

# Development and validation of the Moral Sensitivity Inventory for people with intellectual disabilities

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## Abstract

This article presents the Moral Sensitivity Inventory, a unique reading-free tool for evaluating the moral sensitivity of people with intellectual disability. Moral sensitivity, one of the four components of Rest's Four Component Model of Morality (1994), is thought to influence moral behavior. The Moral Sensitivity Inventory is intended for people aged 16–30 years with mild or moderate intellectual disabilities. The Moral Sensitivity Inventory is comprised of 10 stories with pictures illustrating the aspects of morality, which are grouped into six categories: responsibility; respect for the common good and the property of other people; harming other people; seeking and seeing the good in others; conformance to principles and norms; understanding. The Moral Sensitivity Inventory identifies competences and gaps in moral sensitivity, which makes it a helpful tool for educating and social rehabilitation of people with intellectual disabilities. The overall reliability of the tool was .89 and the reliability of individual stories ranged from .87 to .90.

## Keywords

moral education, moral sensitivity (measurement), intellectual disability, quality assessment, psycho-social rehabilitation

## Introduction

The measurement of human morality dates back to the paper-and-pencil *justification test* created by Luigi Alfonso in the 19th century (1896) and the *ranking test* developed by Guy G Fernald in

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the early 20th century (1912). Both tests asked young people to give their opinion on moral dilemmas by making judgments or ranking them.

The first systematic approach within developmental psychology to studying moral development was presented by Jean Piaget (1932) in his book, *The Moral Judgement of a Child*. Piaget (1932) believed that by observing children playing games and asking them to explain the rules, one can get an insight into how they understand their development. He divided the moral development of children into two stages which he called moral heteronomy and moral autonomy. Lawrence Kohlberg (1969, 1976) subdivided these into six phases and three levels, namely pre-conventional morality, conventional morality and post-conventional morality. The works of Piaget (1932) and Kohlberg (1969, 1976) inspired many studies on the development of moral reasoning in the general population (e.g. Selman, 1971; White et al., 1978) and persons with intellectual disabilities (Langdon et al., 2010).

One of the first researchers to write about the morality of people with intellectual disabilities was Tadeusz Witkowski, a Polish scholar who took interest in the moral sensitivity of children with intellectual disabilities in the 1960s (1967, 1994). His definition of moral sensitivity is based on the individual's ability to recognize the manifestations of moral good and moral evil, as distinguished from Piaget's moral reasoning ability. His studies show that the children with intellectual disabilities are morally sensitive, even though their moral sensitivity is lower than that of their peers. In the 1980s, James Rest (1986, 1994) incorporated moral sensitivity into his Four Component Model (FCM) of morality. He argued that morality was determined by four basic component processes that include, in addition to moral sensitivity, moral judgment, moral motivation and moral character (Bebeau et al., 1999). As for now, researchers focus solely on moral judgment of those with intellectual disabilities (Langdon et al., 2010), but other components of Rest's Model (1986, 1994) have not got enough attention. As a result, the entire spectrum information about moral process is excluded. Attention to only one component thwarts the possibility of remedying the real lack of competencies. Measurement tools for each of the components can pinpoint where in the process individuals' deficiencies reside and provide them with adequate moral competencies training.

In recent studies, the moral sensitivity of various social groups such as nurses (Abdollahi Shahvali et al., 2018; Amiri et al., 2019; Hojat, 2007), psychiatry hospital staff (Ohnishi et al., 2019; Reimer, 2010), philosophers (Roeser, 2012), businessmen (Roca, 2010) and students of various majors, university lecturers and researchers (Gibson and Landwehr-Brown, 2009; Mohammadnazar et al., 2019), have been analyzed. The deep understanding of the moral sensitivity of the general population clearly contrasts with the insufficient knowledge of this trait in persons with intellectual disabilities. A number tools have been designed for probing moral sensitivity, but all of them are intended for the general population (e.g. the Dental Ethical Sensitivity Test (DEST), Bebeau et al., 1985; the Collage Moral Sensitivity Test, McNeel and Frederickson, 1994; the Moral Sensitivity Questionnaire (MSQ), Lutzen and Johansson, 2000; the Racial Ethical Sensitivity Test (REST), Brabeck et al., 2000; the Test for Ethical Sensitivity in Science (TESS), Clarkeburn, 2002; the Ethical Sensitivity Scale Questionnaire (ESSQ), Gholami and Tirri, 2012. There are also many unnamed instruments, created by researchers such as Hebert et al. (1990), Shaub et al. (1993), Sadler (2004), Karcher (1996), Sparks and Hunt (1998), Butterfield et al. (2000), Erwin (2000), Myyry and Helkama (2002), Reynolds (2006) and Verplaetse (2008). They all utilize paper-and-pencil self-assessment scales, which makes them of limited use in studies with people who have intellectual disabilities. At the same time, there is a paucity of standardized, well-designed, reading-free tools with which the moral sensitivity of such persons could be measured and provide information to be used in their process of moral education.

