

Control strivings in attaining peer-group membership and forming romantic relationships among adolescents with and without visual impairment

Jens P. Pfeiffer and Martin Pinquart

British Journal of Visual Impairment 2011 29: 113

DOI: 10.1177/0264619611401870

The online version of this article can be found at:

<http://jvi.sagepub.com/content/29/2/113>

Published by:



<http://www.sagepublications.com>

Additional services and information for *British Journal of Visual Impairment* can be found at:

Email Alerts: <http://jvi.sagepub.com/cgi/alerts>

Subscriptions: <http://jvi.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations: <http://jvi.sagepub.com/content/29/2/113.refs.html>

>> [Version of Record](#) - May 23, 2011

[What is This?](#)

Control strivings in attaining peer-group membership and forming romantic relationships among adolescents with and without visual impairment

JENS P. PFEIFFER AND MARTIN PINQUART

Philipps University, Marburg, Germany

ABSTRACT This study compared control striving with regard to two developmental goals in adolescents with visual impairment and sighted peers. A matched-pair design was used with 158 adolescents with visual impairment and 158 sighted peers by using age, gender, habitation (living with ones' parents vs. other forms of living), and socioeconomic status as matching variables. Adolescents with visual impairment did not differ from sighted peers in control striving with regard to peer-group membership, but they were less active in forming romantic relationships. In addition, there was no difference between the groups in the associations between control strivings and age, gender, goal importance, locus of control, and social support.

KEY WORDS *adolescence, control striving, developmental goals, goal attainment, locus of control, visual impairment*

INTRODUCTION

Intentional self-regulation is a core facet of human functioning. People direct their behaviour by constructing personal goals in the context of various age-graded developmental transitions (Nurmi and Salmela-Aro, 2002).

Three theoretical models of regulatory strategies describe the pursuit of personal goals (Boerner and Jopp, 2007): the model of assimilative and accommodative coping (Brandstädter and Renner, 1990), the model

of selection, optimization, and compensation (SOC; Baltes and Baltes, 1990), and the life-span theory of control (Heckhausen and Schulz, 1995). On a meta-level, these theories share the idea that optimal development involves the balance of gains and losses throughout life. This encompasses a maintenance/enhancement process and a reorientation process. The maintenance/enhancement process is activated if individuals want to achieve a goal; they respond to challenges by improving their internal conditions (motivation, commitment, activation, etc.) or outer contexts (e.g. social support) in order to reduce the discrepancies between desired and actual states of goal attainment. The reorientation process is used if individuals rescale or rearrange personal goals to make them more realistic so that they fit more closely with their given situation, such as situational constraints or limited action resources. This means that individuals adjust their goals to the situation to minimize losses and hence protecting their future motivation (Heckhausen and Tomasik, 2002).

Whereas research on the models of Brandtstädter and Renner (1990) and Baltes and Baltes (1990) used global measures of these processes or strategies, studies based on the model of Heckhausen and Schulz (1995) often applied domain-specific measures of control strategies with regard to a particular goal (e.g. Poulin and Heckhausen, 2007). This offers the advantage of the comparison between different goals.

Most of the available studies on goal attainment assessed adults, but there are some studies on adolescents (e.g. Pinquart, Silbereisen and Wiesner, 2004). However, the questionnaire by Brandtstädter and Renner (1990) for the assessment of assimilative and accommodative coping may be too complicated for younger adolescents, and research on SOC could not verify the expected three-factor model in early adolescence (Gestsdottir, Lewin-Bizan, von Eye, Lerner and Lerner, 2009).

Control strivings in adolescence

Recent research efforts have focused on adolescents' goal pursuit and goal adjustment, such as during the transition from school to work and when being confronted with beneficial versus unfavourable conditions for goal attainment (Heckhausen and Tomasik, 2002; Schönplflug and Jansen, 1995). For example, Pinquart et al. (2004) found that older adolescents are, on average, more advanced in achieving their developmental goals and they use more enhancement processes than reorientation/accommodative processes. In other words, they are more

active to achieve a goal than in reducing their aspirations and giving-up. However, Coleman (1980) suggested that adolescents solve different developmental tasks in succession so that age-differences in the average levels of enhancement processes across different developmental tasks may be small.

