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### Harmonising Variables on Child Wellbeing

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### GESIS Papers

## 2024|<mark>09</mark>

### Harmonising Variables on Child Wellbeing

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#### **GESIS** Papers

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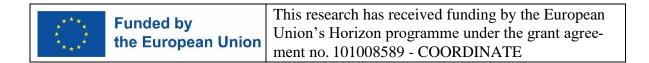
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#### Content

stract	4
Introduction	5
Response formats and scales	6
Selection of key child wellbeing measures	8
Harmonising variables	. 10
4.1 Substantial variables measuring child wellbeing	10
4.2 Key socio-demographics	.13
Concluding recommendations	. 15
References	. 16
Appendix	. 18
	Introduction Response formats and scales Selection of key child wellbeing measures Harmonising variables 4.1 Substantial variables measuring child wellbeing 4.2 Key socio-demographics Concluding recommendations References



#### Abstract

This paper addresses the challenges and considerations involved in harmonising variables on child wellbeing across diverse international surveys. As part of the EU-funded COORDINATE project (No. 101008589), this research examines existing European social survey data to inform the development of a cross-European child wellbeing cohort survey. The study focuses on key areas of child wellbeing, including material wellbeing, education, health, family and environment, risk behaviour, and subjective wellbeing. We discuss response formats, scales, and the selection of key measures, providing insights into cross-national comparability issues. The paper offers recommendations for ex-ante harmonisation in questionnaire design, emphasising the importance of closed questions, appropriate scaling, age-specific phrasing, and the use of standardised coding frames for socio-demographic variables for comparability. We also highlight the need for cultural sensitivity in measure selection and adaptation. This paper contributes to the broader field of cross-national survey research by discussing strategies to enhance data comparability and quality in child wellbeing studies.

#### 1 Introduction

Data harmonisation is the process of integrating and aligning diverse datasets to create a unified, consistent dataset with comparable data. In social survey research, where studies often rely on extensive data from multiple sources, harmonisation is becoming increasingly essential. By combining data from various sources, researchers can gain a more comprehensive understanding of specific phenomena and enhance the statistical power of their analyses (Fortier et al., 2016). This approach can also help to reduce errors and biases in data by identifying and addressing inconsistencies between datasets (Gallacher, 2007). Moreover, by widening the geographic and time scope, harmonisation facilitates cross-country and cross-cultural comparisons, offering valuable insights into the social, economic, and political factors that influence different regions and communities. This is especially crucial for child wellbeing research due to the scarcity of comparative survey data in this field. Overall, data harmonisation is a vital tool for social science research, enabling the production of higher-quality and more relevant research findings.

This Working Paper is based on a Deliverable Report prepared for the EU-funded project called CO-ORDINATE (No. 101008589). The COORDINATE project seeks to establish the groundwork for a pan-European child wellbeing cohort survey titled "Growing up in Digital Europe" (GUIDE). As part of Work Package 4, COORDINATE has been examining existing European social survey data from various sources in this field to identify established measurement instruments and learn from potential pitfalls. Since cross-national comparability of measures is a critical aspect for such studies, the project deliverable focuses on these comparability issues, providing recommendations for questionnaire design. These findings may be valuable to members of survey questionnaire drafting groups aiming to achieve ex-ante harmonisation for new surveys or survey waves, rather than relying on expost adjustments.

Based on initial data screening activity efforts, COORDINATE's Work Package 4 developed two key resources: a Variable Database containing variables suitable for harmonisation and a Harmonisation Toolbox. This toolbox offers scripts<sup>1</sup> written in R, a statistical software language, to facilitate the actual harmonisation process for selected variables. All scripts are meticulously documented, allowing for adaptation by users of other software programs. These web pages are seamlessly integrated into the official COORDINATE website: https://www.coordinate-network.eu/.

