

## FINAL REPORT

# Modernisation of the Harmonised European Time Use Survey Hungary

### I. Description of the general and specific objectives that the action aims to achieve:

The new social studies of childhood have introduced a sociological approach to surveys on children considering the child as a real social actor who is able to influence adult's lives and is able to take decisions in relation to the constraints of his/ her environment. In many national time use surveys the age limit was lowered to 10 years old, although only in the Italian TUS the lowest age limit comes down to 3 years, and in the UK TUS it goes down to 8 years. Furthermore, the present diary is parent-oriented, i.e. it collects only indirect information on the "presence" of children near their parents (through the "with whom" column) but not on *what* activities the children themselves are doing. This topic was aimed at evaluation and testing of children's interviews and ways of adaptation of the diary to capture children's specificities. Therefore, worked on the following sub-topics can be foreseen:

- a. testing/ creating new child-specific codes (to include new child-related activities),
- b. testing different types of child diary (e.g. pre-coded light version, post-coded full-scale with fun elements, post-coded simplified, etc.).
- c. testing of the mode/ method of data collection considering also new technologies and their potential use by both parents and children via cognitive test and focus group interviews.
- d. testing a developed activity coding list and a developed children personal questionnaire

Experience with 2010 survey implementation showed that we need more guidelines and clarifications on how to classify some of the activities. New types of activities have appeared recently, e.g. as a result of technological developments, new life-styles, etc. and we need to be able to accommodate for them, especially in case of children. Since the last time use survey many new activities arose. These new activities need new codes and should be fit in the methodological structure.

## II. Practice of the pilot study: locations, dates, methods, participants, etc.

### II.1. Used testing methods

During the 2018 TUS Grant Pilot study, **two types of testing methodology was applied: personal/cognitive interview and focus group interview.** Both of the interview methods used a task-oriented approach and were **half-structured, combined with different types of exercises**, such as asking participants to fill out a diary on a mobile application. Individual interviews had the advantage of obtaining deeper, more detailed information, while focus group interviews added value through the group impact. Incorporating suggestions of **child psychologists** involved in the study, we developed a **uniformly applicable interview scenario** (See Annex 1.) that was applied for both types of testing methods.

Individual interviews took an average of 60 minutes, while focus group interviews lasted for 90 minutes. At the end of each interview, respondents received a small gift of appreciation (funded by our own resources). Through this small gift, researchers wanted to thank participants' engagement in the study and to encourage further cooperation.

### II.2. Participants of the study: selection and composition

Twenty cognitive interviews and eight focus group interviews (39 participants) were conducted. Thus, fifty-nine respondents took part in the study in total, instead of the target of 60 participants. One registered participant did not show up for the interview without any prior notification. The interviews were conducted by four interviewers and several observers. In most occasions, one or two moderators and one or two observers were present during the interviews. In order to test the influence of parental presence on answering our questions and the accuracy of the answers, the mothers of 8 to 10-year-old participants were present during three interviews.

Participants were all independent study subjects and were chosen based on previously determined **criteria**. In order to get the most diverse results possible, we have targeted a heterogeneous group of children and adolescents of **8 to 15 year old**, especially those that showed a diversified practice and interpretation of time use and activities.

As for the **type of settlement**, children living in Budapest, the capital of Hungary and the countryside were both chosen to participate in the study. This criteria was the basis of choosing the location of schools for focus group interviews. Moreover, the criteria also accounted for the differences in the **socio-economic status** of the participants. Some students (partly from Városmajori High School and Kós Károly Primary School in Budapest, as well as from the school based on alternative education methods, the Palánta Foundation Primary School in Pilisvörösvár) lived in families that

have a higher than average socio-economic status. Other students (from Petőfi Sándor Roman Catholic Primary School and High School in Vecsés) mostly came from a middle-class environment. Furthermore, six children chosen to participate at individual interview tests lived with foster families of a low socio-economic status in a small town in Western Hungary.

Considering the above mentioned criteria, we sent out an **application form** (See Annex 2.) to several schools and advertised the study in other platforms as well. After careful review of the received applications, we decided to select children who showed a **communicative attitude** and who engaged in diverse activities. As a whole, the group of study participants were **heterogeneous by sex**. However, as suggested by the literature, children and adolescents open up more easily among peers of the same sex, thus we formed **homogeneous groups** for the focus interviews in 6 cases out of 8. For the last two focus group interviews, we also tested a heterogeneous group design. There was only a few years of age difference among group members, thus the groups were **homogeneous by age group**.

