

Causal Relationships between Reading Socialication, Socioeconomic Variables, and Strategies for Reading Novels

Christina Burbaum, Michael Charlton & Karl Schweizer

VIII. International Congress IGEL University of Pécs August 21-24, 2002

1. Introduction

The aim of our study was to investigate, through the help of statistical methods, the relationships between reading socialisation and other types of socialising conditions (such as education and gender) on the one hand and the reading behaviour in adulthood on the other hand. Our project is part of the special research program „Reading Socialisation in Media Society“.

In the spring of 2001 a computer assisted interview with a random sample containing 1025 persons was carried out by the Center for Inquiries, Methods and Analyses. People from all over Germany were interviewed who were at least 16 years old and indicated to read at least one novel per year.

The interview guide contained, in total, 90 closed questions regarding the reading practices, preferences, reading socialisation practices and the current reading strategies of the interviewees. In addition, the cultural milieu was questioned in addition to social data.

Table 1: Survey of the thematic fields in the interview

Reading frequency, -preferences	Range of books owned, Genre preferences, Level of sophistication of novels, Reading quantity, Reading specialist literature
Reading socialization	Reading climate in the family, Reading during youth
Reading strategies	Reading motives, Reading techniques, Emotional reading style, Reading to cope with life's problems, Communication about reading
Social data	Gender, Age, Education, Job status, Marital status, Region
Cultural milieu	Everyday life aesthetic schemata (according to Schulze, 1992) Materialism/Postmaterialism (according to Inglehart, 1977)

The aim of the statistical investigation of the collected data was twofold: Firstly to verify reading strategies. With the concept of "reading strategy", all the operations and actions that readers apply when they read a literary text are implied. Such reading strategies can occur before, during and after reading. They include both the behavior to the text in it's material form (e.g. browsing through a book, throwing it in the trash) as well as emotional reactions and cognitive operations (e.g. identifying oneself with the protagonist, furthering the story in one's own daydreams) as well as social interaction and communication about the text (e.g. talking about the book with the book dealer or with friends).

Secondly, to test different hypotheses about the connections between social data, cultural milieu of the readers, reading practises and reading socialisation. In this paper we would like to present one investigation in particular.¹

2. Constructs

Within the mentioned thematic fields we had previously defined a certain number of theoretical constructs which are as such not directly observable, e.g. the construct reading socialisation. The operationalization of these constructs through the items of the questionnaire is explained in Part 4 of this paper. Here is a brief characterization of the constructs:

- **Education**
Education means a person's educational history.
- **Reading socialisation**
refers to the reading socialisation experiences in the childhood family.
- **Gender**
refers to the gender role-identity of a person.
- **Reflective reading**
describes a style of reading that is characterized by a certain concrete handling of the novel as a book (such as skipping back and forth, underlining certain passages etc.).
- **Highbrow literature**
means the level of sophistication of the novels read by a person.
- **Coping by reading**
refers to a style of reading by which a person purposefully employs novel reading to help overcome his/her problems. The reading helps the person to come to grips with personally relevant topics.

3. Hypotheses

The following hypotheses about the relationships between these constructs were posed (see also Figure 1) :

1) Education → Highbrow literature

A higher educational level leads to the reading of Highbrow literature (minus sign).
(cf. Gilges 1992)

¹ Further information about our study and about other evaluations can be looked up in a technical report which will soon be available on the internet (<http://www.psychologie.uni-freiburg.de/pi-zentral/fobe90.html>).

2) Reading socialisation → Highbrow literature

A more distinctive Reading socialisation leads to the reading of sophisticated literature (plus sign). (cf. Gilges 1992)

3) Reading socialisation → Coping by reading

A more distinctive Reading socialisation leads to the Coping by reading style (plus sign). (It is assumed that a distinctive Reading socialisation is characterized by showing resources and potentials of reading to the child. Furthermore, the child realizes the contribution that reading has for dealing with everyday life and overcoming problems.)

4) Reading socialisation → Reflective reading

A more distinctive Reading socialisation leads to a more marked Reflective reading style (plus sign). (The early introduction to the contact with books leads to a more competent handling of books.)