Goal attainment may be influenced by psychosocial resources. Some studies found that adolescents with stronger inner resources, such as an internal locus of control and high self-efficacy, use more enhancement strategies for goal attainment (Poulin and Heckhausen, 2007; Schönplflug and Jansen, 1995). Furthermore, Poulin and Heckhausen (2007) found that adolescents with higher levels of available social support from their families were more persistent in their active goal attainment than adolescents with lower levels of social support (due to divorce or death of a family member).

Goal striving in adolescents with physical and sensory disabilities

It is conceivable that adolescents with chronic illnesses or impairments struggle with the demands of everyday life and with the restrictions intrinsically related to their need for social or medical care. Thus, it seems reasonable to assume that these adolescents have to adjust their goals according to these challenges. However, little is known about the differences in goal contents and goal attainment between adolescents with disabilities and their non-disabled peers. Shepherd et al. (1990) demonstrated that young adults with cystic fibrosis had a delay in achieving autonomy from parents and had more problems in the school-to-work transition. In addition, Seiffge-Krenke (1998) showed that 14-year-old adolescents with diabetes reported, on average, more difficulties in finding a satisfactory personal lifestyle than healthy adolescents at the beginning of the study, but that this difference vanished after two years. Furthermore, it was shown that adolescents with visual impairment are less advanced than sighted peers in forming romantic relationships and attaining peer-group membership (Huurre and Aro, 1998).

However, these studies reported only the current level of goal attainment without assessing processes of goal pursuit, such as control striving strategies. Therefore, the present study aims to provide more information about processes of goal pursuit in adolescents with impairments.

Two available studies analyzed processes of coping with daily stressors in individuals with visual impairment, but it is not clear whether similar results would be found in regard to the pursuit of developmental goals. Kef (2002) reported that adolescents with visual impairment use more problem-focused behaviours in coping with daily hassles and more avoidance of everyday stressors than their sighted peers. In addition, Wahl, Becker, Schilling, Burmedi and Himmelsbach (2005) found in a one-year longitudinal study that older adults with visual impairment reduced the use of enhancement processes, but their analysis focused on progressive vision loss and did not compare control striving of individuals with and without visual impairment.

It could be expected that a weak internal locus of control may lead to lower levels of enhancement processes and thus to lower goal attainment. There is some empirical evidence that adolescents with visual impairments and chronic illnesses have lower levels of internal locus of control than sighted peers (e.g. Kammerer, Köster, Monninger and Scheffler, 2003).

Furthermore, Kef and Dekovic (2004) showed that the effects of social support from parents and peers differed between adolescents with and without visual impairment. Whereas adolescents with visual impairment benefited more from peer support with regard to their subjective well-being, the comparison group benefited more from parental support. The smaller effect of parental support on adolescents with visual impairment may indicate that these students often interpret parental support as being overprotective. This result may also indicate that adolescents with visual impairment have greater needs for autonomy. If this is the case, then support from parents may also exert less influence on goal attainment in adolescents with visual impairment as compared to sighted adolescents.

RESEARCH QUESTIONS

The present study analyzed control strivings of adolescents with visual impairment and sighted peers when working on two developmental goals: a) attaining peer-group membership; and b) forming romantic relationships, as adolescents with visual impairment are, on average, less successful in achieving these goals than their sighted peers (Huurre and Aro, 1998, Pfeiffer and Pinquart, 2011). Based on the following reasons we assume in Hypothesis 1 that adolescents with visual impairment use less enhancement/maintenance strategies than their sighted peers. First, as Wahl et al. (2005) found in elderly people, that higher levels of vision loss are associated with lower use of enhancement/maintenance strategies, a similar pattern may be found in adolescents.

