

Measurement of personal and social identity with adolescents and their parents: A cross-cultural study in ten European countries.

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Introduction

The development of identity is a central theme in adolescence and occurs in the context of family and culture. Our research project investigates the identity development of adolescents in Germany and its neighbouring countries. To examine generational differences and transmission within families, the parents were also questioned.

In this paper I will explain first the theoretical and methodological background of our study with special emphasis on the question of measurement invariance. Second, I will report some results about transmission effects in a cross-cultural perspective.

Measurement of personal and social identity

Research project

Our project is named "Personal and social identity in context of globalization and national delimitation" and is led by Professor Ulrich Schmidt-Denter, Chair of development and education at the Psychological Institute, University of Cologne. It is an intercultural European study which compares Germany with all its neighbouring countries: Denmark, the Netherlands, Belgium, Luxembourg, France, Switzerland, Austria, the Czech Republic and Poland. Several people cooperated in this rather large project, namely Professor Claudia Quaiser-Pohl, University of Siegen, Germany, Professor Meinrad Perrez, University of Fribourg, Switzerland, and Professor Harald Werneck, University of Vienna, Austria.

Research Project



Figure 1: Research project

The data was collected between August 2001 and March 2006. The total sample is N = 4312 adolescents, aged 13 to 19 years, and N = 1842 parents of these youngsters. The next figure shows where the data was collected in the different countries and the various sample sizes.

Sample Sizes

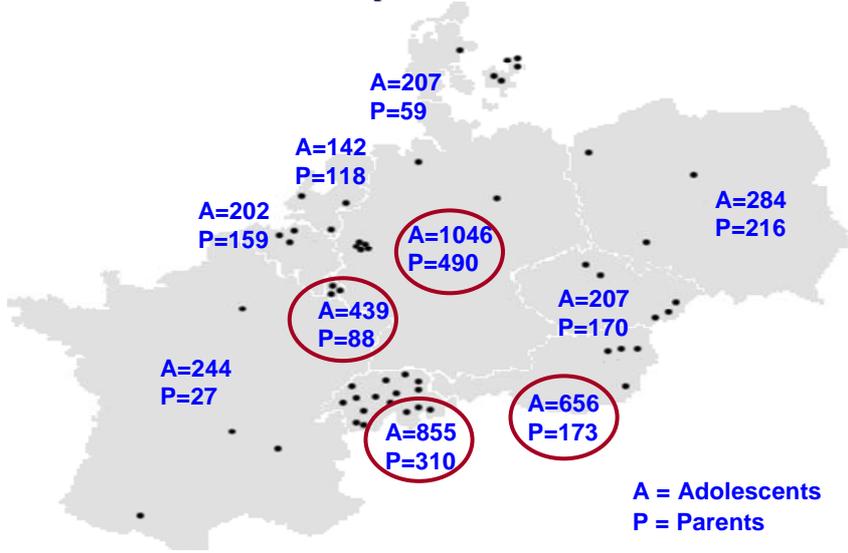


Figure 2: Samples

We obtained the largest sample-sizes in the German-speaking countries, between approximate 450 and 1000 adolescents. The sample sizes in all other countries are about 200 youths. In all cases the sample sizes of the parents are much less, in some countries such as France, Denmark and Luxembourg too small for several of our calculations.

The research interests of this study are several aspects of identity, because in the research literature identity formation and development is very often described as a problematic challenge in our time and influenced by many risk factors. Among these risk factors are processes of individualisation in modern industrialised societies, ethnic pluralisation and economic globalisation as well as factors of dysfunctional familial socialisation. Our research project enables us to examine relations between countries as well as between the generations, as well as the level of structural relationships. These include, for example, questions which examine correlations between personal and social identity in general and the significance of national identity, religion or intellectual competence. In particular, the question of differences between cultures as well as between generations and of transmission effects will be dealt with later on in my speech.

Theoretical background

In our theoretical model we differentiate between personal and social identity. Personal identity refers to the question: Who am I? The individual's awareness of being the same person despite development over time and in different situations and contexts is a central issue.

