Adolescent Future Orientation: Does Culture Matter?

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Abstract

Future orientation, or the image individuals have of the future, provides the grounds for setting goals and planning, and therefore is considered an important adolescent developmental task. This chapter introduces future orientation research by describing its evolvement from a thematic approach focusing on the content of future domains to a model consisting of three components, discusses its universal and cross-cultural meanings, and reports a replicated finding that across cultures, adolescents share a common core of future orientation domains consisting of education, career, and marriage and family. Based on findings on effects of the family setting on future orientation and an integration of developmental ecology, developmental niche, and bridging multiple worlds models, the author suggests new directions for research especially pertinent for adolescents undergoing social change.

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Introduction

At present, Allport's complaint has lost much of its relevance. A PsycNET search (August, 2019) using the three keywords *future orientation*, *future time perspective*, and *possible self,* resulted in 746 entries for future orientation, 863 for future time perspective, and 672 for possible self. Though these three terms are most prevalent, other terms have been used as well in psychological literature. Among them – in alphabetical order – are: *considering future consequences*, *episodic foresight, future thinking, future self*, *futurism, futurity, life tasks, personal strivings, personal projects, prospective memory*, *psychological future*, and *vision*.

Moreover, long before psychological research came into being, appreciation of the self-regulating power of future thinking has been acknowledged, inscribed in clay tablets telling the story of Gilgamesh dated to about 2750 BC (Mitchell, 2004), and retold centuries later in the Old Testament. The scenarios differ and so do the protagonists, but the lesson is one and the same: Mind the future, act accordingly, and you will save yourself, your family, and all living creatures on earth.

In the story of Gilgamesh, the survivor and savior is Utnapishtim, king of Shuruppak who heard the whisper "King of Shuruppak, quickly, quickly, tear down your house and build a great ship, leave your possessions. Save your life" (Mitchell, 2004, p. 181). In the Old Testament, he is Noah:"... the Lord said unto Noah, come though and all thy house...For yet seven days and I will cause it to rain upon the earth..." (Genesis, 7, 1-4).

While the study of future orientation has been applied to the entire life span from infancy (Haith, 1994) to old age (Barnett, 2014), given adolescents' normative task of preparing to adulthood, much of future orientation research has been carried out among adolescents. Hence, this paper is guided by three objectives. (1) To introduce the conceptualization of future orientation as it evolved from a one-dimensional to multidimensional model before progressing to a multiple-step model encompassing interpersonal antecedents and behavioral outcomes; (2) to pursue empirical testing of the multiple-step model across biographical characteristics and cultures, and (3) drawing on it, to offer further research directions and applications.

Future Orientation: Conceptual Framework

Future thinking is multi-faceted. As individuals think about the future they may consider the time – in terms of days, months and years – ahead of them (Lessing, 1972); develop attitudes toward the future (Nuttin & Lens, 1985; Worrell, Mello, & Buhl. 2011; Zimbardo & Boyd, 1996), chart their future life course (Nurmi, 1991), or focus on their personal or national future (Cantril, 1965). Drawing on the multiplicity of prospective representations, initially *future orientation* has been conceptualized as the image individuals have regarding their future, as consciously represented and self-reported. Like an autobiography, it tells a subjective life story consisting of life domains an individual deems important, and gives meaning and direction to one's life.

Consisting of a 'model of the future', a basic premise underlying future orientation research has been that it provides the grounds for setting goals, planning, exploring options and making commitments, and consequently guides the person's developmental course (Bandura, 2001; Nurmi, 1991; Seginer, 2009; Trommsdorff, 1986).

Given that "we can learn from the imagined future without having to suffer real live consequences" (Suddendorf & Moore, 2011, p. 295), future orientation is particularly important for individuals undergoing developmental transition periods. Therefore, much of the future orientation research has utilized adolescent and emerging adult samples. Yet, there are other developmental transitions which invoke salience of future orientation; marriage, parenthood, retirement and bereavement, to name a few. Thus, each is a relevant context within which to study future orientation.

Early Psychological Analyses

Contemporary conceptualizations of future orientation have their roots in the early work of three psychologists: Frank (1939), Israeli (1930, 1936a) and Lewin (1939, 1942/1948). Using dissimilar terms ("time perspective" by Frank, "psychological future" by Lewin, and various terms such as "outlook upon the future", "futuristic psychology", and "maps-of-the-future" by Israeli), all three considered the behavior regulating functions of future orientation. However, while Frank and Israeli's analyses of the regulating function of future orientation were merely theoretical, Lewin (1942/1948) tested this proposition in experiments linking time perspective to performance and morale.

These early psychologists' analyses underlie both the conceptualization of future orientation and propositions about its motivational and developmental functions. Regarding conceptualization, future orientation is: (1) generated in the present, (2) domain specific so that individuals construct their images of the future by relating to different life domains, and (3) the content (themes) of these domains may be personal or social, pragmatic or ideal, and reality-based or fantastic.

Developmental issues, central to this paper, were discussed by Frank and Lewin. While influenced by Lewin regarding the representation of the future in the life-space, Yet, Frank's work differed from that of Lewin along two dimensions. First, while Lewin discussed future thinking during adolescence, Frank emphasized early development... Second, while for Lewin, development is marked by an increase in "…the scope of time ahead" (1939, p.879), Frank's main argument was that regulation of physiological functions in early development marks the onset of a "human career", marked by the acceptance of values and the consideration of future consequences.

Finally, it is important to note the pioneering empirical work of Israeli (1936b), who experimented with divergent methods to assess future thinking ranging from estimates of future events (e.g., divorce rate) to hypnotic imagination of the future. Also included were the subjective importance of the future relative to the past and present, judgment of future criticism of the past, and future autobiography. The latter was an elaborate method in which in 1932 participants were instructed to write nine sets of their autobiographies by looking back from 1935 to 1932 through 1975 to 1970 (Israeli & Sands, 1936). While Israeli may have inspired a simpler version of the future

autobiography method (e.g., Gillespie & Allport, 1955), his elaborate methods were never replicated.

