

Developmental Regulation in Adulthood:
Optimization in Primary and Secondary Control – A
Multiscale questionnaire (OPS-Scales)

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and

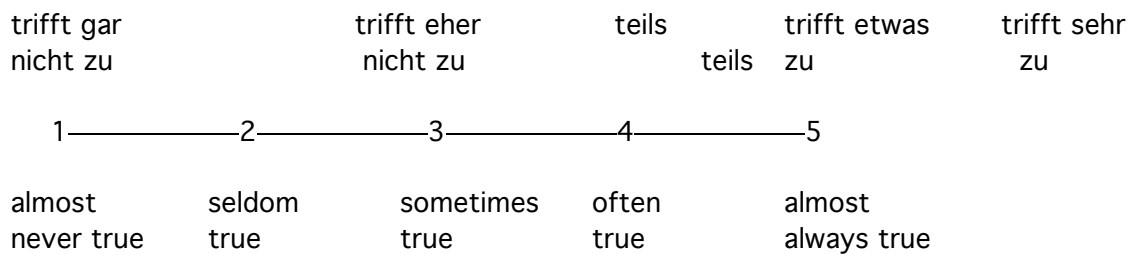
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Technical Report, Max Planck Institute for Human Development, Berlin, Germany, 1998.

OPS-Scales



I. Optimization (OPT)

1. change of goals to fit developmental tasks (selection choice, OPTST)
2. invest in long-term potential goals (selection-choice, OPTSL)
3. invest in general purpose abilities (positive trade off, OPTTP)
4. avoid long-range costs in too costly goals (negative trade off, OPTTN)
5. maintain multiple goal domains (diversity, OPTDM)
6. avoid narrow dead-end paths (diversity, OPTDD)

ad I,1. Optimization, selection-choice, developmental tasks

2. Ich versuche, mich neuen Lebensaufgaben immer dann zu stellen, wenn es der richtige Zeitpunkt ist. (OPTST2)

I pursue new goals when the time is right for me.

3. Für mich werden viele Ziele deshalb wichtig, weil die Zeit dafür gekommen ist.(OPTST3)

Many life goals become important to me because it is the right time for them.

ad I,2. Optimization, selection-choice, long-term potential

7. Für mich ist wichtig, daß eine neue Aufgabe auf lange Sicht ausbaufähig ist.
(OPTSL3)

It is important for me that a new goal can be pursued over the long term.

8. Ich suche mir gerne Ziele aus, die mir auf lange Sicht gesehen mehr geben
als kurzfristig. (OPTSL4)

I choose goals that have more long-term as opposed to short-term benefits.

ad I,3. Optimization, positive trade-off

10. Ich setze lieber meine Zeit für Fähigkeiten ein, die ich auf verschiedenen Gebieten nutzen kann. (OPTTP2)

I invest my time in developing broad skills that can be used in many areas.

12. Kenntnisse, die ich auf verschiedene Gebiete übertragen kann, bringen mich weiter als Kenntnisse, die nur für ein Gebiet gelten. (OPTTP4)

Knowledge and skills that I can use in different areas are more useful than those I can use in only specific area.

ad I,4. Optimization, negative trade-off

13. Ich vermeide es, mich mit Problemen herumzuschlagen, die mir die Kraft für anderes rauben. (OPTTN1)

I don't waste my time struggling with problems if it uses up energy I need for more important things.

14. Wenn eine Sache mir zu viel Zeit für andere wichtige Dinge nimmt, überlege ich, ob es sich noch lohnt, darin zu investieren. (OPTTN2)

If something takes up time I need for other important activities, I ask myself whether I should keep doing it.

ad I,5. Optimization, maintain diversity

17. Ich versuche stets, mich auf mehreren Gebieten zu engagieren. (OPTDM1)

I stay active and involved in several different areas of life.

18. Für mich ist wichtig, nicht nur in einem, sondern in verschiedenen Bereichen des Lebens aktiv zu sein. (OPTDM2)

It is important for me to be active not just one area of life, but in several different ones.

ad I,6. Optimization, avoid narrow dead-ends

23. Ich brauche immer das Gefühl, etwas anderes tun zu können, wenn das, was ich mir vorgenommen habe, schief geht. (OPTDD3)

I always need to have something to fall back on, in case what I am working on falls through.

24. Ich vermeide es, mich in meinen Interessen zu sehr einzuengen, damit ich im Notfall auch auf etwas anderes umsteigen kann. (OPTDD4)

I avoid becoming too narrow in my interests, so that I can switch to something else if I need to.