Second, studies have shown that adolescents with visual impairment have fewer friends and fewer dating experiences than sighted peers and report more difficulties in making friends (Huurre and Aro, 1998). These findings may indicate that they use less active goal striving than their sighted peers or that they are similarly active but less successful, for example if others are less willing to form intimate relationships and peer-groups with students with visual impairment. However, the former suggestion may be supported by the finding that adolescents with visual impairment report lower levels of internal locus of control (Kammerer et al., 2003), which could inhibit active control striving. Adolescents with visual impairment may expect that peers without disabilities are not interested in forming a romantic relationship with them (Fichten, Goodrick, Amsel and McKenzie, 1991) and that it would be less worthwhile to actively search for such a relationship. Moreover, many leisure activities are difficult for adolescents with severe visual impairments to pursue, such as playing soccer or video games with friends (Kroksmark and Nordell, 2001). Such frustrating experiences might lead to more passive behaviour, with less use of enhancement strategies in order to build peer-groups and/or a romantic relationship.

Our second research question concerns whether adolescents with visual impairment and sighted peers differ in the use of reorientation strategies. Hypothesis 2 postulates that adolescents with visual impairment use more reorientation strategies than sighted adolescents, because they have more difficulties with goal attainment. Reorientation strategies are an appropriate response if it is too difficult to accomplish a goal (Heckhausen and Tomasik, 2002).

In addition to Hypothesis 1 and 2, we analyze predictors of control strivings in adolescents with and without visual impairment. Hypothesis 3.1 supposes that goal importance and perceived own influence on goal attainment will be positively related to the use of maintenance/enhancement processes, and negatively related to reorientation processes. Higher goal importance may lead to more active goal striving in order to attain the desired goal (Dreher and Dreher, 1985). Believing in oneself and in one's own competence to get what one wants also facilitates goal-directed action and increases the probability of goal attainment (Schönpflug and Jansen, 1995). Further, we do not expect age-related differences in the levels of control striving because different adolescents may become active at different times with regard to solving a developmental task (Coleman, 1980). Regarding reorientation strategies, adolescents who do not achieve their goals in late adolescence may increase the use of these strategies to prevent their efforts being frustrated (Heckhausen and Tomasik, 2002).

However, other adolescents who have achieved these goals no longer need reorientation strategies with regard to these goals (e.g. Coleman, 1980). When averaged across all adolescents, these processes may cause a lack of age-related differences in the use of reorientation strategies.

In addition, Hypothesis 3.2 expects that the size of the associations between control strategies and age, gender, goal importance, and locus of control will not vary between adolescents with visual impairments and their sighted peers. This assumption is based on the evidence that the predictors in achieving psychosocial maturity do not differ between young people with and without disabilities (Galambos, Magill-Evans and Darrah, 2008). However, because adolescents with visual impairment may benefit more from peer support and sighted peers more from parental support (Kef, 2002), we assume in Hypothesis 3.3 that peer support would show a stronger positive association with enhancement strategies and a stronger negative association with reorientation strategies in adolescents with visual impairment than in their sighted peers. The reverse is expected for parental support.

METHODS

Participants

Data were used from the *Marburg Study on Vision Loss (MARVIL)*. The study included 12- to 19-year-old adolescents (from grades 6–11) from two German secondary schools for young people with visual impairment and from six secondary schools for sighted students. All participants were from the highest school track that qualifies students for university after completing graduation. Note that after elementary school, German pupils are separated in three different school tracks depending on their performance at school. The study was approved by the Ethics Committee of the German Psychological Society. After receiving approval from the school boards and informed consent from parents and adolescents, the students were asked to answer a questionnaire. In sum, 167 of the available 190 adolescents with visual impairment agreed to participate (87.9%). Three participants were excluded from the present analysis because they were older than 20 years. In accordance with the admission criteria of the schools for visually impaired students, all participants from these schools fit the criterion of visual acuity less than 20/70 in the better eye with best possible correction. These adolescents were diagnosed with glaucoma, nystagmus, retinitis pigmentosa, as well as other forms of visual impairments. Approximately 13 percent of the students with visual impairment also had a second disability, such as hearing impairment

($N = 4$) or physical impairment ($N = 2$). Approximately 75 percent of the adolescents with visual impairment were impaired from birth. About 95 percent of the normally-sighted adolescents agreed to participate ($N = 568$).

