

The self-image of adolescents and its relationship to their perceptions of the future

● Anat Zeira and Rachel Dekel

Adolescence is a critical developmental life stage in which an important issue is the establishment of the self (Offer et al., 1981). At the beginning of the new millennium, adolescents face the same old challenges of different life domains and social roles (e.g. acquiring higher education; gaining a better economic status; establishing meaningful relationships with peers; and parenting), but in the context of a rapidly changing society. The helping professions are obliged to guide adolescents through a successful transition into a content adulthood. In order to do this, we need to better understand what adolescents think, feel and perceive about present and future issues in their lives.

The self-concept in adolescence has been extensively investigated (Patton and Noller, 1994) and is now viewed as a multi-dimensional concept organizing and guiding the processing of self-relevant information (Markus and Nurius, 1986). One effort to understand the world of normal teenagers is the work of Offer and his colleagues (Offer et al., 1988) who developed the OSIQ (Offer Self-Image Questionnaire) for evaluating the feelings of adolescents about their self-image in multiple areas. The OSIQ was found to reliably assess the self-image of adolescents living in different Western and

Anat Zeira is a senior lecturer at The Paul Baerwald School of Social Work, The Hebrew University of Jerusalem, Jerusalem, Israel. **Rachel Dekel** is a lecturer at the School of Social Work, Bar-Ilan University, Ramat-Gan, Israel.
[email: dekell@mail.biu.ac.il]

non-Western cultures round the world (Cuhadaroglu, 2001; Laukkanen et al., 1999; Offer et al., 1988; Smith and Pike, 1994).

A common assumption is that adolescents who feel good about themselves will have a more positive view of their future. Perception of the future consists of a person's plans, aspirations, expectations and fears concerning probable events in various life domains in the near and distant future (Seginer, 1988a). Thinking about one's future characterizes most, if not all, age groups, but especially adolescents who are shaping their view about the world and about themselves (Erikson, 1968). It is surprising, however, how little empirical work has been done on relating self-image to the perception of the future. This article seeks to address this gap and to contribute to the understanding of the complexity of the relationship between adolescents' self-image and their perceptions of the future.

The theoretical link between self-image and perception of the future is not new and was explicated by Erikson as early as 1968. He claimed that one of the characteristic tasks of achieving identity in adolescence is the individual's ability to clearly picture his or her future self. Marcia (1980) further developed Erikson's idea of ego identity in adolescence, arguing that an identity is achieved through imagining various possible future options. Possible selves are thoughts and feelings about what one might become in the future (Markus and Nurius, 1986). It is assumed that these thoughts and feelings become more refined and better articulated during adolescence and therefore can serve as regulators of behavior. Possible selves also direct, facilitate and constrain change in self-concept, thus linking behavior to the self-concept (Oyserman, 1987). Another theoretical construct linking self-image and the perception of future is that of self-efficacy (Bandura, 1990). Self-efficacy concerns the relationship between a person's belief in his or her ability to carry out certain actions in life and its contribution to actual achievement. Thus, the extent to which a person has a positive self-concept may shed light on possible future achievements.

Both gender and age differences are important issues when considering adolescents' self-image and perception of the future. In an era that demands gender equity, perception of many life domains (e.g. education, family) nevertheless remains conservative. Thus, it is not surprising that there are differences in the self-image of adolescent males and females (Cooper and Grotevant, 1987; Offer et al., 1988); males have generally expressed more happiness and self-contentment than females (Seginer and Flum, 1987), while females have a stronger sense of social commitment. Age differences are

also expected where maturity issues are involved (Offer et al., 1988). Teenagers' identity forms as they grow up, so that they view future central domains differently at different ages; for example, issues related to higher education are more concrete to 18-year-olds than to 15-year-olds.

This study was undertaken in Israel, a Western democracy in the Middle East. Israel is characterized by political turmoil resulting in a stressful daily atmosphere. Particular to Israel is mandatory military service; at the age of 18, most females and males are called up for two or three years' army service, respectively. This social responsibility adds another dimension to adolescents' future orientation (Dar and Kimhi, 2001; Seginer, 1988a). In fact, army service requires Israeli adolescents to deal with future concerns much earlier in their life than their peers in other Western countries. In addition, military service in Israel also functions as a socialization agent where the adolescents establish social contacts and may acquire skills and a profession they use later in life (Dar and Kimhi, 2001). Thus in this study we assume that military service is an important aspect of Israeli adolescents' future life. The study presented here describes the self-image of Israeli teenagers and examines its relationship to the way they perceive their future in central areas of life, analyzing both age and gender differences.