The following table summarizes basic main information about the participants and the practice of interviews:

Date	Time	Location	Focus group/Individual interview	Age of participant	Sex of participant
21 April 2018	9:30	HCSO, Budapest	Individual interview	8	Boy
8 May 2018	13:45	HCSO, Budapest	Individual interview	14	Boy
9 May 2018	9:30	HCSO, Budapest	Individual interview	12	Girl
10 May 2018	13:00	HCSO, Budapest	Individual interview	10	Girl
14 May 2018	14:00	HCSO, Budapest	Individual interview	15	Boy
15 May 2018	14:00	Petőfi Sándor Roman Catholic Primary and High School, Vecsés	Focus group	12-14	4 Girls
			Focus group	12-14	5 Boys
16 May 2018	15:00	HCSO, Budapest	Individual interview	12	Girl
17 May 2018	14:00	Petőfi Sándor Roman Catholic Primary and High School, Vecsés	Focus group	9-10	5 Girls
			Focus group	9-10	5 Boys

18 May 2018	9:30	HCSO, Budapest	Individual interview	8	Boy
24 May 2018	14:00	Városmajori High School and Kós Károly Primary School, Budapest	Focus group	13-14	5 Girls
			Focus group	13-14	5 Boys
19 May 2018	15:00 and 16:00	HCSO, Székesfehérvár	Individual interview	11	Boy
			Individual interview	9	Girl
			Individual interview	14	Girl
			Individual interview	12	Girl
			Individual interview	9	Boy
			Individual interview	11	Girl
31 May 2018	9:00	HCSO, Budapest	Individual interview	9	Girl
11 June 2018	15:00	HCSO, Budapest	Individual interview	14	Boy
12 June 2018	15:00	HCSO, Budapest	Individual interview	8	Boy
13 June 2018	14:00	Palánta Foundation Primary School, Pilisvörösvár	Focus group	9-11	2 Girls, 3 Boys
			Focus group	12-15	2 Girls, 3 Boys
18 June 2018	10:00	HCSO, Budapest	Individual interview	13	Boy
18 June 2018	10:00	HCSO, Budapest	Individual interview	9	Girl
20 June 2018	11:30	HCSO, Budapest	Individual interview	11	Boy
20 June 2018	11:30	HCSO, Budapest	Individual interview	14	Girl

### III. Findings, results and suggestions based on the interviews

#### III.1. Data collection methods

Study objectives, questions under investigation	Findings, results	Suggestions
<p>1. <b>Self-administered diary or responding to an interviewer?</b> Which method of response is preferred by children? Do they prefer answering to questions posed by an interviewer or filling out the diary alone, by themselves?</p>	<p><b>Younger children of age 8 to 10</b> had a lot of difficulty filling out the diary by themselves. Paper-based diary was very incomplete when children tried to fill it alone.</p> <p><b>Older children</b> of age 11 to 14 did not have any difficulty in filling out the diary, whether it was paper-based or mobile application-based on a <b>tablet</b>. However, most of them said they would prefer responding to an <b>interviewer</b> instead of filling out the diary alone because the self-administered diary was very tiring to finish alone.</p>	<p>For younger children (8-10 years old), an <b>interview supported by an interviewer</b> is suggested to be used. Older children (11-15 years old) should be given the opportunity to <b>choose from</b> a self-administered diary and an interview supported by an interviewer.</p>
<p>2. <b>Paper-based or electronic diary?</b></p>	<p>In case of <b>younger children</b> (8-10 years old), <b>nor a paper-based, nor an electronic mobile app-based diary</b> did not yield satisfactory results. They had difficulties understanding the structure, they left a lot of places empty in the diary and got quickly tired of filling it out.</p> <p><b>Older children</b> (11-15 years old) could respond <b>faster to the questions using a mobile app-based diary</b> on a tablet than using a paper-based diary. However, there were</p>	<p>It is recommended to send a paper-based diary along with the <b>invitation letter</b> to every participant. This would allow them to take notes of the dairy day.</p> <p>It is suggested to <b>conduct an interview</b> with younger children – preferably not in the form of a standardized questionnaire but using a deep interview methodology.</p>