This paper is organised as follows: after addressing general comparability concerns related to response formats and scales in Section 2, Section 3 introduces key child wellbeing measures. This overview of measures is followed by observations on comparability issues associated with them and on some essential sociodemographic measures that are also crucial for a comprehensive assessment of child wellbeing in Section 4. Based on our observations, we present concluding recommendations for the development of a child wellbeing questionnaire in Section 5. It is important to note that these recommendations are exclusively based on cross-national harmonisation considerations. The decision-making process for selecting and framing survey questions and response categories must encompass a wide range of factors, which may sometimes conflict with the recommendations we propose here.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> The structure of the code is closely based on Kołczyńska, 2022.

<sup>&</sup>lt;sup>2</sup> See Saris and Gallhofer (2014) for an in-depth discussion on the design, evaluation, and analysis of questionnaires for survey research.

#### 2 Response formats and scales

Comparability and non-comparability operate at various levels, from the conceptualisation to the variable, scale, and response category. This section addresses comparability issues related to measurement scales and response formats that must be considered when designing surveys. For survey questions, there are two fundamentally different types of response options: open-ended and closed-ended. Open-ended responses allow respondents to provide their own answers, while closed-ended questions offer predefined options. Some researchers advocate for open-ended responses, arguing that they enable respondents to express their thoughts freely without being constrained by the researcher's framework (Saris and Gallhofer, 2014: 99). However, for the sake of comparability, open-ended questions are generally discouraged in surveys. Although informative, individual responses can be highly heterogeneous and challenging to categorise. Harmonisation requires a well-considered and internationally standardised coding framework (see Section 4) and, depending on the complexity of variables, significant resources for staff to code responses according to this scheme.

In social surveys, response options are either categorical or imply an ordered ranking and are typically organised as verbal or numeric scales. Converting a categorical scale to an ordinal one, or vice versa, can lead to information loss or the introduction of unintended information, (such as an implied ranking), even when measuring the same concept (Cross-Cultural Survey Guidelines, 2020: 3.2). The primary distinction between verbal and numeric scales lies in the perceived distance between scale points. While the distance between numbers is generally interpreted consistently across cultures, the same cannot be assumed for verbal labels. A common example is the happiness measurement instrument. The perceived distance between categories, such as the difference between "very happy" and "extremely happy", can vary significantly across individuals and cultures, especially when translated into different languages and adapted to cultural contexts.<sup>3</sup>

During the harmonisation process, researchers often encounter diverse source scales. However, ordinal scales can typically be cardinalised into a linear scale for harmonisation purposes, even though the semantics of the labels are lost. The essential aspect is the order of scale points, which can be arranged to align or overlap with other ordinal source scales to create a joint target scale using various harmonisation methods (de Jonge et al., 2014). Researchers must be aware that this process assumes equidistance, which may not always be accurate, as documented in the harmonisation process.

To harmonise scales, they must have a similar structure. Typically, they are bipolar and symmetric, with two extremes. A significant body of research debates the utility of a middle category on a scale. The decision depends on the measurement goal: whether respondents should be forced to choose a clear opinion or not. Offering a middle category is often considered equivalent to offering a "don't know" category. Missing values tend to be higher when a middle category is not available (Krosnick and Fabrigar, 1997). For harmonisation, the consistent presence or absence of a middle category in all source scales is not a problem. However, when the input structures of the variables to be harmonised are mixed, the aspired accuracy of the target scale depends largely on the analysis purpose. Individual researchers or teams must assess the extent to which the target scale needs to capture the variations in the source scales. If the sample size is sufficiently large, one option is to delete the middle category where it exists and compare only those respondents who were forced to select an option. This approach, however, involves data loss. While offering a middle category can be

<sup>&</sup>lt;sup>3</sup> For a discussion on the cross-national comparability of measurement instruments, see Bechert (2018). For the "happiness example" see Kalmijn (2010).

advantageous for the harmonisation process, its inclusion in data collection should be carefully considered, weighing the pros and cons.

Furthermore, the direction of the source scales can influence variable outcomes.<sup>4</sup> When harmonising data, researchers may need to reverse the direction of scales that are less frequently used. This process should be meticulously documented to track potential deviations in frequency distributions. If data is taken from an integrated cross-national dataset, it is advisable to verify the scale direction in the original questionnaires from the countries of interest. Reversed scales are a common occurrence in cross-national research and may have been adjusted to meet international standards before data integration.