Structural Model of Personal and Social Identity

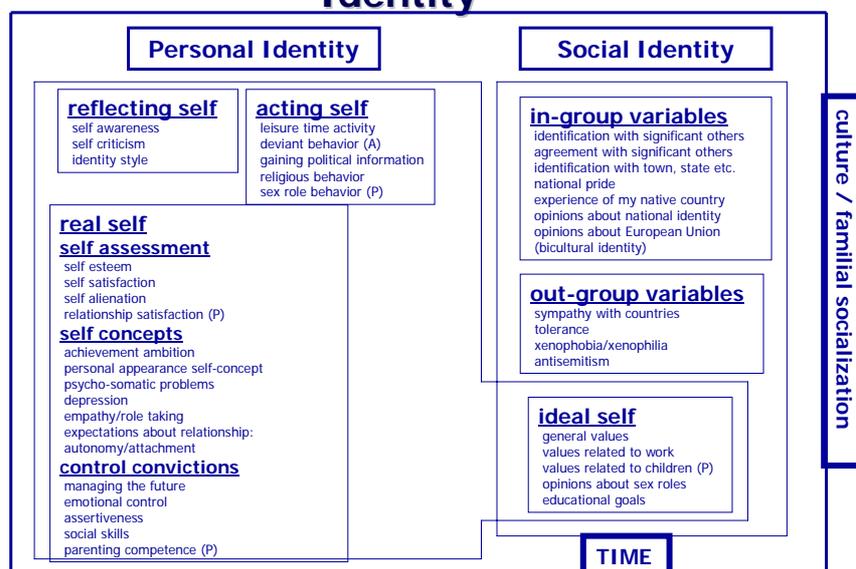


Figure 3: Structural model

Our structural model is based on the one hand on William Stern's (1918) critical personalism and on the other hand on Fend's (e.g. 1994) research on the development of self-concepts in adolescence. Identity is defined there as a "unitas multiplex", which is composed of the components "reflecting self"; "real self", including self assessment, self concepts and control convictions; "acting self"; and

“ideal self”. The concept of identity style by Berzonsky (1989) was integrated, too, as well as Hauser’s identity regulation model by (1995), who defines identity as a relationship structure of combining “self-esteem”, “self-concepts” and “beliefs of self-efficacy” and “locus of control”.

Under social identity we differentiate between in-group-variables and out-group variables. Social identity describes – according to Tajfel’s theory (1982) – the feeling of affiliation within social groups. Everybody has several social identities, based on being an insider in social groups on the micro and macro level (e.g. family, friends, village or town, nation or the European Union).

Individuals use specific strategies to create a positive social identity. These strategies include increasing the perceived value of the in-group and reducing that of the out-group. These strategies can take extreme forms, like xenophobia and excessive national pride, as well as influence opinions about other people and groups. But it is also possible to increase the perceived value of the out-group and reduce that of the in-group. The definition of the self and of others, the process of social affiliation and the definition of individual boundaries are all interacting dynamically.

We also included the factor time in the model: Of course there is self-awareness and a concept of self already in childhood. But typical to adolescence is the process of reflection about it. The result of this reflection is the differentiation of the components of personal identity.

Our theoretical framework is a contextual one. In our opinion family socialisation and cultural factors especially influence identity development, respectively the components of the structural model.

Our research design is therefore a cross-cultural study and includes adolescents and their parents to make an analysis of intrafamilial socialisation processes possible.

Measuring instrument

To operationalise all these constructs in this model we developed a questionnaire which includes 43 and 48 scales respectively (adolescent version and parent version) with 327 and 385 items respectively. It was translated into several languages by native speakers.

The problem of translation in cross-cultural research is the question of what is an accurate translation. On the one hand it is not certain that the linguistic phrases are valid in all countries if it is translated literally or correspondingly. On the other hand the items are incommensurable if we adapt the questionnaire to the context of the particular country.

So we have to decide between being fuzzy or measuring our constructs literally. In our research project we decided to keep the literal or corresponding translation. So we had to verify the measurement invariance over the different cultures. First, we identified the factorial structure of the scales in the German sample. Then we verified it by split-half validation using confirmatory factor analysis. Third, we asked for construct equivalence by using multiple group confirmatory factor analysis over this factorial structure. The technique is described by Jöreskog, 2004.

So as the first result of our survey, I want to present the findings of this validation analysis. Second, I will refer to the question of which scales can additionally be assumed invariant over generations. This leads to the third step, in which I can change over from the methodology to the content of the project: The transmission effects regarding personal and social identity.

