

DATA DOCUMENTATION

Version 2 – 08/2017: Data of the 1st Wave Face-to-Face Interview

TwinLife - Genetic and Social Causes of Life Chances

A genetically informative, longitudinal study of the life course and individual development

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CONTENT

- (1) Background information about TwinLife (p.3)
- (2) Study design (p.8)
- (3) Sample description (p.13)
- (4) Construct overview (p.18)
- (5) Data access (p.61)
- (6) Data structure and documentation (DDI on rails) (p.67)



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BACKGROUND

- **TwinLife** is a multi-disciplinary twin study, that enables to investigate the development of **differences** in **life** chances across individuals and groups as well as within and between families
- Social inequalities = indicators that characterize the standing of individuals with respect to their
 capacity to consume or produce goods that are either generally valued in our
 society or by the individuals themselves
- Different dimensions of social inequality:
 - e.g., education, social status, health, well-being, political and social participation
- Differences in social inequality are associated with differences across groups and psychological characteristics



BACKGROUND

- Genetic variation as a major source of social inequalities
- Evidence varies between different life domains
- Gene expression depends on social factors
- Environmental effects interact and covary with genetic factors and thus exert significant influence in every social inequality domain
- → Genetically informed social inequality research



WHY A TWIN STUDY?

- Twins as a 'natural experiment'
- Both identical (monozygotic, MZ) and fraternal (dizygotic, DZ) twins share a major part of their environmental conditions
- Additionally, MZ twins have the same genotype
- Twin studies as method of choice to examine the influence of genes and environments as well as their interactions on the level and development of certain characteristics



Bringing together Sociology, Psychology & Behavioral Genetics

- **TwinLife** takes a genetically informed life course perspective on social inequalities that acknowledges the importance of both genetic and social determinants, social structure, and individual agency:
 - Genetic influences, psychological and social mechanisms, (social) contexts and their interaction and covariation
 - Developmental trajectories in childhood, adolescence, and young adulthood in a prospective longitudinal design
 - Broad variation of behavior and environmental factors (e.g. SES) in a large sample to examine the interplay between genes and environment
 - Combination of a multi-cohort cross-sequential and an extended twin family design

For more information visit: http://www.twin-life.de/en



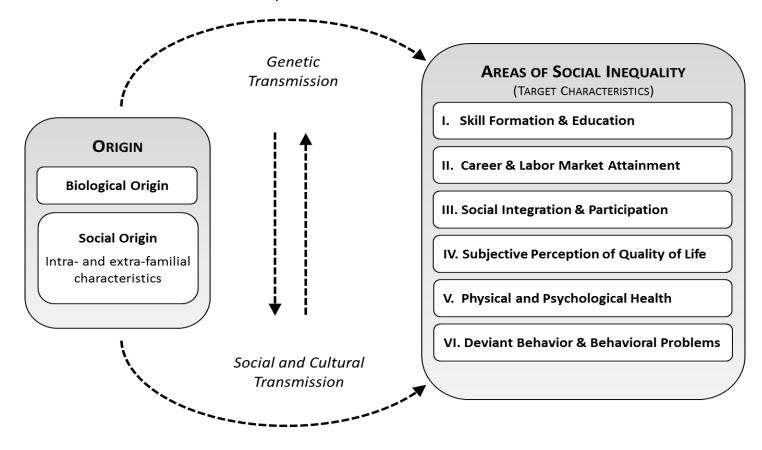
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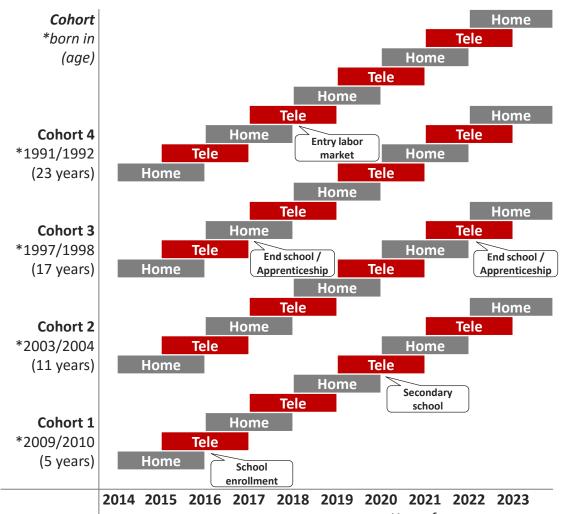
BASIC CONCEPTS

 To take a close look at the development of social inequalities, TwinLife examines different etiological factors as well as indicators of personal and social success and failure





DESIGN

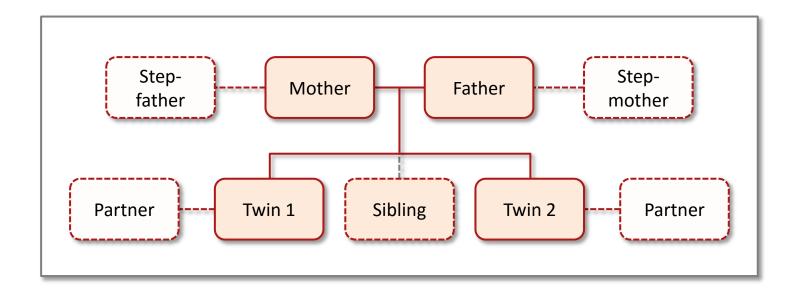


- **4,000 twin families**, over a time span of 9 years (2014 to 2023)
- **Cross-sequential** survey design
- Four birth cohorts capturing a total age range from 5 to 31 years and undergoing important life events
 - 1,000 same-sex twin pairs per cohort
- **Face-to-face** interviews within the household every other year
- Telephone interviews in the consecutive year



Year of measurement

EXTENDED TWIN FAMILY DESIGN



- The cross-sequential structure (p. 10) is combined with an Extended Twin Family Design (ETFD)
 - ETFD capturing the MZ or DZ same-sex twins and their biological family (biological parents and one sibling, if available), but also the complete environment the twins grow up in, thus if applicable including step-family members and twins' spouses



TWINLIFE — A SUMMARY

- A <u>substantial number of participants</u>, proportionally reflecting genetic and environmental variation in the population.
- Longitudinal design capturing developmental periods with far-reaching consequences and allowing for accurate measures of the similarity of the environments of identical and fraternal twins.
- Combining the individual development of psychological characteristics and processes with a sociological focus on the institutionalization of the life course through events and durations in various life domains.
- Extended twin family design in which twins and parents are followed even after leaving the initial household, thus taking into account separated and step families as the environment for individual development.
- Continuous extensive measurement of the families' environment.



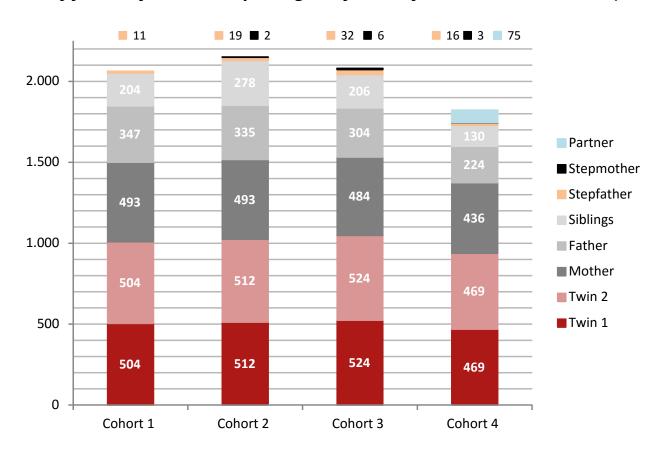
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OVERVIEW OF NET SAMPLE FOR F2F-1A

• Structure of first half-wave completing the face-to-face interview in 2014 (F2F-1A):