5) Gender → Coping by reading

For women, literature is more likely to be a way to examine their own problems and to cope with them than it is for men (plus sign). (This correlation was implied in the pre-study completed with 80 subjects.)

6) Coping by reading → Highbrow literature

Readers who show the reading style of Coping by reading read Highbrow literature (plus sign). (We expect that Coping by reading puts specific demands on the literature. The openness of a work makes it possible for one's own experience to be addressed by and to be resonated through the act of reading. This, according to Schmidt (1980) characterizes sophisticated literature (Poly-valence convention). Moreover Scheff (1983) stresses that an aesthetic distance is a prerequisite for the therapeutic effect of reading. This distance is also characteristic for Highbrow literature (Aesthetics convention).)

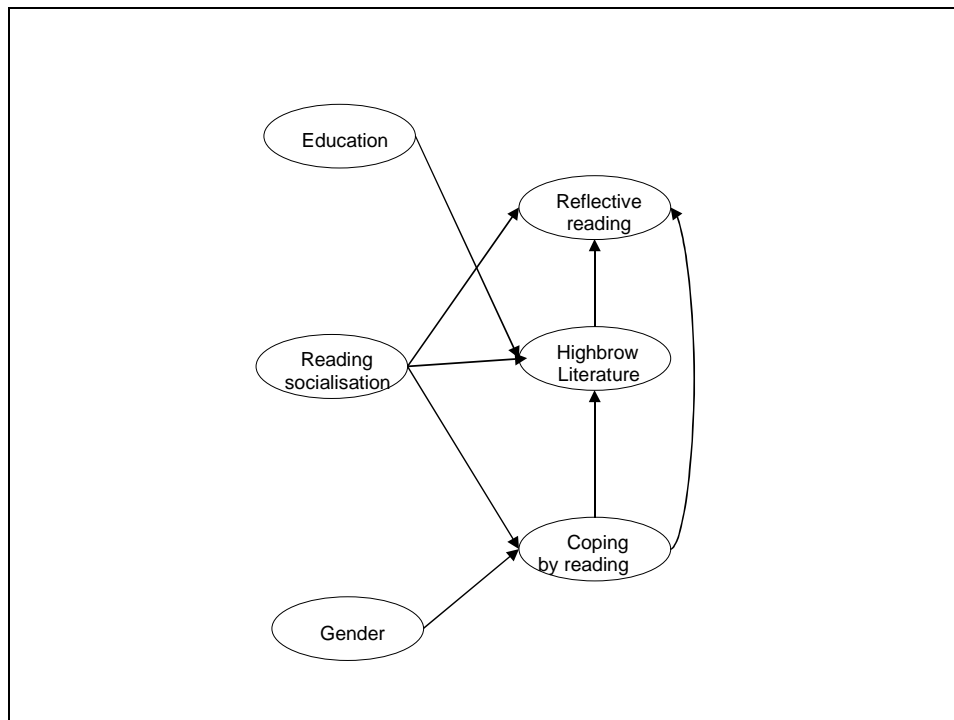
7) Highbrow literature → Reflective reading

One who reads Highbrow literature uses more reflective reading strategies (plus sign) than those who don't.

8) Coping by reading → Reflective reading

Those who show the reading style of Coping by reading read in a reflective manner (positive sign). (The Reflective reading can be understood as a distancing technique which can be necessary for Coping by reading (Scheff 1983).)

Diagram 1: Hypotheses



A few sentences to the neglected relationships:

- Education → Reflective reading; Gender → Reflective reading
Only the relationship between Reading socialisation and Reflective reading was affirmed since in former analyses it became clear that Education and Gender do not have any direct influence on Reflective reading
- Education → Coping by Reading
We have no hypothesis for this relationship. This link wasn't significant in another empirical investigation.
- Gender → Highbrow literature
According to Gilges (1992) men and women differ only insignificantly in the reading of sophisticated literature.