Measuring invariance across cultures and generations

To identify the factorial structure of the scales we decided first to refer just to individuals who are native to a particular country. In some cases this came with a dramatic reduction of the sample size, as shown in the next figure. So we had to exclude the parent sample of France for all calculations, as well as the parent samples of Denmark and Luxemburg for several calculations.

Sample Sizes without Immigrants

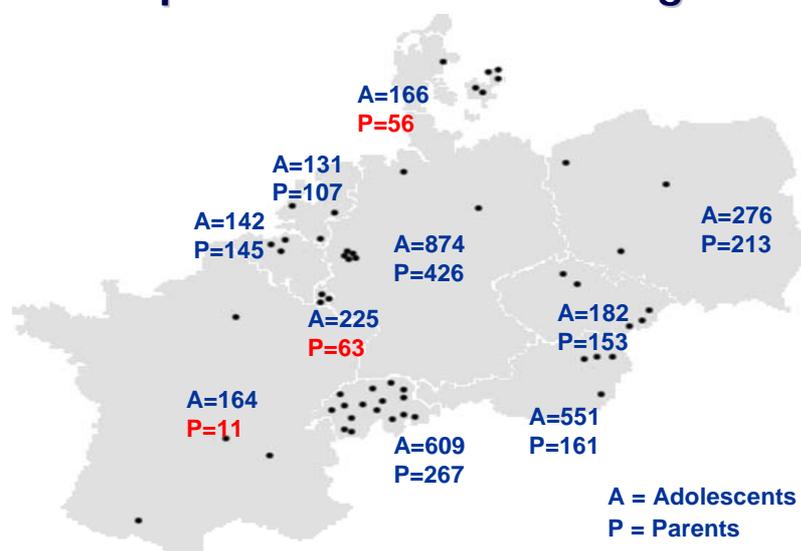


Figure 4: Samples without immigrants

Secondly, we tested invariance for structural equality. That means scales without a certain factorial structure could not be tested. We treat these scales as indicators which quantify the strengths of affirmation to these constructs, and interpret it on an item level. The figure below shows these scales in a light green colour.

The second result is that there are just two scales we had to exclude from the calculations because they are not valid. The figure shows these scales in red colour. The remaining scales could be tested on construct equivalence. The figure shows these scales in bold green colour.

Measurement Validity

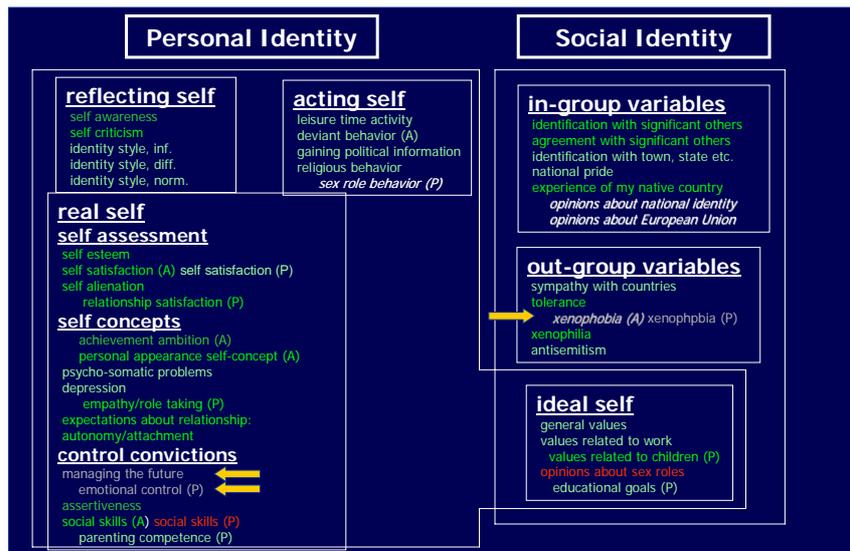


Figure 5: Measurement validity

The main result is that for nearly all scales we found structural equivalence in all countries. But there are some scales which are valid over the countries just in one generation, adolescents or parents. The figure shows these scales with a little shifting and a clue in brackets as to whether there is equivalence for adolescents (A) or parents (P). There are at least a few scales where we found structural equivalence just in some countries. These are “opinions about national identity” and “opinions about European identity”, and also “xenophobia” by adolescents and “self satisfaction” and “sex role behaviour” by parents. The figure shows these scales in blue italics.