II. Selective Primary Control (SPR)

1. Invest effort (SPRE)

2. Invest time (SPRT)

3. Develop (learn, practice) relevant skills and abilities (SPRS)

4. Fight difficulties (SPRD)

ad II,1. Selective Primary Control, invest effort

1. Wenn ich mich für ein Ziel entschieden habe, setze ich alles daran, es zu erreichen. (SPRE1)

Once I have decided for a goal I do whatever I can to achieve it.

3. Wenn ich etwas erreichen will, kann ich mich dafür sehr anstrengen. (SPRE3)

When I really want something, I am able to work hard to achieve it.

ad II,2. Selective Primary Control, invest time

5. Für Dinge, die mir wichtig sind, setze ich soviel Zeit wie möglich ein.
(SPRT1)

When something really matters to me, I invest as much time as as I can in it.

8. Wenn ich mir einmal etwas vorgenommen habe, packe ich das zuerst vor allem anderen an. (SPRT4)

When I have set my mind on something, I put it before everything else.

ad II,3. Selective Primary Control, develop (learn, practice) relevant skills and abilities

9. Wenn ich mir einmal eine Aufgabe gestellt habe, versuche ich, die dafür wichtigen Fertigkeiten gut zu erlernen. (SPRS1)

When I have set a task for myself, I try to learn the skills necessary to do it well.

11. Wenn es für ein Ziel erforderlich ist, bin ich bereit, die wichtigen Fertigkeiten intensiv zu üben. (SPRS3)

When I have a goal, I am willing to work hard at sharpening the skills in order to achieve it.

ad II,4. Selective Primary Control, fight difficulties

15. Wenn ein Ziel schwieriger zu erreichen ist als erwartet, verstärke ich meine Anstrengungen. (SPRD3)

When a goal is more difficult than expected I try harder to achieve it.

16. Wenn sich mir Hindernisse in den Weg stellen, spornt mich das zu mehr Anstrengung an. (SPRD4)

When obstacles get in my way I put in more effort.

III. Compensatory Primary Control (CPR)

1. Other people's help (CPRH)
 2. Other people's advice (CPRA)
 3. Activity-external skills, new and unusual means (CPRN)
 4. Activity-external skills, take a detour (CPRD)
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-

III,1. Compensatory Primary Control, other people's help

1. Wenn ich eine Aufgabe allein nicht bewältigen kann, bitte ich andere, mir zu helfen. (CPRH1)

When I can not solve a problem by myself I ask others for help.

2. Wenn sich mir Schwierigkeiten in den Weg stellen, versuche ich, von anderen Unterstützung zu bekommen. (CPRH2)

When obstacles get in my way, I try to get help from others.

III,2. Compensatory Primary Control, other people's advice

7. Ich scheue mich nicht, andere um Rat zu fragen, wenn ich bei einer Aufgabe nicht weiterkomme. (CPRA3)

When I get stuck on a task, I don't hesitate asking others for advice.

8. Wenn die Schwierigkeiten zu groß werden, frage ich andere um Rat. (CPRA4)

When difficulties become too great, I ask others for advice.

III,3. Compensatory Primary Control, new and unusual means

10. Wenn ich in einer Sache nicht weiterkomme, suche ich nach neuen Wegen, um doch noch mein Ziel zu erreichen. (CPRN2)

When I can no longer make progress on something, I look for new ways to reach my goal.

11. Wenn sich mir Schwierigkeiten in den Weg legen, überlege ich, ob es vielleicht andere Wege gibt, an mein Ziel zu gelangen, auch wenn sie ungewöhnlich sind. (CPRN3)

When obstacles get in my way, I try to think of other ways of reaching my goal, even if they are unusual.

III,4. Compensatory Primary Control, take a detour

14. Wenn ich auf einfache Weise meinem Ziel nicht näherkomme, wähle ich manchmal einen Umweg, um es dennoch zu schaffen. (CPRD2)

When I cannot get to a goal directly, I sometimes choose a roundabout way to achieve it.

15. Wenn mir Hindernisse den Weg versperren, gehe ich eben einen Umweg und erreiche so doch, was ich will. (CPRD3)

When obstacles get in my way, I find another way to get what I want.