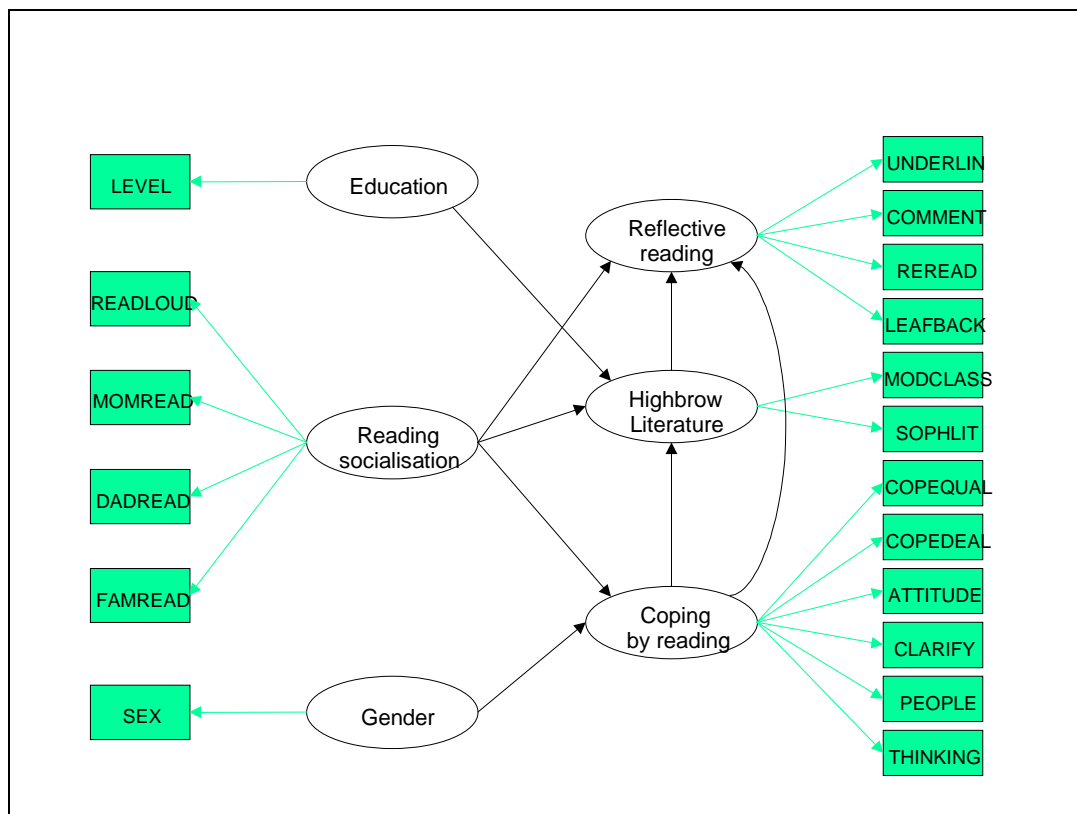
4. Empirical Method and Operationalization

Statistically we investigated these hypothesis using a structural equation model (Jöreskog & Sörbom 1996). Structural equation models allow the examination of assumed directed relationships between constructs. Directed relationships include the distinction between independent and dependent latent variables and demand their treatment in accordance with this distinction in estimating the model parameters. Actually we can not interpret the relationships in the sense of a causal impact. However, since in our model autobiographical early data acts as a predictor for autobiographical late data, they can cautiously be interpreted as being causal relationships.

The constructs (latent variables, circles in Diagram 2) are operationalized in structural equation models through observable variables (squares in Diagram 2). Precise information about the variables/items can be taken from the Appendix.

The operationalization of the variables is shown in the following diagram:

Diagram 2: Latent and Manifest Variables



- **Education**
The latent variable Education is operationalized as the highest educational level reached (Item: LEVEL).²
- **Reading socialisation**
The latent construct Reading socialisation is operationalized through four items investigating the reading habits during childhood (READLOUD; MOMREAD; DADREAD; FAMREAD).
- **Gender**
The latent construct Gender is operationalized as the sex of the interviewee as it is perceived by the interviewers (SEX).