OVERVIEW OF NET SAMPLE FOR F2F-1A

- Structure of first half-wave completing the face-to-face interview in 2014 (F2F-1A):
 - 2,009 twin families in 2,422 households

	Cohort 1	Cohort 2	Cohort 3	Cohort 4	Total
Twins	1,008	1,024	1,048	938	4,018
Mother	493	493	484	436	1,906
Stepmother	0	2	6	3	11
Father	347	335	304	224	1,21
Stepfather	11	19	32	16	78
Siblings	204	278	206	130	818
Twins' partners	_	_	_	75	75
Total	2,063	2,151	2,080	1,822	8,116
Families	504	512	524	469	2,009
Households	508	521	549	844	2,422
Participation	46%	45%	47%	23%	37%
Family complete	77%	78%	74%	58%	72%
Family incomplete	23%	22%	26%	42%	28%



OVERALL DISTRIBUTION OF TWIN FAMILIES BY ZYGOSITY AND COHORTS

Twin cohort group	Monozygotic twins	Dizygotic twins	Total
Born 2009	216 (43%)	285 (57%)	501
Born 2003	204 (40%)	306 (60%)	510
Born 1997	254 (49%)	269 (51%)	523
Born 1990/91	255 (54%)	213 (46%)	468
Total	929 (46%)	1,073 (54%)	2,002



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AREAS OF SOCIAL INEQUALITY — ASSESSED VARIABLES

(1ST WAVE, FACE-TO-FACE-INTERVIEWS)

[1] Skill formation and education

- Educational success
- Educational attainment
- Intelligence
- Private tutoring
- Cognitive development
- Media use
- Motivation
- Self-efficacy
- Personality
- Self-esteem

[2] Career and labor market

- Employment status
- Wages, welfare dependency
- Perceived job security
- Educational career & aspirations
- Economic preferences

Environment

Zygosity

Demographics

[3] Social integration and participation

- Social participation
- Political participation
- Discrimination
- Migration & citizenship
- Social networks

[4] Quality of Life

- Global and domain-specific life satisfaction
- Satisfaction with sibling relation

[5] Health

- Subjective health
- Diagnoses
- Health behavior
- Examination reports ("U-Heft")

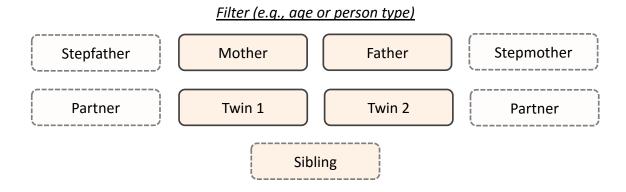
[6] Deviant behavior

- Internalizing/Externalizing
- Delinquent behavior



ASSESSMENT OF VARIABLES IN THE ETFD

- Individual assessment of variables:
 - Depending on person type and age, different constructs are considered (as indicated in the following)





Educational attainment

Media use

Educational success

Motivation

Intelligence

Self-Efficacy

Private tutoring

Personality / Temperament

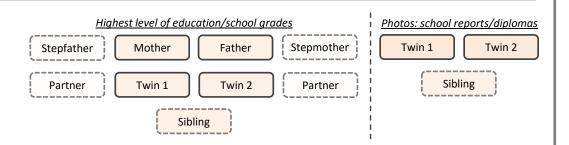
Cognitive development

Self-Esteem



Educational attainment & success

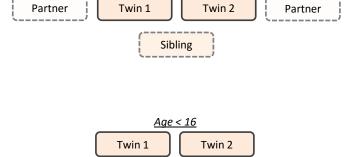
- School grades of latest school report
- Photos or self-report



Intelligence

- Cognitive skills as assessed by the culture fair intelligence test (CFT 1-R, CFT 20-R)
- Subtests: continue series, classification, matrices (reasoning)

Private tutoring (NEPS, adapted) / Utilization of special support



Sibling

Father

Stepmother

Mother

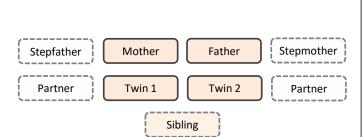


Cognitive development

- Competence ratings from parents (NEPS), interviewer ratings after IQ-Test
- e.g. social, verbal, concentration skills

Media use (NEPS, adapted)

e.g. time spent using devices, rules for media use



Age < 12

Twin 2

Twin 1

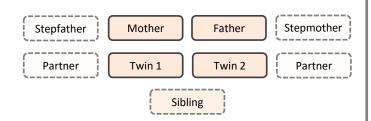


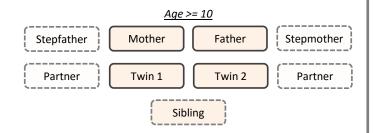
Motivation

- Academic self concept, intrinsic / learning / achievement motivation
- Subscales (adapted) from SDQP, SESSKO, IMI, SESSW, SELLMO-S, GOALS
 - e.g., "I think, I will enjoy school.", "I think that I am pretty good at my job", "It is important for me in the context of my professional work to learn something interesting."

Self-efficacy

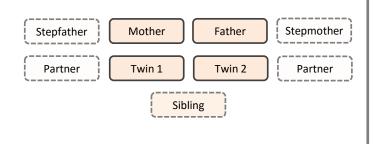
- Bandura's concept of self efficacy
 - e.g., "I can rely on my own abilities in difficult situations."

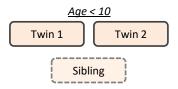


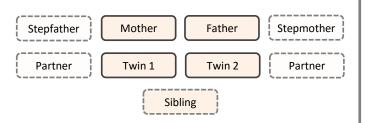




- Personality / Temperament (BIG 5)
 - BFI-S: Neuroticism, extraversion, openness to experience, agreeableness, conscientiousness
 - e.g., "I see myself as someone who does a thorough job"
- Parent ratings: Neuroticism, extraversion, openness to experience, agreeableness, conscientiousness
 - e.g., "How would you rank your child in comparison to other children of the same age? My child is talkative ---- quiet"
- Self-esteem
 - Brief Scale/Single Item measure (adapted from Rosenberg Scale)
 - e.g., "Sometimes I think I am no good at all", "My child has high self-esteem"









Using the variable stem (var) the variable can easily be found on data.soep.de/twinlife

Specific instrument /data source where you can find this information

Person filter (see p. 69):

tu = twins, mf = parents, s = sibling, pq = twins' spouses, hh = household variable

Construct	Facets	Var	Module	Instrument / Source	Age	tu	mf	s	pq	hh Further information
Skill formation and	education									
Educational success & educational	Self-report	cer	9_certificate	TwinLife photos of school		Х	Х	X	Х	Highest level of education/school grades
attainment		cer	9_certificate	reports/ diplomas (TwinLife)		Х		х		
Intelligence		igf	person	CFT 1-R, CFT 20-R		х	х	x	x	Subtests: continue series, classification, matrices (reasoning)
Private tutoring/ Utilization of	Care	car		SOEP 2012						Caregivers and care facilities for twins and sibling by age
special support	Care institution	cai		SOEP						Care facilities (group size, number of childcare providers etc.)
	Activities	eac		SOEP						Activities in childcare (arts, languages, maths & sciences, visits to library, excursions etc.)
	School	edu		SOEP 2012/2014; Pairfam (wave 4, child); NEPS 2011	< 16	x		x		School (type, grade, federal state)
	Extracurricular activities	aas	6_child care	Pairfam (parenting, wave 7)						Extracurricular activities (e.g. remedial groups, clubs, leisure activities etc.)
	School grades repeated/ skipped	eca		SOEP 2014						School grades repeated/ skipped
	Contact information institution	kgc		SOEP						Contact information institution (e.g. address, phone number, pedagogic concept etc.)
	Same care twins	cat		SOEP						Same care twins
	Same school twins	twt		TwinLife	< 16	х				For 1st - 13th school grade → For all references to

instruments and sources, please check the Excel file "Data Documentation"

