Method Article

The Social Exclusion Bench Tool (SEBT): A visual way of assessing interpersonal social exclusion

Davide Mazzoni\textsuperscript{a,*}, Marco Marinucci\textsuperscript{b}, Dario Monzani\textsuperscript{a,c}, Gabriella Pravettoni\textsuperscript{a,c}

\textsuperscript{a}Department of Oncology and Hemato-Oncology, University of Milan, Italy
\textsuperscript{b}Department of Psychology, University of Milano-Bicocca, Milan, Italy
\textsuperscript{c}Applied Research Division for Cognitive and Psychological Science, IEO, European Institute of Oncology IRCCS, Milan, Italy

\textbf{A B S T R A C T}

People usually prefer to appear with an inclusive and positive attitude to others’ eyes. For this reason, the self-report scales assessing social exclusion intentions are often biased by social desirability. In this work, we present an innovative graphical tool, named Social Exclusion Bench Tool (SEBT), for assessing social exclusion not influenced by social desirability. The tool is based on the consistency between social distance and physical distance evaluation. The results showed that in two samples of adults from Italy (N = 252) and the UK (N = 254), the SEBT positively correlated with self-report measures of social exclusion, but not with the social desirability measure. The tool has been preliminarily evaluated in the context of social exclusion toward migrant people, but it appears a promising instrument for assessing social exclusion intentions toward different social groups.

- The self-report scales assessing social exclusion intentions are often biased by social desirability.
- The Social Exclusion Bench Tool (SEBT) is an innovative visual instrument for assessing social exclusion that seems not to be influenced by social desirability.
- The tool appears a promising instrument for assessing social exclusion intentions toward different social groups.

This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/)

\textbf{A R T I C L E   I N F O}

\textbf{Method name:} Social Exclusion Bench Tool (SEBT)
\textbf{Keywords:} Social exclusion, Social desirability, Graphic tool, Heat map, Qualtrics
\textbf{Article history:} Received 3 May 2021; Accepted 19 August 2021; Available online 20 August 2021

\textsuperscript{*} Corresponding author.
\textit{E-mail address:} davide.mazzoni@unimi.it (D. Mazzoni).

https://doi.org/10.1016/j.mex.2021.101495
2215-0161/© 2021 Published by Elsevier B.V. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/)
Specifications table

| Subject Area: | Psychology |
|---------------|------------|
| More specific subject area: | Social psychology |
| Method name: | Social Exclusion Bench Tool (SEBT) |
| Name and reference of original method: | Self-report scales for assessing social exclusion. Hooijsma, M., Huitsing, G., Dijkstra, J.K. et al. Being friends with or rejected by classmates: Aggression toward same- and cross-ethnic peers. J Youth Adolescence 49, 678–692 (2020). https://doi.org/10.1007/s10964-019-01173-1 |
| Resource availability: | https://psicologiaunimib.qualtrics.com/jfe/form/5V_9NWtSZ8aAP6W2mY |

Background and rationale

Social exclusion can take many forms (e.g., rejection, ostracism), but a consensus exists in the literature on the definition of social exclusion as keeping somebody, physically or emotionally, separated [13,17,19,20]. The literature on this topic has deeply focused on the consequences triggered by social exclusion [3], besides the investigation of the reason why social exclusion could occur. However, one of the main difficulties in assessing social exclusion (both intentions and behaviors) especially through self-report measures, is that people usually prefer to appear with an inclusive and positive attitude to the others’ eyes. In the literature, such tendency has been defined as social desirability bias [11].

Social desirability bias refers to the tendency of research subjects to give socially desirable responses instead of choosing responses that are reflective of their true feelings [14]. Extensive research demonstrated its role in influencing self-reported measures, especially when the scope of the study involves sensitive issues, and that the assurances of anonymity and confidentiality can only partially counteract this effect [7]. For this reason, past self-report measures of social exclusion intentions, sentiments, or behaviors (e.g., [4,6]) are potentially biased by social desirability, meaning that people could orient their responses in a less excluding way because of social desirability [16].

Our aim was thus to develop a new and easy-to-use tool for assessing social exclusion not (or minimally) influenced by social desirability. More specifically, taking advantage of an ongoing study on social exclusion/inclusion of migrants in Italy and the UK, we developed the Social Exclusion Bench Tool (SEBT) assessing social exclusion intentions in relation to migrants.

Social exclusion and physical distance

As anticipated in the definition of social exclusion that we reported at the beginning of the previous paragraph, there are several reasons to believe that a strong relationship exists between social and physical distance. For example, early attachment research suggests that infants derive security and warmth from being close to their caregiver [5], and infants experiencing separation from their caregiver are reassured when he/she returns and draws them close [1]. Similarly, in the subsequent life stages, physical proximity is strictly related to a sense of belonging and inclusion, while on the opposite, physical distance is related to exclusion [10].