Measurement invariance between generations was tested on the German sample and could be found for most of the scales. There are just three scales which are not valid for comparisons between generations: these are “managing the future”, “emotional control” and “xenophobia”. Furthermore there are some scales which are comparable just on interpreting level of construct indicators: these are “self-awareness”, “achievement ambition” and “assertiveness”.

We can summarize by saying that this questionnaire is a valid instrument for measuring a variety of aspects in the intercultural and intergenerational comparison of personal and social identity in Europe. Measurement invariance over generations also can be postulated for most of the scales.

Transmission effects in personal and social identity

Research questions

My last topics are the transmission effects of personal and social identity as indicators for the strength of intrafamilial processes. These effects are mostly explained by the child's identification with the parents. The literature describes that there are different effects for mothers and fathers and that the effects also vary with the sex of the child. Furthermore, transmission effects are moderated by different other variables like education style or age. The transmission of aspects of identity, however, has never been studied in such a broad approach as ours.

The question which I would like to discuss today is: For which aspects of personal and social identity can we provide evidence for transmission effects and do these effects occur homogenous in Europe?

Method

Reviewing the results of the literature on exploring transmission effects we dealt only with a sample of mother-child-dyads. As a result of greatly reduced sample sizes some countries had to be excluded from the analyses. This figure describes the sample.

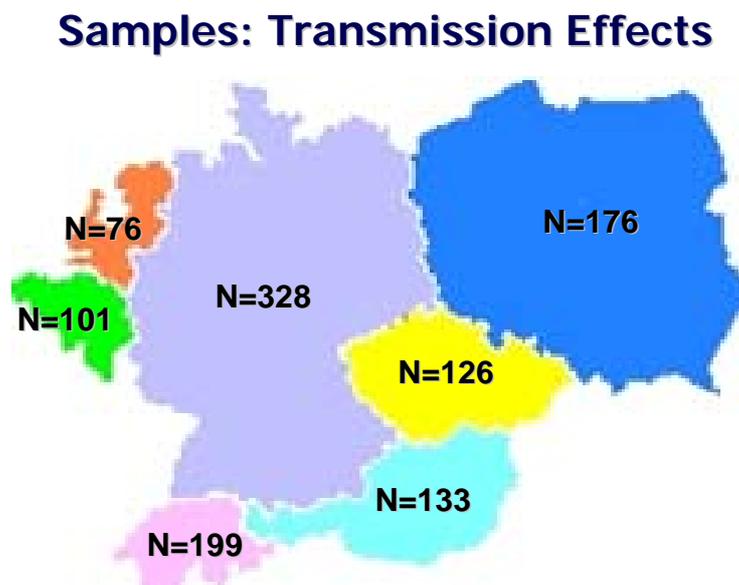


Figure 6: Mother-child samples

To go back to the results concerning measurement invariance reported above, we selected for this investigation only the scales with cross-cultural measurement invariance for parent and child generation. Additionally, we included some scales which can be interpreted on the level of construct indicators such as identity style, psychosomatic problems, political and religious behaviour, and national pride. The figure below shows the included constructs. We omitted "ideal self" because transmission effects of values are the topic of another symposium held this afternoon.

Scales: Transmission Effects

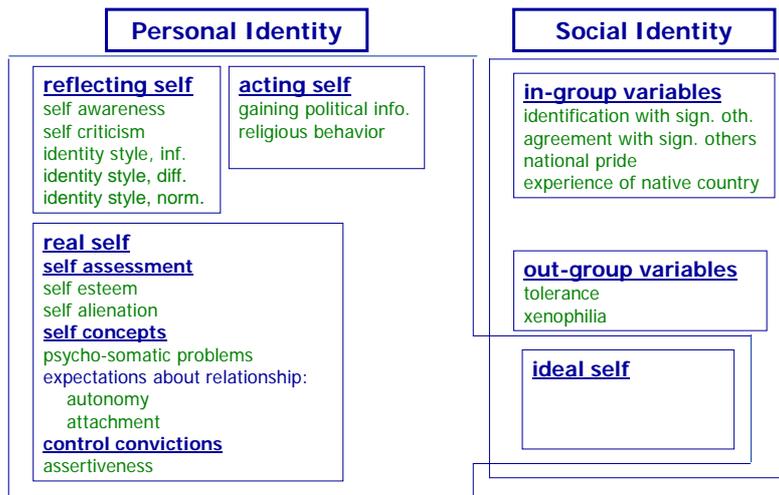


Figure 7: Included scales

We analysed the data by using regression analyses. First, we created a linear regression for every country with the maternal variables as a predictor of adolescent's variables. To answer the question of generality we computed multiple regressions with the interaction of "land" and the centered maternal variables.

