Sharing Category Systems for Survey Items with Others in DDI-Lifecycle Format

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Overview

- What we have
- What we want to do
- Possibilities in DDI-Lifecycle
- Evaluation Criteria and Results
- Recommendations

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What we have

- Category Systems for Variables
- CodebookExplorer Application
- Trends and Scales
- Multiple Languages
- Hierarchical Structure
- Variable Assignments

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What we want to do

- Export the Category Systems
- Publish Independently from Database
- Share with Others to be Re-Used
- Maintain Versions
- Get Cited

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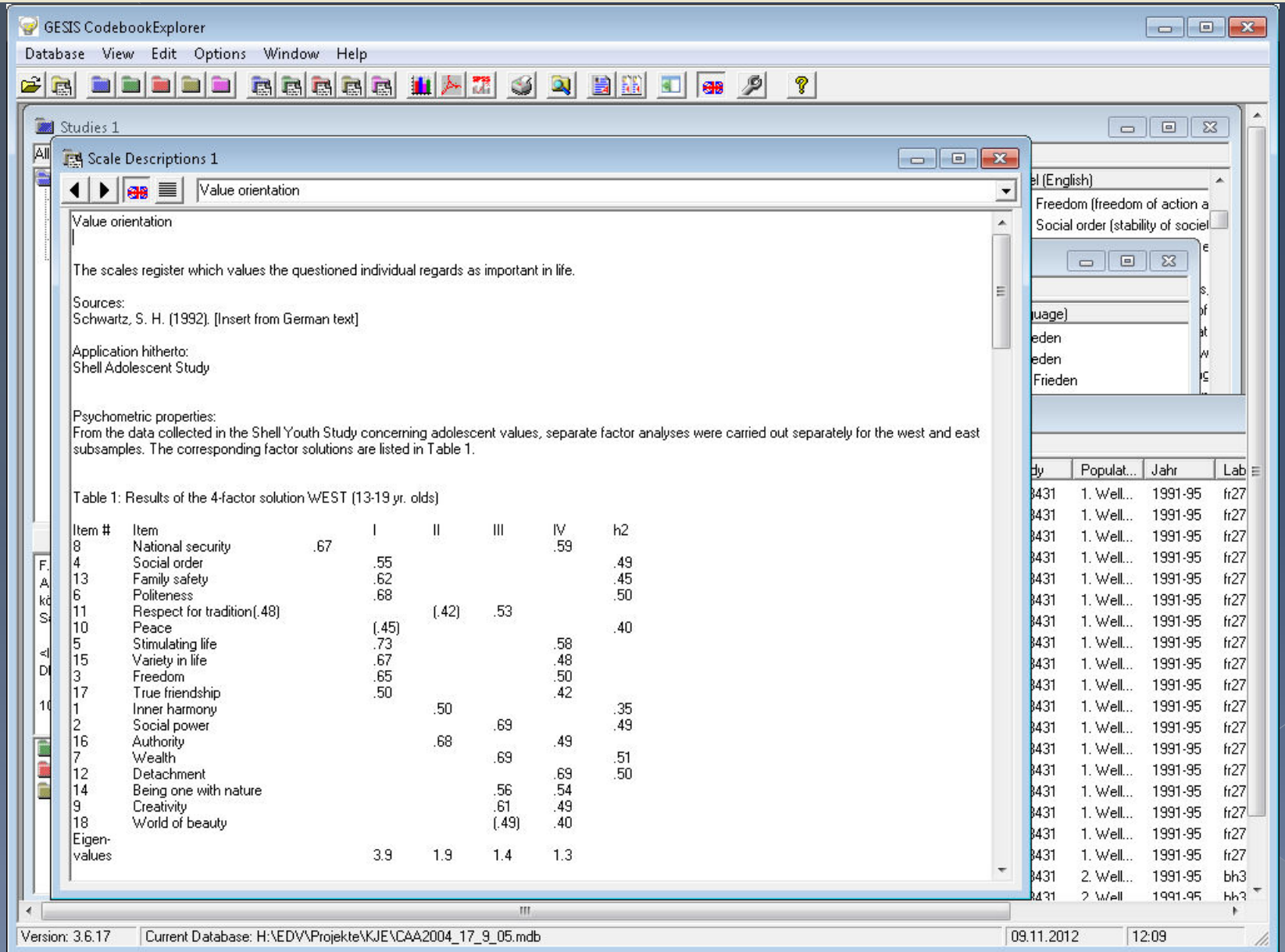
Category Systems for Variables

Example Database: "Childhood, Adolescence and becoming an Adult 1991-1997"

Topics: political-social experiences and orientations; youth and becoming adult as a phase in life in the framework of the course of life; courses of development and development risks; life styles, cultures and social reference groups of young people and the social-structural differentiating of the youth phase.

