

Dr. habil. Heiner Rindermann
Institut für Psychologie, Otto-von-Guericke-Universität
Postfach 4120, D-39016 Magdeburg
www.uni-magdeburg.de/methpsy/hr/Webseite-Rindermann.htm

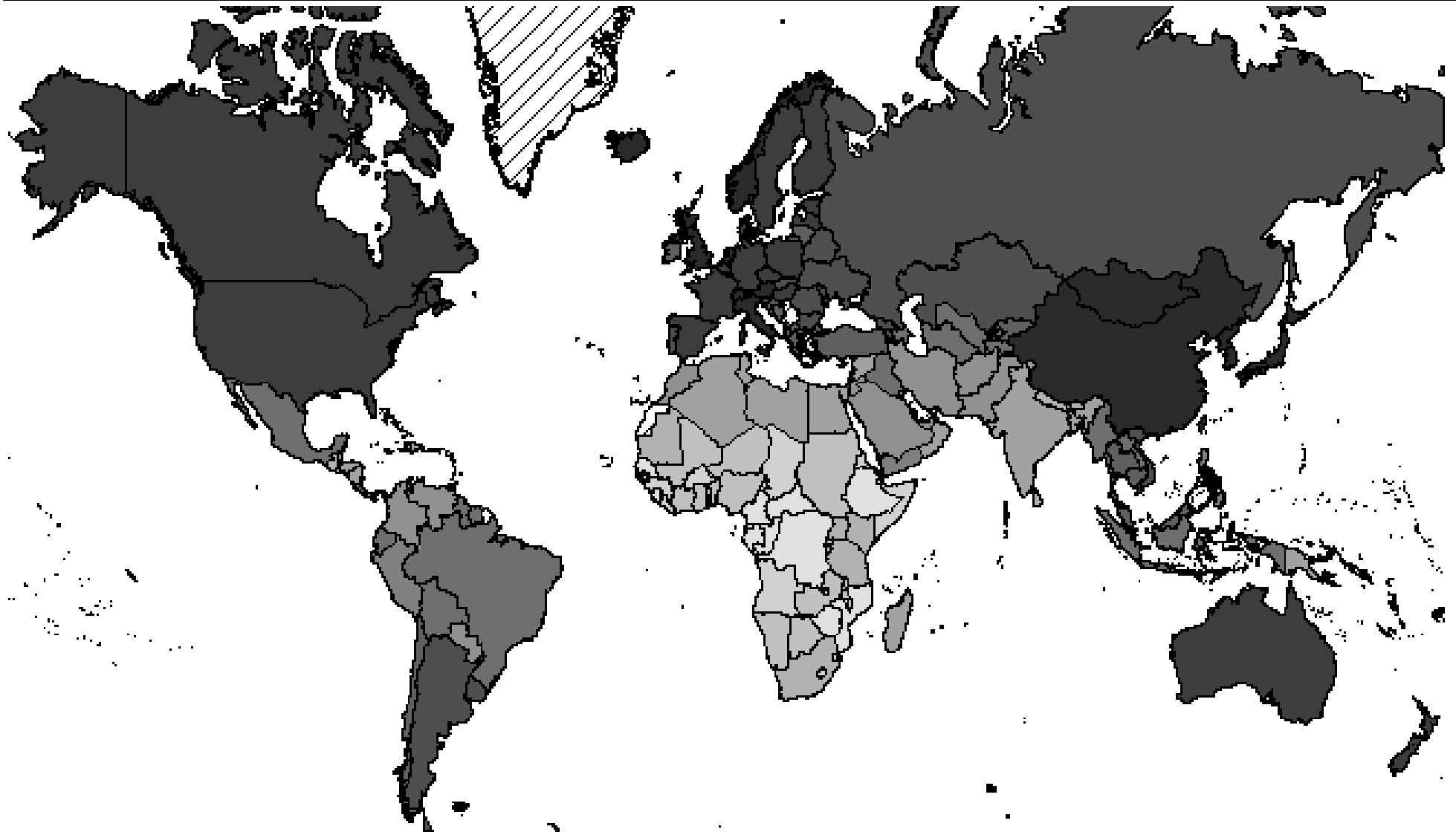
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Heiner Rindermann
Otto-von-Guericke-University Magdeburg, Germany

**Relevance of education and intelligence
at the national level for politics:
Democracy, rule of law and political liberty**

1. Cognitive abilities across nations
2. Democracy, rule of law and political liberty across nations
3. Education and intelligence as causal factors for political development?
4. Cross-lagged relationships
5. Suggestions for support of democratic development
6. Ideas for further research

1. Cognitive abilities across nations



Lynn and Vanhanen's (2006) IQ-test-results (darker means higher)
(different tests collected and standardized on "Greenwich-IQ-norm")

Lynn and Vanhanen have been criticized frequently because of the representativeness of their samples and the validity of their data.

But IQ-tests are not the only source for cognitive ability measures of nations.