IV. Selective Secondary Control (SSC)

1. Enhancement of goal value (SSCE)
 2. Devaluation of other goals (SSCD)
 3. Enhanced perception of control for chosen goal (SSCC)
 4. Anticipated positive consequences of goal attainment (SSCP)
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IV,1. Selective Secondary Control, enhancement of goal value

1. Wenn ich mich für ein Ziel entschieden habe, halte ich mir die Vorteile dieses Zieles stets vor Augen. (SSCE1)

When I have decided on a goal, I always keep in mind its benefits.

2. Wenn ich mich einmal für eine Sache entschieden habe, mache ich mir immer klar, daß dies die richtige Entscheidung war. (SSCE2)

When I have decided on something I always remind myself that it was the right decision.

IV,2. Selective Secondary Control, devaluation of other goals

7. Wenn ich mir einmal etwas vorgenommen habe, schlage ich mir alles, was mich ablenken könnte, aus dem Kopf. (SSCD3)

When I have decided on something, I avoid anything that could distract me.

8. Wenn ich mich einmal für etwas entschieden habe, lasse ich mich durch andere Möglichkeiten nicht so leicht ablenken. (SSCD4)

Once I decide on something, I am not easily distracted by other things.

IV,3. Selective Secondary Control, enhanced perception of control for chosen goals

10. Wenn ich mir einmal etwas vorgenommen habe, glaube ich auch fest daran, daß ich es schaffen werde. (SSCC2)

When I have decided on something, I know that I will achieve it.

12. Wenn ich mir ein Ziel gesetzt habe, halte ich mir vor Augen, daß ich auch die Fähigkeit habe, es zu erreichen. (SSCC4)

When I have set a goal for myself, I keep in mind that I also have the abilities to achieve it.

IV.4. Selective Secondary Control, anticipated positive consequences of goal attainment for self esteem

14. Bei Zielen, die schwer zu erreichen sind, halte ich mir vor Augen, daß ich stolz auf mich sein werde, wenn ich sie erreicht habe. (SSCP2)

For goals that are difficult to achieve, I keep in mind how proud I will feel, when I have reached them.

15. Wenn ich mir eine schwierige Aufgabe gestellt habe, stelle ich mir vor, wie stolz ich sein werde, wenn ich sie gelöst habe. (SSCP3)

When I have chosen a difficult task for myself, I imagine how proud I will be when I have solved it.

V. Compensatory Secondary Control (CSC)

1. goal disengagement (including sour grapes) (CSCD)
 2. self-protective attribution (CSCA)
 3. social comparison (CSCC)
 4. intra-individual comparison (temporal and inter-domains) (CSCI)
-
-

V.1. Compensatory Secondary Control, goal disengagement

1. Wenn die Schwierigkeiten unüberwindlich werden, kann ich mir eine Sache auch aus dem Kopf schlagen. (CSCD1)

When something becomes too difficult, I can put it out of my thoughts.

2. Wenn sich herausstellt, daß ich ein Ziel auf keinen Fall erreichen kann, lasse ich davon ab. (CSCD2)

When it turns out that I can not attain a goal in any way I let go of it.

V.2. Compensatory Secondary Control, self-protective attribution

9. Wenn ich ein Ziel nicht erreiche, sage ich mir oft, daß es nicht an mir gelegen hat. (CSCA1)

When I do not reach a goal, I often tell myself that it wasn't my fault.

11. Wenn mir etwas nicht geglückt ist, sage ich mir, daß ich eben einfach Pech hatte. (CSCA3)

When things don't work out for me, I tell myself that it was just bad luck.

V.3. Compensatory Secondary Control, social comparison

15. Wenn ich in eine schwierige Lage geraten bin, halte ich mir vor Augen, daß es mir in mancher Hinsicht besser geht als anderen. (CSCC3)

When I get into a difficult situation, I remind myself that in many ways I am better off than other people.

16. Wenn mir ein Unglück passiert ist, denke ich an all die anderen, die noch viel schlechter dran sind als ich. (CSCC4)

When something bad happens to me, I think of all the others who are much worse off than I am.

V.4. Compensatory Secondary Control, intra-individual comparison (temporal and inter-domains)

17. Wenn ich an mir selber zweifele, halte ich mir vor Augen, daß ich in meinem Leben schon viel erreicht habe. (CSCI1)

When I doubt myself, I keep in mind that I have already accomplished a lot in my life.