The authors of this study undertook to fill the existing gap and present a process for developing and validating a moral sensitivity evaluation tool meant for people with intellectual disabilities—the Moral Sensitivity Inventory.

## Theoretical framework

### *Moral sensitivity*

In the Rest's Four Component Model (FCM) of morality (1994), moral sensitivity is defined as the ability to view a situation in terms of moral good and moral evil. It is an individual's ability to decide about what action should be taken in a given situation and the awareness of how particular actions may affect other people. It is a kind of an understanding of the "moral nuances" of a situation.

A morally sensitive individual needs to be aware that, whatever the situation, more than one action is possible and that each behavior will have a different moral value (will be morally "better" or "worse"). Secondly, he or she must realize that each action has implications for the well-being and expectations of themselves and of other people, and that the implications too may be morally good or bad. This awareness is founded on the skill of interpreting other people's reactions and feelings (Rest et al., 1999), the ability to play different roles (Sadler, 2004) and look at things from other people's perspectives, or to acknowledge their right to opinions, values, beliefs and needs that are different from ours. In other words, it is a type of empathy (Mitty, 2010).

A fully conscious and independent choice of an action is easier when one is aware of how a given behavior will affect others and is able to correctly interpret the situation. This means that having a sufficiently high level of moral sensitivity is both necessary and adequate condition for morally appropriate conduct (Czusz and Otrębski, 2013). Given the opportunity to avoid moral transgressions (Mulder and van Dijk, 2020).

Moral sensitivity is considered to be made up of cognitive (the ability to recognize moral issues) and affective (reacting to and analyzing issues from the affective perspective) elements, set in a social context (Rest, 1994). Some scholars argue that moral sensitivity is a necessary precursor to moral judgment (e.g., Clarkeburn, 2002; Sparks and Hunt, 1998)—Component 2 in the FCM of morality (Rest, 1994)—even if the linear progression from Components 1 to 4 has not yet been demonstrated (Rest, 1983; Rest et al., 1999).

There are, therefore, valid arguments pointing to the importance of measuring moral sensitivity. Firstly, a moral decision-making process is more than a moral judgment (Jordan, 2007) that is reported to explain only about 10–15% of the variance in morality-related behavior (Blasi, 1980; Thoma et al., 1991). Secondly, the ability to recognize moral issues in complex situations enables an individual to allow for them in making decisions (Rest, 1986; Sparks and Hunt, 1998). Thoma (1994: 200) wrote that "to adequately assess [the judgment–action link], subjects must first recognize the situation as falling within the moral domain and then activate their moral judgment structures."

### *Moral sensitivity of the intellectually disabled*

Research reports on the moral sensitivity of people with intellectual disabilities are few compared with those discussing non-disabled people. The aforementioned study by Witkowski (1967, 1994) showed boys with intellectual disabilities to be morally less sensitive than their non-disabled peers. Witkowski's findings (1967, 1994) were confirmed by Magda-Adamowicz and Szmalec (2010), who found that, unlike children with intellectual disabilities who may tend to concentrate on the external

manifestations of moral good or evil, non-disabled children recognize also the intention behind an action. Adults with intellectual disabilities have been the topic of only one study, the authors of which reported that adults with mild intellectual disabilities were morally more sensitive than those with moderate intellectual disabilities (Czusz and Otrębski, 2013). The noticeable lack of scientifically validated data calls for research assessing the moral sensitivity of this subpopulation.