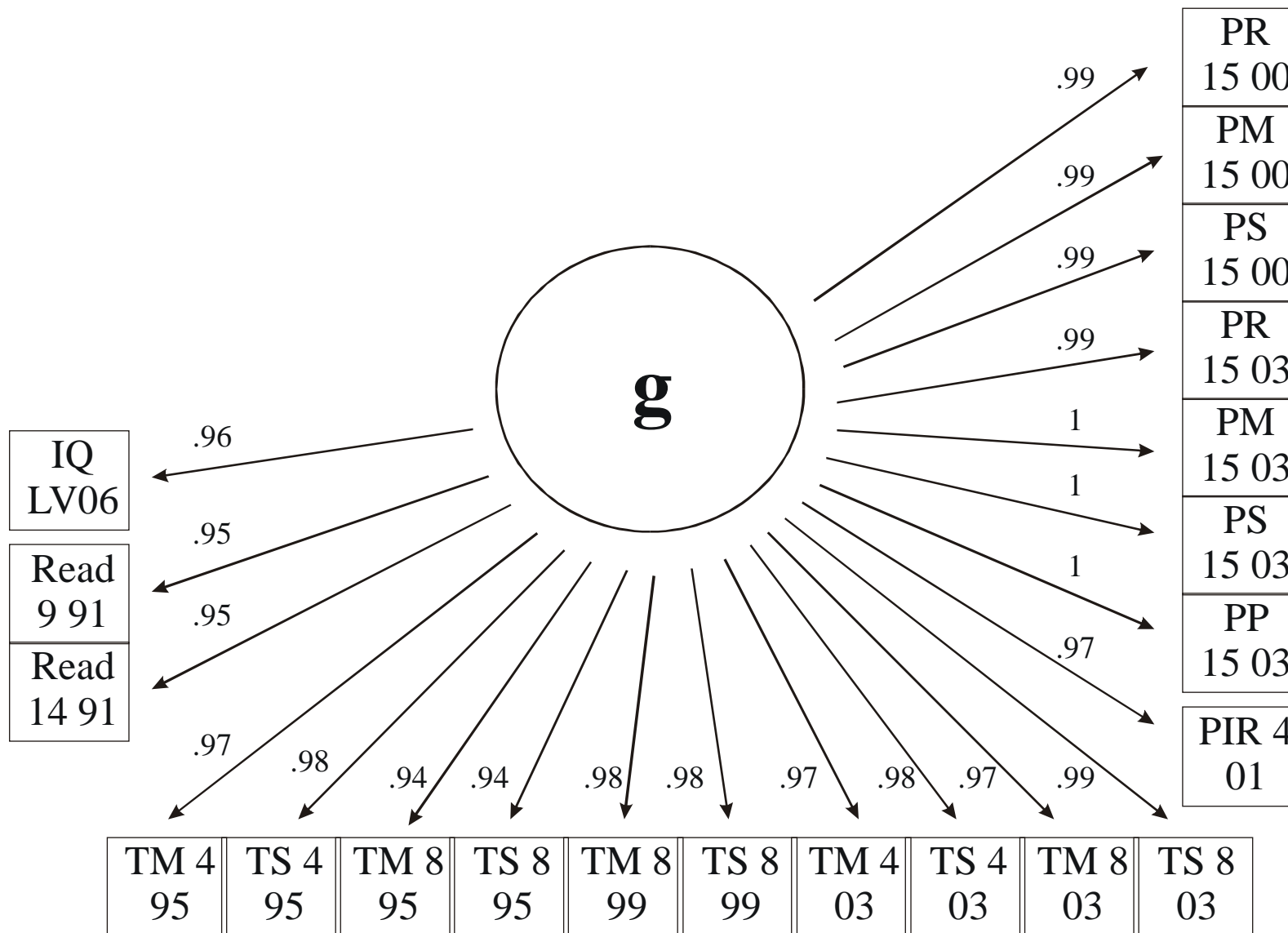
There are student assessment studies and their results are highly correlated within (TIMSS, PISA, PIRLS, ...) and with the IQ-test-collection of Lynn and Vanhanen.



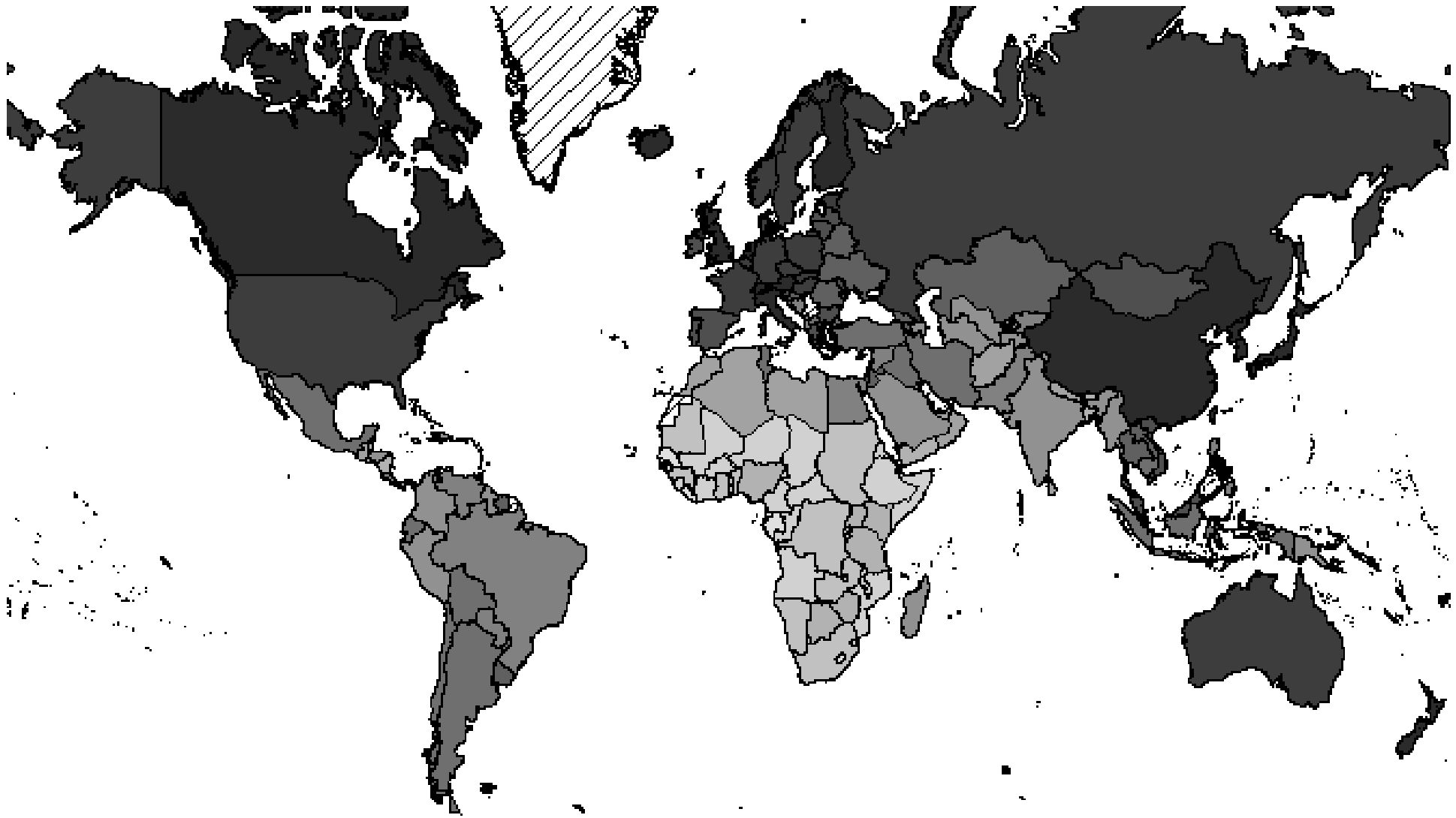
TIMSS 1995-'03 sum (not corrected for age & participation rates of students)
hachures: not participated in studies