20. Wenn mir eine wichtige Sache nicht gelungen ist, tröste ich mich damit, daß ich auf anderen Gebieten mehr Erfolg gehabt habe. (CSCI4)

When I have not accomplished something important, I console myself by thinking about other areas where I had more success.

OPS-Scales

(1) When I have decided on something, I avoid anything that could distract me.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(2) When I have chosen a difficult task for myself, I imagine how proud I will be when I have solved it.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(3) Knowledge and skills that I can use in different areas are more useful than those I can use in only specific area.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(4) When I get stuck on a task, I don't hesitate asking others for advice.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(5) When I get into a difficult situation, I remind myself that in many ways I am better off than other people.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(6) If something takes up time I need for other important things in my life, I wonder whether I should invest in it.

never	seldom	sometimes	often	almost always
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true true true true true
1—————2—————3—————4—————5

(7) When I cannot get to a goal directly, I sometimes choose a roundabout way to achieve it.

never seldom sometimes often almost always
true true true true true
1—————2—————3—————4—————5

(8) When I have a goal, I am willing to work hard at sharpening the skills in order to achieve it.

never seldom sometimes often almost always
true true true true true
1—————2—————3—————4—————5

(9) When I have not accomplished something important, I console myself by thinking about other areas where I had more success.

never seldom sometimes often almost always
true true true true true
1—————2—————3—————4—————5

(10) When I have decided on something, I know that I will achieve it.

never seldom sometimes often almost always
true true true true true
1—————2—————3—————4—————5

(11) Many life goals become important to me because it is the right time for them.

never seldom sometimes often almost always
true true true true true
1—————2—————3—————4—————5

(12) When I really want something, I am able to work hard to achieve it.

never seldom sometimes often almost always
true true true true true

1—————2—————3—————4—————5

(13) When I doubt myself, I keep in mind that I have already accomplished a lot in my life.

never seldom sometimes often almost always
true true true true true

1—————2—————3—————4—————5

(14) I avoid becoming too narrow in my interests, so that I can switch to something else if I need to.

never seldom sometimes often almost always
true true true true true

1—————2—————3—————4—————5

(15) When obstacles get in my way I put in more effort.

never seldom sometimes often almost always
true true true true true

1—————2—————3—————4—————5

(16) When I have decided on something I always remind myself that it was the right decision.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(17) When I have set my mind on something, I put it before everything else.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(18) When I can no longer make progress on something, I look for new ways to reach my goal.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(19) It is important for me to be active in not just one area of life, but in several different ones.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(20) When it turns out that I can not attain a goal in any way I let go of it.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(21) When I can not solve a problem by myself I ask others for help.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(22) For goals that are difficult to achieve, I keep in mind how proud I will feel, when I have reached them.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(23) It is important for me that a new goal can be pursued over the long term.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(24) When obstacles get in my way, I find another way to get what I want.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(25) When something really matters to me, I invest as much time as I can in it.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(26) When I do not reach a goal, I often tell myself that it wasn't my fault.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(27) I always need to have something to fall back on, in case what I am working on falls through.

never true seldom true sometimes true often true almost always true
1—————2—————3—————4—————5

(28) Once I decide on something, I am not easily distracted by other things.

never true seldom true sometimes true often true almost always true
1—————2—————3—————4—————5

(29) When I have set a task for myself, I try to learn the skills necessary to do it well.

never true seldom true sometimes true often true almost always true
1—————2—————3—————4—————5

(30) When something bad happens to me, I think of all the others who are much worse off than I am.

never true seldom true sometimes true often true almost always true
1—————2—————3—————4—————5

(31) When difficulties become too great, I ask others for advice.

never true seldom true sometimes true often true almost always true
1—————2—————3—————4—————5

(32) When I have set a goal for myself, I keep in mind that I also have the abilities to achieve it.

never true seldom true sometimes true often true almost always true
1—————2—————3—————4—————5

(33) I don't waste my time struggling with problems if it uses up energy I need for more important things.

never true seldom true sometimes true often true almost always true

1—————2—————3—————4—————5

(34) Once I have decided on a goal, I do whatever I can to achieve it.

never true seldom true sometimes true often true almost always true

1—————2—————3—————4—————5

(35) When obstacles get in my way, I try to think of other ways of reaching my goal, even if they are unusual.

never true seldom true sometimes true often true almost always true

1—————2—————3—————4—————5

(36) When something becomes too difficult, I can put it out of my thoughts.