Future Orientation Research: From Classification to Process

In its early stages, and following Cantril (1965) and Trommsdorff (1983), future orientation research gauged respondents' subjective images of the future. The research instrument was an open-ended hopes and fears questionnaire, and narrative responses were coded in terms of future life domains. Across different parts of the world, from Australia and Singapore (Poole & Cooney, 1987) to China (Zhang, Chen, Yu, Wang, & Nurmi, 2014), Finland (Nurmi, 1991), Germany (Trommsdorff, 1986), Israel (Seginer, 2009), Italy (Scabini, Marta, & Lanz, 2006) and the United States (Douvan & Adelson, 1966), adolescents listed both instrumental (*higher education, work and career*) and relational (social relationships, *marriage and family*) themes as well as non-temporal self-concerns ("to be happy"), close others ("my mother", "my sister") and themes concerning the collective ("my people", "world peace"). Using a bottom-up approach, these domains were further coded into two over-arching categories: *prospective life course* and the *exist* categories (Seginer, 2009). While these categories apply across cultures, the ratio (density) of the specific domains vary within and across cultures.

A primary proposition of this analysis is that of the two overarching categories, only the *prospective life course* is task-oriented and self-guiding, whereas the e*xist*, and especially the self-concerns category, addresses non-specific experiences, mood and emotions (e.g., "that I will have good/prosperous life") and hence void of regulatory functions. Rationale draws on Bandura's premise regarding goals:

"Goals do not automatically activate the self-influences that govern motivation and action…General goals are *too indefinite and noncommitting* (italics added) to serve as guides and incentives" (2001, p.8).

Thus, while Lewin contended that "…regardless of whether the individual's picture of the future is correct or incorrect at a given time, this picture deeply affects the mood and the action of the individual at that time" (1942/1948, p.104), it is here maintained that it is not just any form of thinking about the future that "affects the mood and the action". Instead, only the task-oriented *prospective life course* domains share the self-guiding qualities Lewin attributed to any future thinking. Analyses indicating positive relations between self-esteem, optimism, and intimacy, and negative relations between loneliness, defensive pessimism, and the score for each *prospective life course* domain hopes (Seginer, 2005) support this proposition.

From Single to Multi-Component Conceptualization

As in other areas of scientific research, classification is but a starting point. Aware of the narrowness of an approach consisting of merely the cognitive representation of the future, Seginer, Nurmi and Poole (1991, July) developed a multi-dimensional conceptualization, which *maintaining its thematic quality*, consists of two additional components: a motivational antecedent and a behavioral outcome of the cognitive component (Figure 1). Thus, the three components may apply to each of various prospective life domains. For adolescents and emerging adults, *higher education* and
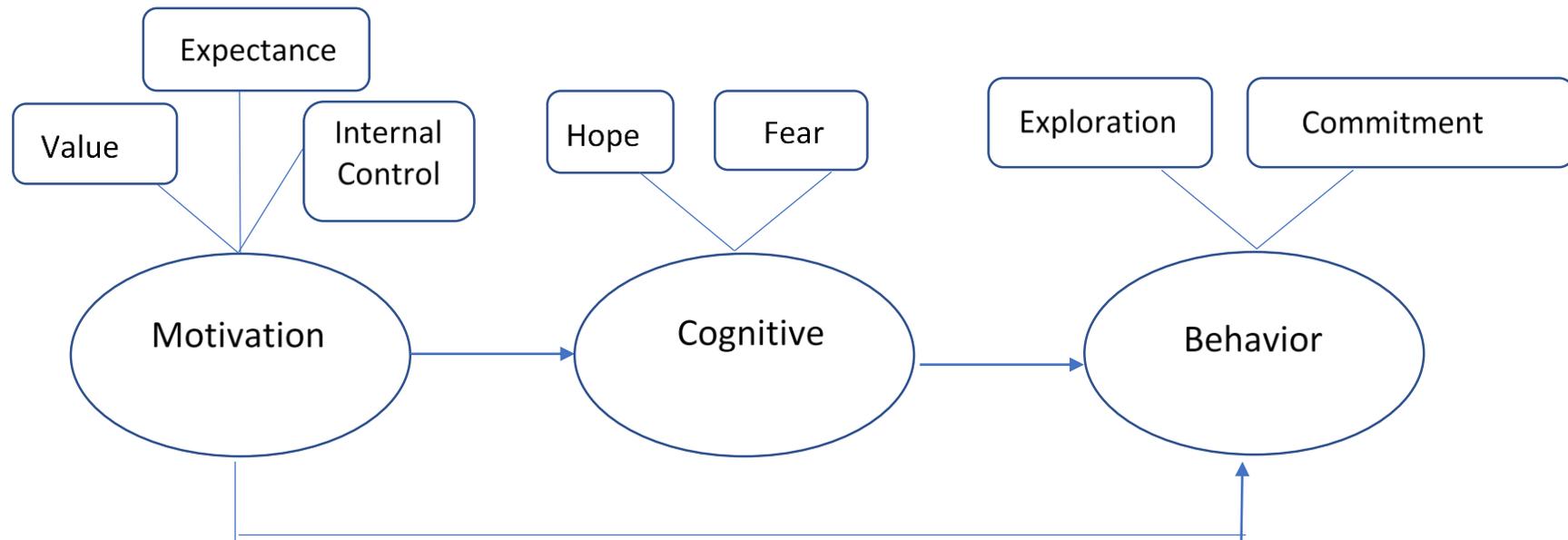
Figure 1. The future orientation model

work and career (instrumental domains), and social relationships and *marriage and family* (relational domains) apply to much of the research carried out (Seginer, 2009; Seginer & Mahajna, 2018a).