### **The development of the Moral Sensitivity Inventory**

The Moral Sensitivity Inventory—a method for measuring moral sensitivity of people with intellectual disabilities—developed from the revisions of the MMSM (Witkowski, 1967, 1994) and the QMMS-ID (Czusz and Otrębski, 2013). Its authors aimed to create a method set in the socio-cultural context of Western Europe for investigating the needs and abilities of people with intellectual disabilities. Following these assumptions, the Moral Sensitivity Inventory was designed to explore the moral sensitivity of individuals with intellectual disabilities, aged 16–30 years by means of 10 illustrated stories, which makes it a reading-free tool readily usable by these respondents.

### **The choice of items**

In order to have a tool that would be accurate and appropriate for the needs and possibilities of respondents with intellectual disabilities, the authors subjected it to an evaluation procedure involving competent judges and people with intellectual disabilities. The evaluated materials comprised all 14 stories included in the QMMS-ID (Czusz and Otrębski, 2013) and 4 new stories with pictures dealing with the contemporary problems of people with intellectual disabilities (dating, getting a job, using social media, cyberbullying, alcohol abuse, etc.). The problems were selected based on the findings of Polish surveys of young people (Boni, 2011; CBOS, 2009). Fifteen competent judges (psychologists, educators, occupational therapists, and teachers working with the people who have intellectual disabilities) were asked to answer the following questions assessing the Inventory: (1) *To what extent is the language of the instruction and of the stories understandable for people with intellectual disabilities?* (2) *To what extent are the illustrations understandable for people with intellectual disabilities?* (3) *To what extent are the stories and illustrations congruent with each other?* (4) *How conspicuous are the moral elements of the stories?* and (5) *Do the stories address the contemporary problems of young people with intellectual disabilities?* The majority of answers pointed to judges giving high ratings to all questions.

The judges were also asked to indicate 10 stories that they considered to best meet the needs of people with intellectual disabilities and that effectively measured moral sensitivity. Of the 18 tested stories, 10 were selected based on the highest numbers of indications and understandability for persons with intellectual disabilities (Table 1).

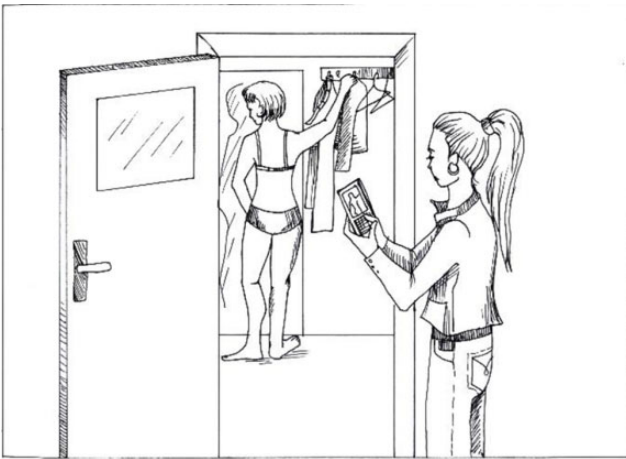
At the same time, a pilot study involving 15 persons with mild or moderate levels of intellectual disability was carried out to determine the degree to which they could understand the instruction, stories and illustrations. The comments made by the judges and the results of the pilot study were used to improve the Moral Sensitivity Inventory.

The new final version of the Moral Sensitivity Inventory consists of 10 illustrated stories about the everyday behaviors such as being obedient to one's parents/caregivers (the “Adam” story), mocking disabled people (the “Kuba and Bartek” story), helping people in need (the “Ania and Tomek” story), talking others into wrongdoing (the “Franek” story), irresponsible conduct and stealing (the “Paweł and Karol” story), extorting money (the “Piotrek” story), lying and visiting inappropriate websites (the “Rafał” story), getting a paid job and being late (the “Kamil” story),

**Table 1.** Stories with the highest score indicated by the competent judges ( $N = 15$ ).

Story number	Received scores of competent judges
1	15
2	15
7	15
4	14
8	14
9	14
6	13
10	13
5	12
3	11

