomy supportive practice with specific importance for adolescents' development: *Reflective Authentic Inner Compass facilitation*. This practice is posited to contribute to the formation of an *Authentic Inner-Compass:* An action-guiding schema, informing youth on *what they truly value, need, and want*, and consisting of two parts: (1) A foundation including authentic values, interests, and life-aspirations, and (2) Autonomous commitment to future-oriented goals and decisions, based on the foundation. A longitudinal study of 18–19 year-old Israeli adolescents showed that perceived Reflective Authentic Inner Compass Facilitation by instructors uniquely predicted (beyond Basic Autonomy Support) adolescents' experience of having an authentic inner-compass in the military domain, which then predicted autonomous engagement in plan-promoting activities. A cross-sectional study with 16−18 year-old Belgian adolescents showed that perceived Reflective Authentic Inner Compass Facilitation by parents uniquely predicted (beyond Basic Autonomy Support) the experience of having an authentic inner-compass, which then related positively to well-being. Implications of the notion of the authentic inner compass for the conceptualization of autonomy support and the experience of autonomy are discussed.

Keywords Authentic inner compass · Autonomy support in adolescence · Identity-commitments · Parenting practices · Need for autonomy · Teaching practices

Self-determination theory (SDT; Ryan and Deci 2017) has long claimed that autonomy need satisfaction and contextual supports for this need are important across the lifespan. In SDT, autonomy is considered a universal and fundamental need with lifelong importance for individuals' psychosocial adjustment. Similarly, contextual support for the need for autonomy is assumed to foster well-being and social adjustment throughout the lifespan. Research focusing on different life periods has supported these claims, with most developmental SDT-based research focusing on the role of parents and teachers as key contextual sources of support for autonomy (e.g., Guay et al. 2016; Soenens et al. 2018).

While there is ample research demonstrating the importance of the need for autonomy and autonomy support across the life span, relatively little conceptual and empirical work has been done to identify age-specific manifestations of the need for autonomy and different aspects of autonomy support in different life periods. As basic needs are likely to manifest in different ways and perhaps require partly different contextual nutrients in different life periods, it seems important to identify such developmentally specific features. The present set of studies focuses on late adolescence and emerging adulthood because in these developmental periods many individuals are concerned with various challenges that may require specific autonomy-supports. In our studies, we focus on one such challenge: establishing commitments to future-oriented goals, plans, and decisions.

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Commitment formation as a key developmental task in adolescence

Theoretical and empirical work suggests that many adolescents and emerging adults try to choose and develop abiding commitments in central life domains (such as education, vocational career, and romantic relationships) and at times also in the ideological domain, which involves social-political issues and religion (Luyckx et al. 2011; Marcia 1980). Consistent with Luyckx et al. 2008, 2011, the construct of commitment can be defined as the strength and clarity of future goals, plans, and decisions that one holds.

Clear and abiding commitments, which represent core components of youths' emerging identity (Bosma and Kunnen 2001; Kroger and Marcia 2011) were found to contribute to well-being and positive socio-emotional functioning (e.g., Crocetti et al. 2008; Luyckx et al. 2008; Meeus 2011; Schwartz et al. 2011). Yet, the process of commitment formation can also go awry. Indeed, some adolescents do not succeed to develop relatively firm commitments to specific goals, plans, or decisions (e.g., Kroger and Marcia 2011; Luyckx et al. 2008), and, therefore, are at risk for maladjustment. Given the importance of commitment formation, and the consequences of failure to develop abiding commitments, it is important to identify specific socialization practices that may contribute to the formation of identity commitments and subsequent well-being.

In our attempt to identify socializing practices that are likely to promote commitment formation and related positive outcomes, we relied on the notion of the *Authentic Inner Compass* (AIC; Assor 2011, 2012a, 2018; Vansteenkiste and Soenens 2015). This notion is based primarily on Self-Determination Theory (Deci and Ryan 2000). In addition, it is also based on Mill's (1946) view of autonomous functioning as a process in which people direct their lives in ways that allow their authentic *inward forces* to become basic guiding values in their life (see also Aviram and Assor 2010). The concept of the authentic inner compass refers to sense of having action- and decision-guiding schemas that are experienced as autonomous and authentic. When such guiding schemas exist, people feel that they know what they truly value, need and want, and therefore can make satisfying and moral decisions on important issues. A mature and optimal AIC is assumed to include two components: (1) an AIC foundation, which includes authentic values, need-satisfying aspirations and interests, and (2) an autonomous commitment to future-oriented goals, plans or decisions that are based on one's AIC foundation (in short, autonomous goal commitments). While the AIC foundation is assumed to begin to develop in childhood, autonomous goal commitments are assumed to develop in adolescence. The role of these goal commitments is to obtain optimal realization of one's authentic values, needs and interests, within one's personal and social affordances and constraints. For example, an adolescent whose AIC foundation includes the value of social justice and an interest in biology, might plan to study ecological sciences, while being active in organizations fighting pollution in disadvantaged areas.

Assor (2018) assumed that AIC schemas are essential for autonomy need satisfaction (experiencing true self-direction) because they inform adolescents on how to choose actions, relationships, and contexts that are likely to feel valuable and optimally satisfying. Conversely, when adolescents do not have such action- and decision- guiding schemas, they are likely to feel confused and not capable of true self-direction because they do not know what actions to choose. Consequently, they may prefer to escape from freedom even when they are relatively free to direct their lives (Fromm 1941). For example, they may join religious or political organizations with very strict behavioral guidelines and authority structures.

The contribution of the AIC to volitional action and well-being is posited to be particularly important in adolescence and early adulthood, because in these periods individuals face the developmental task of making important, long-term, decisions and commitments. Thus, we posit that the formation of autonomous goal-commitments that are derived from one's AIC foundation, supports autonomous and persistent engagement in actions aimed at realizing these goals, which then promotes well-being (Assor 2018; Vansteenkiste and Soenens 2015).

The AIC is likely to be of special importance for adolescents living in post-modern, information-flooded societies characterized by considerable value confusion, moral relativism, and an overwhelming amount of information (often superfluous and marketing oriented), and a decline of absolute, widely accepted, trustworthy authorities (e.g., Aviram 2010; Barmash 2004; Orman 2015; Taylor 1991). In such societies, there is a need for contextual supports that help youth consolidate an AIC that can digest, make constructive use of, and at times resist, the flood of confusing messages.

Past conceptualizations and studies anchored in SDT already recognized the importance of an integration process involving reciprocal assimilation and organization of values, interests and life aspirations, which are then experienced as integrated and authentic (Ryan and Deci 2003; Soenens and Vansteenkiste 2011). Furthermore, SDT assumes that integrated values enable people to feel that specific activities that are unpleasant at times, can nevertheless be autonomous, because they are perceived as essential for the realization of integrated values. While the notion of an authentic inner compass and its role in the

experience of autonomy is implicit in SDT and is entirely compatible with the theory's basic assumptions, studies conducted so far only addressed specific aspirations or life-goals (e.g., Kasser and Ryan 1996), but not the global experience of having a direction-giving, decision-guiding AIC.

Socializing practices supporting the formation of authentic inner compass (AIC)

Assuming that the consolidation of an AIC foundation and derived autonomous goal-commitments is essential in adolescence, it seems important to examine how parents and educators can support it. In this study, we examine two groups of practices hypothesized to promote AIC formation, and subsequent positive outcomes.