Underlying the three-component structure of the model are three premises. Drawing on Cantril's (1965) proposition that hopes and fears thinking is guided by weighing the *value* of expected satisfaction, the first premise is that active and conscious representation of the future – like the performance of other behaviors – is prompted by motivational forces. The second is that thinking (Pintrich, Marx, & Boyle, 1993), and particularly thinking about the future (Nurmi, 1991) are cognitive activities. The third premise draws on a proposition developed by Cantril (1965) maintaining that by creating a prospective reality world, individuals advance the fulfillment of their purposes. Hence, representation of the future induces future related behavior. Thus, although Cantril – and researchers using his conceptualization (Trommsdorff & Lamm, 1980) – employed a uni-dimensional approach, embedded in his work are the *motivational* and the *behavioral* components.

The motivational component. This component is indicated by three empirical variables: value, expectance, and internal control. Underlying their inclusion are three considerations. One pertains to the motivational qualities of *value* and *expectance* (Atkinson, 1964) and their relevance to future thinking (Cantril, 1965; Nuttin & Lens, 1985). The second concerns the motivational nature of *internal control* (Rotter, 1966; Weiner, 2010) so that behavior is regulated by attributing the occurrence of events to the person's behavior, perceived ability or other personal characteristics.

The third consideration relates to the directional motivation-behavior relation, maintaining that motivation is indicated by "...the acquired valences or preferences, attributions, and expectancies… all used to predict the direction and persistence of behavior" (Ryan, 2013, p.4). Specifically, *value* pertains to the importance, usefulness, and centrality of each future life domain. *Expectance* relates to individuals' subjective confidence in the materialization of hopes and plans regarding a future life domain and its affective outcomes (Carver & Scheier, 2001), and *internal control* to generalized beliefs about individuals' power over the attainment of goals (Weiner, 2010).

The cognitive representation component. Cognitive representation of the future "…puts us in direct contact with events, independently of their objective and real presence" (Nuttin & Lens, 1985, p. 17). Given that prospective events may be either positive or negative, the cognitive representation of a domain consists of both hopes and fears, and indicated by how frequently individuals think about each (Cantril, 1965; Trommsdorff, 1983). As noted below, these foreseeable future events arouse domain-related future directed behavior of two kinds: exploration of future hopes, plans and goals and commitment to pursue them.

The behavioral component. The conceptualization of the behavioral component, as indicated by the two variables *exploration* and *commitment,* draws on the work of Lewin and Erikson. The purpose of exploration is to examine the extent to which future options fit personal abilities and values, social expectations and environmental circumstances (Lewin, 1939). Commitment indicates "a sense of knowing where one is going" (Erikson, 1968, p. 165). Both enhance the future orientation-present behavior link and thus add to the instrumentality of future orientation.

In sum, the multi-dimensional model consists of three sequential components with two or three empirical indicators each. The motivational component prompts the cognitive representation of the future, as well as future-directed behavior. The cognitive representation prompts the future-focused behavior, which in turn regulates various aspects of present behavior. The three components and their empirical indicators are assessed by the *Prospective Life Course* Likert-scale questionnaire (Seginer, 2009; Seginer et al., 1991). Given the thematic nature of future orientation, the questionnaire can and has been applied to each of the several instrumental and relational life domains; such applications will be demonstrated in subsequent sections.

Future Orientation: Antecedents and Outcomes

The three component conceptualization and the research instrument developed to assess it allowed us to expand our research. Underlying it were two premises. The *developmental* premise drew on the ecology of human development (Bronfenbrenner, 1979; Seginer, 2006) pertains to the multiple interpersonal relationships entwined in the microsystem and the cultural and ethnic aspects of the macrosystem. The *motivational* premise pertains to the behavior regulating functions of task-oriented future orientation (Bandura, 2001; Nuttin & Lens, 1985).

Aligning the two premises led to a multiple-step model consisting of the interpersonal antecedents and behavioral outcomes of task-oriented future orientation. Given the importance of *academic achievement* as an indicator of well-being and necessary condition for productive secure adulthood, in much of our research, future orientation *outcome* is indicated by academic achievement. Moreover, the relationship between interpersonal relationships and the three-component future orientation is not a direct one. Instead, and as indicated by analyses of the multiple-step model (Seginer, 2009; Seginer & Mahajna, 2012, 2018a; Seginer, Vermulst & Shoyer, 2004), it is linked via self- presentation (Figure 2).

The rational underlying inclusion of the self draws on its development. In adolescence, as representation of the self is integrated into a global self, the direct impact of social interaction on behavioral and psychological functioning decreases and is instead processed by the self (Harter,1999). Four self-functions are particularly relevant to linking perceived social interaction and future orientation. The self (1) interprets and gives meaning (Harter, 2012) to the messages transmitted by significant interpersonal relationships, (2) protects self-evaluation by enhancing – or at least maintaining – the self-evaluation (Tesser, 1988), (3) guides psychological functioning (Harter, 2012), and (4) specific to future orientation, "…helps us bring our view of the present into line with our view of the future" (Allport, 1955, p. 47).