**Table 2.** An example of the Moral Sensitivity Inventory story with the corresponding picture and the indicator 1 & 5.

Story	Picture
<p>Monika and Gosia were classmates, but they didn't particularly like each other. One day, Monika saw Gosia changing her clothes in the bathroom. Monika took a photo of Gosia without her knowledge and told her nothing about it. Then, meaning it as a joke, she posted the photo on the Internet. All friends of Monika's and Gosia's could see it. Many people laughed at the photo of Gosia. Gosia felt strongly embarrassed because of this and refused to go to school after what had happened. A few days later, Monika understood she had done a bad thing by taking and posting the photo. She removed the photo and apologized to Gosia.</p> <p>1: Monika took a secret picture of Gosia 5: Gosia did not think about the potentially negative consequences of posting a picture to the Internet</p>	

cyberbullying (the “Monika and Gosia” story), and abusing alcohol (the “Dorota and Karolina” story). The set of black-and-white sketches illustrating the behaviors was extended as per the authors’ and judges’ guidelines by a professional artist (see the example in Table 2).

### *Creation of the evaluation form*

As a result of the validation study with a group of 267 people with intellectual disabilities, a list of 90 moral indicators contained in the stories and a new evaluation form were created.

**Table 3.** The indicators for six moral categories scored as 1 or 5.

Moral category	Indicators scored as 1	Indicators scored as 5
(1) Responsibility (RES)	The girls drank too much alcohol (the “Dorota and Karolina” story)	Gosia did not think about the potentially negative consequences of posting a picture to the Internet (the “Gosia and Monika” story)
(2) Respect for the common good and other people’s property (PRO)	The boys have stolen bread, canned meat, and some money (the “Paweł and Karol” story)	The boys did not think that the people they had stolen money from would have no food (the “Paweł and Karol” story)
(3) Harming other people (HAR)	Bartek tripped an old woman up (the “Kuba and Bartek” story)	Monika humiliated Gosia (the “Gosia and Monika” story)
(4) Seeking and seeing the good in others (GOO)	The boys escorted the old lady home (the “Kuba and Bartek” story)	Franek did not mean to upset his parents (the “Franek” story)
(5) Conformance to the principles and norms (NOR)	Rafał is watching the adult websites (the “Rafał” story)	The boy wanted to buy what his mum told him to buy (story “Piotrek”)
(6) Understanding other people’s behavior (UND)	Monika apologized to Gosia (the “Monika and Gosia” story)	Rafał felt remorseful (the “Rafał” story)

The indicators were reviewed by six competent judges who evaluated them to establish if they did not overlap and to prevent any possibility of the stories being misinterpreted or of confabulation.

Each moral indicator was assigned a number from 1 to 5 and a “+” or “-” sign, following Witkowski’s (1967, 1994) assumption that moral indicators which are indicated more frequently are more obvious and easier to identify, while those identified less often require a higher level of moral sensitivity. The procedure for assigning ranks consists of the following steps:

1. The number of participants who have noticed particular “+” and “-” moral indicators is determined.
2. The frequency data are divided into five 20% intervals arranged from the lowest to highest.
3. The intervals are assigned ranks ranging from 1 (the top interval) to 5 (the bottom interval).
4. The ranks depend on the number of points a respondent has scored for identifying moral indicators; moral indicators that are less obvious are scored higher.

Lastly, using the distribution of the group’s scores and the quartile method point intervals corresponding to low, moderate and high levels of moral sensitivity are defined. The procedure can be illustrated with “Adam broke a window pane,” which was indicated in the validation survey by 232 of 267 respondents. This frequency of indications placed the behavior among the 20% of behaviors that were mentioned the most frequently and so it was assigned a rank of 1.

To improve the diagnostic efficiency of the Moral Sensitivity Inventory, the authors chose to divide all 90 moral indicators into six broader moral categories, which were defined by the competent judges. The indicators were included in particular categories based on the majority decision of the judges.