never true seldom true sometimes true often true almost always true

1—————2—————3—————4—————5

(37) When a goal is more difficult than expected, I try harder to achieve it.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(38) I pursue new goals when the time is right for me.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(39) I stay active and involved in several different areas of life.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(40) When obstacles get in my way, I try to get help from others.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(41) I invest my time in developing broad skills that can be used in many areas.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(42) When I have decided on a goal, I always keep in mind its benefits.

never true	seldom true	sometimes true	often true	almost always true
1	2	3	4	5

(43) I choose goals that have more long-term as opposed to short-term benefits.

never	seldom	sometimes	often	almost always
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true true true true true
1—————2—————3—————4—————5

(44) When things don't work out for me, I tell myself that it was just bad luck.

never seldom sometimes often almost always
true true true true true
1—————2—————3—————4—————5

Item Composition of OPS-Scales

Note that each scale is composed of different items addressing different aspects of the respective control strategy. For the control scales there are four aspects with two items addressing each scale, thus yielding a total of eight items. For optimization there are six aspects, yielding a total of twelve items. The grouping of items with the aspects is given in the conceptual version of the OPS-Scales.

Optimization: 3, 6, 11, 14, 19, 23, 27, 33, 38, 39, 41, 43

Selective Primary Control: 8, 12, 15, 17, 25, 29, 34, 37

Selective Secondary Control: 1, 2, 10, 16, 22, 28, 32, 42

Compensatory Primary Control: 4, 7, 18, 21, 24, 31, 35, 40

Compensatory Secondary Control: 5, 9, 13, 20, 26, 30, 36, 44

OPS-Scales for the Domain of Health/Illness

Richard Schulz & Jutta Heckhausen (1998). Health-specific optimization in primary and secondary control scales. University of Pittsburgh.

To what extent do each of the following statements apply to you? For each statement, please indicate whether the statement is **[GIVE RESPONDENT OPS RESPONSE CARD]**:

- 1 Almost Never True
- 2 Seldom True
- 3 Sometimes true
- 4 Often True

- 5 Almost Always true
- 9 Don't know/refused

	Almost never true=1	Seldom true=2	Sometimes True=3	Often True=4	Almost always true=5	DK/ Ref =9
1. I invest as much time and energy as possible to improve my health. (SPC)	1	2	3	4	5	9
2. I often think about how important good health is to me. (SSC)	1	2	3	4	5	9
3. I think about the fact that other people are worse off than I am when it comes to their health. (CSC)	1	2	3	4	5	9
4. I pursue new goals in my life when the time is right for me. (OG)	1	2	3	4	5	9
5. At my stage in life, I put as much effort as possible to maintain my health. (OH)	1	2	3	4	5	9
6. If I develop a new health problem, I immediately get help from a health professional (e.g., doctor, nurse). (CPC)	1	2	3	4	5	9
7. Once I decide what I need to do to improve my health, I avoid things that could distract me from doing these things. (SSC)	1	2	3	4	5	9
8. I choose goals that have more long-term	1	2	3	4	5	9

as opposed to short-term benefits. (OG)

9. When I am faced with health problems 1 2 3 4 5 9

I cannot do anything about, I focus on other important things in my life. (CSC)

10. I try hard to limit the extent to which 1 2 3 4 5 9

health problems affect other areas of my life. (OH)

11. If I had a serious health problem that 1 2 3 4 5 9

required difficult and long-term treatment, I would not hesitate to do the treatment. (CPC)

12. I avoid becoming too narrow in my 1 2 3 4 5 9

interests, so that I can switch to something else if I need to. (OG)

Almost never true=1 Seldom true=2 Sometimes True=3 Often True=4 Almost always true=5 DK/Ref =9

13. When I have a health problem, I 1 2 3 4 5 9

remind myself that I am not to blame for it. (CSC)

14. I do whatever is necessary to be as 1 2 3 4 5 9

healthy as I possibly can be. (SSC)

15. I invest my time in developing broad 1 2 3 4 5 9

skills that can be used in many areas. (OG)

16. When a treatment doesn't work for a 1 2 3 4 5 9

health problem I have, I try hard to find out about other treatments. (CPC)

17. I stay active and involved in several 1 2 3 4 5 9

different areas of life. (OG)

18. When I decide to do something about 1 2 3 4 5 9

a health problem, I am confident that I will achieve it. (SSC)

