

Quizshow knowledge in different cultures: Will linguistic knowledge help you to become a millionaire?



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Basic assumptions

-  Knowledge in today's quiz shows reflects the diverse fields of cultural participation.
-  „Cultural literacy“ is a major prerequisite of successful play.
-  The mixture of popular and scholarly knowledge allows for (some degree of) „equal opportunity“ across educational levels (for viewers and participants).
-  The value of a field of knowledge in a particular culture will become apparent in the assumed difficulty of questions that relate to this field.
-  Different knowledge patterns in quiz show games reflect differences in the composition of the respective cultural literacies.

Who wants to be a millionaire?



starting by 1998 in the UK

identical format in about 100 countries:

15 stages of increasing difficulty

3 jokers available

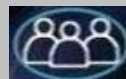
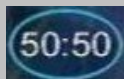
1 out of 4 format of questions

probability to win 1 million by guessing:

1 : 33.554.432

additional national modifications

15	€ 1 MILLION
14	€ 500.000
13	€ 125.000
12	€ 64.000
11	€ 32.000
10	€ 16.000
9	€ 8.000
8	€ 4.000
7	€ 2.000
6	€ 1.000
5	€ 500
4	€ 300
3	€ 200
2	€ 100
1	€ 50



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Data basis and analysis

German party game edition:

N = 1960 questions:

800 easy questions (difficulty stages 1 to 5)

800 medium questions (difficulty stages 6 to 10)

360 difficult questions (difficulty stages 11 to 15)

US-American party game edition:

N = 1960 questions (same distribution of questions across difficulties)

Global analysis:

knowledge domains by culture by difficulty

Specific analysis:

language-related knowledge by culture by difficulty

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Typical format of questions

- **Domain: Film and television**

Value: 1.000.000 \$

Difficulty stage: difficult

Which film was not directed by Akira Kurosawa?

Ugetsu

The Bad Sleep Well

The Seven Samurai

Sanjuro

- **Domain: Everyday knowledge**

Value: 100 \$

Difficulty stage: easy

Which breakfast food can be served „sunny side up“?

Bacon

Egg

Tomato

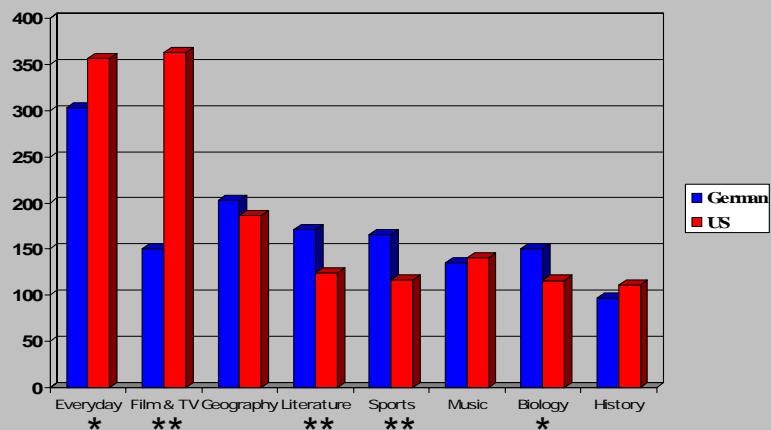
Mushroom

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Most frequent knowledge domains



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Frequencies of domains

(significant differences by Chi-square)

German > US-American:

Literature/Theater** (171 vs. 124); Biology* (150 vs. 116); Sports** (166 vs. 117);
Politics/Military* (110 vs. 78); Craft/Technology/Traffic* (105 vs. 74);
Economy** (39 vs. 15); Religion** (70 vs. 34); Medicine/Psychology* (72 vs. 46);
Information/Computer* (20 vs. 7)

US-American > German:

Everyday knowledge* (356 vs. 303); Film/Television/Mass Media** (363 vs. 203);
Arts* (38 vs. 22)

German = US-American:

Geography/Regional Studies (203 vs. 186); Music (135 vs. 141); History (97 vs. 111);
Language (61 vs. 72); Chemistry (29 vs. 20); Astronomy (18 vs. 15);
Physics (8 vs. 11); Architecture (11 vs. 16); Mathematics (13 vs. 20);
Philosophy (7 vs. 0)

Difficulty of domains

(significant differences of mean difficulty stage by T-test)

German > US-American:

Film/Television/Mass Media* (7.0 vs. 6.3)

US-American > German:

Everyday knowledge** (5.6 vs. 4.7); Craft/Technology/Traffic** (8.1 vs. 6.0);
Economy** (8.6 vs. 5.8); Information/Computer (*) (9.3 vs. 6.0)

German = US-American:

Geography/Regional Studies (7.1 vs. 7.3); Literature/Theater (7.4 vs. 6.9);
Music (7.3 vs. 6.6); Biology (7.2 vs. 7.3); Sports (7.2 vs. 7.2); History (7.9 vs. 7.4);
Politics (7.0 vs. 6.3); Language (7.6 vs. 6.8); Religion (6.7 vs. 8.0);
Medicine/Psychology (7.4 vs. 8.0); Arts (8.4 vs. 8.9); Chemistry (7.2 vs. 8.9);
Astronomy (8.2 vs. 6.9); Physics (8.6 vs. 7.9); Architecture (8.9 vs. 6.5);
Mathematics (5.9 vs. 7.0)

Language-related knowledge ...

- ... may have different significance across cultures.
- ... relates to our natural identity, acquired through socialization.
- ... can be analysed into several subcategories.