² If a latent variable was determined by only one manifest variable we assumed that the indicator variable represented the construct unambiguously. We followed the default procedure and set the parameter of the path on 1 and the measurement error on 0.

- **Reflective reading**
The latent variable Reflective reading is operationalized through four items concerning reflective reading strategies (UNDERLIN; COMMENT; REREAD; LEAFBACK).³
- **Highbrow literature**
The latent variable Highbrow literature is operationalized through the frequency of reading modern classics (MODCLASS) and contemporary sophisticated literature (SOPHLIT).⁴
- **Coping by reading**
The latent variable Coping by reading is operationalized through six items investigating the manner of identification and the specific reading behaviour in critical life periods (COPQUAL, COPDEAL, ATTITUDE, CLARIFY, THINKING, PEOPLE).⁵

5. Results

For the evaluation of the quality of a structural equation model two aspects are relevant:

- (a) the total fit of the model and
- (b) the quality of the specific coefficients.

In order to evaluate the total fit of a model (a) specific statistical criteria are used, see Table 2 below. In our study those specific criteria indicated a good overall fit.

Table 2: Criteria for the evaluation of the model's total fit. Conditions for a good/acceptable fit (*according to Mueller 1996, Schermelleh-Engel & Keith 1998)

	Chi²	df	GFI	AGFI	RSMEA	NFI
Model	270.47	123	0.97	0.96	0.034	0.89
good fit*	<i>Chi²/df ≤ 2</i>		<i>GFI ≥ 0.95</i>	<i>AGFI ≥ 0.95</i>	<i>RSMEA ≤ 0.05</i>	<i>NFI ≥ 0.95</i>
acceptable fit	<i>Chi²/df ≤ 3</i>		<i>GFI ≥ 0.90</i>	<i>AGFI ≥ 0.90</i>	<i>RSMEA ≤ 0.08</i>	<i>NFI ≥ 0.90</i>

In terms of checking the quality of the specific coefficients (b) we are interested in Diagram 3 in the middle part of the model dealing with the important relationships between the latent constructs (concerning the hypotheses) alone.

³ It is expected that in each case 2 of the 4 items will be associated more strongly. Therefore error correlations were allowed for these pairs.

⁴ With two manifest variables for one latent variable only one coefficient can be estimated. Therefore, in this case, one factor loading was always put to 1 and the other one was set free for the estimation.

⁵ It was expected that the two special items regarding the Coping by reading and the two items regarding the reading motives shared a common variance. Therefore a common error variance was allowed for these pairs.