Empirical Testing of the Multi-Step Model

The generalizability of the model applies to its structural stability across three criteria: (1) sociocultural contexts, (2) biographical characteristics, and (3) operational definitions of the variables indicating the model's components. While ideal design would result in testing each of the different definitions across the various sociocultural contexts and biographical characteristics, ecological validity considerations call for
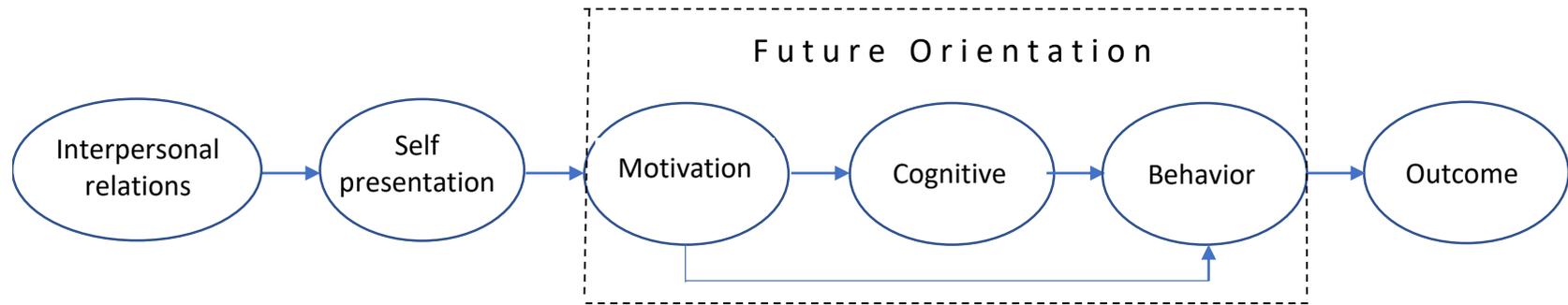
Figure 2. The future orientation extended model 1

culture-attuned and biographically suitable definitions. Table 1 lists, for each study, participants' biographical characteristics, and the empirical definitions of the model's variables.

Sociocultural milieu pertains to three Israeli communities: Muslims, Jewish secular, and Jewish ultra-orthodox. Age includes mostly junior (age 14 to 15) and senior high school (age 16 to 18) adolescents. The gender composition of participants is culture-dependent. Studies carried out among Israeli Muslims include either girls only, or girls and boys, among Jewish secular adolescents both girls and boys, and among Jewish ultra-orthodox, only girls. Absence of Jewish ultra-orthodox boys from our studies is not incidental. It emanates from the structure of the ultra-orthodox community in Israel as closed behind "walls of holiness" (Stern & Kraus, 2016) and observing a categorical gender division.

Thus, from a young age, boys' schooling is exclusively devoted to religious studies with only minimal acquaintance with the general Israeli culture and core school subjects like mathematics and English. Girls, who will grow up to become the family bread-winners and hence in a need to pursue an occupation, follow the general curriculum, augmented by religious studies, and therefore are more open to contact with the Israeli society at large. Consequently, 2% of the ultra-orthodox boys but 20% of the girls pass successfully the State of Israel high school graduation examinations and hold the Matriculation diploma (Malach & Cahaner, 2018) required for *higher education* admission.

The fit of the data to the multiple-step model was tested by structural equation modeling (AMOS 17-25, Kline, 2005). Findings indicating commonalities and differences are summarized under three paths comprising the multiple-step model: From interpersonal relationships to future orientation via self-evaluation, the structural links between the three future orientation components, and from future orientation to behavioral outcomes.

From Interpersonal Relationships to Future Orientation via Self-Evaluation

As detailed in Table 1 the future orientation multiple-step model applies to only two interpersonal relationship dimensions: the relationship *counterparts* and its *nature*. *Counterparts* consist of mother and father, siblings, friends and classroom peers, teachers and counselors. The *nature* of the relationship, on the other hand, pertains to (1) experienced autonomy and acceptance by parents, siblings, peers, and counselors, and (2) perceived social support from parents, siblings, friends, and teachers. Analyses across cultural, gender, and age groups show four consistent findings.

1. Experienced positive close interpersonal relationships and perceived social support from closely related individuals are positively related to self-evaluation.
2. Self-evaluation – indicated by self-esteem, self-empowerment, or self-agency – links the relation between the (a) parent-reported, (b) experienced interpersonal relationships, or (c) perceived social support and the three-component future orientation.

Table 1.
Sociocultural background, biographical information and empirical indicators of extended model of future orientation

Study	Sociocultural-context	Age	Gender (N)	Interpersonal Relationships	Self-evaluation	Future-life domain	Outcome
				Parenting			
Seginer et al (2004)	Israeli Jewish secular	Senior high school	Both (458)	Experienced mother, father acceptance & autonomy	Self-esteem Self-agency	Work & career, Marriage & family	--
Dekel (2009)	Israeli Jewish ultra- orthodox	Senior high school	Girls (820)	Experienced mother, father acceptance & autonomy	Self-esteem Self-agency	Work & career, Marriage & family	Academic achievement
Danziger (2012)	Israeli Jewish secular	Junior high school	Both (326)	Perceived social support re emotional and school problems from mother & father Perceived parents' educational involvement	Self-esteem	Continued education	Academic achievement
Seginer & Mahajna (2012)	Palestinian Muslims in Israel	Senior high school	Girls (617)	Experienced mother, father acceptance & autonomy	Self-empowerment	Higher education Marriage & Family	Academic achievement
Dror-Levy (2014)	Israeli Jewish secular, lower class	Senior high school	Both (302)	Experienced mother, father acceptance & autonomy	Self-esteem	Higher education Work& career, Marriage & family	Academic achievement
Azzam (2014)	Israeli Druze	Senior high school	Both (273)	--	Self-esteem Ethnic identity	Higher education Work& career, Marriage & family	Academic achievement
Seginer & Mahajna (2016)	Palestinian Muslims in Israel	Senior high school	Girls (537)	Experienced mother, father acceptance & autonomy	Self-empowerment	Higher education	Academic achievement
Rosenthal (2014)	Israeli Jewish ultra- orthodox	Senior high school	Girls (224)	Perceived social support re emotional and school problems from mother & father	Self-esteem	Work & career, Marriage & Family	Academic achievement
Seginer & Mahajna (2016)	Palestinian Muslims in Israel	Senior high school	Girls (537)	Parental beliefs regarding women's roles	--	Higher education, Marriage & Family	Academic achievement
Rosenthal (2018)	Israeli Jewish ultra- orthodox	Emerging adults	Women (284)	Perceived social support regarding emotional and school problems from mother & father	Self-esteem	Work & career, Marriage & Family	Academic achievement
Yaniv (2018)	Israeli Jewish secular	Junior high school	Both (132)	Experienced mother, father acceptance & autonomy	Self-esteem	Work& career, Marriage & family	Academic achievement