<sup>&</sup>lt;sup>4</sup> The "Survey Data Harmonisation project" funded by the Polish National Science Centre, found an effect of scale direction for the variable "*trust in parliament*".

#### 3 Selection of key child wellbeing measures

Researchers have employed diverse approaches to categorise child wellbeing measures, often aligning with the specific research focus. Broadly, most frameworks are designed to inform policy recommendations for children and families or to enhance our comprehension of the underlying causes and consequences of child wellbeing.

The assessment of child wellbeing encompasses a wide range of measures, with the specific choices depending on the context and purpose of the evaluation. To select key child wellbeing variables for harmonisation within the COORDINATE context, we initially derived the following categories based on a framework developed by the OECD (OECD, 2021), adapted by Schölmerich et al. (2015), and subsequently applied these categories to the Variable Database and Harmonisation Toolbox.

- 1. Material wellbeing: This includes measures of a child's economic resources and security, such as poverty rates, access to health care, and housing stability.
- Education: This includes measures of a child's objective and subjective educational achievement, such as literacy and numeracy skills, school attendance, and satisfaction with the school and teachers.
- 3. Health: This includes measures of a child's overall health status and emotional and psychological wellbeing.
- 4. Family and environment: This includes family relationships and other resources available to the child within their household and local environment.
- 5. Risk behaviour: This includes measures of a child's exposure to risk factors, including violence and abuse, such as rates of child maltreatment, bullying, and crime victimisation, but also alcohol drinking or drug use.
- 6. Subjective wellbeing: This includes measures of a child's subjective wellbeing such as self-reported happiness, life satisfaction, and quality of life.

These categories correspond to the central aspects of children's life that affect their wellbeing. We used these categories to select specific variables or items that measure a child's wellbeing. The set of variables we determined to be the basis for our harmonisation of child wellbeing measures is as follows:

1. Material wellbeing:	1.1: Household income
	1.2: Worries about family finance
2. Education:	2.1: Educational satisfaction
3. Health:	3.1: General health (self-reported)
	3.2: Eating habits
4. Family and environment:	4.1: Perception of safety in the local neighbourhood
-	4.2: Socialisation activities
	4.3: Number of close friends
5. Risk behaviour:	5.1: Tobacco use
	5.2: Drug use
	5.3: Out of school activities
6. Subjective wellbeing:	6.1: Happiness
	6.2: General wellbeing (self-reported)
	6.3: Experiences with bullying

Examining this set of variables enables researchers, policy analysts, or media outlets to gain a comprehensive understanding of a child's wellbeing, as well as to delve into specific aspects of children's lives. Our Harmonisation Toolbox provides instructions for interested parties to generate customised, harmonised datasets for most of these variables.

This selection of variables is grounded in a thorough review of national and international child wellbeing surveys. In addition to variable relevance, the language of the survey documentation was a crucial criterion for inclusion.<sup>5</sup> As our team possesses native-level fluency in German and English, we were constrained to surveys documented in these languages to ensure an accurate assessment of question and response category comparability.

The decision to include specific variables was primarily driven by coverage. The more frequently a particular question was asked across different surveys and countries and regions, the greater its potential for harmonisation purposes. Consequently, the variable is more valuable for the database. Secondary reasons for excluding certain surveys, particularly national ones, included significant deficiencies in technical standards or high data access fees.

<sup>&</sup>lt;sup>5</sup> For a list of surveys included in COORDINATE harmonisation procedures, please refer to the Appendix.

#### 4 Harmonising variables

During the harmonisation process of the variables described above, comparability issues emerged for some of the measures. The following considerations regarding the cross-national comparability of measurement instruments are derived from our in-depth engagement with these variables during the harmonisation process, informed by relevant literature.

Generally, all cross-cultural harmonisation endeavours rely on consistent sampling procedures, similar data collection methods, accurate translations, and similar filter routing.