Method

Sample

A random sample of 46 high schools was drawn from the list of all Hebrew-speaking high schools in Israel, excluding kibbutz high schools (Israel Ministry of Education, 1990). One class in every age group (the 10th, 11th and 12th grades) was randomly selected from these schools. A non-proportional stratified sample (on class and gender) was then randomly selected, yielding a total of 1196 students. The gender distribution of the sample in the three age groups is presented in Table 1.

Procedure

Questionnaires were sent by mail to all students in each of the selected classes. The questionnaires were administered to each class by its teacher and completed anonymously. Teachers returned completed questionnaires by mail in sealed envelopes. There was an excellent return rate; 85 percent of the schools returned the completed material by mail.

Table 1 Sample distribution by gender and grade level

	10th grade		11th grade		12th grade		Total	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Female	200	50.0	200	50.0	200	50.5	600	50.2
Male	200	50.0	200	50.0	196	49.5	596	49.8
Total	400	100	400	100	396	100	1196	100

Instruments

Three sub-scales of the OSIQ were used to measure the self-image of the adolescents, and the My Future Questionnaire was used to describe the adolescents' future perceptions.

Offer Self-Image Questionnaire The OSIQ was developed in 1962 to describe the nature of normal adolescents (Offer et al., 1981). Since then, it has been used in many studies and has generally been found to be a reliable and valid measure across different cultures in different countries over the past 40 years (Fine et al., 1993; Laukkanen et al., 1999; Smith and Pike, 1994; Steinhausen and Vollrath, 1993). It has also been used in a global project that portrayed adolescents around the world in a series of cross-cultural studies (Offer et al., 1988; Seginer and Flum, 1987).

Three sub-scales of the OSIQ selected were:

- Emotional tone included items such as 'I feel so very lonely';
- Mastery of the external world included items like 'I find life an endless series of problems without solutions';
- Social relationships included items like 'I find it extremely hard to make friends'.

The 29 items were each graded on a six-point Likert-type scale (6 = describes me very well, 1 = does not describe me at all). Higher scores on the scale indicated a positive self-image. The scale reliability of the OSIQ sub-scales had the following Cronbach's alpha: Emotional tone = .74, Mastery of the external world = .60; and Social relationships = .66.

My Future Questionnaire We measured the adolescents' perception of their future with the My Future Questionnaire. This measure was developed to describe major issues and possible events central to a

young person's life in Israel (Altman, 1992). The response to each of the 20 items reflected the adolescents' perception of the possibility that a certain event would occur in their future. Each item was measured on a five-point Likert-type scale (5 = almost sure that will occur, 1 = almost sure that will not occur). Higher scores on the scale indicate a more positive perception of the future.

In order to identify content areas of future perception, we conducted a factor analysis (principal component with a varimax rotation). Table 2 presents the five factors and their Eigenvalue (which represents the amount of explained variance by the factor), the items included in each of the factors and their loading on the factor. The analysis yielded five content areas explaining 53.4 percent of the total variance. The internal consistency of the factors was moderate to good, ranging from .50 to .77. The first factor, School & matriculation, included items like: 'I think I will graduate from high school', and 'I think I will have higher education'. The second factor, Military service, pertained to items like: 'I think I will complete my army service', and 'I think I will become an officer'. The third factor included items related to desired Economic status, like: 'I think I will own a car', and 'I think I will own an apartment'. The fourth factor, Marriage & family, included items related to future thoughts like: 'I think I will get married', or 'I think I will have a good marriage'. Finally, the fifth factor described items related to the possibility of developing Deviant behavior and included items like: 'I think I will go to jail'.

Results

Table 3 presents the mean and standard deviation of the three OSIQ sub-scales for male and female adolescent self-image in each age group. Overall, the scores were 4.45 and higher. This sample of adolescents was on the whole content with their lives. In order to assess the effects of gender and age on the self-image, we performed a MANOVA analysis with gender (males, females) and age (10th, 11th and 12th grades) as independent variables and the three OSIQ sub-scales (Emotional tone, Mastery of external world and Social relationships) as dependent variables. The analysis revealed an overall effect of gender ($F[3, 905] = 9.98; p < .000$). The age effect and the interaction effect (gender X age) were not significant ($F[6, 1812] = .58; p < .75$ and $F[6, 1812] = 1.50; p < .17$).