Study objectives, questions under investigation	Findings, results	Suggestions
	<p>some respondents who said the paper-based diary was simpler to use because the structure was clearer.</p> <p>The activity list and finding the activities was not always clear and straightforward in the mobile app.</p>	<p>Questionnaire is suggested to be CAPI for younger children and an option to choose is suggested to be given to older children.</p> <p>The structure of the electronic mobile app-based diary should be <b>revised to look clearer</b> (specifically, there should be an overview mode similar to the paper-based diary).</p>
<p><b>3. Direct or proxy interview?</b></p> <p>Should children be directly interviewed or should there be a proxy respondent, such as parents?</p>	<p>Parents are well aware of children’s basic schedule for the day and are at times better aware of the fact of time than children, however, there are many activities children do during the day that parents are <b>not familiar with</b>.</p>	<p><b>Parental proxy response would greatly distort</b> the results and has many shortcomings and inaccuracies, thus it is suggested to obtain information <b>directly</b> from children.</p>
<p><b>4. Presence of parents during the interview:</b></p> <p>Is there a need for a parent to be present during the interview in case of younger (8-10 years old)/older (11-15 years old) children?</p>	<p>A larger proportion of <b>younger respondents</b> (8-10 years old) <b>preferred</b> the presence of a parent, another smaller proportion on the other hand <b>refused</b> to have a parent present during the interview. For younger children, an interviewer is indispensable, a self-administered questionnaire is not possible.</p> <p>It is not required to have a parent present during the interview in case of <b>older children</b> (11-15 years old).</p> <p>The <b>benefit of parental presence</b> was primarily related to the <b>accuracy of times</b>,</p>	<p>Interviews of younger (8-10 years old) participants <b>should be conducted with the presence of a parent</b> and supported by an interviewer.</p> <p>For older participants (11-15 years old), it is <b>sufficient to inform parents</b> about the participation in the study.</p>

Study objectives, questions under investigation	Findings, results	Suggestions
	which parents often knew better than children.	
<p>5. <b>Length of the questionnaire, the burden of responding:</b> How <b>burdensome</b> is it to respond to the questions? Can children <b>endure</b> to the end of the questionnaire? Is the questionnaire not <b>too long</b>?</p>	<p>Filling out the time use diary was long and tiring for children. They lost on their attention and interest to answer accurately.</p>	<p>Based on the results the questionnaire for children should be strongly shortened because children's <b>attention span is much shorter</b> than that of adults.</p> <p>General questions can be asked from a <b>proxy</b> respondent, and questions to children should be only focusing on the activities of the day.</p> <p>The number of <b>additional questions should be reduced</b> as much as possible. The questionnaire is suggested to be <b>broken into several parts</b>, using various <b>types of questions</b> to avoid it becoming too monotonous and boring.</p>
<p>6. <b>Motivating children:</b> How could we motivate and <b>persuade</b> children <b>to take part</b> in the study and respond to the questionnaire?</p>	<p><b>Gifts</b> given to children after the tests received a good reaction, children liked receiving a small gift.</p> <p>For children, it was not as important as for adults to get an introduction information about the <b>purpose and topic of the study</b>. Children started paying attention as soon as they received the first question and task, which was about an imaginable „gift day“. They could be easily involved to play with.</p>	<p>Based on the experiences it is important to give <b>small gifts</b> to participants. The gift may be a small toy, colouring pencils, a pen or other small gifts or a pendrive for older children.</p> <p>It was found to be better to start with an interesting conversation and <b>ask a warming-up, fun first question</b> instead of the traditional introduction. This can help children to <b>feel more comfortable</b> at the interview, which may be a very new and unusual</p>

Study objectives, questions under investigation	Findings, results	Suggestions
		situation for them. Then it is easier to guide them to answer the questions.
<p>7. <b>Trustworthiness of the answers:</b> How honest are the answers? Would children tell us activities that they don't share with their parents or teachers?</p>	<p>We used a „Secret box” to allow children to write and drop in notes with activities that they would not want to let anyone know.</p> <p>Younger children (8-10 years old) seemed to share everything with their parents, they <b>do not have secrets</b>. Barely any notes were put into the offered „Secret box”, older children (11-15 years old) used the box more.</p>	<p>We did not find great latency. Problematic activities are presumably more likely to occur in older age groups (drug use, fights, etc.). This may be tackled by the means of thematic questions.</p>