Sohezki (2019)	Israeli Jewish secular	Junior & senior high school	Girls (455)	Experienced mothers' acceptance & autonomy	Self-image (body image & self-esteem)	Work & career	Disordered eating
Siblings, peers							
Danziger (2012)	Israeli Jewish secular	Junior high school	Both (326)	Perceived social support regarding emotional and school problems best friend	Self-esteem	Continued education	Academic achievement
Dror-Levy (2014)	Israeli Jewish secular	Senior high school	Both (302)	Experienced peer acceptance	Self-esteem	Higher education Work& career, Marriage & family	Academic achievement
Rosenthal (2014)	Israeli Jewish ultra- orthodox	Senior high school	Girls (224)	Perceived social support re emotional and school problems from school mates	Self-esteem	Work & career, Marriage & Family	Academic achievement
Schnarch (2015)	Israeli Jewish secular	Junior high school	Both (457)	Perceived supportive social-learning climate	Self-esteem	Continued education	Academic achievement
Rosenthal (2019)	Israeli Jewish ultra- orthodox	Emerging adults	Women (284)	Perceived social support re emotional and school problems from school mates	Self-esteem	Work & career, Marriage & Family	Academic achievement
Teachers, educational counselors							
Danziger (2012)	Israeli Jewish secular	Israeli Jewish secular	Both (326)	Perceived social support re emotional and school problems teachers	Self-esteem	Continued education	Academic achievement
Dror-Levy (2014)	Israeli Jewish secular	Senior high school	Both (302)	Experienced counselors acceptance	Self-esteem	Higher education Work& career, Marriage & family	Academic achievement
Rosenthal (2014)	Israeli Jewish ultra- orthodox	Senior high school	Girls (224)	Perceived social support re emotional and school problems from school teachers	Self-esteem	Work & career, Marriage & Family	Academic achievement
Schnarch (2015)	Israeli Jewish secular	Junior high school	Both (457)	Perceived teacher-student relationships	Self-esteem	Continued education	Academic achievement
Rosenthal (2019)	Israeli Jewish ultra- orthodox	Emerging adults	Women (284)	Perceived social support re emotional and school problems from teachers' college faculty	Self-esteem	Work & career, Marriage & Family	Academic achievement
Raz (2019)	Israeli Jewish secular with borderline intellectual functioning	Adolescents & emerging adults (age 16-21)	Women & men (185)	Perceived and teacher reported achievement expectations	Self-determination	Work & career	Employability skills

3. However, self-evaluation is directly related only to the motivational component of future orientation and via it to the cognitive and behavioral components. Thus, valuing themselves, adolescents also value the tasks they perform (value), and sense of self-evaluation prompts success expectations (expectance) and internal control attributions.
4. The three-step relation between interpersonal relationships, self-evaluation and future orientation applies to each of the three most frequently tested future orientation domains: continued or higher education, *work and career*, *marriage and family*.

Future orientation wished-for by mothers (MoFO). Although the conceptualization of the three component future orientation has been developed to examine how individuals subjectively construct their future, the construction of one's future is shared by close others as well. For children and adolescents, the most relevant close others are parents. Drawing on this premise, Seginer and Shoyer (2012) examined the relations between mothers' wished-for and adolescents' future orientation by testing three hypotheses: (1) The multiple-step sequence of the three components of future orientation is maintained for the future orientation mothers wish for their adolescent children, (2) mothers' wished-for future orientation is linked to adolescents' future orientation. However (3) mothers' wished-for future orientation is linked to adolescents' future orientation indirectly via adolescents' self-esteem (Figure 3).

Analysis of Israeli-Jewish middle-class adolescents' (N = 203, 99 female) future orientation and of mothers' (N=203) wished-for future orientation supported all three hypotheses for two future life domains: *work and career*, as well as *marriage and family*. Moreover, analyses in which (a) self-esteem was deleted from the model and (b) the order of mothers' and adolescents' future orientation was reversed so that adolescents' future orientation preceded mothers' wished-for future orientation showed non-acceptable fit for each of the models. Thus, this two-source study imparts three additional findings:

1. The structure of the three component future orientation applies as well to vicarious (i.e., mothers') future orientation.
2. Self-esteem links between parenting and adolescents' future orientation also as parental practices are indicated by mothers' wished-for future orientation for their adolescent children.
3. Reciprocal parent-child effects notwithstanding, the relation between mothers' wished-for future orientation and adolescents' constructed future orientation is unidirectional: from mothers to their adolescent children.