**Table 4.** The characteristics of the validation group by frequency (*f*) and proportion (%).

Variable	<i>f</i>	%
Gender		
Men	141	52.80
Women	126	47.20
Intellectual disability		
Mild	156	58.42
Moderate	111	41.58
Place of origin		
Village	108	40.40
City with up to 10,000 residents	23	8.60
City with 10,000–50,000 residents	21	7.90
City with 50,000–100,000 residents	30	11.20
City with more than 100,000 residents	85	31.80
Place of residence		
Family home	236	88.4
Institution	3	1.1
Boarding school	28	10.5
Current occupational status		
Employed	36	13.5
Social Care Center pupil	19	7.1
Occupational Therapy Workshop pupil	100	37.5
Student (middle/vocational school)	121	41.9

These six moral categories measured by the Moral Sensitivity Inventory are: (1) responsibility (RES), (2) respect for the common good and other people's property (PRO), (3) harming other people (HAR), (4) seeking and seeing the good in others (GOO), (5) conformance to the principles and norms (NOR), and (6) understanding other people's behavior (UND). The examples of the indicator for the each of moral category are presented below (Table 3).

The Moral Sensitivity Inventory assesses individuals' level of moral sensitivity (overall and by moral category), as well as enabling visualization of the survey results. The latter functionality allows a detailed analysis of individuals' strengths and weaknesses in moral competencies and a description of their functioning in more qualitative terms, and therefore an individual **picture** of persons with intellectual disabilities.

## Participants and standardization procedure

A non-probability sample ( $N = 267$ ) of Polish residents with mild (58.42%) or moderate (41.58%) intellectual disabilities was collected for psychometric analysis with the Moral Sensitivity Inventory (MSI) by contacting their schools or day-care centers (e.g. shelter workshops). Men and women were almost in equal proportion (52.80% and 47.20%, respectively). Their ages ranged from 16 and 30 years ( $M = 23.15$ ;  $SD = 4.90$ ). The distributions of gender, intellectual disability levels, place of residence, the environment of residence and jobs of the study participants are presented in Table 4.

The age criterion of 16–30 years was selected to ensure the participation of school youth and young adults who had completed education, but also to be sure that the moral dilemmas they would be faced with would be common and important to all of them.

**Table 5.** Cronbach's *alpha* reliability coefficient for individual stories ( $N = 267$ ).

Story	Alpha
1	0.89
2	0.88
3	0.87
4	0.88
5	0.88
6	0.87
7	0.88
8	0.87
9	0.88
10	0.90

**Table 6.** Frequency ( $N$ ), means ( $M$ ), standard deviation ( $SD$ ), Student's t-test coefficient and significance level for the intellectual disability-related differences in moral sensitivity ( $N = 267$ ).

Intellectual disability level	$N$	$M$	$SD$	$t$	$p$
Mild	156	56.37	24.92	4.71	0.03
Moderate	111	42.33	22.58		

Before the study commenced, the participants were informed that their participation was voluntary and anonymous, that they could drop out at any time, and that they need to give oral consent if they wish to participate in the study.

### *Psychometric properties of the inventory*

**Reliability.** The reliability of the Moral Sensitivity Inventory was estimated using the Cronbach's *alpha* internal consistency coefficient. Its value for the entire scale was .89 and for individual stories it ranged between .87 and .90 (Table 5). The similarity of the coefficient's values obtained for individual stories suggests that their ability to measure moral sensitivity was comparable and that the Inventory can be useful as a diagnostic tool.

**Validity.** In order to validate the construction of the Moral Sensitivity Inventory, the authors compared the levels of moral sensitivity between persons with mild and moderate intellectual disabilities. Because according to Witkowski (1967, 1994), cognitive development is accompanied by the development of moral sensitivity and that people with intellectual disabilities usually suffer from some cognitive deficiency (Castle, 1996), it can be presumed that the level of moral sensitivity is the lower, with the lower cognitive ability. Earlier studies have found non-disabled children to be morally more sensitive than their peers with intellectual disabilities (Witkowski, 1967, 1994). The same pattern is observed between adults with mild and moderate intellectual disabilities (Czusz and Otrębski, 2013). Witkowski's theory and earlier research imply therefore that people with mild intellectual disabilities should score significantly better on the moral sensitivity tests than persons with moderate disabilities.