Basic autonomy support (BAS)

Based on considerable research (e.g., Ryan and Deci 2017), we reason that autonomy supportive parenting, as it has been typically conceptualized and measured in SDT (e.g. Grolnick et al. 1997; Soenens et al. 2007), provides an essential basis for AIC formation, as well as optimal functioning in general. Scales assessing autonomy support in parenting and education often focus on three types of practices: taking the child's perspective, providing choice, and minimizing pressure (e.g., Grolnick et al. 1991; Soenens et al. 2007). Given the widely beneficial effects of these practices, and their theoretical importance (e.g., Grolnick et al. 2014), they can be conceptualized as basic autonomy supports (BAS). There is ample research indicating that it is important that parents and teachers use BAS practices with adolescents. For example, autonomy-supportive parenting was found to predict higher overall well-being (Ratelle et al. 2017), better performance in school (Vasquez et al. 2016), more adequate emotion regulation (Brenning et al. 2015). Similarly, autonomy-supportive teaching was found to promote students' quality of motivation and engagement (Roth et al. 2009).

BAS is also likely to have a unique contribution to the formation and growth of adolescents' AIC. By providing such support, parents and teachers create conditions under which adolescents can explore basic values, interests, and preferences, and derive specific autonomous goal-commitments. For example, educators' respect for adolescents' perspective on various issues, and their avoidance of controlling and pressuring practices may enable adolescents to feel comfortable, or at least not apprehensive, to question values and goals which are important to their parents.

Reflective AIC facilitation (RAICF)

We expect that in forming an AIC, adolescents can benefit from an additional autonomy-supportive practice that directly contributes to youths' attempts to form an AIC: Reflective AIC facilitation (RAICF). The practice of RAICF includes parental behaviors that support youths' motivation and capacity to explore and examine basic values, life-aspirations, interests, and commitments, which would allow them to live in an authentic and fulfilling way (Assor 2012a, 2018, 2005; Kaplan and Assor 2018). Fig. 1 presents a theoretical model of RAICF and its components. In addition, the figure also describes the expected effects of RAICF and BAS on the formation of the authentic inner compass, and subsequent outcomes. As described in Fig. 1, the practice of RAICF consists of three sub-components (Assor 2018): Supporting value, interest, and commitment examination, fostering inner valuing, and supporting AIC clarification and formation.

The practice of *Supporting value interests and commitment examination* involves direct encouragement of youth to examine different types of values, interests and derived commitments. Importantly, these messages also convey that the socializing agent is willing to allow serious consideration of values, interests, and commitments that differ from those of the socializing agent. Careful and open examination of values and derived goal-commitments are likely to enhance the sense of having an AIC because they contribute to the selection of values, and goals that are likely to reflect one's true inclinations.

Qualitative research with college-aged religious Jewish women in Israel has shown that women who described their parents as providing more support for value and interest examination, showed more integrated internalization of religious values, engaged in religious practices with a sense of choice, and enjoyed relatively high levels of well-being (Assor et al. 2005). The importance of teachers' support for value and interest examination was also demonstrated in studies with early adolescents (Assor 2012a, b). In these studies, students' perceptions of their teachers as providing support for value and interest examination predicted autonomous motivation for attending school and studying, and subsequent subjective vitality, teacher-rated academic engagement, and achievement.

The practice of *Fostering inner valuing* involves adults' response in situations where youngsters face difficult dilemmas. It describes a way of responding that helps youngsters to make decisions and select activities, contexts, relationships, goals, and commitments based on careful attention to their true values, interests, and feelings. This careful attention to one's true preferences is likely to enhance the sense of having an AIC because it enables youth to keep searching for their true values and goals under difficult conditions.

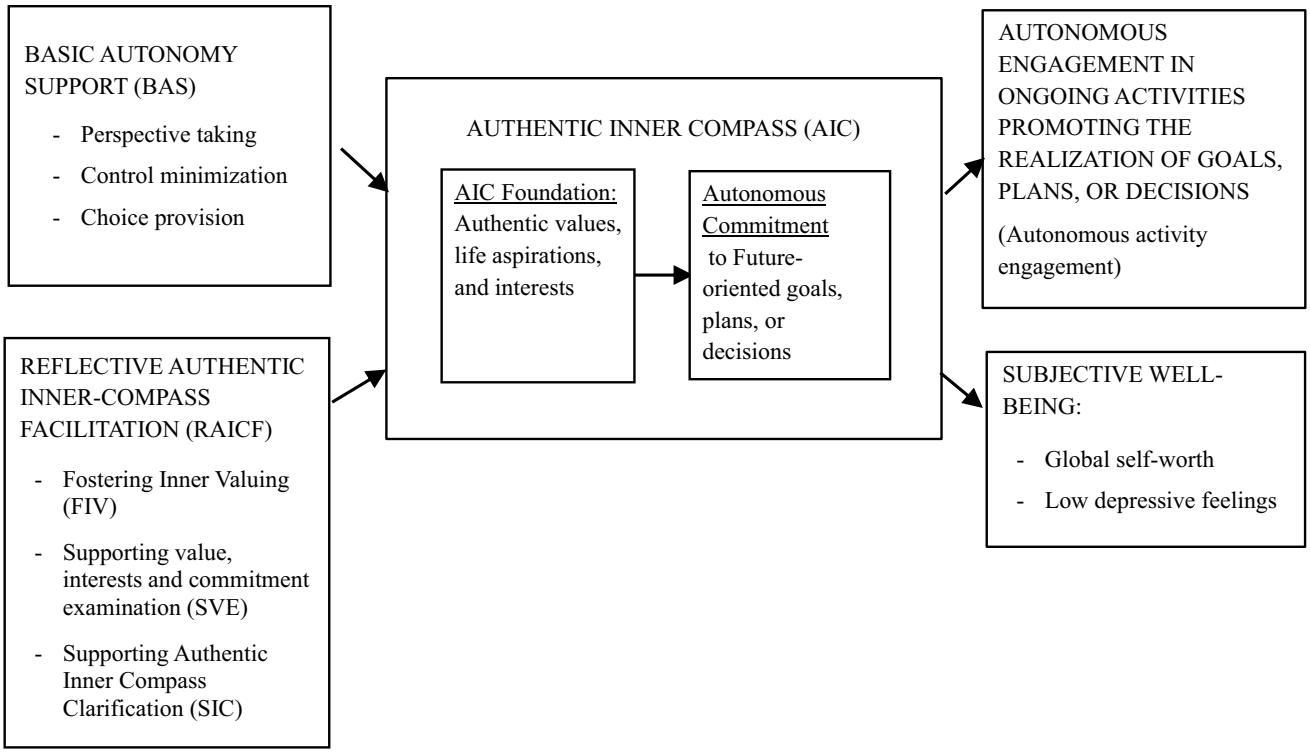


Fig. 1 Two socializing practices posited to promote the authentic inner compass and subsequent positive outcomes in study 1 and study 2

Examples of difficult dilemmas are deciding which school subjects to select when the choice is tough, or how to react when classmates do something one does not approve of (e.g., cyber-bullying or exclusion). This practice also includes messages concerning the importance of resisting social pressures which go against one's true values, the fact that it is natural to feel confused when making difficult decisions, the legitimacy and benefits of taking one's time when making difficult decisions, and trust in the youngster's ultimate capacity to overcome the confusion.