The Structural Links Between the Three Future Orientation Components

With only one exception (Rosenthal, 2019), analyses support the proposition that relations between the motivational component and the cognitive and behavioral components and between the cognitive and behavioral components are positive and significant. However, given the cross-sectional nature of the data, in a recent study (Seginer & Mahajna, 2018a) the multiple-step order of the three components was empirically tested. Comparisons of the

Mother-Constructed Future Orientation

Adolescent-Constructed Future Orientation

Motivation → Cognitive → Behavior → Self Esteem (Adol) → Motivation → Cognitive → Behavior
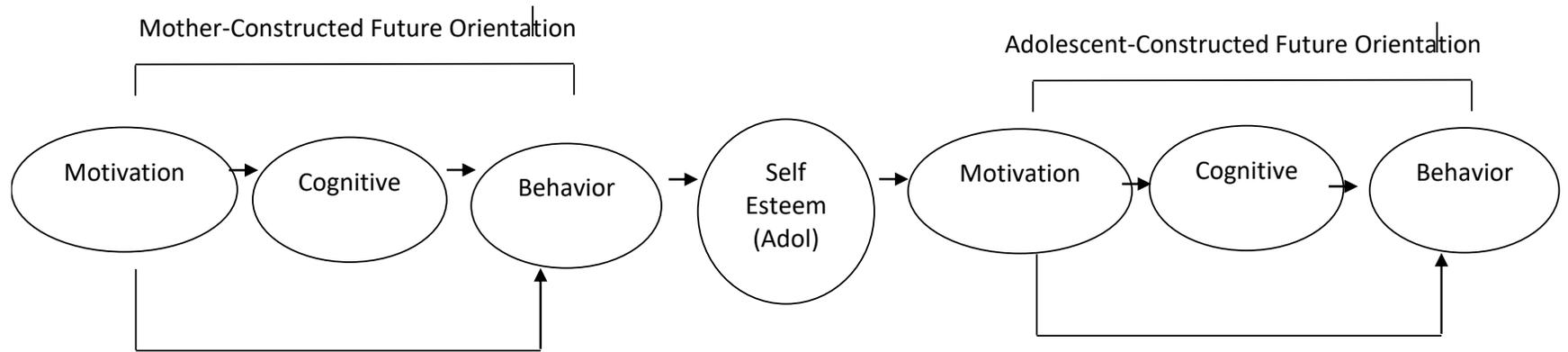
Figure 3. Mother-constructed and adolescent-constructed future orientation as mediated by adolescent self-esteem model.

fit of models estimated from the same data sets was carried out by switching the variables' orders between the motivational and cognitive components in four separate analyses (for girls and boys and two future life domains). Employing the AIC and the BIC lowest fit index criterion added support to the conceptualization of the future orientation model in which the motivation to engage in thinking about a future life domain precedes thinking about it (the cognitive component).

From Future Orientation to Behavior Outcomes

The future orientation instrumentality premise is based on the analysis of the effect of future orientation on behavior outcomes, contending that it is not any future thinking that prompts present behavior. Instead, it is only goal-directed future thinking. Given the relevance of future orientation to adolescent and emerging adulthood development and the importance of academic achievement for both the present (as an indicator of well-being) and the future (as leading to meaningful and productive adulthood), behavior outcomes are frequently defined in terms of *academic achievement*.

However, as illustrated in Figure 2, the relation between the motivational and the cognitive future orientation components and academic achievement as well as other outcome variables is indirect, mediated by the behavior component. Exceptions to this rule were two junior high school studies (Danziger, 2012; Seginer, 2009) reporting a motivational-component/ academic-achievement direct link and a non-significant behavioral component/ academic achievement link. This caveat notwithstanding, our research examines three specificity issues. The effect of (1) specific *domains* such as *higher education* and *work and career* (instrumental domain) and *marriage and family* (relational domain) on academic achievement, (2) across specific *socio-cultural*, and (3) *age* groups.

Analyses show that across socio-cultural groups of diverse Israeli ethnicities such as Druze (Azzam, 2014), Muslims, secular-, and ultra-orthodox Jewish adolescent girls, the effect of *continued* and *higher education* future orientation on academic achievement is invariably positive. For the two other future life domains – *work and career*, and *marriage and family* – the effect on academic achievement varies, contingent on the socio-cultural characteristics of each group.

For some groups, such as Israeli Muslim boys and Jewish secular girls and boys (Seginer, 2009), the *work and career* behavioral component has a direct positive effect on adolescents' academic achievement. However, for others such as Jewish lower-class (Dror-Levy, 2014) and ultra-orthodox girls (Rosenthal, 2014), the effect on academic achievement of the behavioral component is negative. Underlying it is the meaning of *work*, common to both groups. Taking adults in their social milieu as models, they consider *work* as pertaining to skilled or semi-skilled jobs ("After finishing my military service, I will look for a job with cars"). Hence academic achievement is viewed as irrelevant and possibly interfering with their future work course.

In a similar vein, the effect on academic achievement of the *marriage and family* domain is varied and culture specific. It is positive for ultra-orthodox Jewish girls (Dekel, 2009; Rosenthal, 2014, 2019; Seginer, 2009), negative for Israeli Muslim girls (Seginer, 2009; Seginer & Mahajna, 2012, 2018a, 2018b) and irrelevant for Israeli Druze adolescent

girls and boys (Azzam, 2014), Israeli Muslim boys (Seginer & Mahajna, 2018a, 2018b) and Jewish secular girls and boys (Seginer, 2009). The question is Why? Although respondents were not asked for an explanation, their hopes and fears narratives may inadvertently suggest an answer.

Particularly, *marriage and family* is relevant only to girls in traditional societies including the Israeli Muslim and the ultra-orthodox Jewish communities. For both communities, *marriage and family* and higher education are intertwined, though in opposite directions (Seginer & Mahajna, 2018b).

Growing up in traditional milieu where women are expected to marry young and preferably devote life to their family, *Muslim* girls' path to higher educations as a means for emancipation is endangered. To resolve engendered emancipation, as their hopes and fears narratives indicate, the majority choose one of two options: relinquishing further education for early marriage ("I worry my bridegroom will break his promise about my continued education") or choosing a career compatible with marriage-and-family responsibilities ("I hope to study teaching. This suits me because right after high school I am getting married"), or prioritizing higher education over marriage ("I hope to graduate from high school, continue my college education and have no intention to get married before I complete my education, earn a degree and secure a promising future").