PISA 2000-2003 sum (not corrected for school attendance rates of 15 year old youth)



g-factor of cognitive abilities at national level (uncorrected data, FIML, loadings on first unrotated factor, 94% of variance explained)



Cognitive ability sum (IQ-tests and student assessment scales, corrected for estimation of missing countries, for students older than expected, for low school attendance rates and for low participation rates)

Results are highly correlated with educational variables (sum of: rates of literate adults, of adults with secondary degree, average years of school attendance): $r=.78$.

Results correspond to outcomes of Piaget-studies and observations of cognitive relevant everyday behavior (e. g. belief in witchcraft and in superstition; e. g. incidence and causes of accidents).

Results are highly correlated with other cultural, social and economic variables, but lower than intelligence with education at macro-social level:

Cognitive ability (intelligence and knowledge) and

democracy ($r=.56$),

rule of law ($r=.64$),

political liberty ($r=.51$),

GNP ($r=.63$, logged GNP $r=.70$).

2. Democracy, rule of law and political liberty across nations



Sum value of democracy 1996-2000 from Vanhanen (2003) and Marshall & Jaggers (2000), darker means higher

Democracy:

Measuring *competition and participation in voting decisions* for elections and in referendums (Vanhanen, 2003) and evaluation of essential political indicators (“presence of *institutions* and procedures through which citizens can express effective preferences about alternative policies and leaders”, “existence of *institutionalized constraints* on the exercise of power by the executive”; Marshall & Jaggers, 2000). ($r=.90$ between both)

Rule of law:

Legal structure and security of property rights (judicial independence, impartial courts, protection of intellectual property, no military interference, integrity of legal system; Gwartney & Lawson, 2003).

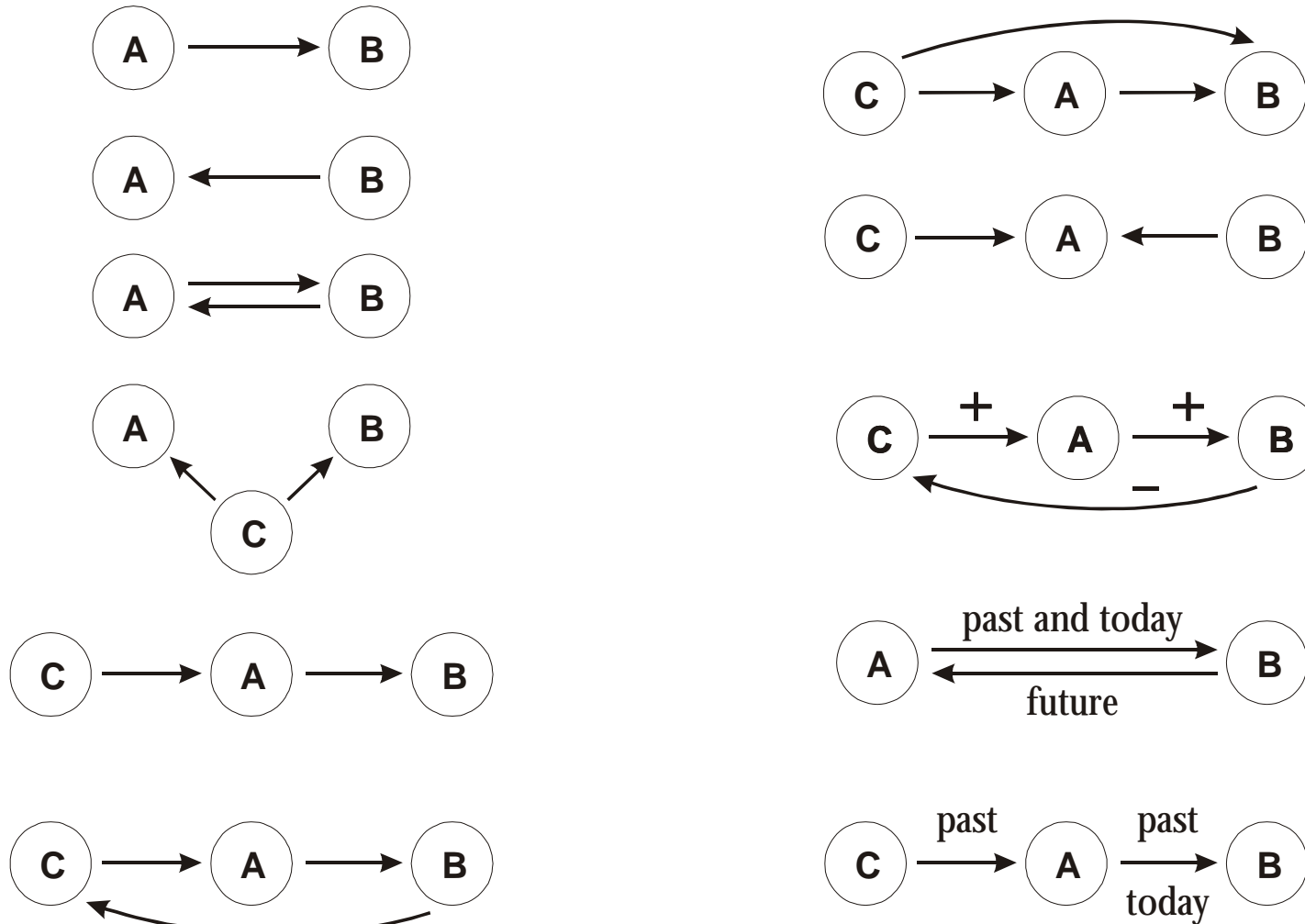
Political liberty/freedom:

Freedom House (2004) surveys freedom of expression and belief, of association and organizational rights, and the respect for human rights and personal autonomy.

Correlations:

The sum values of democracy (D), rule of law (L) and political freedom (F) correlate with $r_{D-L}=.70$ (N=130), $r_{D-F}=.78$ (N=183) and $r_{L-F}=.58$ (N=131).
Overlap in constructs and in indicators.

3. Education and intelligence as causal factors for political development?



Possible directions & explanations for a correlation between two +x variables

We need theoretical assumptions, longitudinal studies and the control of other theoretically important variables.

Education and cognitive abilities on politics

Schumpeter (1942) claimed, democracy is based on a *rational model* of human action and values. Rationality itself is not conceivable without a basis of education, intelligence and knowledge, without insight into causal relationships, without farsightedness and understanding of the world and people.

Lipset (1960): Education “broadens man’s outlook, enables him to understand the need for norms of tolerance, restrains him from adhering to extremist doctrines, and increases his capacity to make rational electoral choices.” (p. 54) “The higher one’s education, the more likely one is to believe in democratic values and support democratic practices.” (p. 57)

OECD (2000): “People with more schooling are likely to make more informed choices when voting and to participate more actively in their communities.” (p. 81)

Simpson (1997) stressed the relevance of cognitive abilities (“information-processing-capacity” or “cognitive capacity”; p. 157) as the central mechanism: “Democracy depends on a public who can process complex information and actively participate in politics.”

Meisenberg (2004) placed particular emphasis on the intelligence-aspect: “IQ is a powerful predictor of modern, non-traditional values. The causal arrow is likely to point from the latent trait ‘intelligence’ to a rational, non-traditional system of beliefs and values. As people get brighter they develop a habit of critical thinking, questioning religious dogmas and other sources of traditional authority. Being able to understand the nature of politics, people in modern societies are not easily manipulated by the ruling elite, which is thus forced to use repressive methods to maintain its hold on power.” (p. 139)

An important theoretical basis for the explanation of the intelligence-attitude-relationship in individuals is found in the developmental psychology of **Piaget** (1932) and **Kohlberg** (1987) who have described the dependence of moral judgment on cognitive development.

Politics on education and cognitive abilities

Vanhanen (2003): “It is easier to maintain autocratic political systems in countries in which the number of literate and educated people is low than it is in countries in which it is high.” (p. 125).

→ autocratic leaders are interested in low education of the people

The rule of law furthers *meritocracy*, and thus education and cognitive abilities (the willingness to invest time and effort in education and thinking).

Illegitimate power threatens the intelligence of the powerful too, because they have not to use reason for achieving success.

Reading, studying, rational arguing and reasoning make intelligent, not suppressing or destroying other people. Violence and suppression are for both, for offenders and victims, a waste of time.

Thinking needs *liberty*, the possibility to deviate from the prevailing lines.

Factors behind education, cognitive abilities and politics

Cultural factors (Protestant churches, civic and bourgeois philosophy of life) play a central role in the development of education and of democracy, rules of law, human rights and political liberty.

Additional factors behind education, cognitive abilities or politics

Cultural and economic factors.