Construct	Facets	Var	Module	Instrument / Source	Age	tu	mf	S	pq I	nh Further information
Skill formation an	d education									
Cognitive development	Competence ratings parents Competence ratings	com	7_parents on child Person	NEPS; BBK 3-6 Interviewer ratings after IQ-Test (BBK 3-	< 12	х		х		E.g. social, verbal, concentration skills
	interviewer			6)						
Media use		med	5_less sensitive information	NEPS		х	x	x	x	E.g. time spent with devices, rules for media use
Motivation	Academic self concept	asc		SDQP (verbal, math)		x		х		
	Self perceived ability	spa		SESSKO; IMI		X	x	х	x	IMI (Subtest: Perceived Competence)
	Intrinsic motivation Learning		3_basic modul	SESSW		x	X	X		
	motivation	imo		SELLMO-S		Х	Х	Х	X	
	Achievement motivation			GOALS (TwinLife)		x	Х	х	х	
Self-Efficacy		sef	4_sensitive personal information	ASKU (short version)	>= 10	x	x	x	x	Bandura's concept of self efficacy
Personality/ Temperament (BIG 5)	Self-report	per	4_sensitive personal information	BFI-S; BFI- Schülerversion	>= 10	х	x	x	x	BIG 5: Neuroticism, extraversion, openness to experience, agreeableness, conscientiousness
(DIG 3)	Parental-report	per	7_parents on child	BFI form school children (SOEP items)	< 10	x		x		
Self-Esteem	Self-report	ses	4_sensitive personal information	Rosenberg SES	>= 13	x	х	х	x	Brief Scale/Single Item measure (adapted from Rosenberg Scale)
	Parental-report	ses	7_parents on child	Single item measure Rosenberg SES	< 13	x		x		

→ For all **references** to instruments and sources, please check the **Excel file "Data Documentation"**

[2] CAREER AND LABOR MARKET

Employment status

Wages, welfare dependency

Perceived job security

Educational career & aspirations

Economic preferences

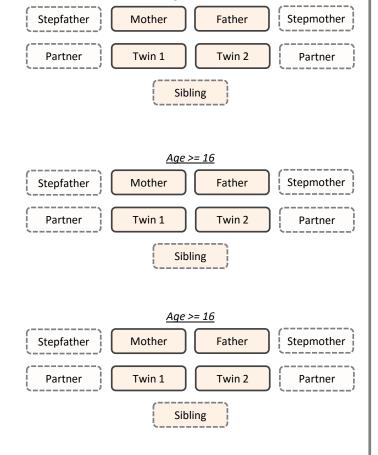


[2] CAREER AND LABOR MARKET

- Employment status & current position
 - Type and characteristics of employment, working hours etc.

- Wages, welfare dependency
 - Gross income

- Perceived job security & satisfaction
 - Job loss within last 2 years, perceived fairness of payment
 - e.g. "How likely do you think it is that you might lose your job in the following two years?"



Age >= 16



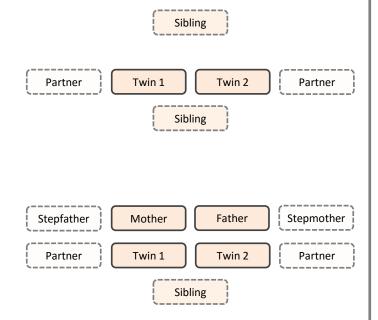
[2] CAREER AND LABOR MARKET

Educational career & aspirations

- Highest degree and characteristics of educational career, anticipated degree
- Information on school, school type recommendation

Economic preferences

- Risk aversion, patience
 - e.g., "Would you describe yourself as someone who tries to avoid risks (risk-averse) or as someone who is willing to take risks (risk-prone)?"



Mother

Twin 1

Father

Twin 2



Construct	Facets	Var	Module	Instrument / Source	Age	tu	mf	s į	oq hl	n Further information
Career and Labor M	arket Attainment									
Employment status & current position		emp	3_basic module	SOEP 2014	>= 16	x	x	x	x	Job title, occupational status, economic sector, extend of work activity, unemployment, required qualification for occupation, commuting
		emp; eca	generated variable	ISEI; SIOPS; EGP; ISCO 2008; KIdB 2010;	>= 16	x	x	x	x	Classification based on occupation or occupational training; ISCO, KldB: two digits
		hpr	household questionnaire	SOEP 2014					x	Form of employment of all household members
Wages, welfare dependency		inc	3_basic module	SOEP 2005/2014; B3 Beschäftigungs- fragebogen	>=16	x	x	x	x	Monthly personal gross income, social allowances / benefits (e.g. child and parental benefit, continued pay in maternity leave)
Perceived job security & satisfaction		emp	3_basic module	SOEP 2003; B3 Beschäftigungsfrage bogen	>=16	x	x	x	х	Probability of losing job within next two years, balance between performance and output of job
Educational career & aspirations	Education	edu	3_basic module	SOEP 2012/2014; Pairfam (wave 4); NEPS 2011	>=4 & <15 >=10 >=16	x	x	x	x	Education (e.g. type of education / training, type of school, grade etc.)
	Course of education	eca	4_sensitive information	SOEP 2012/2014; DJI Jugendsurvey (wave 1)	>=4 and <15; >=10; >=17	x	x	x	х	Course of education (school-leaving qualification / highest educational degree, grade repeated/skipped, educational aspiration etc.)
		eca	generated variable	ISCED 1997	>= 16	x	x	x	x	Two versions: one digit, two digits
Economic preferences	Willingness to take a risk	per0200	4_sensitive personal information	SOEP 2008	>=10	x	x	x	x	Willingness to take a risk
			7_parents on child	SOEP 2008	>=4 and <=9	x		x		Willingness to take a risk
	Patience	per0300	4_sensitive personal information	SOEP 2008	>=10	x	х	х	x	Patience → For all references to instruments and sources, please check
			7_parents on child	SOEP 2008	>=4 and <=9	x		x		Patience the Excel file "Data Documentation"

[3] INTEGRATION AND PARTICIPATION

Social participation

Political participation

Discrimination

Migration & Citizenship

Social networks



[3] INTEGRATION AND PARTICIPATION

Social participation

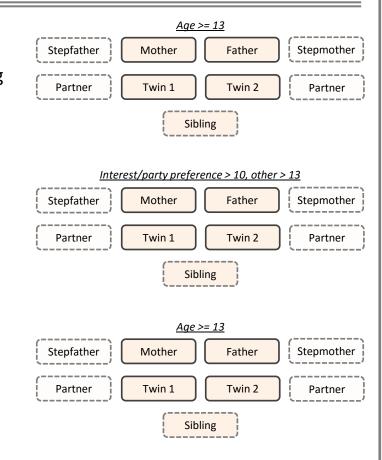
- Frequency of activities in social groups and clubs, volunteering
 - e.g., sports group, church, drama group

Political participation

- Interest, turnout, party preferences, political activities
 - e.g., "In general, how interested are you in politics?"

Experiences of discrimination

- Experience, reason for discrimination, and perceived stress/burden
 - e.g. "In the last 12 months, have you experienced that you were treated worse or discriminated against due to a personal characteristic (such as your skin color, your gender, your religion)?"





[3] INTEGRATION AND PARTICIPATION

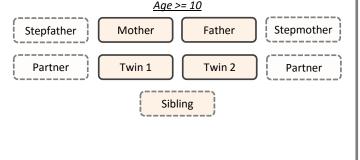
Migration & Citizenship

 e.g., country of birth (self, parents), citizenship, language spoken at home

Stepfather Mother Father Stepmother Partner Twin 1 Twin 2 Partner Sibling

Social networks

- Characteristics of three close friends (age, gender, schooling),
 number of friends outside household
- Generalized trust and loneliness
 - e.g., "In general, you can trust people."
 - e.g., "I often feel lonely."