### III.2. Interview methodology

Study objectives, questions under investigation	Findings, results	Suggestions
<p>8. <b>Diary technique:</b> Does the traditional diary logging system work with children or is there a need for <b>child-specific approaches</b>?</p>	<p>It was rather difficult to use the traditional “diary-form” and get a daily diary with a good timeline from children. It was also very tiring to them to fill the diary. Many activities were forgotten. We often needed to get specific information by asking direct and <b>thematic questions</b>.</p>	<p>The most important aspects of the study, and certain important groups of activities (e.g. meals, physical activity, housework, personal hygiene) should be asked <b>separately and thematically</b> (how many times and when are they done?).</p>



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<p>9. <b>Issues with remembering and recalling:</b> Can children think in a <b>chronological</b> order (e.g. along the line of „<i>tell us what you did yesterday</i>“)? Or is it better to ask <b>thematic</b> questions (asking for a specific activity or group of activities)? What methods and techniques help children <b>remember and recall</b> their daily activities?</p>	<p><b>Chronological recall</b> was difficult, children often slipped in time, and times had to be corrected several times.</p>	<p>In addition to <b>or instead of chronological questioning, thematic questions</b> seem to be more straightforward. It is therefore advisable to ask separately and directly about e.g. daily routine activities, online activities, meals, physical activities, school breaks, social activities with parents/children, household chores, etc.</p> <p>Helping children remember and recall activities can be reinforced by <b>visual means</b> (with pictures, figures).</p> <p>Additionally, some <b>fun and playful tasks</b> can make serious questions easier. For example: <i>“what would you tell your best friend about your day yesterday; what was the best / worst thing that happened yesterday; what would you do on a gift day;”</i> and so on.</p>
<p>10. <b>Traditional question-answer or other techniques:</b> Is it possible to examine children’s time use with the <b>traditional question-answer</b> method that is also used for adults?</p>	<p>Although monotonous question-answer method did work with children, they became tired very quickly and could not concentrate for a long time.</p>	<p>It is advisable to break the traditional question-answer technique and apply a <b>variety of other methods</b> too (e.g. pictures, imaginative questions, fun tasks).</p> <p>It is recommended to substitute or replace questionnaire survey questions with <b>softer methods, e.g. use of deep interview methodology based on fun tasks.</b></p>

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<p><b>11. Sequencing of questions: serial or column sequence?</b> How can children answer after the main question (“<i>what did you do</i>”) the <b>sub-questions</b> (“<i>where, with whom, to whom the activity was performed, how did you feel during the activity</i>”, etc.): <b>directly</b> after the main question or <b>separated</b> from it?</p>	<p>Additional sub-questions asked directly after the main question concerning the activity (“<i>what did you do</i>”), <b>slowed down</b> the interview process and <b>distracted children</b>.</p> <p>Separated sub-questions, asked one by one only after the whole day activity list, resulted better answers.</p>	<p>It is not recommended to break the daily activity process with serial sub-questions. Instead it is suggested to <b>first ask questions only related to the activities during the whole day</b>, and then go back to a few activities to ask some specific sub-questions.</p>
<p><b>12. Interview technique, types of questions and answers:</b> What types of asking techniques and types of questions work well and not well? What kind of technique brings the most quantity of information and the most accurate information from children?</p>	<p>It was difficult for children to choose from long lists of answers and they became impatient. Consequently <b>many inaccuracies</b> occurred.</p> <p>In many cases the <b>wrong category</b> was chosen for the group of activities for example. Sometimes children recognized their mistake and skipped back to correct it, however, in several cases they just chose the „<i>other</i>” category instead of correcting.</p> <p>Instead of <b>chronological</b> (from morning to evening) recalling, <b>thematic questions</b> worked better, such as asking about a specific group of activities.</p>	<p><b>Images and illustrations help children answer the questions.</b></p> <p>It seems to be especially important to ask a warming-up, <b>fun first question</b> from children. They liked answering this type of question and it brought their attention to the topic. (One such question we used was about an imaginable „gift day”).</p> <p>It is suggested to ask and talk to children in an informal way, whether in the self-administered questionnaire or the interview.</p>