Univariate analysis revealed a significant gender effect only in one of the sub-scales: Emotional tone ($F[1, 912] = 22.79; p < .000$). As

Table 2 Factors of the perception of the future: items and their loading

Factor	School & matriculation	Military service	Economic status	Marriage & family	Deviant behavior
Eigenvalue	1.60	1.29	1.97	4.69	1.12
I think I will . . .					
have a good marriage				.78	
have children				.75	
get married				.67	
make a good parent				.62	
get divorced				-.60	
have good friends				.44	
own a car			.82		
own an apartment			.79		
have a good profession			.50		
have a good living			.47		
pay for higher education			.45		
complete matriculation	.83				
have higher education	.76				
complete high school	.56				
complete army service		.82			
become an army officer		.78			
be involved with the law					.77
be in jail					.74
be in army jail					.66
become unemployed					.47

Table 3 Means and standard deviations of the OSIQ sub-scales for gender by grade level

	Male			Female		
	10th	11th	12th	10th	11th	12th
Emotional tone	4.71 (0.63)	4.76 (0.73)	4.67 (0.72)	4.45 (0.69)	4.54 (0.66)	4.48 (0.78)
Mastery of the external world	4.82 (0.56)	4.76 (0.53)	4.78 (0.62)	4.64 (0.61)	4.81 (0.58)	4.71 (0.63)
Social relationships	4.58 (0.74)	4.55 (0.73)	4.49 (0.75)	4.50 (0.76)	4.62 (0.64)	4.63 (0.75)

can be seen in Table 3, Emotional tone of males is significantly higher than that of females. It seems that males at all age levels express more happiness than females.

Table 4 presents the mean and standard deviation for male and female adolescents' perception of the future in each age group. Generally speaking, both females and males of all age groups have a positive perception of the future. In order to examine the effects of gender and age on the perception of the future, we performed a MANOVA analysis with gender (males, females) and age (the 10th, 11th and 12th grades) as independent variables and the five domains of the perception of the future (School & matriculation, Military service, Economic status, Marriage & family and Deviant behavior) as dependent variables. An overall significant effect of gender was found in all future domains ($F[5, 942] = 28.79$; $p < .000$). We also found an overall significant effect of age in all five domains ($F[10, 1886] = 3.50$; $p < .000$). The interaction effect was not significant ($F[10, 1886] = 1.76$; $p < .06$).

The impact of gender on each of the sub-scales was examined through a series of one-way analyses for each one of them. A significant impact of gender was found in four of the future domains: Military service ($F[1, 951] = 47.91$; $p < .000$); Economic status ($F[1, 951] = 25.40$; $p < .001$); Marriage & family ($F[1, 951] = 6.53$; $p < .05$); and Deviant behavior ($F[1, 951] = 22.48$; $p < .000$). As can be seen in Table 4, males had significantly higher values than females in two domains (Military service and Economic status). In contrast, females had higher values than males in two other domains (Marriage & family and Deviant behavior). In other words, while

Table 4 Means and standard deviations of perception of the future for gender by grade level

	Male			Female			Total		
	10th	11th	12th	10th	11th	12th	10th	11th	12th
School & matriculation	4.50 (0.54)	4.29 (0.81)	4.23 (0.87)	4.44 (0.64)	4.50 (0.55)	4.28 (0.78)	4.47 (0.59)	4.39 (0.70)	4.26 (0.80)
Military service	4.14 (0.78)	4.15 (0.69)	4.23 (0.72)	3.77 (0.85)	3.75 (1.03)	3.85 (0.99)	3.97 (0.83)	3.95 (0.90)	4.03 (0.89)
Economic status	4.23 (0.60)	4.06 (0.65)	4.03 (0.60)	3.92 (0.63)	3.87 (0.62)	3.92 (0.62)	4.09 (0.63)	3.97 (0.65)	3.97 (0.61)
Marriage & family	4.37 (0.63)	4.44 (0.56)	4.34 (0.64)	4.47 (0.55)	4.46 (0.48)	4.50 (0.51)	4.41 (0.60)	4.45 (0.52)	4.42 (0.58)
Deviant behavior	1.55 (0.67)	1.44 (0.50)	1.50 (0.72)	1.32 (0.35)	1.31 (0.42)	1.35 (0.45)	1.45 (0.56)	1.37 (0.47)	1.42 (0.60)

boys tend to have more positive thoughts about their future military career and about their prospects for good economic status than girls do, the girls think more positively than boys about getting married and are less involved with criminal offenses.