Construct	Facets	Var	Module	Instrument / Source	Age	tu	mf	S	pq	hh	Further information
Integration and Participat	tion										
Social participation	Self-report	sop	5_less sensitive information	AID:A 2009	>=13	x	x	x	x		Social Participation in groups and clubs, Volunteering
	Parental-report	sop	7_parents on child	AID:A 2009	< 13	X		х			Social Participation in groups and clubs, Volunteering
Political participation		pop	5_less sensitive information	SOEP 2011; AID:A 2009; Add-health	>9 & <=15 >=13 >=18	x	x	х	x		Domains: Political interest; political activity; turnout; party preferences
Experiences of discrimination		dis	5_less sensitive information	SOEP; DEAS; TwinLife	>=13	x	x	x	х		Experience of discrimination due to different domains burden
Migration & Citizenship		mig mig	3_basic module 7_parents on child	SOEP 2014 SOEP 2014	>=15 >=4 and <=15	x x	х	x x	х		Information on citizenship Information on citizenship
Social networks	Self-report	net	5_less sensitive information	SOEP 2003/2011; SSND; PASS	>=15	x	x	x	x		Social networks (trust, friends, most important persons, loneliness)
	Parental-report	net	7_parents on child	PASS		х		Х			Number of close friends
	Loneliness	net	5_less sensitive information	SOEP 2008	>=10	x	X	x	X		

→ For all **references** to instruments and sources, please check the **Excel file "Data Documentation"**

[4] QUALITY OF LIFE

Global life satisfaction

Domain satisfaction

Satisfaction with sibling relation



[4] QUALITY OF LIFE

Global life satisfaction

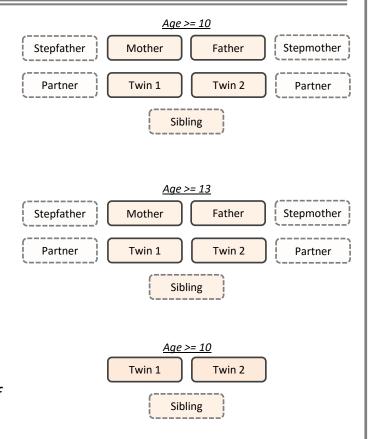
- Satisfaction with life in general (SWLS/SWLS-C scale)
 - e.g., "For most parts, my life is close to my ideal.", "My living conditions are great."

Domain satisfaction

- Domains: Health, work/school, income/pocket money, leisure time, family life, partnership/friendships
 - e.g., "How satisfied are you with your health?"

Satisfaction with sibling relation

 e.g. "How satisfied are you with your relationship with [name of twin 2]?"





Construct	Facets	Var	Module	Instrument / Source	Age	tu	mf	s	pq	hh	Further information
Quality of Life											
Global life satisfaction		gls	5_less sensitive information	SWLS/ SWLS-C	>= 10	х	x	х	x		
Domain satisfaction		sat	4_sensitive personal information	SOEP 2011	>= 10	x	x	x	x		Domains: Health, work/school, income/pocket money, leisure time, family life, partnership/friendships
Satisfaction with sibling relation		sat	4_sensitive personal information	TwinLife	>= 10	х		x			

→ For all **references** to instruments and sources, please check the **Excel file "Data Documentation"**

[5] HEALTH

Subjective health

Diagnoses

Health behavior

Examination reports ("U-Heft")



[5] HEALTH

Subjective health

e.g. "In general, how would you rate your overall health in the last 12 months?"

Stepfather Mother Father Stepmother Partner Twin 1 Twin 2 Partner Sibling

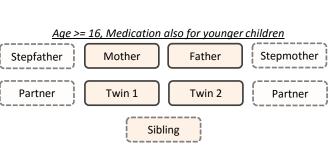
Diagnoses / Objective health

Diagnosis lists for children and adults (SOEP), impairment, BMI

Stepfather | Mother | Father | Stepmother | Partner | Twin 1 | Twin 2 | Partner | Sibling | Age >= 16, Medication also for younger children

Health behavior

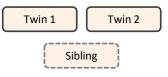
 Smoking, alcohol consumption, doctor's visits, medication, general health preventive behavior





[5] HEALTH

- Examination reports ("U-Heft")
 - U1 (Examination of all newborns)
 - Length at birth; birth weight; head circumference; birth defects; abnormalities; previous pregnancies; presentation in hospital before birth; number of previous medical check-ups; birth in _____ week of pregnancy; risk factors during pregnancy
 - U2-U9
 - weight, size; head circumference; health issues





Construct	Facets	Var	Module	Instrument / Source	Age	tu	mf	s	pq	hh Further information → For all references to
Health										instruments and
Subjective health		she	5_less sensitive information	SF-8 (1st Item)	>= 10	х	x	x	X	Self-report sources, please check the Excel file "Data"
		she	7_parents on child	SF-8 (1st Item)	< 10	x		х		Parental-report Documentation"
Objective health/ Diagnoses	Diagnoses (adults)	dia	5_less sensitive information	SOEP 2011	>= 16	х	x	x	x	Diagnoses list for adults, self-report
	Diagnoses (children)	uiu	7_parents on child	SOEP 2011	< 16	x		х		Diagnoses list for children, parental-report
	Impairment	imp	5_less sensitive information	TwinLife	>= 16	x	х	х	х	Self-report
	трантен	ШР	7_parents on child	TwinLife	< 16	x		х		Parental-report
Body mass index (BMI)	Height (Non Twins)		5_less sensitive information	TwinLife	>= 13		x	x	х	Self-report
			7_parents on child	TwinLife	<=13			х		Parental-report
	Height (Twins)	bdy	1_Zygosity	TwinLife		x				Self-report (>= 16), parental-report (< 16)
	Weight		5_less sensitive information	TwinLife	>= 13	х	x	x	x	Self-report
			7_parents on child	TwinLife	<= 13	х		Х		Parental-report
Health behavior	Doctor's visit	doc	5_less sensitive information	SOEP 2011	>= 16	х	x	х	х	Self-report
		400	7_parents on child	SOEP 2011	< 16	x		х		Parental-report
	Smoking, alcohol consumption, medication		5_less sensitive information	SOEP 2010	>= 16	х	x	х	x	Self-report
	Medication (children)	hbe	7_parents on child	SOEP 2010	< 16	x		х		Parental-report
	General health preventive behavior		5_less sensitive information	List of age related changes (HEALTH domain)	>= 16	x	x	x	x	Self-report
Examination reports ("U-Heft")		nbi	8_health record book	Health record book (TwinLife)		x		X		U1 (Examination of all newborns): length at birth, birth weight; head circumference; birth defects; abnormalities; previous pregnancies; presented at clinic before birth; number of previous medical check-ups; birth in week xx of pregnancy; risk factors during pregnancy U2-U9: weight, size; head circumference; health issues

[6] DEVIANT BEHAVIOR

Internalizing

Externalizing

Delinquent behavior



[6] DEVIANT BEHAVIOR

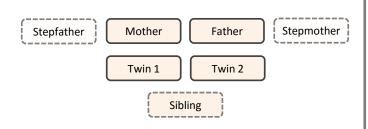
Internalizing

- Emotional symptoms, social problems (SDQ adapted)
 - e.g. "In general I am popular with others.", "I often have headaches, stomach aches or feelings of sickness."