#### 4.1 Substantial variables measuring child wellbeing

**Educational satisfaction (2.1):** Various sources employ distinct concepts or measures of educational satisfaction, such as satisfaction with the quality of education, teaching staff, or educational facilities. For harmonisation, a consistent definition across these sources is essential. The age range of students significantly influences the interpretation of educational satisfaction, as younger students may harbour different expectations and experiences compared to older students. When selecting a suitable measurement instrument for a new survey or survey wave, varying national educational policies and infrastructures, such as all-day or half-day schools and systems, including private, public, or church-related schools, must be carefully considered. In particular, a cross-national survey necessitates the use of a measurement instrument and a response scale that are culturally appropriate and have been validated in diverse countries and languages. An adapted 7-point Likert scale, commonly employed and demonstrating favourable psychometric properties and cultural sensitivity, is a viable approach. Respondents are asked to rate their level of agreement with a statement on life satisfaction, such as: "In most ways, my educational experience is close to my ideal" (Schimmack and Oishi, 2005). Respondents then rate their agreement with each statement on a scale from total disagreement (1) to total agreement (7).

**General health (3.1):** Various surveys utilise distinct concepts or measures of health, including selfrated health, the presence of chronic conditions, or disability status. The phrasing and format of the questionnaire can influence how respondents perceive and report their health status. Self-reported health data are susceptible to measurement errors, such as recall bias, recency bias, social desirability bias, or cultural differences in the interpretation of health status. To mitigate these issues, it is advisable to employ clear and unambiguous language, incorporate validated item batteries that are more reliable and less prone to bias than single-item questions, and consider cultural and linguistic variations in health perceptions. Recall bias can be minimised by focusing questions on recent circumstances (Norman et al., 2003).

**Perceptions of safety in the local neighbourhood (4.1):** Various sources employ distinct concepts or measures of neighbourhood safety, including the crime rate, individual perception of safety, or the availability of community resources. The geographic boundaries of neighbourhoods are defined differently across regions and countries, such as local administrative units, electoral polling districts, census areas, or other country-specific jurisdictions. For a survey item utilised in cross-national research, consistent definitions and geographic boundaries are essential. Common measurement errors in this context include underreporting or overreporting. Incorporating local-level official statistics of related neighbourhood characteristics, when available, is recommended. By considering additional contextual factors like the physical environment, social cohesion, and community resources (including average financial means), objective information complements the subjective information provided by respondents. This is particularly valuable when targeting minor

11

respondents whose ability to assess neighbourhood safety may be limited or underdeveloped at younger ages (Wang et al., 2023). Although none of the analysed surveys employed this technique, some studies utilise visual representations of different neighbourhoods and their amenities to assist children in identifying specific areas or features that they perceive as safe or unsafe (Farver et al., 2000).

Socialisation activities (4.2): Various sources employ distinct concepts or measures of socialising with friends, including frequency of contact, type of activity, or duration of interaction. The frequency and nature of socializing with friends are often influenced by the context in which it occurs, such as the availability of social spaces or the level of social stigma associated with certain activities. Consequently, precise phrasing of the measurement instrument or detailed interviewer instructions are crucial. An important consideration is the use of age-specific language. Surveys targeting older children and youth should address interests and activities relevant to their age group, which may not be applicable to younger children. The cultural appropriateness of certain activities, which may vary across contexts or be stigmatised within specific cultural traditions, is a significant aspect of understanding socialization among older children. These activities might include religious or gender-specific practices or activities that are legally or culturally sanctioned in some societies but not in others, such as substance use or meetings considered unacceptable by certain community members (Côté, 2002). When gathering data on childhood socialisation, it is essential to ensure that children are in a safe and comfortable environment where they feel at ease answering questions and where their privacy and the confidentiality of their responses are protected. For younger children, surveys typically focus on specific social spaces available to them, such as parks, playgrounds, community centres, and other public spaces. Children are asked about the frequency of their visits to these spaces, the activities they engage in, and the individuals with whom they socialise (Schäfer, 2020).