The impact of age on each future domain was also examined through a series of one-way analyses. We found that age had a significant impact in two domains: School & matriculation ($F[2, 951] = 7.68; p < .000$) and Economic status ($F[2, 951] = 2.93; p < .05$).

As can be seen in Table 4, there is a different trend in the three age groups in the various future domains. Scheffe contrasts revealed that the future perception of the 10th-grade students in the domain of Economic status is better than that of the 11th-grade students (4.09 compared with 3.97). Likewise, School & matriculation was higher among the 10th-grade students than in 12th-grade (4.47 compared with 4.26). In the domains of School & matriculation, Economic status and Deviant behavior the scores decrease with age. In Military service we see an increase with age. However, the interaction effect was not significant and both males and females share the same trend over the years. This shows that thoughts about their future become more concrete as adolescents grow up; they gain a more realistic image of their future as students and soldiers and what they may achieve in terms of economic status.

The Pearson correlation was calculated to examine the relationship between adolescents' self-image and their view about their future (Table 5). Note that, due to the large sample size, even small correlations may be significant. Therefore, only correlations with a coefficient equal to or greater than .25 ($p < .001$) were considered (Kerlinger, 1986).

Overall, the adolescents' self-image (i.e. feelings about their life, sense of control over things in their external world and social relationships) was positively associated with the perceptions of the future in different life domains. No differences were found in this trend between males and females or between age groups. As can be seen in Table 5, a positive relationship was found between the three OSIQ sub-scales and two domains of the future (Economic status and Marriage & family). In other words, when adolescents have a positive self-image, it is mostly reflected in positive thinking about marriage and the financial aspects of their future. Only Mastery of the external world was found positively correlated with School & matriculation. Hence, positive educational achievements

Table 5 Correlations between the OSIQ sub-scales and the domains of perception of the future

	Marriage & family	Economic status	School & matriculation	Military service	Deviant behavior
Emotional tone	.31*	.37*	.17	.21	-.19
Mastery of the external world	.30*	.36*	.29*	.19	-.28*
Social relationships	.37*	.30*	.09	.20	-.18

* $r > .25$; $p < .001$.

were associated with a strong sense of self-control and problem-solving skills. A negative correlation was found between Mastery of the external world and Deviant behavior. Although the other two coefficients of the OSIQ sub-scales with Deviant behavior were not taken into account here, these were also negative. These findings indicate that when a person has a sense of control over her or his life, it is associated with fewer expectations of developing non-desirable social behavior in the future or becoming a delinquent.

Discussion

This study aims to present a picture of normal adolescents in Israel in terms of their self-image, their perception of different aspects of their future life and the interrelationships between self-image and perception of the future. The adolescents were generally found to have a positive self-image and a favorable future perspective. We found that many of the adolescents in our sample felt good about who they were in all three aspects of self-image that were surveyed: how much they liked and enjoyed their lives, how competent and able they were to make decisions and stand by them and how much they enjoyed interactions with peers. These findings are consistent with previous studies of Israeli adolescents (e.g. Seginer, 1988a, 1988b; Seginer and Flum, 1987) and of adolescents from other countries (Offer et al., 1988).

The adolescents in our study also had a positive perception of their future. We identified five factors for describing the perception of the future: School & matriculation, Military service, Economic status, Marriage & family and Deviant behavior. These factors resemble major domains found previously (Seginer, 1988a) and appear to represent Israeli adolescents' perception of the future. The adolescents in our study were most certain about their ability to complete matriculation, to serve in the army (and even become officers), to achieve a reasonable economic status (by being able to own a car or an apartment), to get married and raise a family and finally, not to develop delinquent behavior. It is somewhat surprising to learn that the private world of adolescents remains intact despite the shaky socio-political environment in Israel that creates great uncertainty about the future (especially with regard to Israel's relationships with neighboring countries and the ever present possibility of another war). Yet such perceptions may bear some grounds for optimism with respect to the further normal development of these youngsters.