Stepfather Mother Father Stepmother Partner Twin 1 Twin 2 Partner Sibling

Externalizing

- Hyperactivity/attention, behavior problems (SDQ adapted)
 - e.g. "Others say that I don't tell the truth.", "The child is restless, overactive, cannot stay still for long"





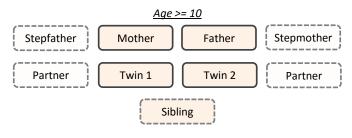
[6] DEVIANT BEHAVIOR

Delinquent Behavior

- Illegal activities frequency, with whom
 - e.g. "Have you ever done something that could be considered as a violation of the law?"
- → List of delinquent actions (e.g. theft, taking drugs, battery/assault)

Deviant behavior young children (SDQ- adapted)

e.g. "Would you say that you never listen to your parents, sometimes listen to your parents or very often listen to your parents?"







Construct	Facets	Var	Module	Instrument / Source	Age	tu	mf	s	pq h	h Further information
Deviant Behavior										
Internalizing	Self-report	int	4_sensitive personal information	SDQ	>= 10	x	x	x		Subscales: Emotional symptoms, social problems
	Parental-report		7_parents on child	SDQ	< 10	x		x		Subscales: Emotional symptoms, social problems
Externalizing	Self-report	ext	4_sensitive personal information	SDQ	>= 10	х	х	х		Subscales: Hyperactivity/attention, behavior problems
	Parental-report		7_parents on child	SDQ	< 10	x		x		Subscales: Hyperactivity/attention, behavior problems
Delinquent Behavior	Delinquent behavior	del	4_sensitive personal information	SFB 882 Bielefeld (Fragebogen Schülerbefragung Dortmund 2012)	>= 10	x	x	x	x	Illegal activities - frequency, with whom
	Deviant behavior young children	dev	3_Basic module	SDQ	< 10	х		x		

→ For all **references** to instruments and sources, please check the **Excel file "Data Documentation"**

Parenting

Sibling relationship quality

Quality of home environment

Family activities

Grandparents

Interviewer ratings

Childcare & Care characteristics

Family structure

Neighborhood & Community

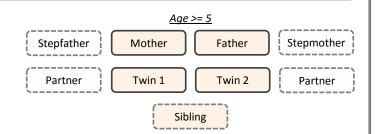


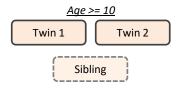
Parenting Style

- Child report on parents and step-parents
- Parent/step-parent self-report
- Emotional warmth, psychological control, negative communication, monitoring, inconsistent parenting
 - e.g., "My father showed me with words and gestures that he loved me."

Involvement

- Structure, emotional support, autonomy, control
- e.g., "My parents are interested in what I learned in school."







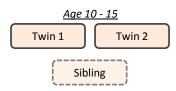
Sibling relationship quality

- ASRQ warmth, conflict
- e.g., "How often do you argue with [name]?", "How much do you try to cheer up [name] when he/she feels bad?"

$Age \ge 15$ Twin 1 Twin 2 Sibling

SRI – affection, hostility, rivalry

 e.g., "Children sometimes hurt their brother or sister on purpose like by pushing, punching or hitting him or her. How often do you do these kind of things to [target sibling]?"



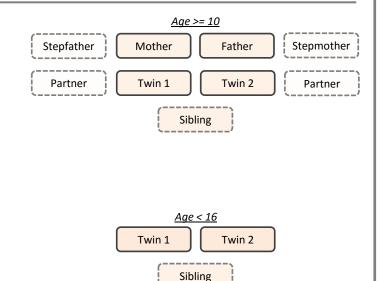


Quality of home environment

- Child and parent report on childhood home
- CHAOS Scale noise, atmosphere, routines, ...
 - e.g., "There is usually a television turned on somewhere in our home."

Family activities

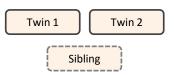
 Child and parent reports of frequency of joint singing, reading, sports, excursions





Relationship with grandparents

 Parent and child (> 10 yrs) reports of e.g. contact, activities, discussion of problems

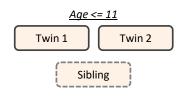


Interviewer ratings on home characteristics

- General household impression (e.g. tidiness, space, furnishing)
- Number of books in household



- Childcare & care characteristics (SOEP)
 - Caregiver person/institution age 0 6, duration
 - Characteristics of institution and group
 - Satisfaction with kindergarten
 - Special support/programs
 - e.g., "Before starting school, has your child ever been cared for regularly (i.e. not only at occasions) by one or more of the following persons/institutions? Think about a regular week."
 - e.g., "Taken together, how satisfied are you with your child's kindergarten?"
 - e.g., "Are there any special programs in your child's kindergarten that promote his/her motor skills? ... cognitive skills?"





Family structure

- Persons in- and outside household
 - name, age, gender, education
- Marital status
- Family composition
- Housing characteristics
- Gross household income, social benefits



- Neighborhood & community
 - Microm data:
 - state, community size, development, mobility etc.
 - Interviewer ratings on safety, wealth, and pollution in the neighborhood



Construct Environment	Facets	Var	Module	Instrument / Source	Age	tu m	f s	pq hh	Further information	instruments and sources, please check the Excel file "Data Documentation"
Parenting	Parenting style (child-report) Parenting style (parental- report)	pas par	3_Basic module 4_Sensitive personal information	Pairfam (wave 2, parenting; wave 4, child/parents)	< 10 >= 10	x x			Emotional warmth, psychological control, ne monitoring, inconsistent parenting	
	Involvement	inv	3_Basic module	CoSMoS Child questionnaire	>= 10	x	x		Structure, emotional support, autonomy, cor	ntrol
Sibling relationship quality	Warmth, conflict	sre	4_Sensitive personal	ASRQ	>= 15		х		Frequencies concerning hostile and supportion to sibling, feelings of jealousy Frequencies concerning hostile and supportion	ve behavior towards twin; feelings
	Affection, hostility, rivalry	sre	information 3_Basic module	SRI SRI	< 10 - 15	x	x x		of closeness to twin, feelings of jealousy, per parents Frequencies concerning hostile and supportive sibling; feelings of closeness to twin and siblid discriminatory treatment of parents	ve behavior towards twin and
Quality of home environment		hoe	4_Sensitive personal information	CHAOS Scale	>= 10	х х	x	x	Child- and parental-report on childhood hom	ne
Family activities	Child-report Parental-report	асс	4_sensitive personal information	Pairfam (wave 2, parenting)	< 16 age child < 10	x x	х		Child-report of frequency of joint singing, real Parental-report of frequency of joint singing,	
Relationship with grandparents	Child-report	gre	4_sensitive personal information 7 parents on	Pairfam (wave 2, child)	>= 10		x		Child reports of e.g. contact, activities, talk al	
	Parental-report		children		child < 10	х			Frequency of twins and sibling meet grandpa	rents (parental-report)
Interviewer ratings on home characteristics		iva	household questionnaire	DEAS				х	General household impression (e.g. tidiness, books in household	space, furnishing); Number of

→For all **references** to

Construct	Facets	Var	Module	Instrument / Source	Age	tu	mf	s pq h	→ For all references to instruments and sources, please check
Environment									the Excel file "Data Documentation"
Childcare and care characteristics	Caregiver person/ institution, duration	car	6_child care	SOEP 2012	age child <= 6	x	x	x	Caregivers and care facilities for twins and sibling by age
	Characteristics of institution and group	cai	6_child care	SOEP	age child < 3 or >= 3	x		х	Size of the group, N childcare providers, training childcare providers,
	Satisfaction with kindergarten	kgc	6_child care	SOEP	age child <= 6	x		x	Number of children in the kindergarten speaking other languages than German satisfaction with kindergarten
	Special support/progra ms	eac	6_child care	SOEP	age child <= 6	x		x	Frequency participation in activities organized by care institution
	Twin raised seperatly / caregiver person when raised seperatly	twt	6_child care	TwinLife		x			Age from which were raised seperatly
Family structure & household characteristics	Persons in- and outside household (name, age, gender, education)	fpr; fil; hpr	family protocol; household questionnaire	Pairfam (wave 4, parenting)				:	Name, age, gender and relation to twins of all persons in household; name, age gender of twins; name, age, gender and relation to twins of siblings and parent who don't live in household; partners of twins; form of employment of all household members
	Marital status	fam	3_basic module	SOEP 2014	>= 10	x	x	х	Marital status
	Partnership/gen der Partner	fam	3_basic module	SOEP 2014	>= 10	x	х	x	Permanent relationship, gender of partner
	Housing characteristics	liv	household questionnaire	SOEP 2014; Pairfam (wave 1, anchor)				:	Housing conditions (e.g. subletting, rented apartment/house, residential property), duration of residence in dwelling, type of household (e.g. parental household, own household)
	Gross household income, social benefits	inc	household questionnaire	SOEP 2014; 2003				:	Monthly personal gross income, social allowances / benefits (e.g. child and parental benefit, continued pay in maternity leave)
	Net equivalent household income	inc	generated variable	OECD equivalence scales				:	New OECD scheme using monthly household net income of all household members and age