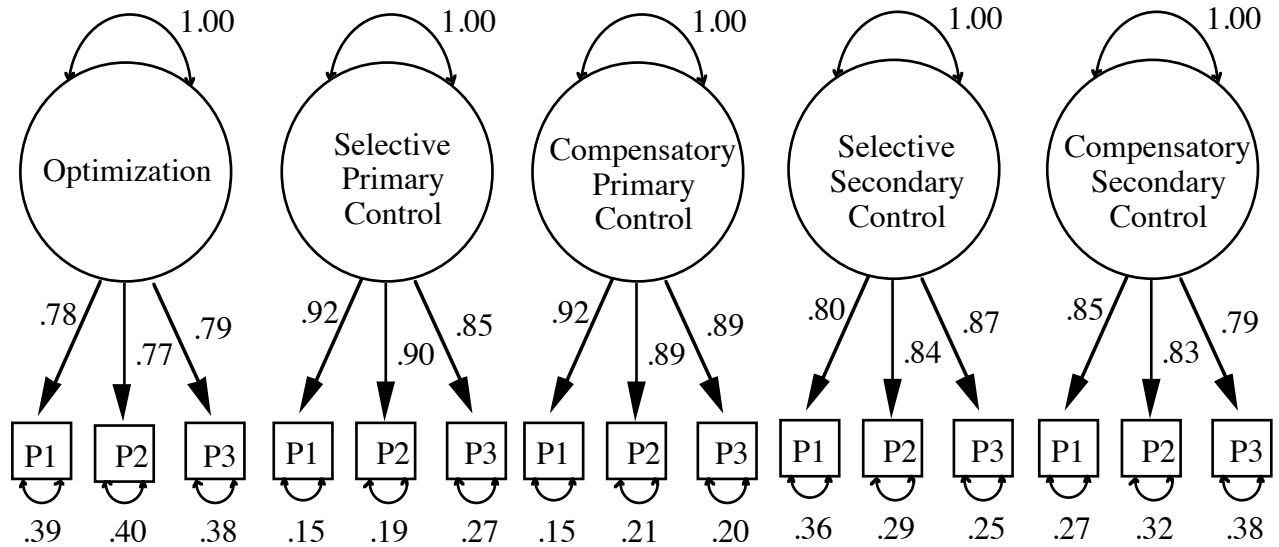
19. I try to learn as much as possible about the health conditions I might have. (SPC)	1	2	3	4	5	9
20. I only dwell on health problems I can do something about. (CSC)	1	2	3	4	5	9
21. When I first notice a health problem, I try to get as much advice as I can from people who might know something about the problem. (CPC)	1	2	3	4	5	9
22. When a treatment for a health problem is difficult or challenging, I focus on how it will help me. (SSC)	1	2	3	4	5	9
23. If I have a health problem that gets worse, I put in even more effort to get better. (SPC)	1	2	3	4	5	9
24. I don't waste my time struggling with problems if it uses up energy I need for more important things. (OG)	1	2	3	4	5	9
25. When a health problem interferes with life, I focus on things I can do. (OH)	1	2	3	4	5	9

OPS-Scales

Structural and Correlational Characteristics

Structural Analyses of the OPS-Scale

(1) Measurement Model and Invariance Tests Across Age, Gender, and Education (N=262)



OPS-Model: Summary of Fit-Statistics for Structural Modeling Analyses.

Model Description	χ^2	df	NNFI	IFI	RMSEA	Diff χ^2 /df	(p)
Measurement Model	147.4	95	.979	.981	.046		
Multiple Age Groups	488.0	285	.925	.933	.052		
Factor Loadings Invariant	505.6	305	.930	.933	.050	17.7/20	(.608)
Factor Variances Invariant	492.4	295	.929	.934	.051	4.4/10	(.928)
Factor Correlations Invariant	506.7	305	.930	.933	.051	18.7/20	(.541)
Multiple Gender Groups	275.4	190	.966	.969	.042		
Factor Loadings Invariant	284.3	200	.968	.970	.040	8.9/10	(.541)
Factor Variances Invariant	279.9	195	.970	.970	.041	4.5/5	(.479)
Factor Correlations Invariant	293.2	200	.965	.966	.042	17.9/10	(.057)
Multiple Education Groups	265.4	190	.970	.973	.039		
Factor Loadings Invariant	281.7	200	.969	.971	.040	16.3/10	(.090)
Factor Variances Invariant	269.8	195	.971	.973	.038	4.4/5	(.489)
Factor Correlations Invariant	275.9	200	.971	.973	.038	10.6/10	(.392)