Language-related knowledge is opposed to:

World-related knowledge (Criteria: translatability? Cultural generalizability?)

e. g. *What is caipirinha made of?*

Proper names (geographical names, real or fictitious people, institutions)

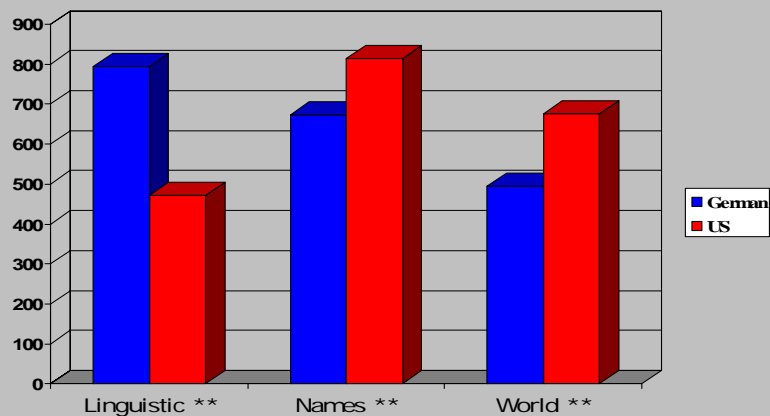
e. g. *Who scored for France in the 2006 soccer world championship final?*

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Domains of reference

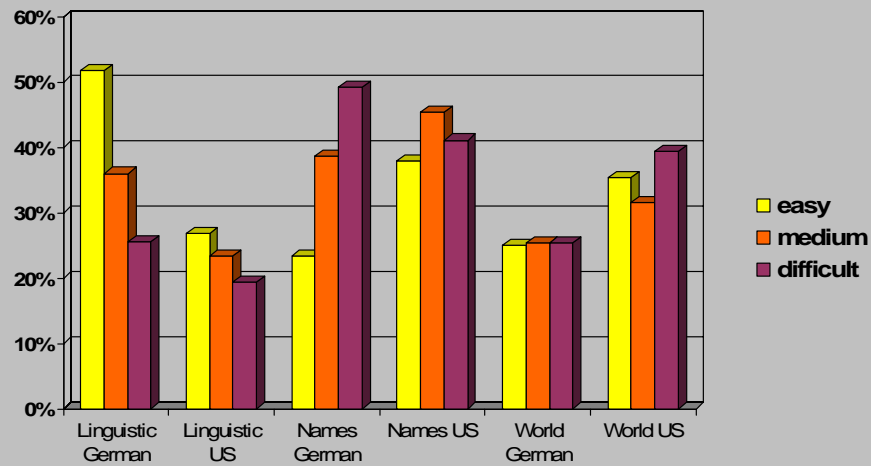


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Domains of reference by difficulty



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Language-related knowledge

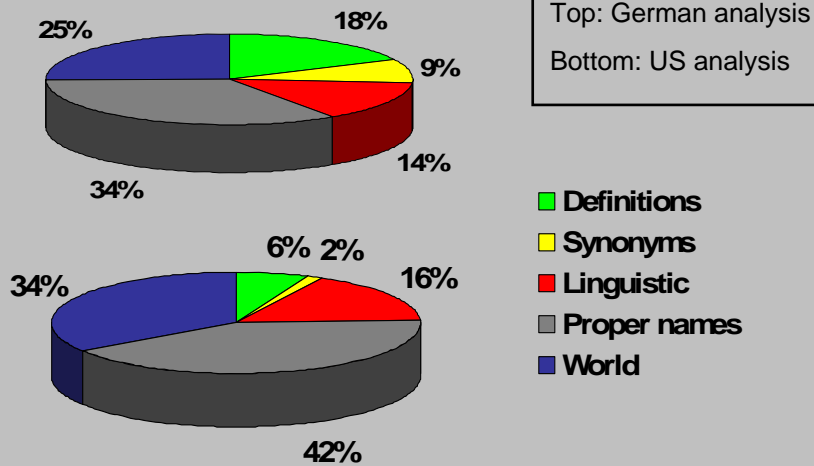
Knowledge category	easy (N = 800)		medium (N = 800)		Difficult (N = 360)	
	German	US	German	US	German	US
Definitions	194	51	123	55	30	18
Synonymy relations	73	10	77	12	22	9
Linguistics	13	23	12	20	5	6
Foreign languages	19	11	23	16	5	3
Etymology	0	2	10	4	17	4
Abbreviations	17	19	9	7	4	4
Phraseology	19	9	2	3	1	0
Proverbs	16	2	0	2		0
Quotations	24	21	6	11	2	2
Titels	42	69	27	56	6	24

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Overview of knowledge categories



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Summary

- The large proportion of language-related questions in the German edition points to the significance of linguistic knowledge für German cultural literacy.
- In German culture, language-related knowledge is considered easy; it is used in everyday contexts and is easily accessible.
- In contrast, language-related knowledge does not play a dominant role in the US-American edition, particularly not as a predominantly easy category of knowledge.
- Proper names contribute to the ability to engage in socially accepted discourses (Hirsch); this is apparently more important in the concept of US cultural literacy.
- Mastering conceptual definitions (genus proximum, differentia specifica) appears more prevalent in German thinking (stronger related to Aristotelian thought).

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More information about the research project

**„Quiz show knowledge:
A mirror of cultural literacy“**

at

www.ph-heidelberg.de/org/quizshow/