In childhood, fostering inner valuing usually refers to simple choices, and as children become adolescents, it increasingly focuses on long-term decisions and commitments. Adults' messages that foster the capacity for inner valuing become especially important during adolescence, when youth have to make difficult and highly consequential decisions regarding their long-term goal-commitments, often under difficult conditions involving considerable social pressures, or a great deal of uncertainty. While support for value and interest examination refers to encouraging youngsters to begin examining what is important to them, fostering inner valuing helps youth to continue the examination process also under difficult conditions.

Studies have shown that high school students (ages 16–17 years) and college students who perceived their parents as higher on the practice of fostering inner valuing, were more inclined to engage in identity exploration and in integrative emotion regulation (Assor 2012b; Madjar et al. 2010), which involves an open and unbiased exploration of negative emotions (Roth and Assor 2012).

The practice of *Supporting IC clarification* was first described by Assor (2018), and refers to adult responses that may enable adolescents to conduct a serious search for values, aspirations and goals that they can truly identify with. Importantly, the clarification process can include, when appropriate, challenging questions. The latter type of responses may help youth to face needs, feelings or realities they avoid or distort, and hence better understand their true values and interests, as well as select more realistic and fulfilling goals and commitments.

As both RAICF and BAS are conceptualized as autonomy-supportive practices, it is important to specify what they have in common and how they differ. Starting from their similar core, BAS and RAICF practices are both assumed to support adolescents' need for true self-direction and self-organization, by nurturing their capacity to explore, find, express, develop and pursue what is truly important to them (Assor 2018; Deci and Ryan 2000). The difference is that the RAICF practices involve a more active stance (sensitively timed and expressed). For example, the practice of perspective taking—a key BAS practice—enables adolescents to feel that their personal preferences are legitimate, and therefore can be pursued, also when these preferences differ from the adult's preferences. Thus, perspective taking

is very helpful when youth know what they prefer. However, perspective taking may not suffice when youth do not know what they prefer. Under these conditions, the more active RAICF practices can help in different ways; for example, by encouraging youth to explore what they prefer, by sensitively raising questions regarding the preference they consider, and by encouraging them to form preferences that reflect what they value also in the face of social pressures.

The present studies

While studies examining the effects of different components of RAICF provided theoretically expected results, there is no research examining RAICF as a predictor of adolescents' AIC foundation, autonomous commitment to future goals, and subsequent autonomous engagement in ongoing activities promoting future goals, and well-being. We also do not know whether these RAICF effects emerge when controlling for the effects of basic autonomy support. The present studies are the first to examine these theoretically expected effects, using both longitudinal and cross-sectional designs.

Two studies were conducted to examine RAICF and BAS as predictors of AIC, and subsequent positive outcomes. According to the model in Fig. 1, RAICF and BAS promote the formation of AIC foundation (authentic values, aspirations, and interests), which then contributes to the formation of *future-oriented* goals, plans, and decisions to which one feels autonomous commitment (in short, autonomous goal commitments). In turn, autonomous goal commitments predict two positive outcomes: (1) autonomous engagement in *ongoing activities* promoting one's future goal, plans, or decisions, and (2) subjective well-being.

Study 1 is a longitudinal study conducted with late-adolescents (18–19 year-olds), who participated in a year-long post high-school educational program, before they were drafted to the military. During the first 4–6 months of this year, they had to make a highly consequential and binding decision: deciding what kind of military service they will do and when they do it. After making the decision, it is very difficult and costly to change one's course. As Study 1 was conducted before the global AIC construct was conceptualized as consisting of two sub-components (foundation and derived goal commitments), it was guided by a view of AIC as one global construct, that is manifested in a specific domain that is extremely relevant to the participants (i.e., military service).

Given the constraint of having to make imminent, highly consequential military commitments, Study 1 focused on the manifestation of an AIC in the military domain, as indicated by autonomous military goal-commitments, and the extent to which these commitments are perceived as derived from one's basic values. As part of the program, youth have intensive interactions with the program instructors regarding their values and goals. Therefore, we examined whether participants' perceptions of their instructors as using the practices of RAICF and BAS predicted an increased sense of having an AIC, and subsequent autonomous engagement in activities that can promote the realization of decisions regarding military service.

Study 2 attempted to provide a conceptual replication of the effects observed in Study 1 in a very different context, thus extending the generalizability of the findings reported in that first study. To accomplish this goal, Study 2 was conducted with Belgian high school students, examined parents' rather than instructors' practices, and focused on a general sense of having an AIC, rather than on AIC in the specific military domain. Together, the two studies allow us to examine the effects of AIC and perceived socializing practices assumed to promote it, across different socializing agents, in very different social contexts, and as general versus content-specific phenomena. For both studies, we predicted that the perceived practices of BAS and RAICF would be uniquely related to adolescents' AIC which, in turn, would be related to autonomous engagement in ongoing goal-related activities and well-being.

Study 1

Study 1 was conducted with Israeli 18–19 year-olds, who participated in a year-long post high school program, before they were drafted to the Israeli army. The program is voluntary and graduates do not receive grades. The program is explicitly aimed at enhancing reflection on social and personal issues with which youth in many countries cope (e.g., inequality and sustainability) as well as issues that are unique to Israel (e.g., the Palestinian–Israeli conflict, approach to Judaism, etc.). Another important issue discussed in the program is participants' plans for the military service (e.g., applying to challenging combat units versus less risky but less prestigious units; applying to units that are more or less likely to be involved in policing the occupied territories, serving close or away from home, or selecting units that have social in addition to military missions). In some cases, participants are weighing the option of trying to defer their military service for several years of academic studies. These discussions are not theoretical, as several months before the end of the program participants have to inform the army about their preferences. Thus, in deciding about their preferences, most participants are making a very serious, often irrevocable commitment.

At the point when the study was planned, we conceived of the AIC as a global structure including both general values, and value-based commitments to future-oriented decisions and plans; thus, not yet differentiating between AIC

foundation and commitments derived from it. As a result, Study 1 used a global assessment of AIC as it applies to the military domain, referring to autonomous commitment to decisions and plans pertaining to military service, and the extent to which this commitment is based on participants' basic values. We hypothesized that perceptions of instructors as both facilitating RAICF and as providing BAS would relate to an increase over time in participants' sense of having an AIC in the military domain, which then would relate to an increase in autonomous engagement in ongoing activities that promote realization of the decision pertaining to military service.

Method

Participants, design, and procedure

Participants were 109 Israeli 18–19 year-old late adolescents (57% males). They belonged to three sub-groups, each followed and mentored by a team of five instructors with whom participants had frequent interactions. Most of them were born in Israel (90.3%). In terms of religious affiliation, 67.1% defined themselves as secular, 17.4% as traditional and 5.4% as religious (10.1% chose "other"). Most of their parents had academic education (75.7%) and above average income. Questionnaires assessing the variables of interest were completed at three time points during a 10 months educational program: September (T1—the beginning of the program), January (T2), and June (T3—the last month of the program). The program operates as a boarding school and participants go home twice monthly.

Prior to the data collection, participants were provided with a description of the purpose and procedures of the study, along with an informed consent form. Participants were assured that their identity would be protected, information provided would not be disclosed to program staff, questionnaire would be kept in locked files at the university, and their names would not be entered into the computer. All program members were willing to participate. Participants at Time 1 also completed measures used to provide some evidence of construct validity of the AIC scale: general commitment making, and exploration in breadth, as measured by Luyckx et al. (2008) scales.