**Table 7.** Minimum (Min), maximum (Max), means (M), standard deviations (SD) and variance (SD<sup>2</sup>) for the moral categories of the MSI (N = 267).

	Min	Max	M	SD	SD <sup>2</sup>
RES	0	27	8.46	5.27	27.76
GOO	1	54	12.62	9.01	81.15
PRO	0	14	5.42	2.80	7.86
HAR	0	23	9.08	3.97	15.77
NOR	0	32	8.16	5.46	29.85
UND	0	28	6.79	5.95	35.44

**Table 8.** Correlations between moral categories.

	RES	GOO	PRO	HAR	NOR	UND
RES	—	0.56**	0.49**	0.39**	0.57**	0.51**
GOO		—	0.46**	0.38**	0.48**	0.54**
PRO			—	0.41**	0.49**	0.46**
HAR				—	0.47**	0.50**
NOR					—	0.55**
UND						—

\*\* $p < 0.001$ .

The analysis of these two groups in this study confirmed that such a hypothetical difference does exist: the former proved morally more sensitive ( $t = 4.71$ ;  $p = 0.03$ ; Table 6). Therefore, the results of analysis acknowledged the construct validity of the Moral Sensitivity Inventory.

To make sure that the tool was really valid, correlations between the moral categories of the Moral Sensitivity Inventory were additionally computed. The data in Table 7 are the descriptive statistics of moral categories and the data in Table 8 present correlation between them that appear to be low or moderate. The highest correlations were obtained for ODP and ZAS (.57) and for ODP and DOB (.56). The lowest, but still significant, correlations were calculated for SZK and DOB (.38) and SZK and ODP (.39). Both the highest and lowest correlations are easy to explain: responsibility (ODP) frequently involves compliance with the rules (ZAS) and telling others to do well (DOB), whereas harming other people has nothing to do with doing good and being responsible.

**Normalization.** A normalization procedure was used to define the Sten norms (for the overall score and the scores for individual moral categories) appropriate for persons aged 16–30 years with mild or moderate intellectual disabilities (Tables 9 and 10). While the Moral Sensitivity Inventory can also be used in studying older or younger age groups, it must be remembered that some of their problems may be different from those experienced by young people today (e.g. cyberbullying).

The Sten norms were derived from the empirical distributions of scores obtained in the course of analysis. The empirical distribution of the overall score was right-skewed so it was normalized.

**Table 9.** Sten norms of Moral Sensitivity Inventory for the overall result.

Overall result	Sten
1–15	1
16–20	2
21–26	3
27–35	4
36–45	5
46–58	6
59–76	7
77–85	8
86–106	9
107 or more	10

**Table 10.** Sten norms of Moral Sensitivity Inventory for the moral categories.

RES	PRO	HAR	Sten	GOO	NOR	UND
0	0	0–1	1	0–1	0	—
1	1	2–3	2	2	—	—
2	2	4	3	3	1–2	—
3–4	3	5–6	4	4–6	3–4	0–2
5–7	4	7–8	5	7–10	5–6	3–4
8–10	5	9–10	6	11–14	7–10	5–9
11–12	6–7	11–12	7	15–20	11–13	10–13
13–16	8–9	13–14	8	21–16	14–16	14–16
17–19	10–11	15–17	9	27–34	17–18	17–18
20 or more	12 or more	18 or more	10	35 or more	19 or more	19 or more

Because the normalization procedure failed to cover scores/results of ends of ranges of particular Stens, the interpolation procedure was employed.

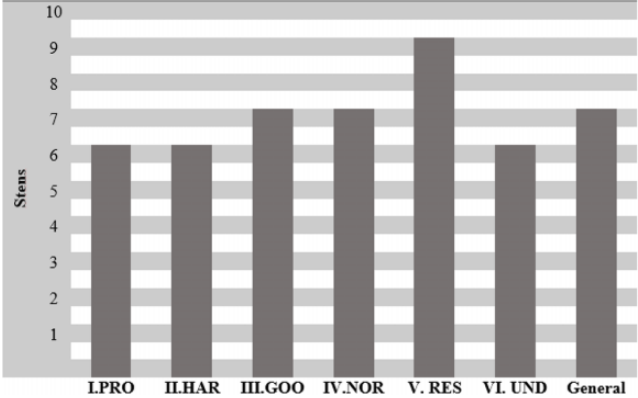
The open-ended structure of the evaluation form caused that the number of points a respondent could obtain for Sten 10 was infinite (“12 and more” for PRO in the table with norms). For identifying a moral element other than proposed in the form, a respondent could earn up to 5 points extra, but Sten 10 was assigned even if the maximum score was 17 points for category.