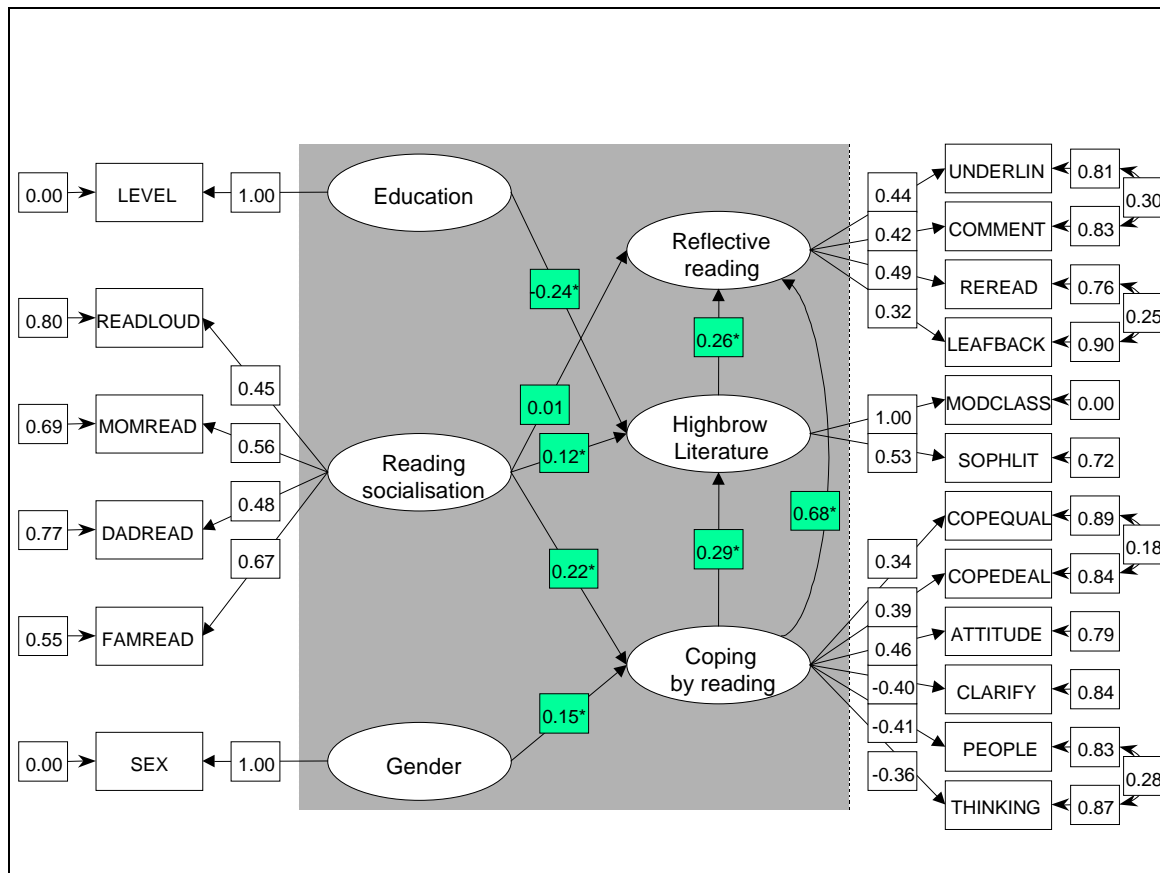
Except for the path from Reading socialisation to Reflective reading all assumed relationships between the constructs reached significance. Those numbers can be interpreted as path coefficients.

The constructs Gender and Reading socialisation have a significant influence on the **Coping by reading** (Gender $\gamma=0.15$ and Reading socialisation $\gamma=0.22$). 7% of the variance of the construct Coping by reading can be explained through the model.

The variance of the latent construct **Highbrow literature** is explained through the other latent constructs in different ways. Reading socialisation has one direct and one indirect effect mediated by **Coping by reading**. One can also see the direct path from the construct **Education** to the construct **Highbrow literature**, while the construct **Gender** has only an indirect one mediated by the construct **Coping by reading**. All these effects are significant and explain in sum 18% of the variance of the latent construct **Highbrow literature**.

64% of the variance of the construct **Reflective reading** can be explained through the model. This happens through very different direct and indirect paths. The very strong path from the Coping by reading to the Reflective reading, in particular, should be mentioned at this point. The direct path of the latent construct Reading socialisation loses its importance for the benefit of the indirect effects mediated by the other constructs.

Diagram 3: Results⁶



6. Discussion

In some closing statements we would like to outline the new perspective of research. Previously known was the impact of Education and Reading socialisation on the interest in Highbrow literature. We see this impact in our model as well:

- a person with a higher level of Education is more likely to read Highbrow literature;
- a person with a more distinctive Reading socialisation is also more likely to read Highbrow literature.

It was also a known presumption that there is no connection between Gender and the level of sophistication of the literature.

New in our study are three aspects:

1. First we have addressed different reading techniques (such as page turning or commentary) and complex reading strategies (for example different ways of identifying with the characters in the literature) as extensively and systematically as possible. Only a few of them are included in this specific model.

⁶ The signs arise due to the polarity of the items and can be explained through the item list in the Appendix.

2. Second we could show, that two variable clusters in the sense of latent constructs could be empirically confirmed: on the one hand the cluster Reflective reading and on the other hand the cluster Coping by Reading.
3. And finally we could show the complex connections and the directed relationships between the already known constructs (Education, Reading socialisation, Gender, Highbrow literature) and the new ones we have presented:
 - a person with a more distinctive Reading socialisation is more likely to read in the style of Coping;
 - women are more likely to read in the style of Coping by reading;
 - a person who reads in the style of Coping by reading is more likely to read Highbrow literature and will also with a higher probability use Reflective reading;
 - one who reads Highbrow literature will probably employ reflective reading strategies.