For the *ultra-orthodox Jewish* girls, high academic achievement is a means for entering higher education, thus serving three marriage-and-family related goals. One is a favorable matchmaking ("After I graduate from high school I will study teaching in the Tzfat College. This is a good place for a girl who wants to get herself a name of a Hassidic girl, and absolutely necessary for [matchmaking] a Hassidic man"**).** The second is being a good mother ("After I graduate from high school I will study teaching. It is important for being a missionary and very important for knowing how to bring up my children")**.** The third is bearing the family's breadwinning responsibilities for her husband to engage in full-time religious learning ("With God's help I want to have high grades, to continue with my study and have an occupation so that my husband will devote himself to religious studies").

Among the *Druze* adolescents, similar to the trend among Israeli Muslim boys and secular Jewish girls and boys, the relation between the *marriage and family* domain and academic achievement is non-significant. Like the Israeli secular Jewish girls and boys (Seginer, 2009), they described marriage-and-family with little elaboration ("to get married", "get married and have a family of four: husband, wife, and two children"). For college-track Muslim boys and Druze girls and boys, the transition to adulthood path is clear. Graduate from high school, pursue further education leading to career, and only then get married. For Druze boys, this developmental path includes military service following high school graduation.

Thus, despite Druze and Muslim cultural affinity, as both belong to traditional ethnic minorities in Israel commonly using the Arabic language, girls belonging to the two communities differ in how they balance marriage-and-family with *work and career*. Underlying it are two plausible explanations. One questions the reality of the Druze adolescent girls' future orientation as consisting of higher education-to-career in chemistry, aeronautic engineering, medicine, nursing, and teaching. In contrast, it is maintained that

ultimately Druze girls like their Muslim counterparts yield to traditional family pressures. The second explanation draws on the geographical closeness to Jewish society augmented by men's military service, thus narrowing the gap between the Druze traditional culture and the Israeli Jewish modern culture. This provides Druze girls greater freedom and the opportunity to pursue higher education in a range of academic areas. Druze women's' older age of marriage, lower fertility rate, and higher workforce participation compared to those among Muslim women (Israel Central Bureau of Statistics, 2016) support the second explanation; both, however, merit further study (Seginer & Mahajna, 2018b).

Future orientation-academic achievement indirect link (Figure 4). Research presented heretofore has shown the direct relations between the behavioral component of future orientation and academic achievement for adolescents. Two considerations led us to examine the indirect future orientation-academic achievement relations via a third intrapersonal variable. One was empirical.

Dror-Levy (2014) examined the future orientation-academic achievement relation among lower-class at-risk adolescents who for reasons emanating from poverty and discordant home environment were placed in Y*outh Villages* functioning as educational residential settings. Findings indicated that the amount of academic achievement variance explained by future orientation domains was relatively low consisting of 7% by further education, 0% by work, and 5% by *marriage and family* with a negative β weight.

These findings were at odds with earlier ones indicating that the regulatory function of future orientation is particularly effective in explaining academic achievement of youths growing up in conditions of economic scarcity or an environment unappreciative of education as means for personal advancement (Seginer, 2009; Seginer & Mahajna, 2012, 2018a). The unique nature of the Youth Villages as an out-of-home residential institution together with the regulatory functions of future orientation brought to the fore the proposition that for these youths, the relation between future-orientation and academic-achievement is indirectly linked via resilience.

The indirect link between future orientation and academic achievement via resilience reflects e the vision and practices of Youth Villages. Youth Villages were developed in the pre-State of Israel community to establish a home for child and adolescent Jewish war refugees. Counselors, teachers and other adult staff and families reside in the village, thus providing a supportive home-like community and model of normative productive life. This developmental milieu creates a potential for developing future orientation which in turn prompts *resilience*, indicated by overcoming at-risk behavior and acquiring instead normative socially acceptable behavior.

Thus, considering the subjective *value* of a future life domain (e.g., higher education), the *attainability* of goals associated with the domain and one's *control* over it (the motivational component) prompts thinking about that domain (the cognitive component) and actively *exploring* domain-related options leading to a process of *decision making* (the behavioral component). Together, these future orientation processes facilitate positive adaptation in the face of life hurdles (Masten, 2015, 2018). For the specific case of academic achievement, this positive adaptation facilitates the development of interest, time and
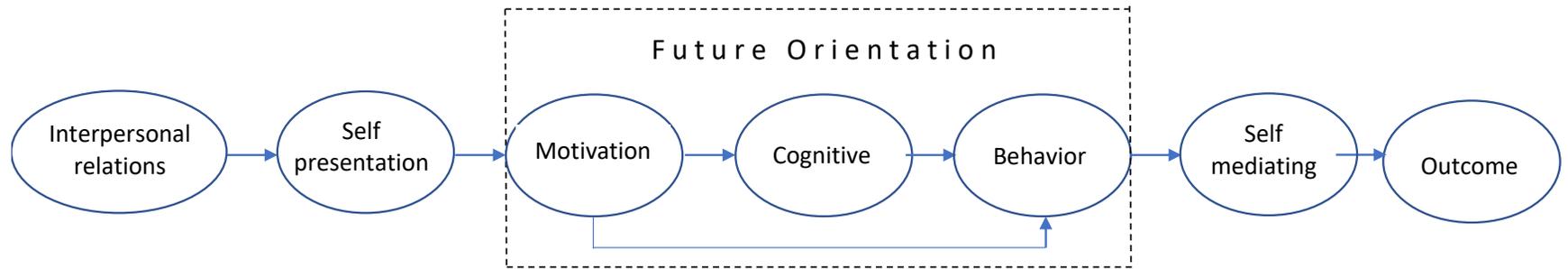
Figure 4. The future orientation extended model 2

attention to school work leading to academic achievement. Consequently, the explained variance of academic achievement by models of *further education*, *work*, and *marriage and family* have increased to 26%, 22%, and 25%, respectively.