The relationship of education and cognitive abilities

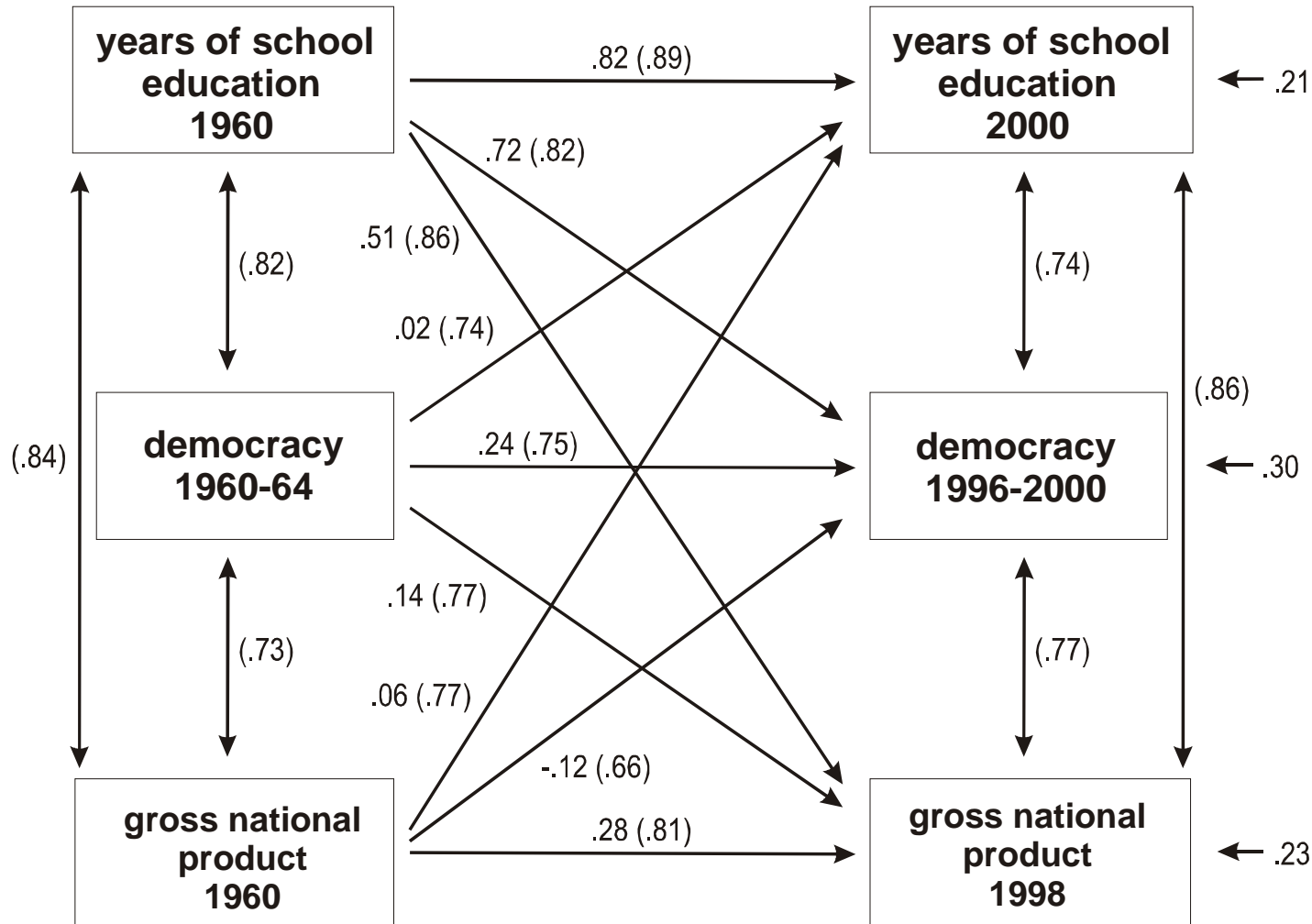
Because of their high correlation education can be used as a *proxy* variable for cognitive ability.

Education is one of the most important causal factors for the *development* of intelligence and knowledge at the individual and cultural level (Lurija, 1976; Ceci, 1991).

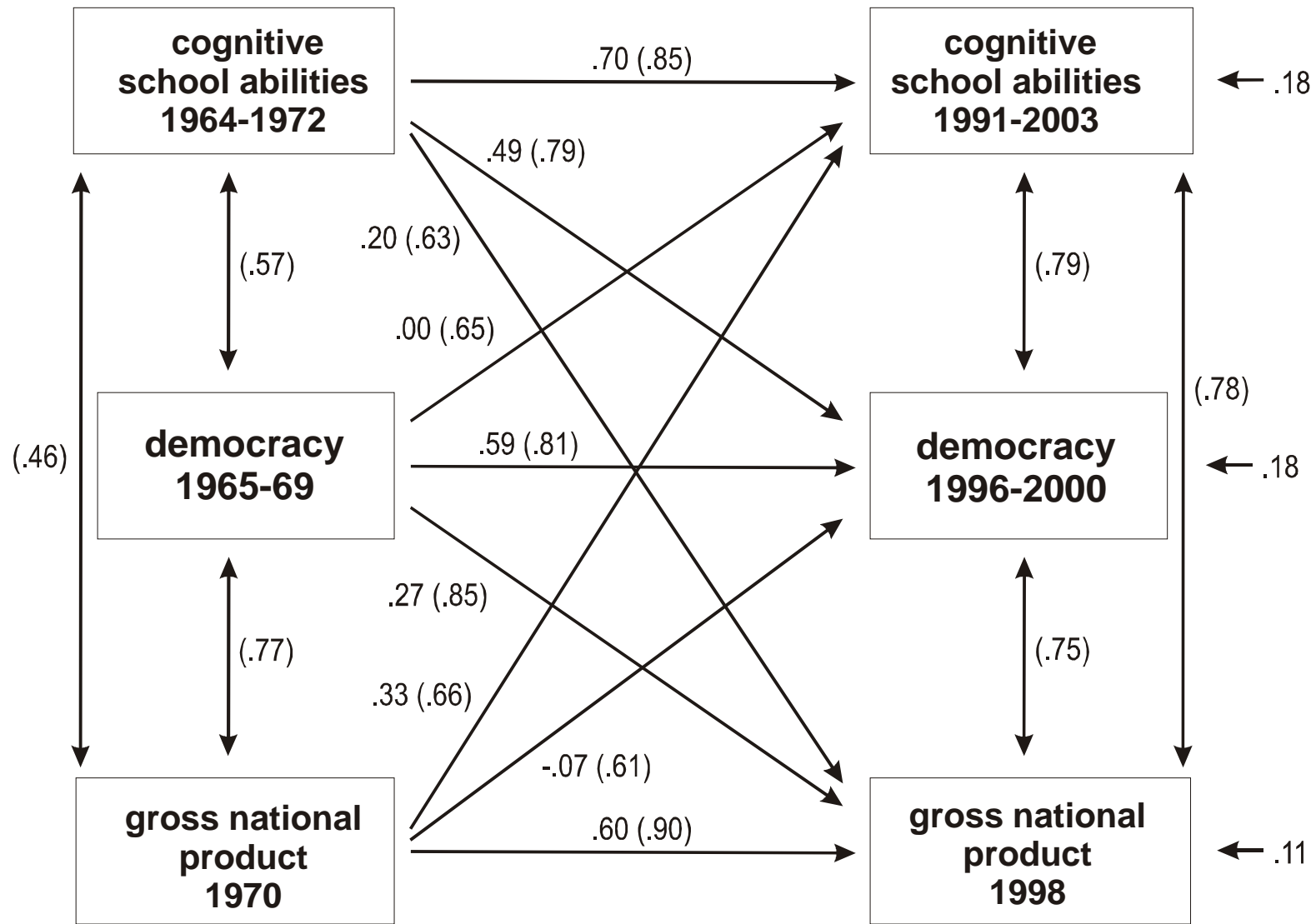
Education is broader than cognitive ability; the effects include also change of attitudes and personality, e.g. in conscientiousness.