In this regard, in many cases, the perceived social exclusion is expressed in terms of being kept at a physical distance. For example, in the study by Ye et al. [21] the feeling of being excluded emerged when a mentally ill interviewed reported that she was “sitting at the bus stop with a man, when he got up and left to the next bus stop” ([21], p. 534). Consistent with this, Amodio and Devine [2] correlated seating distance with (implicit) measures of racial bias, while other authors recently proposed that the intention not to sit close to someone can be considered a measure of social rejection [9]. Following this line of thought, the SEBT was basically aimed at assessing social exclusion intentions through a measure of the physical distance that the respondent is willing to keep from the potential target of the exclusion.
Procedure

The data for the present work were collected through an online questionnaire delivered with the Prolific platform, setting as eligibility criteria that participants were 18 years or older and that they were born in Italy or the UK. All participants gave their informed consent before their inclusion in the study. The study was approved by the Ethics Committee of the university of the second author. The final sample consisted of two numerically similar groups of participants, from Italy (N=252) and the UK (N=254). The questionnaire covered several areas, including – for the purposes of this paper – the SEBT, social desirability, and a self-report measure of interpersonal social exclusion.

Measures

Social exclusion with the SEBT. Two black-and-white images were created. Each image depicted one individual on one side described as “autochthonous” (i.e., Italian or English) and one person on the opposite side, identified as a “migrant”. In the first image (Image 1) the migrant was on the left, sitting on a bench while the autochthonous was standing on the right. In the second image (Image 2) that was perfectly specular to Image 1, the autochthonous was on the left, sitting on a bench while the migrant was standing on the right. The width of each image was 600 pixels. The images were preceded by brief captions which described the two situations: “The people presented below are waiting for the bus at the bus stop” and “The people depicted below are watching a tennis match in a park playground”. Participants were asked to indicate (to click on) the position they would want to occupy in the scene, clicking on it.

The images were included in the questionnaire using the Qualtrics Heat Map function. This function allowed us to record the coordinates of the position taken by the participant, thus making inferences on the distance from the autochthonous and the migrant figures. The variable corresponding to Image 2 was reversed to have, for both variables, higher values corresponding to a higher distance from the migrant figure, and a mean index of the two images was used in the analyses (see Fig. 1).

Social desirability. Three items from the Brief Social Desirability Scale [8] assessed the participants’ social desirability. “Would you smile at people every time you meet them?”, “If you say to people that you will do something, do you always keep your promise no matter how inconvenient it might be?”, “Would you ever lie to people?”. Answers were provided on a 5-point scale, ranging from 1 (never) to 5 (always). Despite the relatively low levels of Cronbach’s alpha (α =.41), explorative factor analyses in each national sample showed the presence of a single main factor, explaining 42.75 % of the variance in the Italian sample and 46.01 % in the UK sample, with acceptable factor loadings (Italy ranging from .45 to .75; the UK ranging from .63 to .75). A mean index was used in the analyses, with higher values indicating higher social desirability.

After social desirability and SEBT, participants were asked to answer to a four-item self-report measure of interpersonal social exclusion. These four bipolar items were based on the theorizations on social exclusion (e.g., [17,18]): a) “In a train o in a bus, if I could choose...” with possible answers
Table 1
Means, standard deviations, and comparison of the key variables between the two samples.

|                  | Italy Mean | Standard deviation | UK Mean | Standard deviation | Between subjects t-test |
|------------------|------------|--------------------|---------|--------------------|------------------------|
| Social desirability | 3.63       | .49               | 3.98    | .46               | 8.13                   |
|                  | (p < .001) |                   |         |                   | (p < .001)             |
| Social exclusion – self-report | 2.99       | 1.14              | 2.48    | 1.01              | − 5.29                 |
|                  | (p < .001) |                   |         |                   | (p < .001)             |
| SEBT             | 303.61     | 26.83             | 301.80  | 30.13             | − 0.71                 |
|                  | (p = .48)  |                   |         |                   |                       |

Table 2
The correlations between the key variables.

|                  | Italy 1. | 2. | 3. | UK 1. | 2. | 3. |
|------------------|---------|----|----|-------|----|----|
| Social desirability | −       | −.13 | −.09 | −     | −.04 | −.01 |
| Social exclusion – self-report | −       | −   | .56 | −     | −   | .43 |
| SEBT             | −       | −   |    | −     | −   | −   |

NOTES. * p < .05; ** p < .01; *** p < .001.