ZYGOSITY

Zygosity questionnaire

Self-rated zygosity

Twin specific questions



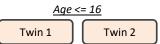
ZYGOSITY

Zygosity questionnaire

 $\frac{Age >= 17}{\text{Twin 1}}$ Twin 2

- Adult twins self report both twins
 - e.g. eye and skin color, physiological characteristics, confusion etc.

- Child Twins parent report
 - e.g. eye and skin color, physiological characteristics, confusion etc.





ZYGOSITY

Self-rated zygosity (parents, twins)

Twin 1 Twin 2

e.g. "Do you believe the twins/you are fraternal or identical twins?"

Twin specific questions

- Parent and partner report e.g. similarity of clothing,
 frequency of contact, shared interests
 - e.g., "Do the twins in general share the same hobbies and interests?"

Twin 1 Twin 2



Construct	Facets	Var	Module	Instrument / Source	Age tu n	nf s_	pq hh	Further information
Zygosity & Twin sp	ecific questions							
Zygosity questionnaire	Parental-report for cohort 1 & 2	zyg	1_zygosity questionnaire for cohorts 1 & 2	Similarity Questionnaire	<16 x			
	Self-report for cohort 3 & 4	zyg	1_zygosity questionnaire for cohorts 3 & 4	Similarity Questionnaire	>= 16 x			
	Zygosity determined by saliva test	zyg0101	Person	DNA genotyping	x			
	Zygositiy determined by questionnaire information	zyg0100	Person	TwinLife	x			
	Zygositiy determined by questionnaire information; corrected by salvia test if differing	zyg0102	Person	TwinLife	x			'Final' zygosity varibale
Self-rated zygosity	Parental-report for cohort 1 & 2	zyg0700	1_zygosity questionnaire for cohorts 1 & 2	Similarity Questionnaire	<16 x			e.g. "Do you believe the twins are fraternal or identical twins?"
	Self-report for cohort 3 & 4	zyg1800	1_zygosity questionnaire for cohorts 3 & 4	Similarity Questionnaire	>= 16 x			e.g. "Do you believe you are fraternal or identical twins?"
Twin specific questions		tst	4_sensitive personal	TwinLife	х			
		tss	information	TwinLife		х		
		tsp	3_Basic module	TwinLife	:	K		
		tsf	Person	TwinLife			X	→ For all references to

CONTENT

- (1) Background information about TwinLife (p.3)
- (2) Study design (p.8)
- (3) Sample description (p.13)
- (4) Construct overview (p.18)
- (5) Data access (p.61)
- (6) Data structure and documentation (DDI on rails) (p.67)



Sources of TwinLife Information, Data & Documents

TwinLife website:

- http://www.twin-life.de/en/data
- Provides information on contents, methodology, remarks and publications

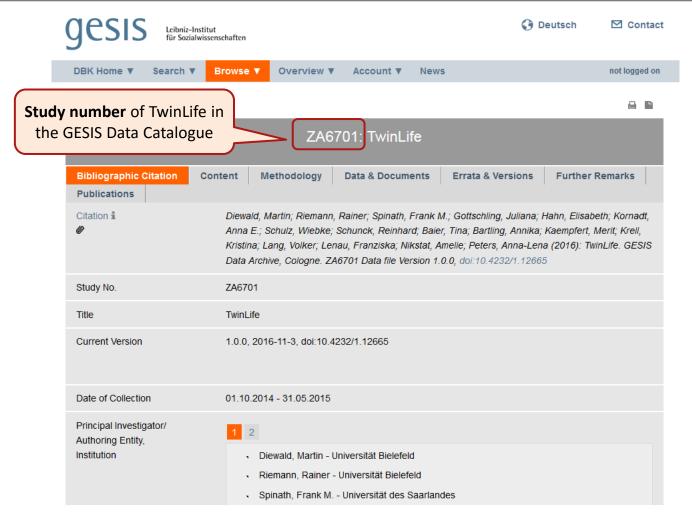
GESIS Data Archive for the Social Sciences:

- http://www.gesis.org/en/institute/gesis-scientific-departments/data-archive-for-the-social-sciences/
- Data service for national and international comparative surveys from social and political science research

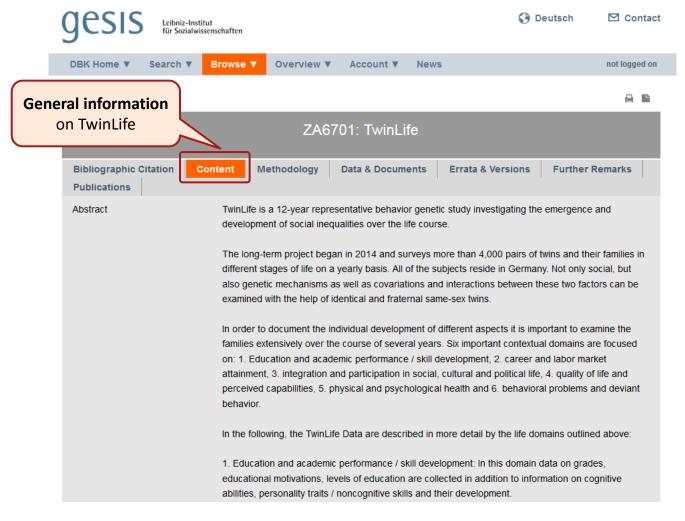
Access through GESIS Data Catalogue:

- http://dx.doi.org/10.4232/1.12665
- Contains study descriptions of all social science research data available at the GESIS Data Archive including TwinLife
- Data access: complete the order form and send it to the specified address!