Measures

All items were rated on a seven-point Likert-scale (1 = *completely agree*; 7 = *completely disagree*). Cronbach's alphas of all measures appear in Table 1.

Table 1 Descriptives, reliability estimates (Cronbach's α), and correlations between the study variables (study 1)

		M	SD	α	1	2	3	4	5	6	7	8	9
1	AIC at T1	4.57	1.35	.82									
2	Autonomous engagement in ongoing plan-promoting activities at T1	5.19	.82	.85	.14								
3	Reflective authentic inner compass facilitation (RAICF) T2	5.02	1.08	.85	.09	.04							
4	Basic autonomy support (BAS) T2	4.94	.70	.86	.06	.10	.21**						
5	AIC at T3	5.40	.76	.79	.26**	−.03	.32**	.47**					
6	Autonomous engagement in ongoing plan-promoting activities at T3	5.75	.64	.86	.17	.25**	.27**	.20*	.31*				
7	Gender	1.42	.49		.05	.08	−.04	.12	.01	.05			
8	Mother education	4.72	1.43		.15	−.13	−.12	.03	.01	.06	−.03		
9	Father education	4.37	1.43		.08	−.11	.02	−.03	.00	.09	−.00	.58**	

*p < .05. **p < .01

Authentic inner compass in the military domain (assessed at Times 1 and 3)

This five-item variable was derived from the AIC scales of Assor (2012b, 2018, 2015). Items refer to the extent to which participants have goal-commitments in the military domain that are perceived as based on their general values, and that are experienced as autonomous (i.e., deep identification with these goal-commitments). Example items are: "I have values and principles that guide my decisions and choices regarding military service", "I made decisions and choices regarding military service that I fully identify with". All five items loaded on a single component in a Principal Components Analysis (PCA) and Cronbach's alpha of the five-item scale was .79. As can be expected, AIC in the military domain had a significant positive association with general commitment making ($r = .29$, $p < .002$), but not with exploration in breadth ($r = .15$, $p < .11$).

Autonomous engagement in ongoing plan-promoting activities (assessed at Times 1 and 3)

Autonomous engagement in ongoing activities promoting the realization of decisions and plans regarding future military service (Times 1 and 3) was assessed by three SDT-based subscales typically used to assess autonomous self-regulation (e.g., Knafo and Assor 2007): Identified, integrated, and intrinsic. As we were interested in *present* activity engagement, the instructions explicitly referred to different reasons for engaging in *ongoing* activities that can help participants to learn more and prepare for their future military service. The items of the three sub-scales started with identical stems, which were then followed by sentences representing different types of regulation. Examples of responses for the stem "I invest and work hard in activities pertaining to preparation for military service" are: "because this way I can learn important things" (identified engagement), "because this is a central part of the identity I have formed" (integrated engagement), and "because I find it interesting" (intrinsic engagement). As correlations between the subscales were high (above .70), we averaged the scores obtained on them to create one autonomous engagement scale, which had a Cronbach's alpha of .83.

Basic autonomy support (BAS; assessed at Time 2)

This nine-item scale was based on a scale assessing autonomy support by parents (Gagné 2003; Niemiec et al. 2006; Robbins 1994) and a scale assessing autonomy support by teachers (Chirkov and Ryan 2001). The scale assesses perspective taking ("The staff is willing to consider things from my point of view"), and choice provision ("The staff allows me to decide by myself what to do").

Reflective authentic inner compass facilitation (RAICF) in the military domain (assessed at Time 2)

Two subscales assessed this variable: Fostering inner valuing and supporting values, interests, and commitment examination. A measure of fostering inner valuing used in previous research (e.g. Assor 2012a, 2018) was adapted to the issue of making a decision regarding military service, and included six items. An example item is: "The staff encourages me to make a decision regarding military service based on what is important to me, and not on what is important to other people". An eight-item scale assessing support for values, interests, and commitment examination used in previous research (Assor 2012a, 2018a, b) was adapted to the military domain. An example is: "The staff encourages me to think on widely different, and at times contrasting, approaches to military service, and their social and personal implications". The correlation between the two subscales was high ($r = .67$). To compute a total score for RAICF, items from both scales were averaged. Cronbach's alpha was .88.

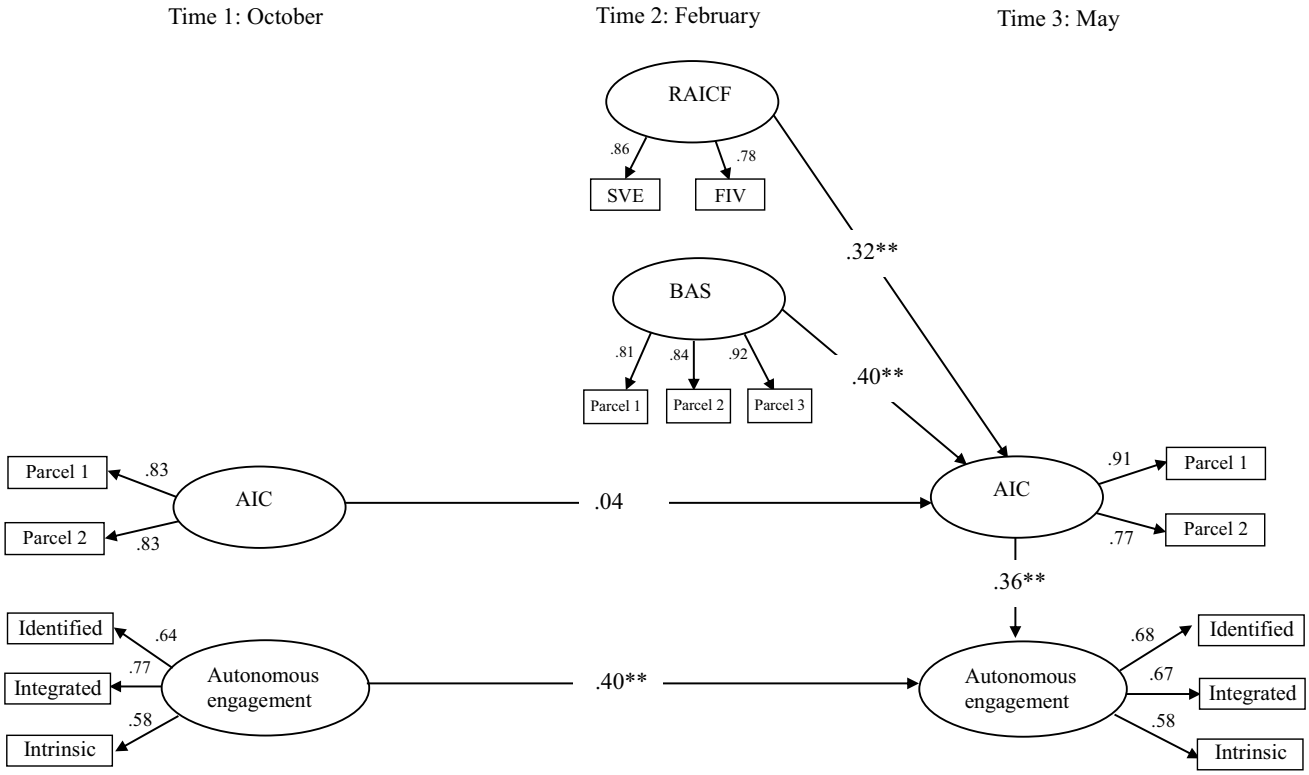
Results

Preliminary analyses

Table 1 presents the means, standard deviations, and correlations among the study variables. As expected, BAS and RAICF at T2 were associated positively and significantly with AIC ($r = .47$ and $r = .32$, respectively, both $ps < .01$) and with autonomous engagement in ongoing decision- and plan- promoting activities at T3 ($r = .20$, $p < .05$ and $r = .27$, $p < .01$, respectively).