ranging from 1 “I would like not to sit next to a migrant person” (Italian: “preferirei non sedermi vicino ad una persona migrante”) to 7 “I would like not to sit next to a migrant person” (Italian: “preferirei sedermi vicino ad una persona migrante”); b) “If a migrant person asks me something on the street...”, with possible answers ranging from 1 “I would like to continue on my way without giving an answer to him/her” to 7 “I would friendly answer to him/her”; c) “If a migrant person didn’t understand me when I turn to him/her in English...” with possible answers ranging from 1 “It would not be my responsibility to try to make myself understood” to 7 “It would be my responsibility to try to make myself understood”; d) “If I had to organize a party at home” with possible answers ranging from 1 “I would prefer not to invite migrant people” to 7 “I would be happy of inviting migrant people”. The reliability of the scale was acceptable (α = .74) and explorative factor analyses in the two samples showed the presence of a single main factor, explaining 61.34 % of the variance in the Italian sample and 54.21 % in the UK sample, with acceptable factor loadings (Italy sample ranging from .73 to .82; UK sample ranging from .65 to .83). A mean index was used in the analyses, with higher values indicating a higher intention to socially exclude migrant individuals.

Preliminary method validation

Means and standard deviations for each scale are reported in Table 1.

For testing the relation between the SEBT and the other variables we performed a bivariate correlation. Results are presented in Table 2. It is worth noting that the correlations between the two measures of social exclusion (SEBT and self-report) were high in both samples. However, in the Italian sample, only the self-report measure of social exclusion significantly correlated with social desirability. Finally, in both samples, the value of the correlation between SEBT and social desirability was close to 0.

Consistent with these results, when performing partial correlations between SEBT and self-reported social exclusion controlling for social desirability, the correlation between the two measures of social exclusion did not change (Italy r = .56 p < .001; UK r = .43; p < .001).

Graphical representation

One of the advantages of SEBT is that it allows a graphical representation of the areas that were more frequently selected by participants. Fig. 2 illustrates the results of Image 1 in the UK sample. This makes it easy to communicate the results or the differences between groups of respondents in an intuitive way.
Conclusion

In this paper, we presented the development and a preliminary test of a new and easy-to-use tool for assessing social exclusion, not biased by social desirability, in two national samples. The results showed that, while in the Italian sample the self-report measure of social exclusion correlated with social desirability, in none of the two samples the SEBT correlated with social desirability. This represents a step ahead in the assessment of social exclusion intentions.

The reasons why this measure is not biased by social desirability can be traced to two main factors. First, the position that is selected by the participant is registered in a very precise way, with a scale corresponding to the image width, ranging from 1 to 600. This means that even small variations not necessarily perceived by the participants are punctually quantified. Second, the presence of the bench in the image provides a potential anchor for “justifying” a specific position, without the risk of appearing as an excluding person. In other terms, the participant could freely select to be more or less close to the bench and this could give a criterion for consciously select the position, distracting from the perceived risk of showing disapproved discriminatory behaviors.

Moreover, at least two other practical advantages of the SEBT should be recognized. First, the SEBT is based on the new technical resources provided by the online platforms for data collection, and this contributes to its easy implementation in online surveys. However, we cannot exclude that a similar approach could be used with a paper-pencil questionnaire. In the latter case, the process of data collection will be made more complex by the digitalization of the distance measures, but still possible.

A second advantage consists in its flexibility since it could be fruitfully applied to many contexts and populations. Among them, we can mention people belonging to minorities (including homeless and ex-prisoners), individuals with whom the participant holds a specific relationship (e.g., past partners, clients), or just people with specific characteristics (e.g., a specific disease, a specific attitude), that in the literature have been considered for being potential targets of interpersonal inclusion/exclusion (e.g., [12,15]).

Finally, we believe that future studies will be able to further improve the measure, clarifying specific points that were not solved through this preliminary test. For example, it would be relevant to test if the order of variables has an effect on SEBT and to consider the randomization of measurement for the new studies. Moreover, the external validity of the measure could be more strongly demonstrate, considering also the participants’ attitudes and behavior in real settings.

Supplementary material and/or Additional information

The file SEBT.qsf allows to import the instrument into Qualtrics.

Moreover, online support for creating and editing Heat Maps is available at https://www.qualtrics.com.
Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

This work was partially supported by the Italian Ministry of Health with Ricerca Corrente and 5 × 1000 funds and by the Italian Association of Psychology (AIP) - Social Psychology Section. The authors would like to acknowledge Valeria De Cristofaro, Soraya E. Shamloo, Nicolas Aureli, Antonella Guarino, and Iana Tzankova, for their help.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.mex.2021.101495.