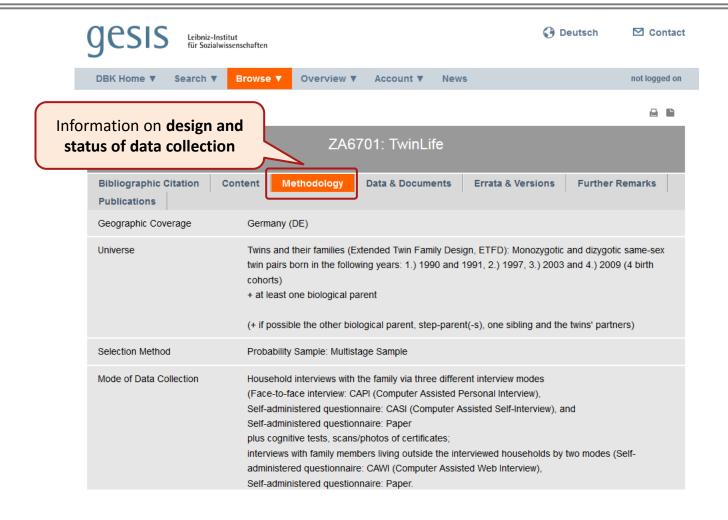




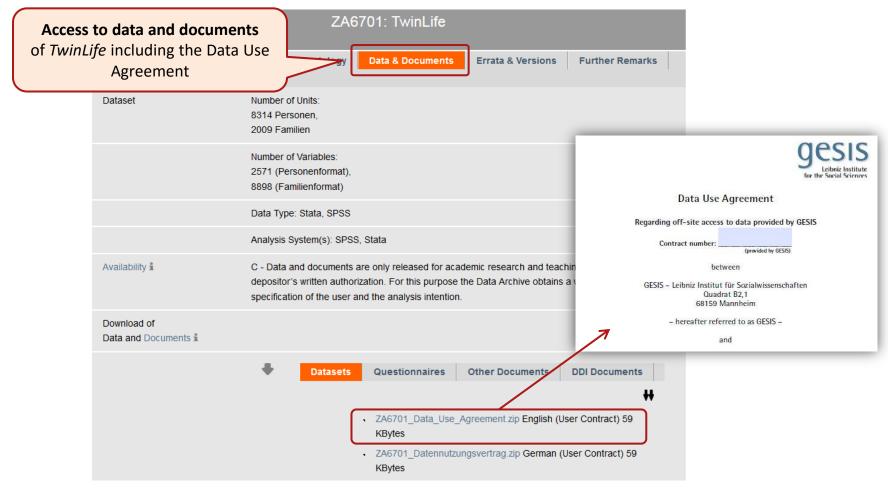














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DATA STRUCTURE: SUF

- Since october 2016, the data of the first face-to-face interview for the first half-wave is available as a Scientific Use File (SUF) via the GESIS Data Catalogue
 - 1 data set in "individual format" ("long")
 - 1 row per person
 - All survey data incl. information on household & family structure (gross household composition incl. non-participating household members)
 - Information on participation in the survey overall and the single questionnaires / modules in particular
 - 1 data set in "family format" ("wide")
 - 1 row per family
 - Information of each participating person in the family stored in separate variables / columns
 - 1 data set containing zygosity questionnaire information
 - 1 mode data set containing the survey mode of each variable for each person



DATA STRUCTURE: PERSON CODES

Person codes

- numbers in variable 'ptyp' and final letters in variable names
 - e.g. 'sre0200t' for the variable 'sibling relationship' concerning twin 1

Code	Person	ptyp
t	Twin 1	1
u	Twin 2	2
S	Surveyed sibling – full or half; details see variable fpr0107	200
р	Partner of twin 1	110
q	Partner of twin 2	120
m	Mother of twins - biological, adoptive & foster; details see variable fpr0107	300
n	Partner of twins' father / "stepmother"	600
f	Father of twins – biological, adoptive & foster; details see variable fpr0107	400
g	Partner of twins' mother / "stepfather"	500



Example

1) "Individual" format ("long" dataset)

pas0100m

2) "Family" format ("wide" dataset)

↓

pas0100m_s1



Example

1) "Individual" format ("long" dataset)

pas0100m

2) "Family" format ("wide" dataset)

pas0100m_s1



pas0100m	pid	ptyp	fid_hhc	fid	
5: sehr oft	10021200	200: Geschwister	1002101	10021	12
4: oft	10041200	200: Geschwister	1004101	10041	26
5: sehr oft	10072200	200: Geschwister	1007201	10072	38
4: oft	10089200	200: Geschwister	1008901	10089	50
3: manchmal	10091200	200: Geschwister	1009101	10091	53
3: manchmal	10100200	200: Geschwister	1010001	10100	59
5: sehr oft	10117200	200: Geschwister	1011701	10117	66

Example 1)

— What information is in the variable name "pas0100m" in the "individual format" ("long" dataset)?

pas

→ variable stem: parental style – child report



pas0100m	pid	ptyp	fid_hhc	fid	
5: sehr oft	10021200	200: Geschwister	1002101	10021	12
4: oft	10041200	200: Geschwister	1004101	10041	26
5: sehr oft	10072200	200: Geschwister	1007201	10072	38
4: oft	10089200	200: Geschwister	1008901	10089	50
3: manchmal	10091200	200: Geschwister	1009101	10091	53
3: manchmal	10100200	200: Geschwister	1010001	10100	59
5: sehr oft	10117200	200: Geschwister	1011701	10117	66

Example 1)

— What information is in the variable name "pas0100m" in the "individual format" ("long" dataset)?

pas01

→ item block: parental style



pas0100m	pid	ptyp	fid_hhc	fid	
5: sehr oft	10021200	200: Geschwister	1002101	10021	12
4: oft	10041200	200: Geschwister	1004101	10041	26
5: sehr oft	10072200	200: Geschwister	1007201	10072	38
4: oft	10089200	200: Geschwister	1008901	10089	50
3: manchmal	10091200	200: Geschwister	1009101	10091	53
3: manchmal	10100200	200: Geschwister	1010001	10100	59
5: sehr oft	10117200	200: Geschwister	1011701	10117	66

Example 1)

— What information is in the variable name "pas0100m" in the "individual format" ("long" dataset)?

pas0100

→ item number: shows affection



	fid	fid_hhc	ptyp	pid	pas0100m
12	10021	1002101	200: Geschwister	10021200	5: sehr oft
26	10041	1004101	200: Geschwister	10041200	4: oft
38	10072	1007201	200: Geschwister	10072200	5: sehr oft
50	10089	1008901	200: Geschwister	10089200	4: oft
53	10091	1009101	200: Geschwister	10091200	3: manchmal
59	10100	1010001	200: Geschwister	10100200	3: manchmal
66	10117	1011701	200: Geschwister	10117200	5: sehr oft

Example 1)

— What information is in the variable name "pas0100m" in the "individual format" ("long" dataset)?

pas0100m

→ person code: statement about mother



	fid	fid_hhc	ptyp	pid	pas0100m
12	10021	1002101	200: Geschwister	10021200	5: sehr oft
26	10041	1004101	200: Geschwister	10041200	4: oft
38	10072	1007201	200: Geschwister	10072200	5: sehr oft
50	10089	1008901	200: Geschwister	10089200	4: oft
53	10091	1009101	200: Geschwister	10091200	3: manchmal
59	10100	1010001	200: Geschwister	10100200	3: manchmal
66	10117	1011701	200: Geschwister	10117200	5: sehr oft

Example 1)

— What information is in the variable name "pas0100m" in the "individual format" ("long" dataset)?

pas0100m

→ Item assessing the child's rating of parental style, more precisely on how much affection the parent, here the mother, shows



Example

1) "Individual" format ("long" dataset)

pas0100m

2) "Family" format ("wide" dataset)

↓

pas0100m_s1



Example 2)

— What further information is in the variable names in the "family format" ("wide" dataset), e.g. "pas0100m_s1"?

pas0100m_s

→ person code: sibling provides information



Example 2)

— What further information is in the variable names in the "family format" ("wide" dataset), e.g. "pas0100m_s1"?

pas0100m_s1

→ Survey year code: first survey year



Example 2)

— What further information is in the variable names in the "family format" ("wide" dataset), e.g. "pas0100m_s1"?

pas0100m_s1

→ Item assessing the child's rating of parental style, more precisely on how much affection the parent, here the mother, shows – rated by the sibling in the first survey year



DATA STRUCTURE: MISSING VALUES

Codes and definitions for missing values:

Code	Specification
-99	not specified (refused to answer)
-98	don't know
-97	doesn't apply (specification of other category) – for multi-categorical items
-96	"mixed missing values" – e.g. "don't know/not specified"
-95	doesn't apply (screened out)
-94	technical error / faulty insertion
-93	unclear classification of system missing – only for paper-and-pencil questionnaires
-92	no participation in survey module
-91	reply on request (for sensitive questions)
-90	no participate in survey wave
-87	multiple answers
other -80s	different meanings
	Appelon 1 02/2017, Data of the 1ST Mayer Face to Face Internation