**Tobacco use (5.1):** Various sources employ distinct definitions or measures of tobacco use, including cigarette smoking, smokeless tobacco use, or e-cigarette use. The age range significantly influences the comparability of these data. Data on children's tobacco use are subject to measurement errors, such as underreporting or overreporting, and are influenced by cultural or social norms surrounding tobacco use. The comparability of data on children's tobacco use collected at different time periods may be affected by changes in tobacco control policies. As with many other survey items, cultural differences exist in relation to tobacco usage. Questions should be formulated to avoid leading questions that suggest a particular answer or bias the child's response. Cultural differences can influence how children perceive and respond to questions related to tobacco use. Confidentiality and privacy are also crucial concerns with this measure (Kiernan, 2002). Surveys typically ask a series of questions about the child's age when tobacco usage began, whether it has continued, and the frequency of use. They also differentiate between various tobacco products. from a research perspective, it may be advantageous to follow the approach of some surveys by inquiring further about familial and peer group usage, as well as assessing children's awareness of tobacco-related health risks and the availability of cessation programs.

**Out of school activities (5.3):** Various sources employ distinct concepts or measures of out-ofschool activities, including type of activity, frequency of participation, or duration of the activity. The types and frequency of out-of-school activities are influenced by cultural and social norms, varying in meaning and significance across cultures and countries. It is crucial to consider these variations when developing a measurement instrument for cross-cultural and cross-national research. Moreover, the types and frequency of out-of-school activities are shaped by the context in which they occur, such as the availability of resources or the level of social stigma associated with certain activities. Many of the considerations outlined for the survey items about socialisation activities are also applicable to this item. **Happiness (6.1):** Various sources employ distinct concepts of happiness, including life satisfaction, positive emotions, or subjective wellbeing. The construct of happiness is multifaceted and influenced by cultural and social norms, necessitating careful consideration of these differences when collecting data from diverse cultures and countries or selecting a measurement instrument for a new cross-national survey. Data on happiness is subject to measurement errors, such as response bias or social desirability bias. This is particularly true as children's happiness can be influenced by various factors, including their home life, school environment, and relationships with peers. Some surveys, as well as literature (e.g., Bradshaw and Richardson, 2009), suggest asking questions about specific aspects of their lives, such as their relationships with friends or their experiences in school. The most common single-item approach to measuring happiness in the evaluated surveys involved asking children to rate their happiness on a scale of 1 to 5. A variable aspect across these surveys is the time period for which children are to evaluate their happiness, ranging from "over the past year" to "in the last week" or even limited to the day of the survey. Based on the harmonisation process and research literature, limiting the time period to allow children to evaluate their overall happiness rather than focusing on specific events or moments while avoiding an excessively long timeframe that may compromise reliability is the most effective approach. By restricting the evaluation period to the previous week, children can avoid recency bias while still assessing their overall subjective happiness.

General wellbeing (6.2): Many of the considerations regarding happiness survey items can be applied to general wellbeing survey items. However, the concept of general wellbeing varies significantly among different sources. Some sources incorporate aspects such as physical health, mental health, or social wellbeing into their concept of wellbeing, while others present wellbeing as a standalone concept. A consistent definition across contexts is essential. Wellbeing is a multifaceted construct influenced by cultural and social norms. From a comparative perspective, it is crucial to consider these differences when collecting data across diverse cultures and countries. Wellbeing varies based on the child's age, gender, and other demographic factors. Response categories should be designed to accommodate this diversity. The evaluated surveys employed a single item to assess overall life satisfaction. Similar to how adults are questioned about this concept, children were asked to rate their overall wellbeing on a scale ranging from very dissatisfied to very satisfied. To adapt the language for children, some surveys asked children to indicate how happy they were with their life overall instead of how satisfied. Response categories typically included very unhappy, somewhat unhappy, neither happy nor unhappy, somewhat happy, and very happy. This naturally overlaps entirely with the previously discussed variable. Some surveys have incorporated visual scales, particularly for younger children or those with limited reading skills, to assist them in rating their wellbeing. These scales may include smiley faces or other symbols to represent different levels of wellbeing. Multi-item questions can provide a more comprehensive indicator of child wellbeing. One common scale is the Kidscreen scale (Ravens-Sieberer et al., 2007), which includes questions about physical, emotional, and social wellbeing, and the child's school environment. Regardless of the chosen measure, surveys of children's general wellbeing should be designed to be age-appropriate, easy to understand, and engaging for children. Additionally, some surveys have been administered to parents or caregivers to provide a more comprehensive understanding of children's wellbeing.