7. Literature

Gilges, M. (1992). Lesewelten. Geschlechtsspezifische Nutzung von Büchern bei Kindern und Erwachsenen. Bochum: Brockmeyer.

Jöreskog, K.G. & Sörbom, D. (1996). LISREL 8: User's reference guide. Chicago: Scientific Software.

Mueller, R. O. (1996). Basic principles of structural equation modeling. New York: Springer.

Scheff, T.J. (1983). Explosion der Gefühle: über die kulturelle und therapeutische Bedeutung kathartischen Erlebens. Weinheim: Beltz.

Schermelleh-Engel, K. & Keith, N. (1998). Einführung in die Analyse von linearen Strukturgleichungsmodellen: Arbeitsmaterialien und Übungsbeispiele. Arbeiten aus dem Institut für Psychologie der Johann Wolfgang Goethe-Universität Frankfurt am Main. Heft 2.

Schmidt, S.J. (1980). Grundriß der empirischen Literaturwissenschaft. Bd. I: Der gesellschaftliche Handlungsbereich Literatur. Braunschweig: Vieweg.

Appendix: Item review

Education is operationalized through the items:

LEVEL	highest level of education completed:	0 = none completed	5 = University completed
-------	---------------------------------------	--------------------	--------------------------

Reading socialisation is operationalized through the items:

READLOUD	When you reflect on your childhood (up to age 12), did your parents read books aloud to you?	1 = yes	2 = no
MOMREAD	How often did your mother herself read books?	1 = very often	5 = never
DADREAD	How often did your father himself read books?	1 = very often	5 = never
FAMREAD	At your parents' home were the reading experiences of the family members discussed?	1 = very often	5 = never

Gender is operationalized through the item:

SEX	Person is ...	1 = female	2 = male
-----	---------------	------------	----------

Reflective reading is operationalized through the items:

UNDERLIN	While reading I underline particular portions of the text.	1 = often to seldom	2 = never
COMMENT	When I read a novel I write comments in the book or on a separate sheet of paper.	1 = often to seldom	2 = never
REREAD	There are particular portions of the book that I read several times.	1 = often	4 = never
LEAFBACK	I leaf back through the pages of the book while reading.	1 = often	4 = never

Highbrow literature is operationalized through the items:

MODCLASS	Do you read modern classics (i.e. Thomas Mann)?	1 = often	4 = never
SOPHLIT	Do you read current sophisticated literature and authors (i.e. Günter Grass)?	1 = often	4 = never

Coping by reading is operationalized through the items:

COPEQUAL	In troubled times have you read other types of books than you would normally read?	1= yes	2 = no
COPEDEAL	I can better deal with my problems through reading.	1 = I fully agree	5 = I don't agree at all
ATTITUDE	I recognise my own attitudes and qualities in the characters of the novel.	1 = I fully agree	5 = I don't agree at all
CLARIFY	Aim of communication: to clarify and assimilate my own experiences .	0 = not mentioned	1 = mentioned
THINKING	Reason for reading: because the theme stimulated my thinking.	0 = not mentioned	1 = mentioned
PEOPLE	Reason for reading: to experience something about mankind.	0 = not mentioned	1 = mentioned

Authors' addresses:

Dipl. Psych. Christina Burbaum
 Institute of Psychology University of Freiburg D – 79085 Freiburg (Germany)
burbaum@psychologie.uni-freiburg.de

Prof. Dr. Michael Charlton
 Institute of Psychology University of Freiburg D – 79085 Freiburg (Germany)
charlton@psychologie.uni-freiburg.de

Prof. Dr. Karl Schweizer
 Institute of Psychology University of Freiburg D – 79085 Freiburg (Germany)
schwkarl@ruf.uni-freiburg.de