References

[1] M.D.S. Ainsworth, S.M. Bell, Attachment, exploration, and separation: Illustrated by the behavior of one-year-olds in a strange situation, Child Dev. 41 (1970) 49–67.
[2] D.M. Amodio, P.G. Devine, Stereotyping and evaluation in implicit race bias: Evidence for independent constructs and unique effects on behavior, J. Pers. Soc. Psychol. 91 (4) (2006) 652–661, doi: 10.1037/0022-3514.91.4.652.
[3] M.J. Bernstein, Research in social psychology: Consequences of short- and long-term social exclusion, in: Paolo Riva, Jennifer Eck (Eds.), Social exclusion. Psychological Approaches to Understanding and Reducing Its Impact, Springer International Publishing Switzerland, 2016, pp. 51–72, doi: 10.1007/978-3-319-33033-4_3.
[4] E.S. Bogardus, A social distance scale, Social. Social Res. 17 (1933) 265–271.
[5] J. Bowlby, A secure base: Parent-child attachment and healthy human development, Basic Books, New York, NY, 1988.
[6] L. Ditrich, K. Sassenberg, Kicking out the trolls - Antecedents of social exclusion intentions in Facebook groups, Comput. Hum. Behav. 75 (2017) 32–41, doi:10.1016/j.chb.2017.04.049.
[7] Grimm, P. (2010). Social desirability bias. Wiley international encyclopedia of marketing. doi:10.1002/9781444316568. wiem02057.
[8] R. Haghighat, The Development of the Brief Social Desirability Scale (BSDS), Europe’s J. Psychol. 3 (4) (2007), doi:10.5964/ ejsp.v3i4.417.
[9] M. Hooijsm, G. Huitsing, J.K. Dijkstra, et al., Being Friends with or Rejected by Classmates: Aggression Toward Same-and Cross-Ethnic Peers, J. Youth Adolescence 49 (2020) 678–692, doi:10.1007/s10964-019-01173-1.
[10] M.L. Knowles, A. Green, A. Weidel, Social Rejection Biases Estimates of Interpersonal Distance, Social Psychological and Personality Sci. 5 (2) (2014) 158–167, doi:10.1177/1948550613491972.
[11] J. Krumpal, Determinants of social desirability bias in sensitive surveys: A literature review, Quality & Quantity: Int. J. Methodol. 47 (4) (2013) 2025–2047, doi:10.1007/s11159-011-9640-9.
[12] C. Lucchiari, G. Pravettoni, The role of patient involvement in the diagnostic process in internal medicine: a cognitive approach, Eur. J. interna. med. 24 (5) (2013) 411–415.
[13] D. Mazzoni, L. Pancani, M. Marinucci, P. Riva, The dual path of the rejection (dis)identification model: A study on adolescents with a migrant background, Eur. J. Soc. Psychol. 50 (2020) 799–809, doi:10.1002/ejsp.267.
[14] A.J. Nederhof, Methods of coping with social desirability bias: A review, Eur. J. Soc. Psychol. 15 (3) (1985) 263–280, doi:10.1002/ejsp.2420150303.
[15] L. Pancani, D. Mazzoni, N. Aureli, P. Riva, Ghosting and orbiting: An analysis of victims’ experiences, J. Social and Personal Relationships (2021), doi:10.1177/02654075211000417.
[16] S. Rinken, S. Pasadas-del-Amo, M. Rueda, et al., No magic bullet: estimating anti-immigrant sentiment and social desirability bias with the item-count technique, Quality & Quantity: Int. J. Methodol. (2021), doi:10.1007/s11159-021-01098-7.
[17] P. Riva, J. Eck, The many faces of social exclusion, in: P. Riva, J. Eck (Eds.), Social exclusion: Psychological approaches to understanding and reducing its impact, Springer, New York, NY, 2016, pp. 9–15.
[18] Rudert, S., Greifeneder, R., & Williams, K. (Eds.). (2019). Current directions in ostracism, social exclusion and rejection research. Routledge.
[19] L.S. Smart Richman, M. Leary, Reactions to discrimination, stigmatization, ostracism, and other forms of interpersonal rejection: A multi-motive model, Psychol. Rev. 116 (2009) 365–383, doi:10.1037/a0015250.
[20] L Smart Richman, J. Martin, J. Guadagno, Stigma-based rejection and the detection of signs of acceptance, Soc. Psychological and Personality Sci. 7 (2016) 53–60, doi:10.1177/1948550615598376.
[21] J. Ye, T.F. Chen, D. Paul, R. McCahon, S. Shankar, A. Rosen, C.L. O’Reilly, Stigma and discrimination experienced by people living with severe and persistent mental illness in assertive community treatment settings, Int. J. Soc. Psychiatry 62 (6) (2016) 532–541, doi:10.1177/0020764016651459.