Because 13 percent of adolescents with visual impairment came from boarding schools, similar numbers of sighted adolescents were also drawn from this kind of school. The two data sets were used for a matched-pair-design. For every adolescent with visual impairment, a sighted participant was matched on age (± 1 year), gender, habitation (living with parents vs. other form of living), and parental education (father's educational attainment). Six students with visual impairment could not be matched with sighted peers, thus the sample included 158 sighted students and 158 students with visual impairment. Table 1 shows the characteristics of the participants.

Measures

Goal importance and locus of control. We used a modified version of the Development Task Questionnaire by Seiffge-Krenke, Silbereisen and Otremba (1984). The selected goals for the present study were:

- 1) *belonging to a group of peers;* and
- 2) *having a romantic relationship.*

Each participant was asked to assess goal importance and their own perceived influence on goal attainment. The subjects marked their answers on 3-point Likert-type scales. To assess goal importance we asked, 'How important is the goal for you?' (1 = unimportant, 2 = somewhat important, 3 = very important). Regarding perceived own influence on goal attainment, the respondents were asked, 'On the attainment of this goal I have ... 1 = no influence, 2 = some influence, or 3 = strong influence.' The Pearson-correlations between level of importance and perceived attainment of the goal were $r = .35-.47$.

Control striving. To assess enhancement/maintenance and reorientation strategies, we adapted items from the Optimization through Primary and Secondary Control (OPS) scales by Heckhausen, Schulz and Wrosch (1998). We chose nine items for enhancement/maintenance processes and computed sum scores for both developmental tasks. The internal consistencies (Cronbach's α) were .88 and .90. We selected six items for the assessment of reorientation processes ($\alpha = .61$ and .63).

Table 1. Sample Characteristics

	Total sample		Adolescents with visual impairment		Adolescents with normal vision	
	Mean	SD	Mean	SD	Mean	SD
Age	15.95	1.96	16.01	1.92	15.87	1.77
Female gender		42.4		42.4		42.4
Fathers' completion of highest school track		61.7		64.5		58.9
Boarding school		16.8		13.3		20.3
Blindness (visual acuity ≤ 5/300 in the better eye with best correction possible)		19.0		38.0		0
N	316		158		158	

The respondents answered the items on 5-point Likert-type scales from '1 = definitely not true' to '5 = exactly true', separately for the two goals. Sample items were, 'I make a big effort in order to attain this goal' (enhancement/maintenance) and, 'If I do not achieve this goal now, I will postpone it until later' (reorientation).

Social support. We used the subscales *Perceived emotional support* and *Perceived instrumental support* (eight items) from the Berlin Social Support Scales (Schwarzer and Schulz, 2000). All items were asked separately with regard to three sources of support (parents, teacher, and peers). Answers were marked on 4-point Likert-type scales ranging from '1 = totally wrong' to '4 = totally true'. A sample item is, 'Those people really like me'. In the present study, the sum scales across all items for support from parents, peers, and teachers had internal consistencies of $\alpha = .91-.94$.

Socio-demographic variables. Socio-demographic characteristics were assessed with single-item indicators: father's educational attainment (1 = no school completed, 2 = middle school, 3 = high school, 4 = university degree), age, gender, and habitation (living with ones' parents vs. other forms of living).

RESULTS

First, we computed four univariate analyses of variance (ANOVA) with the two forms of control strivings regarding two developmental tasks as the dependent variables, and with vision status (visually impaired = 1, normally sighted = 0) as the independent variable. Regarding enhancement/maintenance processes, we found no significant between-group differences with regard to peer-group membership. However, adolescents with visual impairment used fewer enhancement/maintenance strategies than their sighted peers in forming romantic relationships. Thus, Hypothesis 1 was only supported for one out of two comparisons. In addition, we found no between-group differences in reorientation processes. Therefore, Hypothesis 2 was not confirmed. Results are shown in Table 2.

Second, we analyzed predictors of control striving in building peer-group membership and forming romantic relationships with hierarchical regression analyses conducted separately for both groups. Correlations between the study variables are shown in Table 3. The correlations between the reorientation strategies and between the maintenance/enhancement strategies across both goals were $r = .56$ and $r = .45$, respectively.