Results

The figure shows the regression-coefficients for the scales of personal identity, Marked in bold numbers on a dark field are the significant models. Our data shows that personal identity of parents predicts in many respects significantly the identity dimensions of their children.

Table 1: Results personal identity

Results: Personal Identity

Country/Scale	D	NL	B	CH	A	CZ	PL
Reflecting Self							
self awareness	0.109	0.478	0.167	0.002	0.182	0.153	0.029
self criticism	0.155	0.149	-0.019	0.131	0.178	0.058	0.157
identity style, inf.	0.097	0.252	0.218	0.146	0.226	0.197	-0.010
identity style, diff.	0.026	0.268	0.070	0.094	0.047	0.017	0.083
identity style, norm	0.163	0.229	0.096	0.134	0.072	0.027	0.158
Real Self							
self esteem	0.128	0.320	0.311	0.286	0.274	0.156	0.177
self alienation	0.128	0.293	0.357	0.069	-0.036	0.155	0.048
psychosomatic problems	0.105	0.162	0.245	0.209	0.273	0.147	0.128
autonomy	0.067	0.190	0.108	0.037	0.041	0.072	0.101
attachment	0.094	0.170	0.006	0.119	-0.045	-0.016	0.017
assertiveness	0.040	0.185	0.128	0.153	0.246	0.035	0.104
Acting Self							
gaining political information	0.242	0.159	0.130	0.238	0.228	0.095	0.137
religious behaviour	0.503	0.294	0.155	0.421	0.414	0.551	0.397

But significance is not given for all countries, and effects in some countries are stronger than in others. Both effects can be explained by sample-characteristics – for example selectivity or sample-size – or by effects of cultural diversity. To identify the effect of culture we asked for interactions of the predictors with the variable “land”. In the next table we have marked where there is a significant interaction-term in the regression analyses in red using Germany as reference country.

Table 2: Homogeneity of effects in personal identity

Results: Personal Identity

Country/Scale	D	NL	B	CH	A	CZ	PL
<i>Reflecting Self</i>							
self awareness	0.109	0.478	0.167	0.002	0.182	0.153	0.029
self criticism	0.155	0.149	-0.019	0.131	0.178	0.058	0.157
identity style, inf.	0.097	0.252	0.218	0.146	0.226	0.197	-0.010
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identity style, norm	0.163	0.229	0.096	0.134	0.072	0.027	0.158
<i>Real Self</i>							
self esteem	0.128	0.320	0.311	0.286	0.274	0.156	0.177
self alienation	0.128	0.293	0.357	0.069	-0.036	0.155	0.048
psychosomatic problems	0.105	0.162	0.245	0.209	0.273	0.147	0.128
autonomy	0.067	0.190	0.108	0.037	0.041	0.072	0.101
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<i>Acting Self</i>							
gaining political information	0.242	0.159	0.130	0.238	0.228	0.095	0.137
religious behaviour	0.503	0.294	0.155	0.421	0.414	0.551	0.397

First, there are only a few cases with significant interactions. Furthermore, all the significant deviations are found for scales where the strongest differences in regression-coefficients are found. So in a second analysis we choose the country with a nearly middle expression of regression-coefficient as reference group. Now there are no more differences between any countries for the scales of personal identity. So for personal identity we can postulate that transmission effects occur homogeneously in Europe.

But what about social identity?