Sten norms are useful in analyzing and describing respondents’ overall result and results obtained for individual moral categories. Sten norms created for moral categories enable the visualization of the level and diversity of person’s moral sensitivity, thus facilitating the analysis and comparison of the results within a peer group. Because the validation study did not show men and women to be significantly different regarding the level of moral sensitivity, the same norms were applied to both genders.

### **Description of the Moral Sensitivity Inventory**

The Moral Sensitivity Inventory consists of manual, test material consisting of 10 illustrated stories, and an evaluation form. The stories present social situations experienced by people with intellectual disabilities, which contain many moral indicators (a specimen of a story with a picture

**Table 11.** Sample information obtained using the tool.

Information about the subject	John, 24 years old, a graduate of a vocational training college, lives with his family and attends the Day Activity Center																
The profile	 <table border="1" data-bbox="367 311 1004 706"> <caption>Data for Figure 1: Profile Scores</caption> <thead> <tr> <th>Category</th> <th>Score (Stens)</th> </tr> </thead> <tbody> <tr> <td>LPRO</td> <td>6</td> </tr> <tr> <td>ILHAR</td> <td>6</td> </tr> <tr> <td>IILGOO</td> <td>7</td> </tr> <tr> <td>IV.NOR</td> <td>7</td> </tr> <tr> <td>V.RES</td> <td>9</td> </tr> <tr> <td>VI.UND</td> <td>6</td> </tr> <tr> <td>General</td> <td>7</td> </tr> </tbody> </table>	Category	Score (Stens)	LPRO	6	ILHAR	6	IILGOO	7	IV.NOR	7	V.RES	9	VI.UND	6	General	7
Category	Score (Stens)																
LPRO	6																
ILHAR	6																
IILGOO	7																
IV.NOR	7																
V.RES	9																
VI.UND	6																
General	7																
Interpretation	<p>John's profile indicates harmonized moral sensitivity. The overall results show that he represents a moderate level of moral sensitivity, but particular categories suggest that John perceives moral indicators across all categories at more or less similar levels. Clearly, he has the greatest ease in indicating moral good and evil regarding responsibility (category V—RES), conformance to principles and norms (category IV—NOR) and acting for the good of others (category III—GOO). He pays a little less attention to the indicators of the lack of respect for the common good and the property of others (category I—PRO), acts of harming others (category II—HAR) and those associated with acknowledging one's mistakes and one's desire to redress any harm done (category VI—UND). A more detailed analysis of John's answers makes it possible to carry out an even more comprehensive assessment of his ability to distinguish between moral good and evil.</p>																

was presented in Table 2). The respondent's task is to consider the following question "Who, in this story, did something right or wrong, and what was that?" and find in the story and the picture as many moral elements as he or she can (the number of moral elements presented in the stories is greater than indicated during the validation study).

For instance, a person who is particularly sensitive to some aspects of morality may find in the story a moral element that, having been present during the validation survey, was not included in the evaluation form. For identifying a qualitatively new element a respondent may receive up to five points. However, one has to be careful in evaluating whether the stated, new element is really different from those provided in evaluation form to avoid a situation when the respondent's scores is much higher than it should be. Every new element must also be appropriately assigned to one of the six moral categories.

### How to use the Moral Sensitivity Inventory

The Moral Sensitivity Inventory has been developed as a reading-free tool for assessing the moral sensitivity of persons with mild or moderate intellectual disabilities. At present, only a paper

version of the MSI meant for face-to-face interviews is available. Having a respondent complete the MSI on his or her own is not recommended, because it cannot be sure that the instructions and stories were correctly understood and corrections cannot be made when needed.