Gender differences

As in other studies (Ostrov et al., 1989), the female adolescents in our study showed less satisfaction with their life and more loneliness than males. Gender differences in the future domains were mixed. While females had higher scores on Marriage & family and lower scores on Deviant behavior, males scored higher on Military service and Economic status. These findings can in part be explained by the general tendency of males to diminish their level of emotional expression, as corroborated in theories of emotional development (Brody, 1985). However, the results also imply that, even in a society with awareness for gender equality, the values of a traditional division of labor still rule (Azmon and Izraeli, 1993) and have an impact on the way adolescents perceive themselves in the future. The young women internalize the traditional in-home social roles (e.g. motherhood), and the young men express their duty to society through a military career. Seginer (1988b) argues that the persistence of gender inequality in Israel can be explained in terms of the macho image of the Israeli male shaped by the atmosphere of war underlying their reality. Army service appears to have a different social meaning for males and females and therefore raises more concrete issues for males.

Age differences

We surveyed Israeli students in grades 10–12 (age levels of 16–18) but found no significant age differences in self-image, presumably because identity has usually been shaped by these ages. Offer et al. (1998) similarly found a stability of self-image from age 14 through age 19. With regard to the perception of the future, the younger students had higher scores in School & matriculation and in Economic status than the older students. This can be partially explained by perception becoming more realistic as future events come closer and certain life issues become more concrete. For example, the expectations of 12th-grade students of success in matriculating are based more on knowledge of their ability to successfully accomplish this task than 10th-grade students, who can only wish for this to happen in the future. Likewise, military service is a remote issue for a 10th-grade student, but this is a matter of reality for the older students. Thus, adolescents' perception of the future is probably influenced, among other things, by the distance of the specific issue in the future. The older students are most likely to be more realistic in their plans and expectations about their future life than the younger students.

The relationship between self-image and the perception of the future

We found a positive correlation between the self-image of adolescents and their perception of the future in major areas of life, and there were no gender and age differences in this correlation. This means that young people who are content with their present life are more likely to envision a positive view of their future. This finding fits Marcia's notion of ego identity status where the development of ego identity is linked with a time axis (Marcia, 1980). Efficacy expectations (Bandura, 1990) also relate self-efficacy to the ability to achieve certain outcomes in the future. Offer and his colleagues (1998) found that the self-image in early adolescence (age 14) affects self-confidence at young adulthood (age 19), which in turn relates to mental health at middle age (48 years old). A significant positive correlation between the OSIQ aspects of self-image and future life domains such as education, economic status, and marriage and family, supports concepts of identity formation as a process unfolding as the child grows (Marcia, 1980). A negative relationship between the OSIQ and potential delinquency may shed light on the type of self-image it takes to internalize society's values. Most adolescents, though, do not develop such behavior and do not see themselves doing so in the future.

Implications

The OSIQ has gained respect and use in many studies in recent years, both in the US (Pete-McGadney, 1995) and other countries (Cuhadaroglu, 2001, for adolescents in Turkey; Laukkanen et al., 1999, for adolescents in Finland; and Smith and Pike, 1994, for adolescents in Jamaica). Still, further research is needed with adolescents in countries where non-Western values and beliefs reign. Our study provides further validation of the OSIQ and empirical support for its use and its universal content (Laukkanen et al., 1999; Patton and Noller, 1994). Our results show that even in a country like Israel, where daily life is characterized by enormously stressful political events, life for adolescents is very much like it is for other youngsters in the global village, and they are busy with the same things as their peers in other countries.

One direct implication of our findings is the possibility of using the OSIQ for detecting adolescents who may need help. The positive relationship between self-image and future perception can guide interventions aimed at adolescents in school. Helping young people feel better about who they are will also result in them developing a

better perception of their future, and this may, in turn, help them to become more content.

Our results confirm a statistical relationship between self-image and perception of the future regardless of its direction. Further investigation is needed to explore whether a positive self-image leads to a positive future perception or vice versa. Future research should also address issues of culture as well as the impact of the family on the probability of developing a positive self-image and a positive view of future prospects.

Finally, our results show that, even at the beginning of a new millennium, both male and female adolescents still adopt the traditional social roles and assimilate them into their self-image and their perception of the future rather early in their lives. It is essential that modern societies, wishing to promote equal opportunities for females, consider the thoughts and feelings that young people have about themselves and their futures.