Table 2. Test for Between-group Differences in Control Striving (ANOVAs)

	Adolescents with visual impairment Mean (SD)	Sighted Peers Mean (SD)	df	F	η^2
Reorientation process (peer-group)	2.51 (.80)	2.39 (.81)	1,309	1.80	.006
Reorientation process (romantic relationship)	2.39 (.89)	2.47 (.78)	1,309	.68	.002
Enhancement/ Maintenance strategies (peer-group)	2.95 (.95)	2.98 (.98)	1,310	.11	.000
Enhancement/ Maintenance strategies (romantic relationship)	3.01 (1.08)	3.25 (1.03)	1,310	4.29*	.014

Note: *df* = degrees of freedom, *F* = univariate test for between-group differences, η^2 = explained variance, * $p < .05$.

Table 4 shows the results of the regression analyses. For between-group comparisons, we computed 95 percent-confidence intervals of the regression coefficients. Age was not associated with goal striving, but a positive association of age with reorientation strategies regarding forming romantic relations in adolescents with visual impairment was found.

Goal importance was positively associated with maintenance/enhancement strategies in all analyses. However, it did not show the expected negative associations with reorientation strategies, except for forming romantic relationships in adolescents with visual impairment. Internal locus of control was not related to control strategies, except for a negative association with reorientation strategies among adolescents with visual impairment regarding the formation of a romantic relationship. Therefore Hypothesis 3.1 is only partly confirmed.

The confidence intervals of the associations between control striving and age, gender, goal importance, and locus of control of both groups overlapped. This means that the predictors show similar associations in both groups. Therefore, Hypothesis 3.2 is confirmed. Because the confidence intervals of social support and control strivings of both groups also overlapped, Hypothesis 3.3 is not confirmed.

Table 3. Pearson-Correlation Matrix of the Study Variables in the Total Sample

	Maintenance/ enhancement strategies	Reorientation strategies	Age	Goal importance	Locus of control	Support parents	Support teacher	Support peers
Maintenance/ Enhancement strategies								
Reorientation strategies	-.01							
Age	-.11	.27**	.00	.45**	.13*	.23**	.21**	.17**
Goal importance	.56**	.09	-.04	-.07	-.11*	.05	.13*	-.12*
Locus of control	.20**	-.16**	-.07	.03	.22**	-.23**	-.05	-.06
Support from parents	.17**	-.17**	-.08	.21**	.21**	.15**	-.05	.17**
Support from teachers	.08	-.01	-.23**	.12*	.09	-.02	-.05	.16**
Support from peers	.23**	-.19**	-.06	.19**	.04	.19**	.19**	.22**
				.19**	.16**	.22**	.14*	

Notes: Above the diagonal are the scores for peer-group relations, below are the values for forming romantic relationships, * $p < .05$, ** $p < .01$

Table 4. Predictors of Control Strivings

	Peer-group membership						Forming romantic relationships						
	Visually impaired			Sighted			Visually impaired			Sighted			
	B	LL	UL	B	LL	UL	B	LL	UL	B	LL	UL	
Age	-.01	-.08	.06	-.01	-.10	.09	-.04	-.12	.04	-.03	-.11	.05	
Gender	.03	-.24	.29	.12	-.19	.43	-.08	-.39	.22	.17	-.13	.47	
Goal importance	.80***	.61	.99	.44***	.20	.69	.78***	.57	1	.80***	.58	1	
Internal locus of control	.16	-.04	.37	.03	-.25	.31	.10	-.12	.32	.05	-.18	.28	
Parent support	.17	-.04	.38	.29*	.02	.57	.07	-.17	.32	.19	-.08	.46	
Teacher support	.25**	.06	.43	.39***	.17	.62	-.01	-.22	.21	.18	-.03	.39	
Peer support	.12	-.12	.37	.05	-.25	.34	.12	-.17	.41	.21	-.07	.48	
				<i>Reorientation strategies</i>									
Age	.01	-.07	.08	-.05	-.13	.04	.08*	.01	.15	-.01	-.08	.07	
Gender	.11	-.16	.37	.08	-.21	.37	.03	-.24	.30	.05	-.24	.34	
Goal importance	-.04	-.24	.16	-.11	-.34	.12	-.30**	-.49	-.11	.06	-.14	.27	
Internal locus of control	-.15	-.36	.06	.04	-.22	.30	-.24*	-.43	-.04	-.05	-.27	.18	
Parent support	.12	-.10	.34	.05	-.21	.30	.10	-.12	.31	.04	-.22	.30	
Teacher support	.10	-.09	.29	.16	-.05	.37	.05	-.14	.24	.08	-.12	.29	
Peer support	-.27*	-.51	-.02	-.09	-.36	.18	-.40**	-.66	-.15	-.09	-.35	.18	