Source: Fischer, Arthur; Jugendwerk der Deutschen Shell, Hamburg; Silbereisen, Rainer K.; Vaskovics, Laszlo A.; Zinnecker, Jürgen (1999): Childhood, Adolencence, and Becoming an Adult 1991-1997 - Youth Longitudinal 1991-1995/96. GESIS Data Archive, Cologne. ZA3431 Data file Version 1.0.0, doi:10.4232/1.3431



Value orientation

The scales register which values the questioned individual regards as important in life.

Sources:
Schwartz, S. H. (1992). [Insert from German text]

Application hitherto:
Shell Adolescent Study

Psychometric properties:
From the data collected in the Shell Youth Study concerning adolescent values, separate factor analyses were carried out separately for the west and east subsamples. The corresponding factor solutions are listed in Table 1.

Table 1: Results of the 4-factor solution WEST (13-19 yr. olds)

Item #	Item		I	II	III	IV	h2
8	National security	.67				.59	
4	Social order		.55				.49
13	Family safety		.62				.45
6	Politeness		.68				.50
11	Respect for tradition(.48)			(.42)	.53		
10	Peace		(.45)				.40
5	Stimulating life		.73			.58	
15	Variety in life		.67			.48	
3	Freedom		.65			.50	
17	True friendship		.50			.42	
1	Inner harmony			.50			.35
2	Social power				.69		.49
16	Authority			.68		.49	
7	Wealth				.69		.51
12	Detachment					.69	.50
14	Being one with nature				.56	.54	
9	Creativity				.61	.49	
18	World of beauty				(.49)	.40	
Eigen-values			3.9	1.9	1.4	1.3	

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Possibilities in DDI-Lifecycle

- Concepts
- Subjects
- Notes
- Controlled Vocabularies (Genericode)

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Concepts

- ConceptScheme in RessourcePackage
- Concept for each Node
  - Label
  - Description
  - UserID
- ConceptGroup for Root Node
  - Nested ConceptReferences for Structure
- Variables use ConceptReference

Subjects

- TopicalCoverage in Coverage in RessourcePackage
- Subject for each Node
  - Optional with CodeListID for Controlled Vocabulary
- No structure
- No Variable Assignments

Notes

- Notes in RessourcePackage
- Header for Label
- Content for Description
- Relationship for Assignments to Variables
- Type Attribute does not fit well
- No Structure

Controlled Vocabularies

- Uses Genericode Code Lists
- DDI Alliance uses Column Set
  - Code
  - Term
  - Definition
- Maintained by Code List Sets
- No Hierarchy

Evaluation Criteria

- Are the Semantics OK?
- Support for Multiple Language?
- Support for Structure?
- Usable in Ressource Package?
- Support for Variable Assignments?
- Is It Possible to Maintain it?

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Evaluation Results

	Concept	Subject	Note	Controlled Vocabulary
Semantics	+/-	+/-	-	+
Language	+	+	+	+
Structure	+	-	-	-
Ressource Package	+	+	+	-
Variable Assignments	+	-	+	-
Maintainable	+	-	-	+

Recommendations

- Use the DDI Concept Element
- Include it in a Ressource Package
- Use Hierarchical Structure
- Include Languages and Ids
- Reference Concepts from Variables

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Example DDI Code

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<a:Organiz
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<!-- Conce
<c:Concept
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    </c:Co
            <c:ConceptGroup id="ConGro_1" purpose="Conceptual"> <!-- may be: purpose="Administrative" -->
                <!-- optional: may contain CodebookExplorer Database ID of Category -->
                <r:UserID type="CodebookExplorer">4599</r:UserID>
                <!-- optional: may contain versioning authority -->
                <r:VersionResponsibility>Tim Schmitz</r:VersionResponsibility>
                <!-- optional: may contain versioning reasons -->
                <r:VersionRationale>Correction of more errors</r:VersionRationale>
                <c:ConceptGroupName>Comparative Questions</c:ConceptGroupName>
                <r:Label>Cross-Sectional 1991/1996</r:Label>
                <!-- optional: description -->
                <r:Description></r:Description>
                <!-- ConceptReference: Reference to a concept included in the concept group.
                A concept can be referenced internally, from the concept scheme included in the same
                conceptual components module, or externally, from another scheme.
                This element is recursive to allow for the description of hierarchical relationships
                within the concept group.-->
                <c:ConceptReference>
                    <r:ID>Con_2</r:ID> <!-- Value orientations -->
                    <c:ConceptReference>
                        <r:ID>Con_1</r:ID> <!-- A world in Peace (free from war and conflicts) -->
                    </c:ConceptReference>
                </c:ConceptReference>
            </c:ConceptGroup>
        </c:ConceptScheme>
        <l:VariableScheme id="VarSch_1">
            <l:Variable id="Var_1">
                <!-- ConceptReference: Reference to the concept that the variable is assigned to. -->
                <l:ConceptReference>
                    <r:ID>Con_1</r:ID>
                </l:ConceptReference>
            </l:Variable>
        </l:VariableScheme>
    </g:ResourcePackage>
</ddi:DDIInstance>
```

Future Work

- Implement the Export into the next version of CodebookExplorer
- Explore Linked Open Data Standards like SKOS

Thank you!

Remarks/Questions?

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