As expected, the correlations between Time 1 and Time 3 assessments of AIC in the military domain and autonomous engagement in ongoing activities promoting the decisions and plans regarding military service were positive and significant ($r = .26$ and $r = .25$, respectively). These relatively low stability coefficients might be ascribed to important individual changes in these constructs due to the educational program, which focused directly on attitudes and feelings regarding military service and related ideological and personal issues.

To test whether RAICF and BAS represent two distinct educational practices we compared the fit indices of two latent variable models: One with BAS and RAICF as two distinct latent factors, and one assuming that the items composing BAS and RAICF represent only one latent factor. The observed indicators of the latent variables appear in Fig. 2. The fit of the two-factor model [χ^2 (4) = 1.48, p = .83; CFI = 1.00; RMSEA = .00; SRMR = .00] was clearly better than the fit of the one-factor model (χ^2 (5) = 62.69; CFI = .77; RMSEA = .33; SRMR = .17). The Chi square



Note: The bidirectional arrows between variables assessed at T1 and T2 are not presented for clarity sake
χ^2 (66) = 82 (N.S), CFI = .97, IFI = .97, TLI = .95, RMSEA = .04. *$p < .05$, **$p < .01$.

Fig. 2 Reflective inner compass facilitation (RAICF) and basic autonomy support (BAS) by instructors as predictors of adolescents' authentic inner compass (AIC) regarding military service, and autonomous engagement in ongoing learning activities pertaining to military service. The bidirectional arrows between variables assessed at T1 and T2 are not presented for clarity sake χ^2 (66) = 82 (N.S), CFI = .97, IFI = .97, TLI = .95, RMSEA = .04. *p < .05, **p < .01. The full model including bidirectional arrows can be obtained from the authors

difference between the models was highly significant (p < .001), indicating that RAICF and BAS represent two distinct practices.

Mean and Covariance Structures (MACS) analysis (Little 1997) supported the longitudinal measurement invariance (T1 vs. T3) of AIC in the military domain, and of autonomous engagement in activities in this domain. Thus, comparison of measurement models showed that the difference between a constrained model (assuming equivalence of item loadings) and an unconstrained model was not significant (χ^2 (13) = 7.18, $p > .05$). Hence, it appears that the same items can be used to assess the constructs of interest at both Time 1 and Time 3.

Importantly, comparisons of the means of these variables at T1 and T3 showed significant increases for both variables [$t_{(df=108)} = 5.71$, $p < .01$ for AIC, and $t_{(df=108)} = 6.49$, $p < .01$ for autonomous engagement in ongoing activities]. Thus, it appears that taking part in an educational program aimed at increasing exploration of one's values and goals in relations to issues important to Israeli late adolescents, prior to their military service, resulted in a firmer authentic inner compass (AIC) in relation to the type of military service one wants to do in the near future, and autonomous engagement in ongoing learning activities that can inform and prepare one to military service.

Main analyses

The study hypotheses were examined by means of latent-variables Structural Equations Modeling (SEM; AMOS 25, Arbuckle 2017). Prior to examining the hypothesized structural associations in this model (see Fig. 2), we tested a measurement model consisting of six latent variables: RAIC, BAS, AIC at Time 1 and at Time 3, and autonomous ongoing engagement at Time 1 and at Time 2. As the measurement model was found to have satisfactory fit indices, we proceeded to test a SEM model assessing the hypotheses. Initially, the SEM model also tested the effects of gender and educational level. However, these effects were not included in the final SEM model because they were not significant,

and they also did not affect the associations between the study variables.

As seen in Fig. 2, each latent construct was represented by a number of observed indicators. RAICF was indicated by supporting value, interest and commitment examination and and by fostering inner valuing. BAS was indicated by three parcels. The global construct of AIC in the military domain was assessed by two parcels. Autonomous engagement was assessed by the three subscales of Identified Engagement, Integrated Engagement, and Intrinsic Engagement.

Results showed satisfactory fit indices: χ^2 (66) = 82, $p > .05$, CFI = .97, RMSEA = .04, SRMR = .03. As expected, both BAS and RAICF had positive effects on AIC at T2 (controlled for AIC at T1) which, in turn, related positively to autonomous activity engagement at T3 (controlled for autonomous activity engagement at T1). The standardized coefficient of the indirect effect of RAICF on autonomous activity engagement at T3, through AIC at T3 (controlling for the direct effects of AIC at T1, and BAS at T2, on AIC at T3) was significant ($\beta = .05$, $p < .05$). The standardized coefficient of the indirect effect of BAS on autonomous activity engagement at T3, through AIC at T3 (controlling for the direct effects of AIC at T1, and RAICF at T2, on AIC at T3) was also significant ($\beta = .13$, $p < .05$).

To examine the option that BAS and RAICF also have direct effects on engagement at T3, we also assessed the fit of models including direct paths from BAS and RAICF to engagement, in addition to the meditation effect through AIC3. Results showed that none of the direct paths had a significant effect. Furthermore, the less parsimonious models including direct paths did not have better fit indices.

In addition to the main SEM analysis, we also explored the possibility of synergistic effects, where the practice of RAICF at T2 has a stronger contribution to increased sense of AIC or autonomous activity engagement in ongoing activities, for participants who described their instructors as providing relatively high levels of BAS. Results of regression analyses examining these interaction effects were non-significant, indicating that at least in this sample, high levels of BAS did not facilitate the positive impact of RAICF on participants' AIC or autonomous activity engagement in ongoing activities.

Brief discussion

The findings of Study 1 suggest that participants' perceptions of their instructors as using the practices of BAS and RAICF indeed contributed to participants' increased sense of having an authentic inner compass (AIC) in the military domain, which then predicted increased autonomous engagement in ongoing activities that promote realization of decisions and plans pertaining to military service. The finding that participants in an educational program which lasted less than a year reported significant increases in their sense of having an AIC and engagement in ongoing activities, suggests that educators may have important impact on adolescents' development of values and commitments with regard to military service. In sum, the findings of Study 1 clearly support the notion that the practices of BAS and RAICF can both contribute to the growth of a firmer sense of having an authentic inner compass in relation to important personal decisions, at least in the military domain. The longitudinal design of the study, and the fact that it involved highly consequential life-issues is a considerable strength of the study. Yet, there are several aspects of the study that limit the generalizability of the findings to different contexts than those examined in that study, and which were addressed in Study 2.

Study 2

Study 2 attempted to extend the generalizability of the findings reported in Study 1. Study 1 focused on AIC in the military domain, which is a specific sphere that may be irrelevant to youth in many other countries. To support the proposed benefits of RAICF we need evidence pertaining to individuals' general sense of having an AIC. Study 1 demonstrated the importance of the autonomy-supportive practice of RAICF in the case of instructors. Additional studies are necessary to examine the importance of this practice for parents. Study 1 was guided by a global conception of AIC, in which AIC foundation and autonomous goal commitments were not yet differentiated. Therefore, that study could not test the idea that AIC foundation predicts autonomous goal commitments (see Fig. 1). Study 1 also did not examine the contribution or RAICF and AIC to well-being. Study 2 attempted to address these issues.