### III.3. The list of activities

Study objectives, questions under investigation	Findings, results	Suggestions
<p>13. <b>Use of expressions, language formulation:</b> Are there any specific activities that children do? Can we find them? How can they be inserted into a regular activity list?</p>	<p>There are several activities that children refer to differently, thus they would look for it at a different place in the activity list.</p>	<p>Typical child activities should be named with <b>the expression they use</b>, otherwise they do not understand or misunderstand it.</p> <p>For example, specific expressions: <i>computering, chatting, vibering, helping out</i> (instead of household chores), <i>trampoline, petting the dog/cat, tiggig, departing home, packing/unpacking, writing/answering</i> (for written and oral school test), etc.</p> <p>Other expressions mentioned as computer activities: „to movie”, <i>computering, e-mailing, gaming</i>”, „phoning”, „chatting”.</p> <p>They do not use the word „studying” for the time spent in school. They rather prefer: “being at school”, „attending classes”, „having an oral test”.</p> <p>They refer to studying at school and studying at home with different expressions.</p>

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<p><b>14. Generalized or specific activity categories</b></p>	<p>It was troublesome for children to use the <b>multistep category list</b> beginning with a <b>generalized, more abstract main group category moving forward to the detailed specific activities</b>. First they were always looking for the <b>specific activities</b>, and wanted to skip the main categories.</p> <p>Children seem to think more specifically, it is difficult for them to generalize and to sort their daily activities into aggregated categories.</p>	<p>It is recommended to <b>directly name activities</b> and not to force children to search in the multistep category system.</p> <p>Suggestions for the modification of some items of the activity list (modification, merging categories, new categories):</p> <p>Suggestion for <b>new categories</b>:  <b>“helping out”</b> – for many children doing household chores does not mean work but rather help for parents (to do the rooms, washing up etc.)  <b>“Going home “</b>  <b>“Going to church, clerical activities”</b></p> <p>Instead of „personal needs”: <b>“everyday, general activities”</b></p> <p>New merged categories should be:  <b>“Getting ready”</b> (at home, at school, for an event, before an activity)  <b>“Studying”</b> (everything in connection with learning and school)</p>
<p><b>15. Perception and interpretation of time:</b></p> <p>How do children think <b>about time</b>?  Do they perceive the different</p>	<p>Children do <b>perceive</b> time-related factors broadly, however, it appears that <b>they do not think about their daily activities along the passing of time</b>. Rather, they arrange their</p>	<p>Instead of asking about the sequence of activities and what time an activity was done, it is recommended to make children recall activities along a <b>thematic timeline</b>. For</p>

Study objectives, questions under investigation	Findings, results	Suggestions
<p>moments of day and night? Can they distinguish the different activities that are related to the different times of the day? Are they aware of the <b>passing of time</b>? Can they estimate <b>how long and when</b> they did a certain activity?</p>	<p>thoughts into groups and <b>categories of activities</b>, such as for example <i>when did you eat, when did you wash, brush your teeth, study</i>, etc.</p> <p>Children were often <b>not aware of exactly what time</b> an event happened. They were often <b>mistaken</b> about when an event happened, or – when checked with a parent – it turned out that the event <b>happened at another time</b>.</p>	<p>example, <i>what did you do in the morning after waking up? ...during the break between classes? ...after classes? ...before going to bed?</i> etc.</p>
<p><b>16. Forgotten and difficult sortable activities:</b> What kind of activities were forgotten and mentioned only subsequently? Which activities were difficult to find and sort into a given category?</p>	<p>In general, activities such as eating, daily routine activities, travelling and activities related to pets were only remembered subsequently. (They thought about eating as a secondary activity – eating while doing something else.)</p> <p><b>„Outdoor activities“</b>: identification and classification of walking a dog was unclear.</p> <p>Activities that were <b>difficult to find</b>:</p> <p><i>Sleeping</i>: respondents didn't search it in the category of <i>“personal needs”</i>, instead they would have enrolled it into a category <i>„general, everyday activities“</i>.</p> <p><i>Wound treatments</i> (creams and other treatments): this activity was difficult to find</p>	<p>It is recommended to have a <b>separate group of questions</b> related to <b>meals, outdoor and sparetime activities</b>: <i>„When and how many times did you eat?“</i></p> <p><i>“What did you do after school... in your sparetime?“</i></p> <p><i>“What is your favourite activity?“</i></p> <p>Some categories should be <b>renamed</b> using the expressions that children can easily recognize. E.g.: <i>“general, everyday activities”</i> instead of <i>“personal needs”</i>; <i>“private lessons”</i> should initialize or should replace the category <i>“learning languages, music and tutoring”</i>.</p>