(2) Disattenuated Correlations

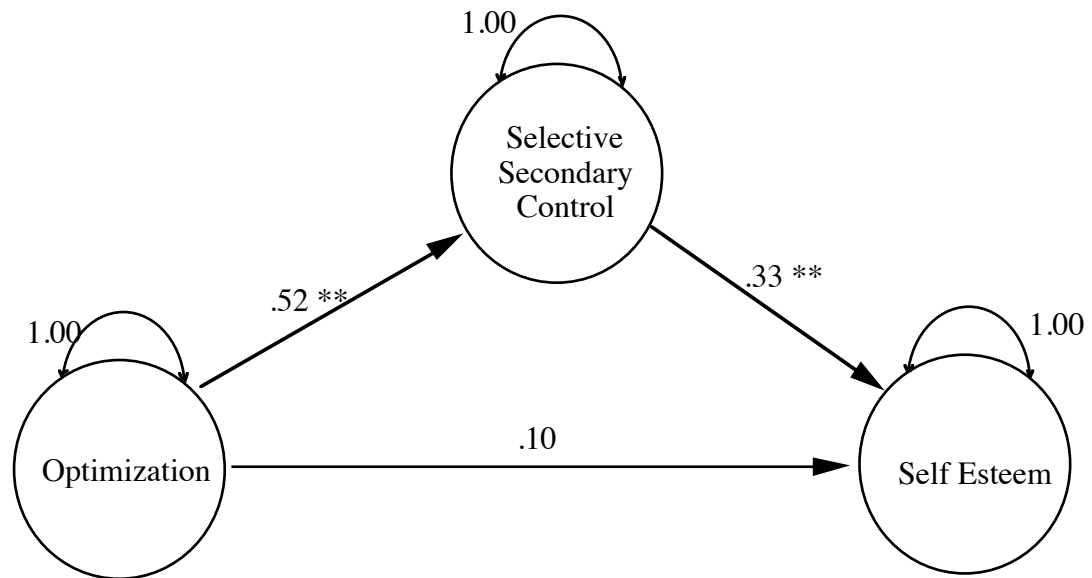
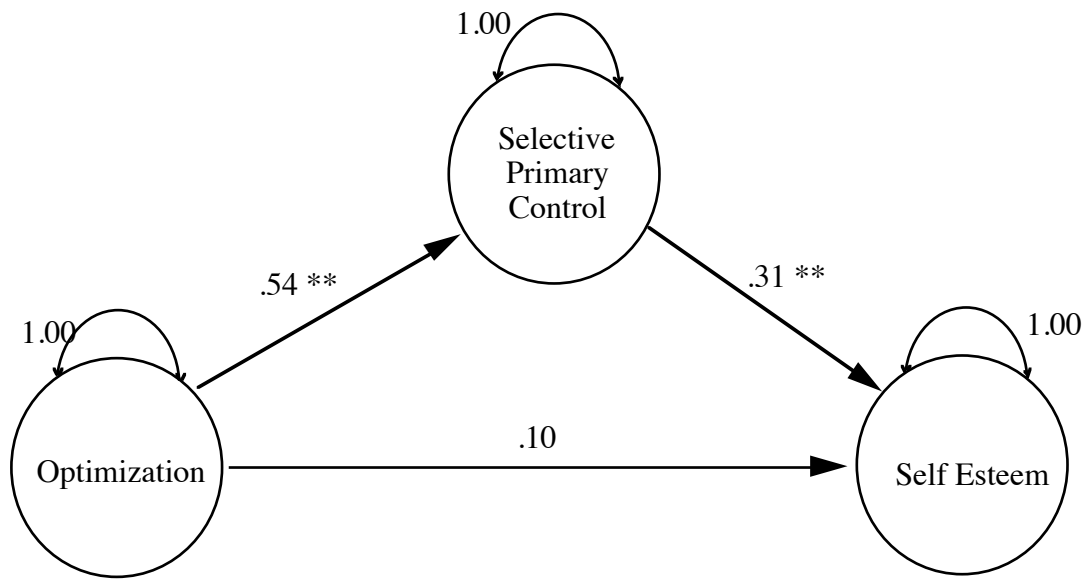
Disattenuated Intercorrelations of OPS

	Optimization	Selective Primary	Comp. Primary	Selective Secondary	Comp. Secondary
Optimization	1.0				
Selective Primary	.54**	1.0			
Compensatory Primary	.43**	.31**	1.0		
Selective Secondary	.52**	.72**	.17*	1.0	
Compensatory Secondary	.65**	.23**	.23**	.52**	1.0