References

- Altman, R. (1992) 'Comparing the Perceptions of Adolescents in Foster Care, Boarding Schools and at Home'. Unpublished master's thesis (Hebrew), Paul Baerwald School of Social Work, Jerusalem, Israel.
- Azmon, Y. and D. Izraeli (1993) *Women in Israel: Studies in Israeli Society*. London: Transaction Publishers.
- Bandura, A. (1990) 'Some Reflections on Reflections', *Psychological Inquiry* 1(1): 101–5.
- Brody, L. (1985) 'Gender Differences in Emotional Development: A Review of Theories and Research', *Journal of Personality* 53: 102–45.
- Cooper, C.R. and H.D. Grotevant (1987) 'Gender Issues in the Interface of Family Experience and Adolescents' Friendship and Dating Identity', *Journal of Youth and Adolescence* 16(3): 247–64.
- Cuhadaroglu, F. (2001) 'Suicide Attempts and Self-image Among Turkish Adolescents', *Journal of Youth and Adolescence* 30(5): 641–52.
- Dar, Y. and S. Kimhi (2001) 'Military Service and Self-perceived Maturation among Israeli Youth', *Journal of Youth and Adolescence* 30(4): 427–48.
- Erikson, E.H. (1968) *Identity: Youth and Crisis*. New York: Norton.
- Fine, S., G. Haley, M. Gilbert and A. Forth (1993) 'Self-image as a Predictor of Outcome in Adolescent Major Depressive Disorder', *Journal of Child Psychology and Psychiatry and Allied Disciplines* 34(8): 1399–407.
- Israel Ministry of Education (1990) *Complete List of Schools*. Jerusalem: Ministry of Education.
- Kerlinger, F.N. (1986) *Foundations of Behavioral Research*. London: Holt, Rinehart & Winston.
- Laukkanen, E., P. Halonen and H. Viinamaeki (1999) 'Stability and Internal Consistency of the Offer Self-Image Questionnaire: A Study of Finnish Adolescents', *Journal of Youth and Adolescence* 28(1): 71–7.

- Marcia, J.E. (1980) 'Identity in Adolescence', in J. Adelson (ed.) *Handbook of Adolescent Psychology*. New York: Wiley.
- Markus, H. and P. Nurius (1986) 'Possible Selves', *American Psychologist* 41: 954–69.
- Offer, D., E. Ostrov and K. Howard (1981) *The Adolescent: A Psychological Self-portrait*. New York: Basic Books.
- Offer, D., E. Ostrov, K. Howard and R. Atkinson (1988) *The Teenage World: Adolescents' Self-image in Ten Countries*. New York: Plenum Medical Book Press.
- Offer, D., M. Kaiz, K. Howard and E.S. Bennet (1998) 'Emotional Variables in Adolescence', and their Stability and Contribution to the Mental Health of Adult Men', *Journal of Youth and Adolescence* 27(6): 675–90.
- Ostrov, E., D. Offer and K. Howard (1989) 'Gender Differences in Adolescent Symptomatology: A Normative Study', *Journal of the American Academy of Child and Adolescent Psychiatry* 28(3): 394–8.
- Oyserman, D. (1987) 'Possible Selves and Behavior: The Case of Juvenile Delinquency'. Unpublished doctoral dissertation, University of Michigan.
- Patton, W. and P. Noller (1994) 'The Offer Self-Image Questionnaire for Adolescents: Psychometric Properties and Factor Structure', *Journal of Youth and Adolescence* 23(1): 19–41.
- Pete-McGadney, J. (1995) 'Differences in Adolescents' Self-concept as a Function of Race, Geographic Location, and Pregnancy', *Adolescence* 30(117): 95–106.
- Seginer, R. (1988a) 'Adolescents Facing the Future: Cultural and Sociopolitical Perspective', *Youth and Society* 19: 314–33.
- Seginer, R. (1988b) 'Adolescents' Orientation Toward the Future: Sex Role Differentiation in a Sociocultural Context', *Sex Roles* 18: 739–57.
- Seginer, R. and H. Flum (1987) 'Israeli Adolescents' Self-image Profile', *Journal of Youth and Adolescence* 16(5): 455–72.
- Smith, D.E. and L.B. Pike (1994) 'Relationship Between Jamaican Adolescents' Drinking Partners and Self-image: a Cross-cultural Perspective', *Adolescence* 29(114): 429–38.
- Steinhausen, H.C. and M. Vollrath (1993) 'The Self-image of Adolescent Patients with Eating Disorders', *International Journal of Eating Disorders* 13(2): 221–7.