Specifically, Study 2 examined the hypothesis that the parental practices of RAICF and BAS are related to a general sense of having an AIC foundation, which then relates to autonomous commitment to future-oriented goals and plans, and subsequent subjective well-being. We focused on mothers' practices because mothers still represent key socialization figures in adolescence (Soenens et al. 2019).

Method

Participants and procedure

Participants were 476 high school students living in Flanders, the Dutch-speaking part of Belgium. They were in the 4th (38%), 5th (32%), or 6th (30%) grade. Their mean age was 16.9 years (SD = 1.19) and the majority of participants were male (69%). This unbalanced gender

distribution was not due to a self-selective bias in the sampling procedure; rather it mirrored the distribution in the student population of the two schools involved in this study. In terms of family structure, 58% of the participants lived in intact families (i.e., living together with both parents), 39% of the participants had divorced parents. On a 6-point scale, mothers' mean educational level was 4.06 ($SD = 1.40$), indicating an average of 15 years of education.

Prior to the data collection, parents were provided with a letter describing the purpose and procedures of the study, along with a passive informed consent form (which they could return in case they did not want their child to participate). None of the parents refused to let their child participate in the study. Both parents and adolescents were informed that participation was voluntary and anonymous. The questionnaires were administered during school time, in students' classrooms and under the supervision of a teacher and a Master's thesis student collecting the data.

Measures

All measures were administered in Dutch, the participants' native tongue. Unless mentioned otherwise, participants rated items on a five-point scale, ranging from 1 (*Completely not true*) to 5 (*Completely true*). Reliability estimates (Cronbach's α) can be seen in Table 2.

Basic autonomy support (BAS)

Participants filled out the seven-item Dutch version (Soenens et al. 2007) of the autonomy support sub-scale of the Perceptions of Parents Scale (Grolnick et al. 1991). The scale contains items tapping into choice provision, perspective taking, and (reverse scored) control. Sample items are:" My mother is usually willing to consider things from my point of view" (perspective taking) "My mother, whenever possible, allows me to choose what to do" (choice provision).

Reflective authentic inner compass facilitation (RAICF)

This measure encompassed two subscales that were also administered in Study 1 [Fostering inner valuing (FIV) and supporting value and interests examination (SVICE)], and an additional subscale assessing a component of RAICF that was conceptualized after Study 1 was conducted (see Assor 2018). This component is termed *Support IC Clarification (SIC)*, and refers to parental responses that can facilitate the formation of an AIC that will feel deeply authentic. The IC clarification subscale had 11 items (e.g., "When I talk to my mom about my goals and plans—she can point out, in a pleasant way, important aspects I sometime overlook", "Being with my mom or talking to her—helps me to know (or discover) the kind of person I truly want to be"). Correlations between these three subscales were high and ranged between .65 and .73 (all $ps < .001$).

Authentic inner compass (AIC) foundation

To measure the extent to which adolescents felt that they had an AIC foundation; that is, values, aspirations and interests that are experienced as deeply authentic, they filled out a 10-item scale reflecting Assor 's (2018) conceptualization of AIC foundation. An example item is: "I have values that truly reflect the kind of person I want to be". The scale produced theoretically expected relations across several cultures. For example, it was found to have a positive effect on resistance to negative peer-pressure and a negative effect on risk behavior in studies of Bedouin, Jewish-Israeli and Chinese youth (Assor et al. 2018a).

Because the current study was among the first to use the Dutch version of this scale, its validity was explored in two independent samples. The first sample consisted of 195 Belgian colleges students. As can be expected, the AIC scale was positively related ($r = .44$, $p < .001$) to a measure of identity commitment-making (Luyckx et al. 2008), and negatively related ($r = -.34$, $p < .001$) to a measure of rumination (Luyckx et al. 2008). Findings from a sample of 202 Belgian high school students, again provided support for the construct validity of the scale. Thus, results from multiple

Table 2 Descriptives, reliability estimates (Cronbach's α), and correlations between the study variables (study 2)

		M	SD	α	2	3	4	5	6
1	Basic autonomy support	3.82	0.64	.69					
2	RAICF facilitation	3.55	0.66	.94	.55***				
3	Authentic inner compass foundation	3.79	0.58	.68	.24***	.34***			
4	Autonomous commitment	3.65	0.92	.86	.13**	.31***	.52***		
5	Self-esteem	3.57	0.91	.77	.25***	.27***	.22***	.28***	
6	Depressive symptoms	1.04	0.59	.84	−.19***	−.31***	−.22***	−.35***	−.54***

$^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

regressions analyses showed that AIC foundation uniquely contributed to having autonomous reasons for future plans (β = .29) and various dimensions of the study choice process (e.g. exploration of the self, β = .21; commitment to study choice, β = .32) while predicting less controlling reasons to pursue specific future plans (β = − .16).

Autonomous commitment to future-oriented plans, goals and decisions

Participants filled out the five-item Identification with Commitment scale from Luyckx et al. (2008) extensively validated DIDS. An example item is: "I am sure that my plans for the future are the right ones for me". We prefer to call the construct autonomous commitment rather than identification with commitment because the items reflect autonomous endorsement of the commitment based on its perception as reflecting one's sense of who she/he is or wants to be.

Well-being

Participants filled out two questionnaires tapping into their psychological well-being, with one scale being a positive indicator of well-being and with another scale indicating ill-being: (a) the five-item Global Self-Worth subscale of Harter's (1988) Self-Perception Profile for Adolescents (SPPA; e.g., "'I am happy with myself just the way I am). Items were rated on a scale from 1 (*not at all true for me*) to 4 (*totally true for me*); (b) the widely used 12-item version (Roberts and Sobhan 1992) of Radloff's (1977) Depression (CES-D) scale. The items of the latter scale were rated on a scale from 0 (*never*) to 3 (*always*).

Results

Preliminary analyses

Descriptive statistics and correlations between the study variables appear in Table 2. As can be seen in this table, BAS and RAICF were significantly and positively interrelated. Both practices were also related positively to adolescents' AIC foundation and autonomous commitment to future-oriented plans and goals. In turn, AIC and autonomous commitment were both related positively to self-worth and negatively to depressive symptoms.

To test whether RAICF and BAS represent two distinct parental practices we compared the fit indices of two latent variable models: One with BAS and RAICF as two distinct factors, and one assuming that the items composing BAS and RAICF represent only one factor. The fit of the two-factor model [χ^2 (8) = 27.90; CFI = .98; RMSEA = .08; SRMR = .04] was clearly better than the fit of the one-factor model [χ^2 (9) = 100.65; CFI = .92; RMSEA = .15; SRMR = .08]. The Chi square difference between the models was significant (p < .001), indicating that RAICF and BAS represent two distinct categories of parental practices.