A study of people with intellectual disabilities must take account of the special nature of their functioning. With reduced intellectual capabilities, they may have more difficulty understanding and following the instructions, and concentrating on the task. The effective use of the Inventory depends therefore on having the basic knowledge of intellectual disabilities and of the Moral Sensitivity Inventory procedure.

Having completed the evaluation stage, the examiner prepares the respondent's moral sensitivity profile based on his or her scores obtained for particular moral categories. Differences in the levels of moral categories indicate moral competencies that need to be improved and which educational and rehabilitation needs should be addressed. Table 11 presents an example of a moral sensitivity profile of an individual created after a survey.

The amount of time necessary to carry out an interview and calculate the results may range from around 40 to 80 minutes, depending on how fast the respondent can work (understand the instructions, speak), the quality and number of answers (many answers consume more time) and the investigator's knowledge of the process and ability to calculate the results. The interview and the calculation of results can be completed in 20–40 minutes each.

## **Conclusions**

The Moral Sensitivity Inventory is currently the only standardized tool for measuring the moral sensitivity of persons with intellectual disabilities during traditional face-to-face contacts. The findings of our research show that measuring the moral sensitivity of people with mild or moderate levels of intellectual disability is not only possible but also justified. The psychometric characteristics of the Inventory make it a reliable measurement instrument that can be applied across a variety of learning contexts. Being a reading-free tool, it meets the needs and capabilities of people with intellectual disabilities.

The construct validity of the Moral Sensitivity Inventory means that it supports the theory according to which cognitive development as one of the factors influencing moral sensitivity development can shape the level of moral sensitivity in individuals with intellectual disabilities and cognitive deficiencies. The theory has been confirmed by studies that found non-disabled children to be morally more sensitive than their peers with intellectual disabilities (Witkowski, 1967, 1994). A similar pattern can be observed for adults with mild and moderate intellectual disabilities (Czusz and Otrębski, 2013).

The Moral Sensitivity Inventory allows the general moral sensitivity of an individual (an ability to recognize moral good and evil in social situations) to be assessed, as well as moral sensitivity represented by six moral categories indicated by several competent judges.

The Moral Sensitivity Inventory can be useful as a means of comparative studies with groups with intellectual disabilities (e.g. defined according to the level of intellectual disability, age, place of residence or educational background) or to diagnose individuals. The evaluation form provides special space for visualizing respondents' results, thus enabling a detailed analysis of their strong and weak moral competencies and a more qualitative description of their functioning.

By allowing the comparison of the results obtained by the tested persons, the Moral Sensitivity Inventory can indicate their training needs regarding general moral sensitivity. At an individual

level, the comparison of the results a person has achieved for particular moral categories provides information which of them may require additional training. The Moral Sensitivity Inventory can support the development of moral competencies training programs for people with intellectual disabilities or adjusting training contents to their individual needs.

This study has some important limitations that need to be acknowledged. Firstly, people with intellectual disabilities are very diverse in their functioning and in the ability to understand and focus their attention. Whether some of the respondents scored low because of limited moral sensitivity, difficulty in understanding the instructions or concentration problems is difficult to say. Secondly, some respondents, particularly those with lower IQs, required more assistance from the researcher to answer the questions (e.g. repetition or guidance through the questions). This may have biased their scores compared with those obtained by respondents who did not use assistance.

Face-to-face interviews carry also the risk of mistakes being made if the examiner does not have sufficient knowledge on the nature of respondent's intellectual disability. They also require the highest level of concentration so that no answer is missed.

Stories and illustrations were selected with the intention of presenting problems familiar to the respondents. This means that persons who have no previous knowledge of a particular situation may have a problem identifying the manifestations of moral good and moral evil contained in it.

Further research on the MSI should seek to create its version enabling the measurement of moral sensitivity in other age groups (i.e. younger than 16 and older than 30 years, respectively). This new version would require the compilation of a new set of social problems, more relevant to the age of the target group.

The possibility of using the Moral Sensitivity Inventory to measure moral sensitivity in people with more severe intellectual disabilities should also be tested. As a tool capable of exploring and describing in detail the moral sensitivity of people with intellectual disabilities, the Inventory could fill the present gap in morality studies and be a useful help in construction of moral competencies training programs.

### **Authors' note**

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The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.


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