Intelligence furthers the insight in the beneficial long-term effects of education for oneself and for the future generation.

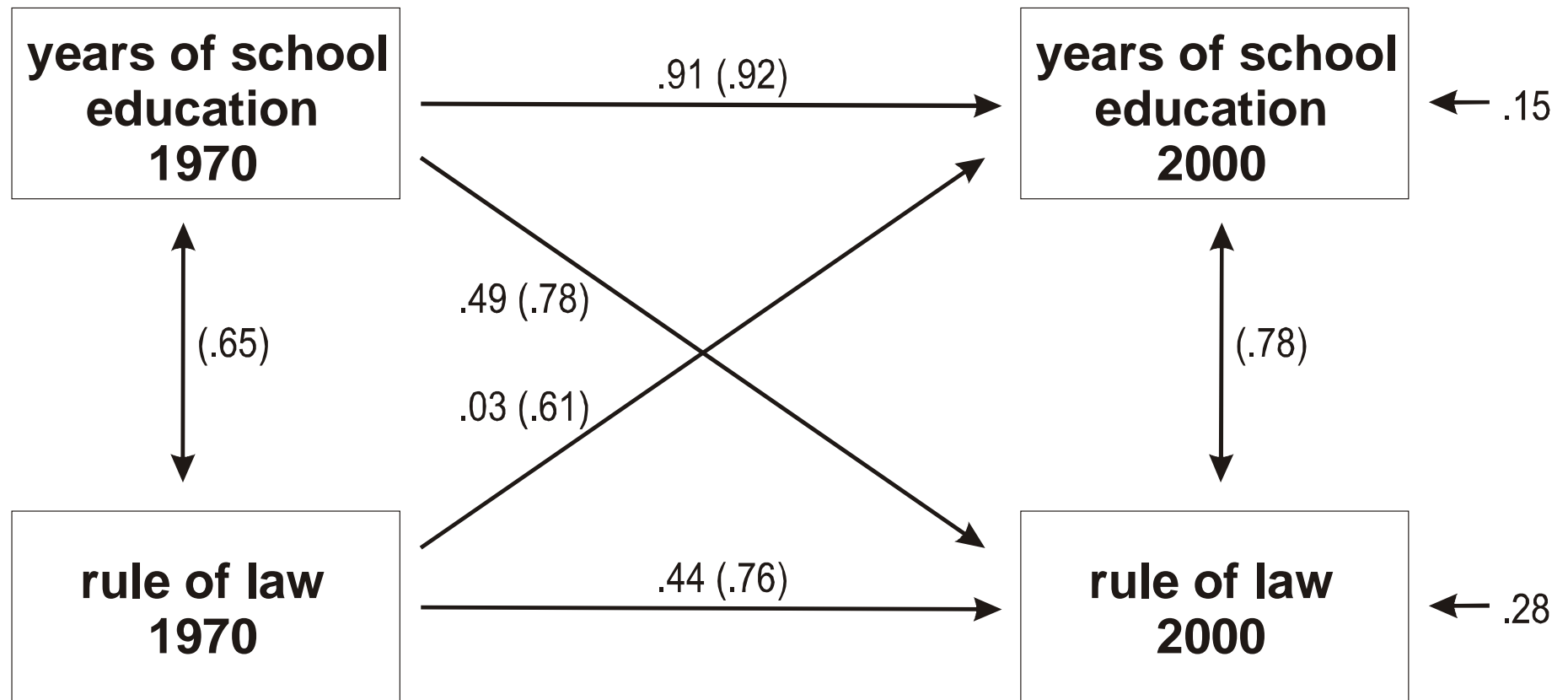
4. Cross-lagged relationships



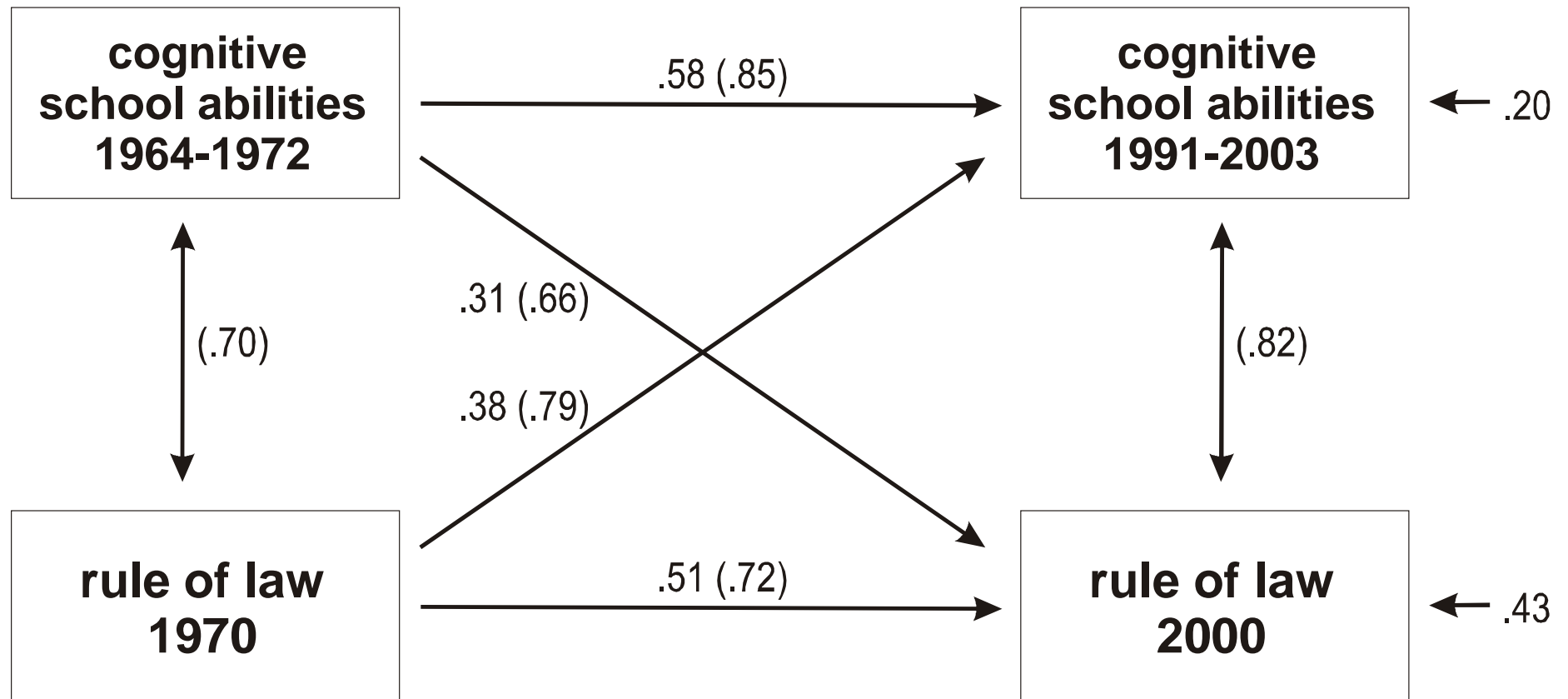
Standardized path coefficients (and correlations in parentheses) between education (average schooling years