To determine whether some of the background variables were related to the study variables, we examined effects of gender, age, family structure (intact versus non-intact families), type of education (academic, arts, and technical tracks versus professional track) and mothers' educational level on the study variables. We performed a MANCOVA with gender, family structure, and type of education as fixed factors, with age and maternal educational level as covariates, and with all study variables as dependent variables. There were multivariate effects of gender [Wilk's Lambda = 0.91, $F(6, 425) = 8.27$, $p < .001$, partial $\eta^2 = .09$], family structure [Wilk's Lambda = 0.97, $F(6, 425) = 2.58$, $p < .05$, partial $\eta^2 = .03$], and maternal educational level [Wilk's Lambda = 0.97, $F(6, 425) = 3.05$, $p = .01$, partial $\eta^2 = .04$]. Adolescents' age and type of education were unrelated to the study variables. We controlled for effects of gender, family structure, and maternal education in the main analyses.

Main analyses

To examine the hypothesized associations between the study variables, a Structural Equation Model (SEM) with latent variables was estimated. Prior to examining the hypothesized structural associations in this model, we tested a measurement model consisting of five latent variables, that is, BAS, RAIC, AIC foundation, autonomous commitment, and well-being. The latent factor for RAICF was represented by the three subscales representing this concept (FIV, SVICE, and SIC). To estimate latent factors for BAS, AIC foundation, and autonomous commitment, we computed three parcels for each factor. Parcels were created using the item-to-construct balance approach (Little et al. 2002). We first performed a one-component PCA on the items for each factor and used the item loadings to assign items to the parcels. The three items with the highest loadings were distributed across three different parcels, the three items with next highest items were then distributed across the parcels, and so on until all items were assigned to a parcel. To estimate a latent factor for well-being, we could have used the scales for self-esteem and depressive symptoms as indicators. However, because a latent factor with only two indicators may yield problems with identification, we created two parcels within the scales for self-esteem and depressive symptoms, resulting in four indicators for well-being. Estimation of the

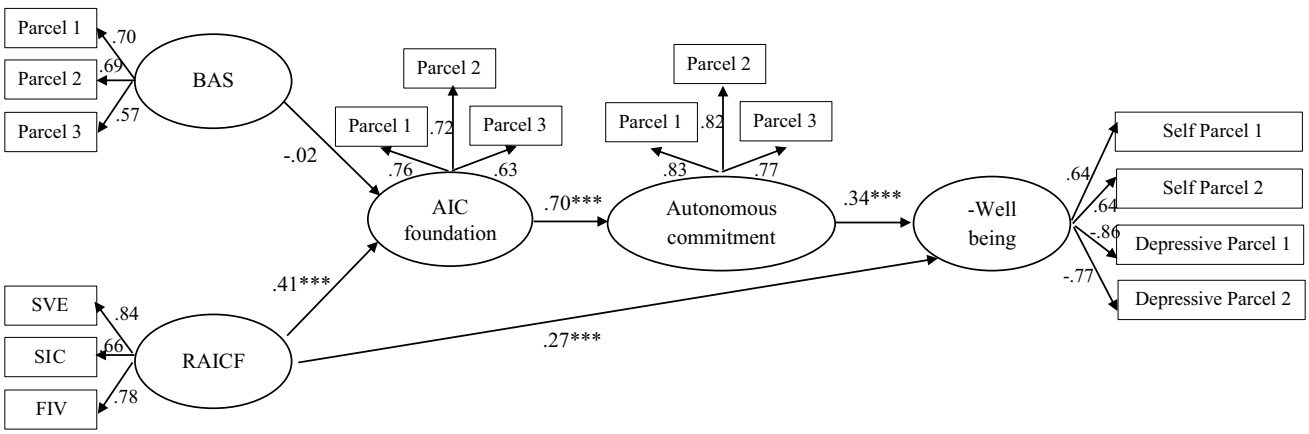
measurement model containing five latent variables and 16 indicators resulted in acceptable fit [χ^2 (94) = 209.18; CFI = .97; RMSEA = .05; SRMR = .04]. All items had significant loadings (*p*s < .001) on their latent factors, with standardized loadings ranging between .56 and .88.

Having established the reliability of the measurement model, a structural model was estimated in which BAS and RAICF were modeled as simultaneous predictors of AIC foundation which, in turn, predicted autonomous commitment which, in turn, predicted adolescents' well-being. This model also included effects of gender, family structure, and maternal education on each of the study variables. Initial estimation of this model [χ^2 (132) = 281.03; CFI = .97; RMSEA = .05; SRMR = .06] showed that all hypothesized associations, except for the association between BAS and AIC foundation, were significant. Modification indices suggested that one path could be added to further improve model fit, that is, a direct path from RAICF to well-being. Adding other direct paths did not improve model fit and these additional paths were not significant (and hence omitted from the model). The final model [χ^2 (131) = 262.27; CFI = .97; RMSEA = .05; SRMR = .04] appears in Fig. 2 and shows that, while RAICF was associated positively with AIC foundation, BAS was not. AIC foundation was positively related to autonomous commitment which, in turn, was related positively to well-being. In addition, RAICF had a direct and positive association with well-being (Fig. 3).

All the indirect effects in the structural model that involve RAICF were significant, including the indirect association between RAICF and autonomous commitment (through AIC foundation; β = .29, p < .001), and the indirect association between RAICF and well-being (through AIC foundation and autonomous commitment; β = .10, p < .01). The indirect effects involving BAS were not significant (β = − .02, p > .05 for the indirect association with autonomous commitment, and β = − .01, p > .05 for the indirect association with well-being).

Additional analyses

As in Study 1, we examined the possibility that the effect of the practice of RAICF would be stronger when parents are perceived as providing relatively high levels of BAS. This possibility was examined by means of regression analyses examining the effects of RAICF, BAS, and their interaction, on AIC foundation, autonomous commitment and well-being. Unlike in Study 1, in the present study, we did observe an interaction between RAICF and BAS on AIC foundation (β = .14, p < .01), and on autonomous commitment (β = .11, p < .05), but not on well-being (β = − .09, p < .10). Simple slopes analyses indicated that the effect of RAICF on AIC foundation was smaller (simple slope = .11; p < .05) at low levels of BAS (scores below the mean–1SD) than at high levels of BAS (scores > the mean + 1SD) (simple slope = .23;



[χ^2 (94) = 209.18; CFI = .97; RMSEA = .05; SRMR = .04].

Note: Effects of gender, family structure, and maternal educational level are controlled for (yet not shown for clarity of presentation). The coefficients shown are standardized. The bidirectional arrows between variables assessed at T1 and T2 are not presented for clarity sake

SVE = Supporting value and interest examination, SIC = Supporting authentic inner compass clarification, FIV = Fostering Inner Valuing

$^{*}p$< .05, $^{**}p$< .01, $^{***}p$< .001.

Fig. 3 Path model including maternal practices, AIC foundation, autonomous commitment to future-oriented plans and goals, and Well-Being (Study 2). [χ^2 (94) = 209.18; CFI = .97; RMSEA = .05; SRMR = .04]. Effects of gender, family structure, and maternal educational level are controlled for (yet not shown for clarity of presentation). The coefficients shown are standardized. The bidirectional arrows between variables assessed at T1 and T2 are not presented for clarity sake *SVE* supporting value and interest examination, *SIC* supporting authentic inner compass clarification, *FIV* fostering inner valuing

$p < .001$). Similarly, the effect of RAICF on autonomous commitment was smaller (simple slope = .20; $p < .01$) at low levels of BAS than at high levels of BAS (simple slope = .36; $p < .001$). Importantly, RAICF showed the expected positive correlates across the different levels of BAS. Yet, unlike in Study 1, RAICF appears to be more beneficial when provided against a background of high basic autonomy support.