Notes: B = unstandardized regression coefficient, LL = lower limit, UL = upper limit of the confidence interval of B. * $p < .05$, ** $p < .01$, *** $p < .001$.

DISCUSSION

The present study compared control strivings of students with visual impairment and sighted peers, and found that adolescents with visual impairment are less active with forming romantic relationships. However, adolescents with visual impairment and sighted peers did not differ in the predictors of control strivings.

Overall, fewer than expected between-group differences were found. Two reasons may explain the lack of between-group differences in the use of maintenance/enhancement strategies for building peer-groups, despite being less successful with reaching this developmental goal (Huurre and Aro, 1998; Pfeiffer and Pinquart, 2011). First, adolescents with visual impairment may be as active as their sighted peers but less successful, because it might be more difficult for them to gain access to a peer-group (Huurre and Aro, 1998). Second, adolescents with visual impairment may overestimate their level of enhancement strategies because it is harder for them to be active in group situations (Quintana, Gil and Clemente, 1984). Thus, levels of activity that are lower than those of their sighted peers might be perceived as similar.

The observed lack of between-group differences in the use of reorientation strategies is not consistent with results by Wahl et al. (2005). However, they examined coping with progressive vision loss where higher use of reorientation strategies may be the only available option left. In contrast, finding a peer-group and a romantic partner would, in principle, be possible for adolescents with visual impairment. As the levels of reorientation strategies were highly correlated across both goals, the use of this strategy may be more related to a general disposition (Brandtstädter and Renner, 1990) rather than to goal-specific factors. This could also be the reason why there was no link between goal importance and reorientation strategies.

Associations of goal importance with maintenance/enhancement strategies were in the expected direction and do not require further discussion. The lack of associations between locus of control and control strivings may indicate that adolescents do not care about not having an influence as long as the goal is attractive to them, at least as long as they perceive a minimal level of control. In addition, the age-associated increase of reorientation strategies in adolescents with visual impairment may be based on an increase in cognitive flexibility (Band and Weisz, 1988).

Finally, the present study found identical predictors of control strivings in both groups. In contrast to Kef and Dekovic (2004), we did not find between-group differences in the correlates of social support. Thus, differential effects of support from parents and peers may be limited to subjective well-being which was the outcome variable in the study by Kef and Dekovic (2004).

LIMITATIONS

Some limitations of the present study need to be mentioned. First, the study included only subjects from the highest school track. Thus, participants with visual impairment had average or above-average cognitive resources that may help with compensating the effects of sensory impairment. Students with visual impairment who attend other school tracks often have multiple disabilities (Lewis, 2003), and may, therefore, face more challenges with attaining age-associated social goals. Second, because almost all German students with severe visual impairment attend special schools, we could not test whether students from integrated schools use more or less maintenance/enhancement or reorientation strategies. Probably many friends of adolescents with visual impairment also come from the schools for students with visual impairment, and it may be easier for these students to build peer-groups in this context. Unfortunately, we do not have data on the composition of the peer-groups. Third, Cronbach's alphas of reorientation strategies were low. Nonetheless, similar scales have also been successfully used in previous studies (e.g. Poulin and Heckhausen, 2007). Fourth, the sample size did not allow for identifying small statistical effects.