in the total population over age 25), democracy and GNP (error terms as unexplained variance on the right), N=79 nations



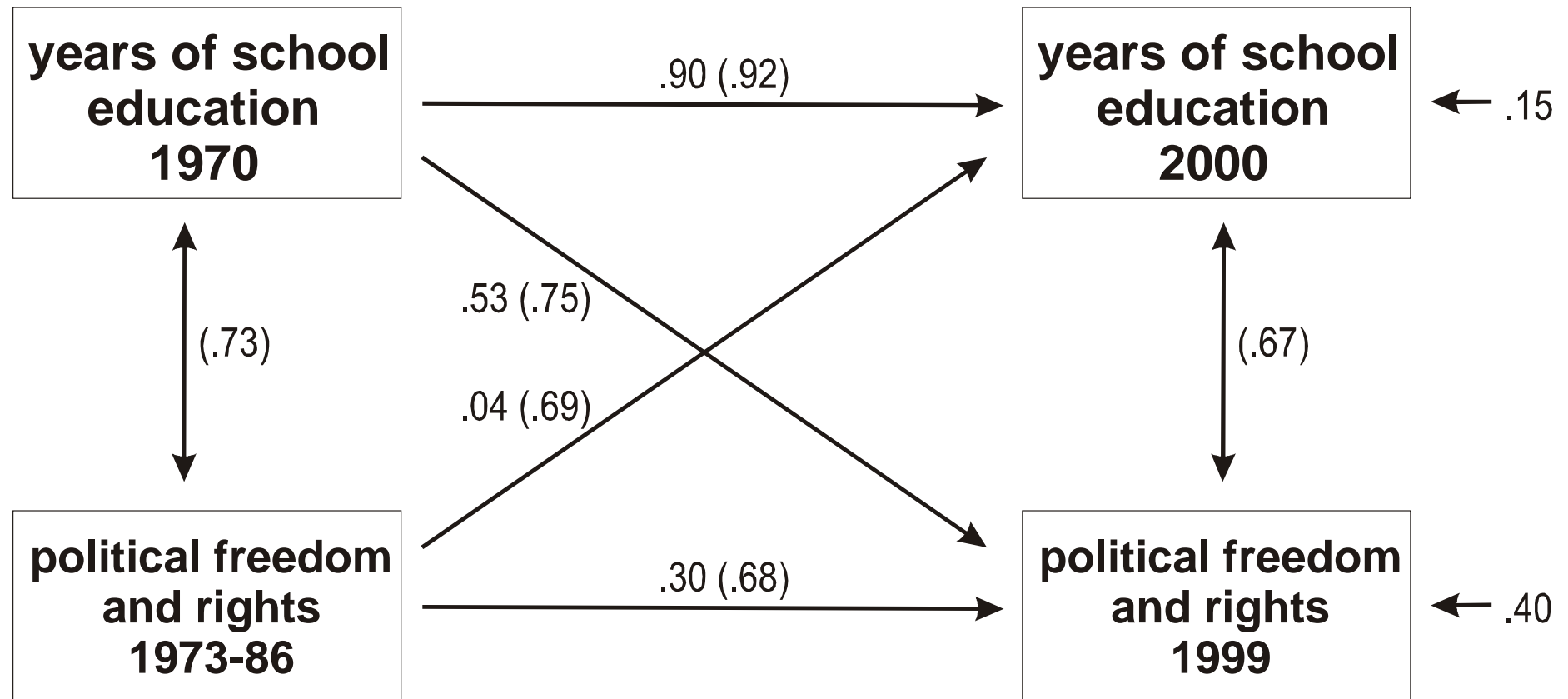
Standardized path coefficients (and correlations in parentheses) between cognitive abilities, democracy and GNP (error terms as unexplained variance on the right), N=17 nations