DOCUMENTATION VIA DDI ON RAILS

Access to documentation of the TwinLife data:

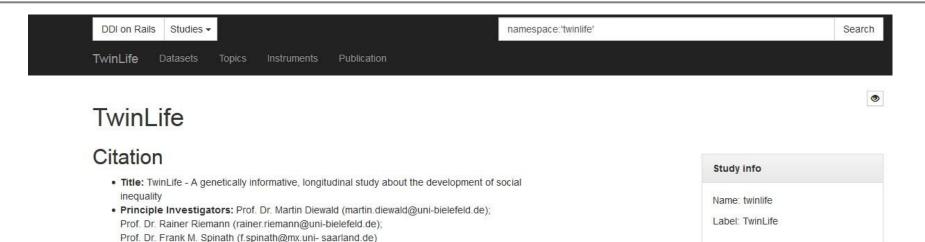
https://data.soep.de/twinlife

- Pools the documentation of several German panel studies (besides TwinLife, e.g. SOEP and pairfam)
- Document variables
 - variable and value labels, categories, frequencies, analytical level), questions / questionnaires (wording, filters)
- Allows searching for specific topics (e.g. "attitudes, values, and personality")
- Allows comparisons of characteristics between points of observation (in panels), but also documents changes in wording of questions



DOCUMENTATION VIA DDI ON RAILS

https://data.soep.de/twinlife



Study info

URL: http://www.twin-life.de/

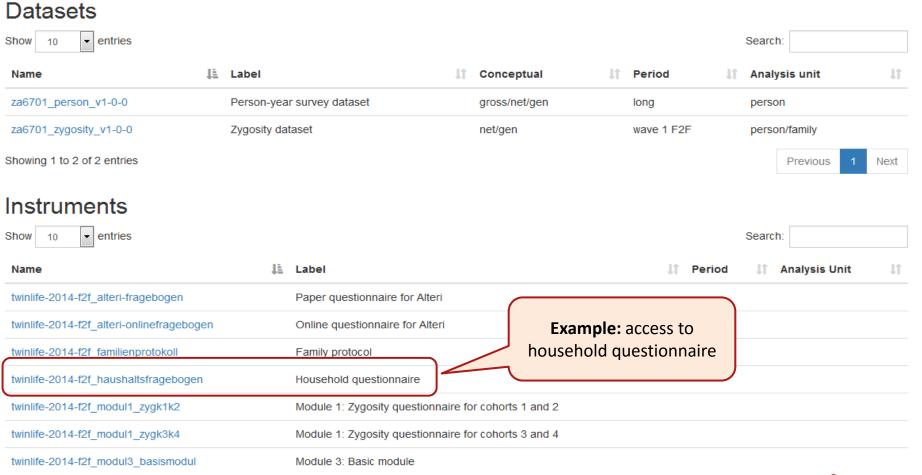
TwinLife is a 12-year representative behavior genetic study investigating the emergence and development of social inequalities over the life course. The long-term project began in 2014 and surveys more than 4,000 pairs of twins and their families in different stages of life on a yearly basis. All of the subjects reside in Germany. Not only social, but also genetic mechanisms as well as covariations and interactions between these two factors can be examined with the help of identical and fraternal same-sex twins. In order to document the individual development of different aspects it is important to examine the families extensively over the course of several years. Six important contextual domains are focused on: 1.) Education and academic performance / skill development, 2.) career and labor market attainment, 3.) integration and participation in social, cultural and political life, 4.) quality of life and perceived capabilities, 5.) physical and psychological health and 6.) behavioral problems and deviant behavior. In order to take a close look at the development of social inequalities, TwinLife does not only examine different etiological factors, but also different indicators of personal and social success and failure respectively. On part of the conditional factors genetic disposition as well as aspects of the environment that the children and adolescents are living in are considered. On part of the consequences not only objective but also subjective information is observed. Children are born into an environment which influences them, but on the other hand they react and interact differently depending on their individual characteristics and thereby shape their environment. To allow for an accurate examination of the reciprocal processes by which individual dispositions and environmental conditions influence each other data on the illustrated

Overall information on
TwinLife study



Access to TwinLife Datasets and Instruments

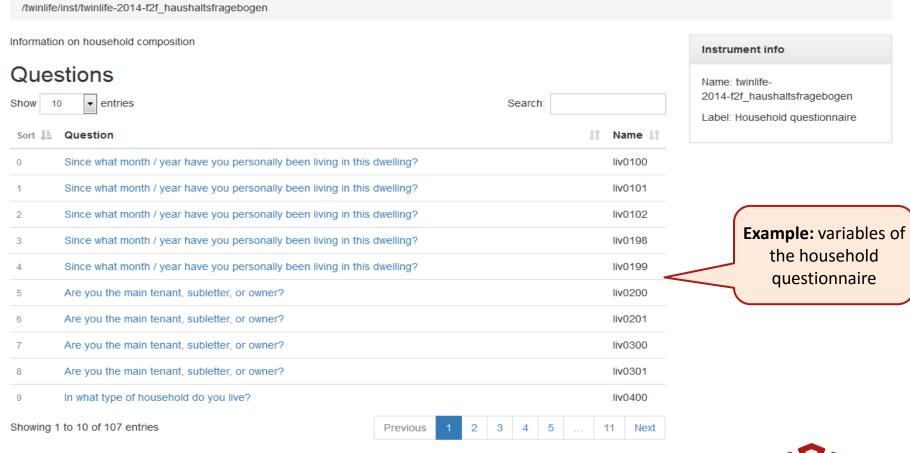
https://data.soep.de/twinlife



EXAMPLE: HOUSEHOLD QUESTIONNAIRE

https://data.soep.de/twinlife

Household questionnaire [instrument]

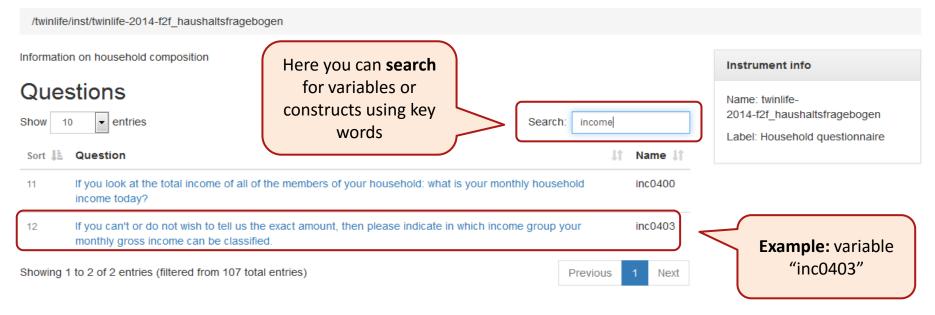




EXAMPLE: HOUSEHOLD QUESTIONNAIRE

https://data.soep.de/twinlife

Household questionnaire [instrument]





EXAMPLE: HOUSEHOLD QUESTIONNAIRE

https://data.soep.de/twinlife

inc0403 Example: variable "inc0403" filter: inc0400 == -98 | inc0400 == -99 If you can't or do not wish to tell us the exact amount, then please indicate in which income group your monthly gross income can be classified. 1: below 500 Euro 2: 500 up to below 1,000 Euro 3: 1,000 up to below 1,500 Euro 4: 1,500 up to below 2,000 Euro 5: 2,000 up to below 2,500 Euro 6: 2,500 up to below 3,000 Euro 7: 3,000 up to below 4,000 Euro 8: 4,000 up to below 5,000 Euro 9: 5,000 up to below 6,000 Euro 10: 6,000 up to below 7,000 Euro 11: 7,000 up to below 8,000 Euro 12: 8,000 up to below 10,000 Euro 13: 10,000 up to below 20,000 Euro 14: 20.000 Euro and above -98: don't know



-99: not specified (refused to answer)