Brief discussion

Overall, the results supported the hypothesized roles of the parental practice of reflective authentic inner compass facilitation (RAICF), and adolescents' authentic inner compass (AIC) foundation in promoting adolescents' autonomous commitment to future-oriented plans and goals, and subsequent well-being. As expected, the practice of BAS showed positive correlations with AIC foundation, autonomous commitment, and well-being. When both BAS and RAICF were entered as simultaneous predictors of the above outcomes, BAS did not have a main effect, but was found to have an interactive effect, so that high levels of BAS augmented the beneficial effects of RAICF. This synergistic effect was significant for AIC foundation and autonomous commitment, and marginally significant for well-being.

General discussion

The two studies provide evidence that late adolescents benefit from the recently conceptualized autonomy-supportive practice of reflective authentic-inner compass facilitation (RAICF). This practice was found to be beneficial also when the effect of basic autonomy support (BAS), as indicated by widely used measures combining perspective-taking, choice, and control-minimization, was taken into consideration. Specifically, Study 1, focusing on the formation of the authentic inner compass (AIC) in relation to military service in Israeli youth, showed, using a longitudinal design, that both RAICF and BAS contributed to an increase in a sense of having an AIC, which then predicted an increase in autonomous engagement in ongoing plan-promoting activities. Study 2, conducted with Belgian high school students and focusing on the global process of AIC formation, demonstrated that RAICF was related to a sense of having an AIC foundation, which in turn predicted autonomous commitment to future-oriented plans and goals, and consequent subjective well-being. That study also showed that the positive effects of RAICF on AIC foundation and autonomous plan and goal commitments were stronger when adolescents perceived their parents as providing BAS.

The findings regarding the contribution of RAICF suggest that adolescents are most likely to form commitments with which they deeply identify, when their parents and educators go beyond BAS and take an active role when their adolescent children struggle with identity-relevant issues. Specifically, in order to facilitate youth authentic inner compass foundation (basic values and interests), parents can engage in the following behaviors: (1) support the examination of different values and commitments, (2) foster youths' attention to their true values and interests when facing social pressures and difficult decisions, and (3) help clarify what values and commitments are likely to feel most authentic.

The findings obtained in this study appear to have both theoretical and applied implications, because they contribute to our understanding regarding the different ways in which parents can support healthy goal striving, authenticity, autonomy and well-being in adolescence. In particular, the results suggest that RAICF practices contribute to successful coping with the key developmental task of identity-commitment formation. Intervention programs seeking to enhance autonomy support by parents and educators (e.g., Assor et al. 2009, 2018a; Froiland 2015; Joussemet et al. 2014) could be enriched by including psycho-education guidelines regarding the value and implementation of the practice of RAICF.

While both studies showed that reflective inner compass facilitation (RAICF) had the expected beneficial effects, basic autonomy support (BAS) had a unique main effect only in Study 1. The lack of unique main effects of BAS in Study 2 might have resulted from the much higher correlation between BAS and RAICF in Study 2 compared to Study 1 ($r = .55$ vs. $r = .21$). Interestingly, the interaction analyses showed that high (versus low) levels of BAS increased the positive effects of RAICF by parents (in Study 2), but not by instructors (in Study 1). The different findings regarding BAS in Study 1 compared to 2 might be ascribed to various factors, including the different national or educational contexts, the older age of Study 1 participants, some differences in the measures, and the context of the assessment. Future research is needed to examine the role of these factors in the unique effects of BAS.

The experience of having an AIC as a component of need autonomy satisfaction

Assor (2018) suggests that experiences where we feel that our AIC is validated as authentic, worthy, and reasonable, or becomes clearer, are experiences in which the need for autonomy is satisfied. Similarly, experiences where we feel that our inner compass is becoming false, confused, or unworthy are experiences in which the need for autonomy is frustrated. This proposition is based on the assumption that the overarching aim of the need for autonomy is to provide a sense of *true* self-direction. Namely, the feeling that we volitionally regulate our behavior/life in directions that are congruent with what is truly important to us (Deci and Ryan 2000). If we do not know what is truly important to us,

we are less likely to feel that we can regulate our life (and behavior) in ways that will feel truly volitional and self-endorsed. Therefore, moments, contexts, or relationships in which we feel an increased sense of clarity regarding what is truly important to us—our AIC—are likely to be experienced as satisfying, and enhance vitality and well-being. Similarly, events in which we feel a considerable decrease in our sense of clarity and confidence regarding what is truly important to us are likely to be experienced as frustrating. According to this view, then, the striving to have an authentic inner compass is an important component of the need for autonomy, and assessments of this need may be enriched, particularly in adolescence, if they also refer to this aspect.

Clearly, the measures and procedures applied in the present study could not test the notion that experiences of increased AIC clarity and validity are need-satisfying. However, the finding that the experience of having an AIC was associated with increased autonomous activity-engagement and well-being suggests that experiences of increased IC clarity may indeed be need-satisfying. Yet, to support the view of AIC experiences as need-satisfying and as a component of the need for autonomy, it is necessary to conduct more rigorous and direct tests. For example, future research may examine whether the effects of increased AIC clarity (versus confusion) on well-being emerge also when controlling for the effects of widely used measures of autonomy that do not capture the AIC component.

Methodological limitations and directions for future research

The present studies have a number of limitations, which should be addressed in future research. First, the construct of BAS, although assessed using widely accepted scales, could perhaps be assessed with measures that capture this construct more comprehensively. For example, various SDT authors include the provision of a rationale and following the child's pace (natural rhythm) as important aspects of autonomy support (e.g., Assor et al. 2002). Future research can test whether RAICF would still have unique beneficial effects when it is pitted against BAS measures including more facets (subscales). Second, in assessing parent or instructor practices, adolescents' autonomous activity engagement, and well-being, it is important to rely not only on adolescents' reports. Third, the effects of the practices examined and of AIC on well-being should be replicated in longitudinal research. Examinations of the direction of effects are particularly important because adolescents with a better developed AIC may also elicit more autonomy-supportive parental responses in times of decision-making or stress. Fourth, as Study 2 only collected data about mothers, it is important to also examine paternal practices. Fifth, it is important to examine the effects of the practices investigated in this research and of AIC in more traditional cultures.

Sixth, following Assor (2018), p. 137, we assume that RAICF practices are beneficial also for young children. For example, in choosing extra-curricular activities, or when children describe peer-exclusion events in early elementary school classes, parents may apply the practice of fostering inner valuing, and encourage their children to examine what they think is the right thing to do for them, rather than simply following popular options or yielding to peer pressures. Future research may examine the effects of these practices in young children. Lastly, research may examine socializing practices promoting the development of the unauthentic inner compass (see Assor 2018; and a large body of research on processes promoting introjection; Assor et al. 2014; Ryan and Deci 2017).

Conclusion

The present studies suggest that, in addition to basic autonomy-supportive practices of perspective taking, choice provision and minimizing control, adolescents can benefit from additional autonomy supportive practices that are enacted by parents and educators. Specifically, our data suggest that the practice of reflective facilitation of an authentic inner compass (RAICF) helps youth to construct a self-guiding schema—an authentic inner compass (AIC)—which informs them on what they truly value and want, and what they and feel deeply committed to in terms of future goals and plans. Such an AIC then promotes ongoing engagement in activities that express one's AIC, and contribute to subjective well-being.

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