**Experiences with bullying (6.3):** Various sources employ distinct concepts of bullying, including frequency, duration, or severity of the bullying behaviour. Several surveys have inquired about the nature of bullying, which can vary significantly across age groups. In addition to general bullying experiences, children were asked about the specific nature of the bullying, such as physical, verbal, or social exclusionary forms. Bullying behaviour is influenced by cultural and social norms, varying in meaning and significance across cultures and countries. It is crucial to consider these differences when selecting a measurement instrument for cross-cultural and cross-national research. Response

and recall bias are significant sources of measurement error for this variable and should be addressed when designing response items (Smith, 2016). Response bias refers to the systematic tendency of respondents to answer survey questions in a manner that does not accurately reflect their true thoughts, feelings, or experiences. In the context of bullying surveys, response bias may arise due to respondent discomfort in admitting being bullied (or initiating bullying behaviour) out of fear of judgment, stigmatisation, or sanctions. This can lead to underreporting of bullying experiences. Recall bias occurs when respondents struggle to accurately remember or report past events. While this is a general concern in survey questionnaires, especially with children, it is particularly relevant to bullying experiences, as repeated traumatic events can be conflated into a single memory. This can result in inaccuracies in reporting the frequency, severity, or type of bullying experienced. The prevalence and types of bullying behaviour are also influenced by the specific context in which they occur, such as the school or community environment (see Kellij et al., 2022). The phrasing of the measurement instrument should be precise in this regard.

#### 4.2 Key socio-demographics

As evident from the extensive child wellbeing variables discussed earlier, harmonisation is closely linked to standardisation (Cross-Cultural Survey Guidelines, 2020). Establishing standards prior to data collection (ex-ante harmonisation) significantly facilitates any harmonisation process. For cross-national harmonisation endeavours, early standardisation is even more critical, as country-specific circumstances necessitate specialised coding that can only be effectively matched through advance planning. While single substantive variables are often used in individual surveys, key socio-demographic variables are indispensable in all social surveys. To address this, the scientific community has developed standardised measures and coding frames for several key demographic issues, which are regularly updated. These resources typically include a detailed manual and explicit guidelines for application.

A crucial aspect of a survey on child wellbeing is parental social status, as it determines the financial and cultural capital children are exposed to during their upbringing. Social status is typically determined by occupation, education, and income.

**Occupation – ILO ISCO:** The International Standard Classification of Occupations (ISCO), provided by the International Labor Organization (ILO), is part of the International Family of Classifications (United Nations 2023). It is a coding scheme for jobs organised by thoroughly defined groups and subgroups. The groups are set up according to the tasks and responsibilities that are the essence of the job. The latest version of the scheme is ISCO 2008 (ILO 2010).

Jobs and job titles vary greatly across countries. In a survey, respondents write down or tell the interviewer their job titles. They do so, of course, in their native languages. Survey response coders from the same country usually know what kind of tasks and responsibilities the reported occupation contains. ISCO's definitions enable them to code the responses to an internationally comparable standard. Without such a scheme, coders had to translate the national job title given to the best of their knowledge and ability into the survey's target language. This bears the high risk that although the original and translated job title might sound very similar, the essence of the job's tasks and responsibilities was missed due to the different national and cultural contexts in which the jobs are embedded.

**Education – ISCED:** The "best practice" of making respondents' levels of education comparable is using the International Standard Classification of Education (ISCED) provided by the UNESCO Institute for Statistics (UNESCO 2023). Also, this classification scheme is part of the International Family of Classifications (United Nations 2023). It provides a comprehensive framework for categorising

education programmes and related qualifications by applying uniform and internationally agreed definitions to facilitate comparisons of respondents' levels of education according to different systems across countries (UNESCO 2023a). Like the ISCO scheme, the classification criteria are based on the properties of the education programmes and degrees since translated titles for degrees could be severely misleading. The latest version of the detailed ISCED mapping guidelines is from 2011 (UNESCO 2023b).