The second consideration underlying the indirect future orientation-academic achievement relations draws on the function of *self-regulation* in prompting and maintaining goal-directed behavior in general, and adolescent psychosocial functioning in particular (Bandura, Caprara, Barbaranelli, Gerbino, & Pastorelli, 2003). Given the inherent tension between adolescents' awareness of the importance of schoolwork for their future and its low attractiveness as a routine activity (Duckworth & Steinberg, 2015), the proposition has been that *schooling self-regulation* ("Doing schoolwork, I keep trying as hard as I can") links continued education future orientation and academic achievement. In particular, exploration of continued and higher education options and reaching a decision (both indicators of the higher education future orientation behavioral component) prompt schooling self-regulation, which in turn leads to academic achievement.

To test this proposed model, we conducted a pilot study with 161 junior high school lower-middle class Jewish students in Israel in which we studied two multiple–step models. Both tested the relations between interpersonal relationships and academic achievement as mediated by self-esteem, the future orientation continued education domain and schooling self-regulation. In one of the models tested, interpersonal relationships were indicated by experienced positive parenting and in the second by classroom climate. Employing structural equation modeling (AMOS 25) explained 22% of the variance of academic achievement for the parenting model, and 18% of the variance of academic achievement for classroom climate model. Moreover, for both models, self-regulation is linked to future orientation but also to self-esteem, and for the experienced parenting model, self-regulation is also directly linked to experienced positive parenting from father.

Conclusions: Model Similarity and Culture Specificity

Research carried out over a period of 15 years testing the expended future orientation model has resulted in both similarities and differences. Similarities pertain to the consistency of the multiple-step model across time, participants' age and gender, and culture. Of particular importance are the findings indicating the consistency of the positive effect of experienced interpersonal relations on self-evaluation, and of self-evaluation on domain-specific future orientation. Differences pertain to the nature of the relation -- as positive or negative, significant or non-significant – depending on biographical characteristics and culture. The tendency for consistency is found mostly for models in which future orientation is indicated by *continued or higher education*. Across gender, age, and culture the future orientation-academic achievement and the future orientation-resilience/self-regulation-academic achievement are positively and significantly associated.

Yet, for Israeli Jewish secular adolescents, age makes a difference. For senior high school adolescents, the future orientation-academic achievement direct link is indicated via the *behavioral* component. For junior high school adolescents, this link is indicated only via

the *motivational* component of future orientation. Thus, whereas the multiple-step relation between the three future orientation is maintained for both, junior high school adolescents' academic work is prompted not by their interest in exploring higher education options and reaching a decision (behavioral component). Instead, it is induced by the value they attribute to higher education, as well as believing in their success prospects and internal control (effort, ability, drive to succeed).

For the two other future life domains, the future orientation-academic achievement relation varies. Underlying it is the meaning of the future life domain inscribed by adult modeling and cultural values. The *work and career* domain is carved by the vocational opportunities modelled by adults. Thus, for lower class adolescents semi- and unskilled jobs are unrelated to education and investment in schoolwork irrelevant or even interfering with one's future plans. The result is a negative relation between the *work and career* future orientation and academic achievement. For adolescents aspiring to maintain or improve their socioeconomic status, academic achievement is understood as a means for vocational career, and the *work and career* domain is positively linked to academic achievement.

The relation between *marriage and family* and academic achievement indicates the gender-specific effect of cultural values. It is positive for ultra-orthodox girls who consider academic achievement an important prerequisite for successful *marriage and family* life. It is negative for Muslim girls who consider it a stumbling block on their way to education-dependent emancipation and personal growth, and irrelevant to Muslim boys, secular Jewish girls and boys, and Druze girls and boys. The historical and cultural affinity, as well as the geographical closeness of Israeli Druze and Muslims raise a question about the authenticity of the Druze girls' results. However, statistical data suggest that relative to Israeli Muslim women, Israeli Druze women enjoy greater opportunities for emancipation.

Altogether, these findings question the global relevance of the *endogenous instrumentality* proposition that high content similarity between future life domain and behavioral outcomes increases the regulatory power of future orientation. Instead, it is moderated by culture.

Directions for Future Research and Practice

In all, the work presented here points to the global relevance of the future orientation model, as well as the domain-by-culture specificity of the behavior regulation of future orientation. Directions for continued research are charted by limitations of studies carried out heretofore as well as unexplored questions. Some obvious limitations include cultural, conceptual, and methodological narrowness. Research presented here, though carried out with socially and culturally diverse groups, was all undertaken in Israel and limited to three adolescent-relevant future life domains: higher education, *work and career*, and *marriage and family*.

Moreover, this research used mostly cross-sectional design thus neglecting knowledge about the across-time effect that interpersonal relationships and self-evaluation have on future orientation and future orientation has on behavioral outcomes. Thus, future work should include additional cultural groups, consider varied future life domains and

outcomes, and employ longitudinal design. However, the three are interdependent. Analyses of additional cultural groups may call for revised research design as it applies to pertinent future life domains and behavioral outcomes, and attuning to the cultural definitions of developmental periods.

Translating research findings of the future orientation extended model to *interventions* must weigh universal vis-à-vis culture-specific findings as they apply to age, gender and cultural characteristics. Moreover, the reality of waves of displaced people of all ages seeking a new home in unfamiliar cultures underscores the value of future orientation interventions for adolescents as well as for adults' life course. Yet, as noted earlier, to serve their purpose, interventions must be based on culturally-sensitive research and the fidelity of their implementation consider the cultures of newly arrived as well as that of the host society.

By way of conclusion, lessons of the research presented here are aptly summarized by a quote from the seminal work of Nuttin and Lens:

> *"…the mental construct called the 'future' is the building site of constructive behavior and human progress" (1985, p. 40).*

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