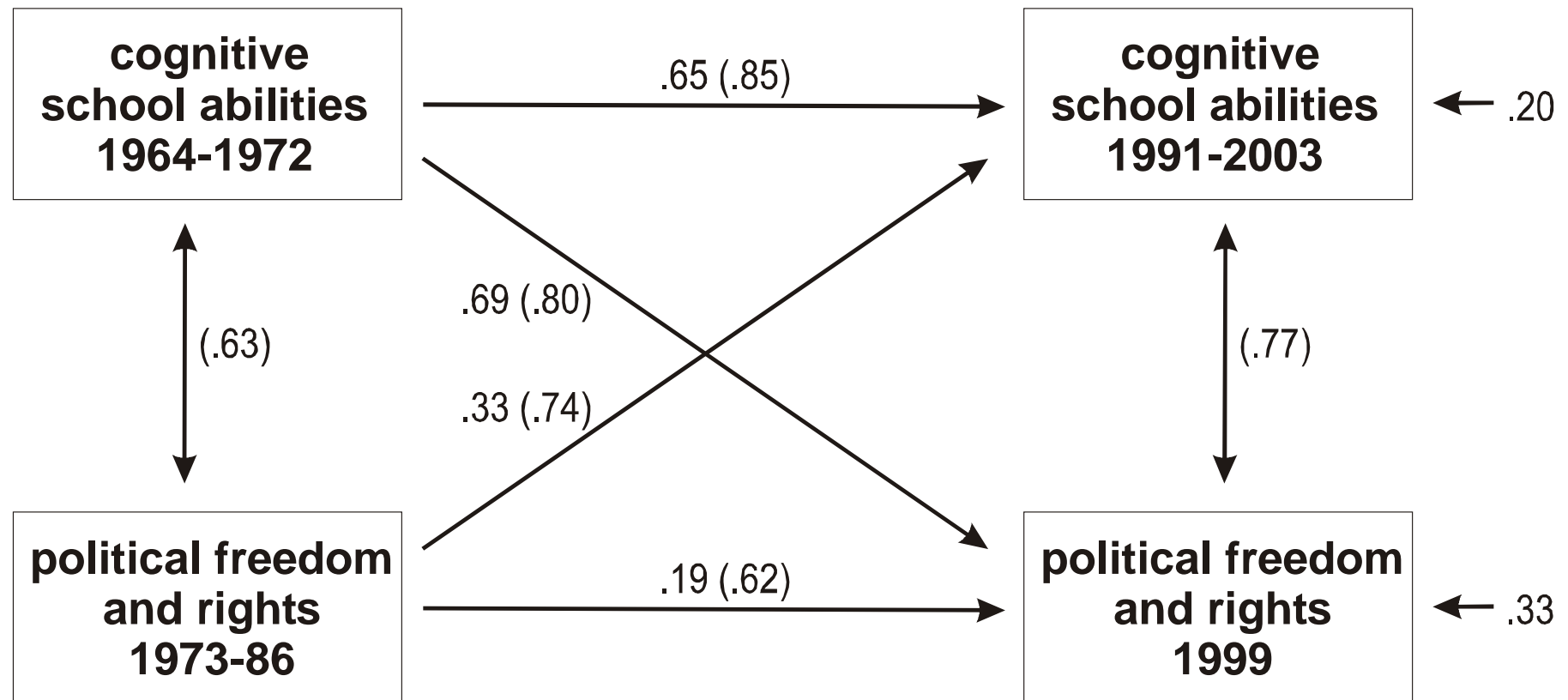
Standardized path coefficients (and correlations in parentheses) between education (average schooling years in the total population over age 25) and rule of law, N=92 nations



Standardized path coefficients (and correlations in parentheses) between cognitive abilities and rule of law, N=17 nations



Standardized path coefficients (and correlations in parentheses) between education (average schooling years in the total population over age 25) and political freedom/rights, N=99 nations



Standardized path coefficients (and correlations in parentheses) between cognitive abilities and political freedom/rights (error terms as unexplained variance on the right), N=17 nations

Let me summarize the results:

1. We have always strong effects of education and cognitive abilities on politics, on democracy, rule of law and political liberty.
2. These effects are stronger than the ones of GNP.
3. Reciprocal effects are not stable, they seem to be greater on cognitive abilities and here they support the meritocracy- and the liberty-hypothesis.
4. The human capital theory in economic research is confirmed (education→ability[→job performance]→wealth).

5. Suggestions for support of democratic development

Promotion of intelligence and democratic attitudes by the expansion of the quantity and the quality of education. A long-term development!

(For intelligence additionally: Better nutrition, better health service and higher children rate of educated and intelligent adults.)

Additionally may be helpful:

- + *Cultural change* (e.g. the appreciation of human rights, also promoted by education and intelligence).
- + *Nation building* (identification, homogeneous culture, language and people) and/or federal systems.
- + Equal *distribution of means* (economic, intellectual, ...).
- + *Political help*: In concrete terms the support of the development of democratic political parties, of institutions and of the spread of (real) information and democratic attitudes via media (but necessary: Persons who use media as delivery of information and addressees who are interested in information and able to understand and judge it).

6. Ideas for further research

How in detail work education and ability? Only through intelligent and ethical individuals (“intelligent voters, officials and leaders”) or through intelligent and ethical institutions too?

Dependence of “*good or rationalized governance*” (Drori, Jang, & Meyer, 2006, p. 207) from education and cognitive ability?

At international level exist no direct measures of *governmental competence* or rationalized administration (indirect: low corruption, quality of and speed of bureaucracy) → development of such measures.

Within the USA “*government effectiveness*” (Government Performance Project, 2005) and cognitive ability (NAEP-results as measure) are correlated at state-level with $r=.34$ (McDaniel, 2006).

Do *voting decisions* of people within and between countries depend on education and intelligence? → Detailed analysis of decision making is necessary (e.g. who votes why for Chávez?).

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