The figure shows, that for social identity there are more interactions with “land” than for personal identity – and: The coefficients are so different, that in any combination there are still one or two countries which deviate from the reference group

Table 3: Results social identity

Results: Social Identity

Country/Scale	D	NL	B	CH	A	CZ	PL
<i><u>In-Group Variables</u></i>							
identification with sign. others	0.157	0.318	0.084	0.090	0.097	0.142	0.189
agreement with sign. others	0.262	0.409	0.173	0.465	0.354	0.207	0.373
national pride	0.131	0.354	0.394	0.148	0.145	0.125	0.092
experience of my native country	0.407	0.222	0.198	0.474	0.356	0.144	0.320
<i><u>Out-Group Variables</u></i>							
tolerance	0.116	0.392	0.364	0.190	0.161	0.222	0.135
xenophilia	0.334	0.456	0.110	0.379	0.350	0.168	0.262

So for social identity we can postulate that transmission effects occur homogenously in some countries, but there are exceptions. So we have to assume that transmission of social identity is influenced by culture more than personal identity.

To summarise the results the next figure shows the analysed scales and mark in orange colour for those we postulate a transmission effect. The decisive criterion is an explained variance of minimum 1% for the regression model of the centered maternal variable for the complete group.

With reference to these results we can summarise that there are transmission effects for a lot of aspects of personal and social identity and that they occur homogenously in Europe, but for social identity not in all countries. Among those the strongest effects are found for religious behaviour, experience of my native country and the scales of social identity in general.

Table 4: Generality of transmission effects

Generality of Transmission Effects

<i>Personal Identity</i>	<i>B</i>	<i>SE B</i>	<i>β</i>	<i>adjusted r²</i>
self awareness	0.098	0.028	.103	.010
self criticism	0.204	0.032	.185	.033
identity style, inf.	0.146	0.030	.146	.020
identity style, diff.	0.069	0.027	.075	.005
identity style, norm	0.160	0.025	.189	.035
self esteem	0.218	0.030	.212	.044
self alienation	0.119	0.037	.097	.009
psychosomatic problems	0.164	0.028	.172	.029
autonomy	0.110	0.027	.151	.015
attachment	0.070	0.026	.080	.006
assertiveness	0.113	0.029	.015	.012
gaining political information	0.209	0.029	.210	.043
religious behaviour	0.477	0.024	.509	.258
<i>Social Identity</i>				
identification with sign. others	0.320	0.036	.255	.064
agreement with sign. others	0.187	0.032	.017	.029
national pride	0.255	0.028	.026	.068
experience of my native country	0.476	0.025	.488	.238
tolerance	0.191	0.032	.182	.032
xenophilia	0.318	0.029	.314	.098

Discussion

Of course correlational data from one measurement point do not allow the hypothesis of transmission to be tested. Furthermore, we did not consider moderator variables and the hierarchical structure of our data. So with the exception of religious behaviour the strength of the interrelations found is small and significance is non-existent for all countries. However, we can conclude that transmission is a general mechanism in adolescent socialisation and reflects development of identity as well as other domains of development. Further research will be done to identify the effects of moderator variables using hierarchical structural equation models.

Conclusion

Our research project "Personal and social identity in context of globalization and national delimitation" possesses a large pan-European sample of adolescents and their parents. As we pointed out at the discussion of measurement invariance and at the example of the transmission effects, the data permit the long-range investigation of development and socialisation in context of family and culture. The results of further investigations will be reported soon.

References

- Berzonsky, M.D. (1989). Identity style: Conceptualization and measurement. *Journal of Adolescence Research*, 4, 267-281.
- Cohen, J., Cohen, P., West, S. G. & Aiken, L. S. (2002). Applied multiple regression / correlation analysis for the behavioral sciences (2nd Ed.). Mahwah, NJ: Erlbaum.
- Fend, H. (1994). *Die Entdeckung des Selbst und die Verarbeitung der Pubertät*. Bern: Hans Huber.
- Hardy, M. A. (1993). Regression with dummy variables. Newbury Park: Sage.
- Haußer, K. (1995). *Identitätspsychologie*. Berlin: Springer.
- Jöreskog, K. (2004). *Structural equation modeling with ordinal variables using LISREL*. [On-line]. Available at:
<http://www.ssicentral.com/lisrel/tecdocs/ordinal.pdf> (5.6.2006).
- Stern, W. (1918). *Grundgedanken der personalistischen Philosophie*. Berlin: Reuther & Reichard.
- Tajfel, H. (1982). *Gruppenkonflikt und Vorurteil. Entstehung und Funktion sozialer Stereotypen*. Bern: Huber.