CONCLUSION AND IMPLICATIONS FOR PRACTICE

Despite these limitations, the present results show that adolescents with visual impairment are less active than their sighted peers in regard to forming romantic relationships. Further research should investigate reasons for these differences. In addition, more research is needed on the comparison of control strivings between adolescents with visual impairment from integrated and segregated school settings because it may be easier to form peer-groups and intimate relationships with other adolescents with visual impairment.

As adolescents with visual impairment were less active with forming romantic relationships, a starting point for intervention could be to increase the use of maintenance/enhancement strategies. Finally, the results suggest that regardless of some between-group differences in

control strivings the same factors may promote or inhibit control striving in adolescents with and without visual impairment. As goal importance was the strongest predictor of enhancement strategies in all analyses, increasing the importance of goals could promote active control striving. A good starting point could be to raise the anticipation of positive consequences of goal attainment. Interventions could also increase social support, teach social competence or how to invest more effort or abilities.

Acknowledgement

The present study was supported by a grant of the German Research Council (grant Pi291/9-1).

References

- BALTES, P. B. & BALTES, M. M. (1990) 'Psychological Perspectives on Successful Aging: The Model of Selective Optimization with Compensation', in P. B. Baltes & M. M. Baltes (eds) *Successful Aging*, pp. 1–34. New York: Cambridge University Press.
- BAND, E. B. & WEISZ, J. R. (1988) 'How to Feel Better when it Feels Bad', *Developmental Psychology* 24: 247–53.
- BOERNER, K. & JOPP, D. (2007) 'Improvement/maintenance and Reorientation as Central Features of Coping with Major Life Change and Loss: Contributions of Three Life-span Theories', *Human Development* 50: 171–95.
- BRANDTSTÄDTER, J. & RENNER, G. (1990) 'Tenacious Goal Pursuit and Flexible Goal Adjustment: Explication and Age-related Analysis of Assimilative and Accommodative Strategies of Coping', *Psychology and Aging* 5: 58–67.
- COLEMAN, J. C. (1980) *The Nature of Adolescence*. London: Methuen.
- DREHER, E. & DREHER, M. (1985) 'Entwicklungsaufgaben im Jugendalter: Bedeutsamkeit und Bewältigungskonzepte' [Developmental Tasks in Adolescence: Significance and Coping Approaches], in D. Liepmann & A. Stiksrud (eds) *Entwicklungsaufgaben und Bewältigungsprobleme in der Adoleszenz*, pp. 56–70. Göttingen: Hogrefe.
- FICHTEN, C. S., GOODRICK, G., AMSEL, R. & MCKENZIE, S. W. (1991) 'Reactions toward Dating Peers with Visual Impairments', *Rehabilitation Psychology* 36: 163–78.
- GALAMBOS, N. L., MAGILL-EVANS, J. & DARRAH, J. (2008) 'Psychosocial Maturity in the Transition to Adulthood for People with and without Motor Disabilities', *Rehabilitation Psychology* 53: 498–504.
- GESTSDOTTIR, S., LEWIN-BIZAN, S., VON EYE, A., LERNER, J. V. & LERNER, R. M. (2009) 'The Structure and Function of Selection, Optimization, and Compensation in Middle Adolescence: Theoretical and Applied Implications', *Journal of Applied Developmental Psychology* 30: 585–600.
- HECKHAUSEN, J. & SCHULZ, R. (1995) 'A Life-span Theory of Control', *Psychological Review* 102: 284–304.