Study objectives, questions under investigation	Findings, results	Suggestions
	<p>in the category of “<i>washing, dressing, restroom use</i>”. It is rather considered to be personal needs.</p> <p>Children used instead of “<i>learning languages, music and tutoring</i>” the expression „<i>private lessons</i>” - it was more familiar to them.</p> <p>Expressions used by children but was <b>difficult to enrol into given categories</b>: “<i>physical gymnastics, feeding fish, walking the dog, picking cherries, orthodontic cleaning, checking the phone, preparing, packing, arriving, walking while studying, conversing with friends, excursions, grill-party, barbecue</i>”.</p>	
<p><b>17. Using electronic devices, programs, and the internet :</b>            What kind of electronic activities are preferred by children? How do they call them, are there special expressions for those activities?</p>	<p>One of the most favourite activities of older children (11-15 years old) is using electronic devices (several hours a day). Nearly all children used computer games but they had difficulty finding this category.</p> <p>Participants of test interviews mentioned a lot of activities with special language expressions (jargon, slang) in connection with computer and other electronic devices.</p> <p><b>Preferred applications:</b> Instagram, Facebook, YouTube: listening to music, watching videos</p>	<p>It is recommended to have a separate category for „<b>Computer/electronic activities and games</b>”. The nomination of this category and the activities should conform the public expressions used by children.</p>

Study objectives, questions under investigation	Findings, results	Suggestions
	<p>(about for example violin making, lego, travels, football), Messenger, Super Chat, Viber, Duolingo. Using Google, Wikipédia.</p> <p><b>Games mentioned:</b> Fortnite, FIFA, Minecraft, Clash royale, Hill climbe racing, colouring program, Spiderman, shooting game, puzzle, car racing, icehockey games, Subway-Surfers</p> <p><b>Kahoot:</b> interactive quiz online that is used during history classes (everyone uses their own smart phones). Spotify, Netflix, Videochat – watching movies with friends.</p>	

#### III.4. Experiences and suggestions related to the use of the mobile application and other design elements of the study

Study objectives, questions under investigation	Findings, results	Suggestions
<p><b>18. Form and implementation of the questionnaire and the mobile application:</b></p> <p>What kind of <b>design solutions</b> could help answering – especially in the case of <b>self-administered questionnaire</b>? Is there a need for a</p>	<p>Respondents of test interviews reported that the current application used <b>is dull, lacks colours</b> and a fun design and it is not fun for children.</p> <p>For this reason, filling the questionnaire takes a very long time and it is too monotonous.</p>	<p>Children lose attention and concentration faster than adults, thus, it is important to have some <b>solutions to keep and bring back their attention.</b></p> <p>During the self-administered questionnaire, it is important to implement solutions that <b>motivate</b> respondents to finish the whole questionnaire. For example, using pictures,</p>

Study objectives, questions under investigation	Findings, results	Suggestions
<p>different implementation than in the case of adults?</p>	<p>Children liked having <b>pictures and figures</b> during the questionnaire, these helped <b>recalling</b> activities.</p>	<p>photos and other figures can enhance the experience.</p> <p>A <b>playful graph or progress chart</b> should show respondents how far they are in the questionnaire, show them „what they have done during the day so far” and „what time it is now” virtually on their questionnaire.</p> <p>For the mobile application (tablet), it would be important to have an <b>overview (it may be a chart, table)</b> that shows respondents how far they are and what they have already done.</p> <p>To draw attention and arouse curiosity right <b>at the beginning of the questionnaire</b>, a chart should be shown with an interesting fact, for example the national average for certain activities. <b>At the end of the questionnaire</b>, this could indicate and allow respondents to have an idea about how they spend their day compared to other people.</p>