Disattenuated Correlations between OPS and Indicators of Psychological Adjustment

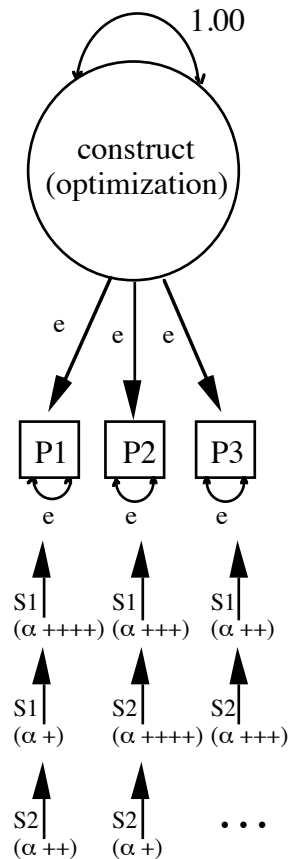
	Ryff-Scales							
	Self Esteem	Auto-nomy	Envir. Mastery	Pers. Growth	Positive Relatios	Purpose in Life	Self Accept.	Satisfact-ion Now
Optimization	.30**	.23**	.32**	.34**	.26**	-.01	.33**	.32**
Selective Primary	.37**	.38**	.40**	.30**	.35**	.32**	.27**	.15
Compensatory Primary	.21**	-.12	.16*	.38**	.38**	.21*	.22**	.21**
Selective Secondary	.39**	.45**	.41**	.14	.26**	.07	.33**	.22**
Compensatory Secondary	.28**	.16	.40**	.12	.20**	-.28**	.39**	.37**

(3) Empirical Evidence for Mediation



(4) Parceling Technic

Three parcels were constructed for each of the five constructs. Within one construct each parcel should contain a similar number of items with regard to different substrategies. The theoretical rationale for this method is that every parcel should be a good representation of the higher order construct. In addition, items were ordered across the three parcels concerning statistical indicators of representing a higher order construct. Therefore, "chronbachs α if item deleted" was used. Thus, this parceling technic leads to three stable indicators representing each of the five constructs.



P: Parcel
 S1: Substrategy 1
 S2: Substrategy 2
 α +++++: best α within a substrategy
 α +: worst α within a substrategy
 e: estimated values

(5) Content of Parcels

Optimization_P1:

OPTST2,OPTST3,OPTSL1,OPTTP3,OPTTN1,OPTTN4,OPTDM4,OPTDD3

Optimization_P2:

OPTST1,OPTSL3,OPTSL2,OPTTP2,OPTTN2,OPTDM2,OPTDM3,OPTDD2)

Optimization_P3:

OPTST4,OPTSL4,OPTTP1,OPTTP4,OPTTN3,OPTDM1,OPTDD4,OPTDD1)

Selective Primary Control_P1:

SPRE1,SPRE4,SPRT3,SPRS3,SPRD3,SPRD2

Selective Primary Control_P2:

SPRE2,SPRT2,SPRT1,SPRS4,SPRD4

Selective Primary Control_P2:

SPRE3,SPRT4,SPRS1,SPRS2,SPRD1

Compensatory Primary Control_P1:

CPRH4,CPRH2,CPRA3,CPRN3,CPRD1,CPRD3

Compensatory Primary Control_P2:

CPRH1,CPRA2,CPRA1,CPRN4,CPRD2

Compensatory Primary Control_P3:

CPRH3,CPRA4,CPRN2,CPRN1,CPRD4

Selective Secondary Control_P1:

SSCE2,SSCE4,SSCD4,SSCC4,SSCP1,SSCP4

Selective Secondary Control_P2:

SSCE1,SSCD3,SSCD2,SSCC1,SSCP2

Selective Secondary Control_P3:

SSCE3,SSCD1,SSCC2,SSCC3,SSCP3

Compensatory Secondary Control_P1:

CSCD3,CSCD2,CSCE1,CSCA1,CSCC4,CSCC2,CSCI1

Compensatory Secondary Control_P2:

CSCD1,CSCE3,CSCE2,CSCA2,CSCC1,CSCI4,CSCI2

Compensatory Secondary Control_P3:

CSCD4,CSCE4,CSCA3,CSCA4,CSCC3,CSCI3