**Personal Income – family income (1.1):** For the measurement of income, there is no international standard. The reason for this is the very heterogeneous way "income" is communicated cross-nationally, even across European countries. While in some countries, when asked about their personal income, people have their yearly income before tax in mind, in other countries, people rather think of (and know) the money they receive in their bank accounts each month, which means monthly income after tax. To avoid missing answers due to people's uncertainty about the unit that was asked, information on personal income should always be collected in the most efficient manner. To overcome the measurement inconsistency during a harmonisation process, a useful approach is to identify the respondents' relative position in society (the representative sample respectively) concerning their income. This is best achieved by grouping respondents according to income into bins, e.g., by quartiles, deciles, or percentiles. In the case of deciles, the result is ten groups with approximately the same number of respondents per country. Deciles are comparable across countries meaning that one can make statements on the poorest, richest, or middle 10% of societies across countries, irrespective of whether the original number refers to the yearly or monthly income. This method has the added benefit of removing the effect of different taxation regimes across countries. If in a high-tax country, such as Belgium, respondents are asked for income after tax, this should bring all respondents much closer together on the income scale. In a low-tax country, such as Hungary, with "before-tax" values, the distribution will be much wider. However, if the taxation system is just, the relative positions of the individuals on the scale are comparable.

This approach is not possible if the respondent is asked to assign her or himself to a pre-defined income group. These groups, due to the different initial situations, must vary across countries and are therefore not ex-post harmonisable.

The most useful income indicator with respect to child wellbeing is family income. Since usually only one parent is asked, the informative value for how much money one person earns is low. It makes a great deal of sense to ask for both partners' income, if applicable, and the detailed house-hold composition.

#### 5 Concluding recommendations

Based on the considerations above, from a data harmonisation perspective, we recommend the following for newly designed surveys on youth and child wellbeing, to make the data compatible with existing data:

- Utilize closed-ended questions: Recoding heterogeneous open-ended questions without a pre-defined, internationally approved scheme is highly error-prone and costly.
- Consider middle categories: If the measurement goal does not necessitate forcing respondents to choose clear agreement or disagreement, scales including a middle category are recommended since the classical linear stretch target scale, commonly used for harmonisation, is an 11-point scale which has a natural mean.
- Adjust phrasing for age groups: Most substantive measures for child wellbeing are significantly influenced by the age group. The phrasing of measurement instruments should be gradually adjusted, and age groups should not be overly broad.
- Limit the time period for happiness and wellbeing: When assessing general happiness and wellbeing using a single measure, consider limiting the time period under consideration.
- Incorporate Contextual Data: Consider adding contextual data to the survey, such as crossnational macro data on tobacco use policies over time or crime rates by neighbourhood, to facilitate meaningful comparisons.
- Account for cultural context: Social activities for children vary by cultural context. It is essential to identify culturally appropriate equivalents.
- Utilize standardized coding frames: For internationally planned projects, it is strongly recommended to utilise the internationally standardised coding frames for occupation (ISCO) and education (ISCED) to facilitate cross-national comparability. However, even national survey projects should prioritise offering an interface for harmonisation, fostering connectivity and enhancing the visibility of the survey project.

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#### 7 Appendix

#### List of surveys

- British Cohort Survey
- British Household Panel Survey (<u>national survey</u>)
- Children's Worlds International Survey of Children's Well-Being
- Deutsches Jugendinstitut Survey (<u>national survey</u>)
- Etude Longitidinale Francaise depuis l'Enfance (<u>national survey</u>)
- European School Survey Project on Alcohol and other Drugs
- European Social Survey
- Gender and Generations Programme
- Growing Up in Ireland (<u>national survey</u>)
- Growing Up in Scotland (<u>national survey</u>)
- Health Behaviour in School-Aged Children
- Longitudinal Internet Studies for the Social Sciences
- Millennium Cohort Survey
- National Child Development Study (<u>national survey</u>)
- National Educational Panel Survey (<u>national survey</u>)
- Next Steps
- Norwegian Mother, Father, and Child Cohort Study (<u>national survey</u>)
- Socio-Economic Panel Study (<u>national survey</u>)
- Understanding Society