- HECKHAUSEN, J., SCHULZ, R. & WROSCHE, C. (1998) *Developmental Regulation in Adulthood: Optimization in Primary and Secondary Control*. Unpublished manuscript, Max Planck Institute of Human Development and Education, Berlin, Germany.
- HECKHAUSEN, J. & TOMASIK, M. J. (2002) 'Get an Apprenticeship Before School is Out: How German Adolescents Adjust Vocational Aspirations When Getting Close to a Developmental Deadline', *Journal of Vocational Behavior* 60: 199–219.
- HUURRE, M. & ARO, H. M. (1998) 'Psychosocial Development among Adolescents with Visual Impairment', *European Child and Adolescent Psychiatry* 7: 73–8.
- KAMMERER, E., KÖSTER, S., MONNINGER, M. & SCHEFFLER, U. (2003) 'Jugendpsychiatrische Aspekte von Sehbehinderung und Blindheit' [Psychiatric Aspects of Adolescent Visual Impairment and Blindness], *Praxis für Kinderpsychologie und Kinderpsychiatrie* 52: 316–28.
- KEF, S. (2002) 'Psychosocial Adjustment and the Meaning of Social Support for Visually Impaired Adolescents', *Journal of Visual Impairment and Blindness* 96: 22–37.
- KEF, S. & DEKOVIC, M. (2004) 'The Role of Parental and Peer Support in Adolescents Well-being: A Comparison of Adolescents with and without a Visual Impairment', *Journal of Adolescence* 27: 453–66.
- KROKSMARK, U. & NORDELL, K. (2001) 'Adolescence: The Age of Opportunities and Obstacles for Students with Low Vision in Sweden', *Journal of Visual Impairment and Blindness* 95: 213–25.
- LEWIS, V. (2003) *Development and Disability*. Malden: Blackwell.
- NURMI, J. E. & SALMELA-ARO, K. (2002) 'Goal Construction, Reconstruction and Depressive Symptoms in a Life-span Context: The Transition from School to Work', *Journal of Personality* 70: 385–420.
- PFEIFFER, J. P. & PINQUART, M. (2011) 'Attainment of Developmental Tasks by Adolescents with and without Visual Impairment', *Journal of Visual Impairment and Blindness* 105: 33–44.
- PINQUART, M., SILBEREISEN, R. K. & WIESNER, M. (2004) 'Changes in Discrepancies between Desired and Present States of Developmental Tasks in Adolescence: A 4-process Model', *Journal of Youth and Adolescence* 33: 467–77.
- POULIN, M. J. & HECKHAUSEN, J. (2007) 'Stressful Events Compromise Control Strivings during a Major Life Transition', *Motivation and Emotion* 31: 300–11.
- QUINTANA, C., GIL, F. & CLEMENTE, M. (1984) 'Social Competence and Blindness: A Comparative Study', *Informes de Psicología* 3: 121–32.
- SCHÖNPFUG, U. & JANSEN, X. (1995) 'Self-concept and Coping with Developmental Demands in German and Polish Adolescents', *International Journal of Behavioral Development* 18: 385–405.
- SCHWARZER, R. & SCHULZ, U. (2000) *Berlin Social Support Scales (BSSS)*. Available at: <http://www.coping.de>.
- SEIFFGE-KRENKE, I. (1998) 'Chronic Disease and Perceived Developmental Progression in Adolescence', *Developmental Psychology* 34: 1073–84.
- SEIFFGE-KRENKE, I., SILBEREISEN, R. K. & OTREMBIA, H. (1984) 'Die Bewältigung altersspezifischer Entwicklungsaufgaben bei Jugendlichen' [Coping with Developmental

Tasks]. Unpublished report of the Technical University-Drop Research Group, Berlin, Germany.

SHEPHERD, S. L., HOVELL, M. F., HARWOOD, I. R., GRANGER, L. E., HOFSTETTER, C. R., MOLGAARD, C. & KAPLAN, R. M. (1990) 'A Comparative Study of the Psychological Assets of Adults with Cystic Fibrosis and Their Healthy Peers', *Chest* 97: 1310–16.

WAHL, H. W., BECKER, S., SCHILLING, O., BURMEDI, D. & HIMMELSBACH, I. (2005) 'Primäre und sekundäre Kontrolle versus hartnäckige Zielverfolgung und flexible Zielanpassung: Das Beispiel Sehbeeinträchtigung im Alter' [Primary and Secondary Control Versus Tenacious Goal Pursuit and Flexible Goal Adjustment: The Case of Visual Impairment in Old Age], *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie* 37: 57–68.

JENS P. PFEIFFER

Assistant professor, Department of Psychology, Philipps University, Marburg
D-35032, Germany.

E-mail: jens.pfeiffer@staff.uni-marburg.de