Preliminary Validation of Linguistically and Culturally Adapted Social Exclusion Vignettes Based on the Social Information Processing Model in Indonesian Junior High School Students

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Keywords:
Adolescents;
Assessment adaptation;
Social exclusion;
Social information: Processing
Vignette;

ABSTRACT

Social exclusion is a common experience among adolescents and can influence how they interpret and respond to social situations. However, vignette-based instruments that capture adolescents' cognitive processes in social exclusion contexts remain limited in Indonesia. This study aimed to conduct a preliminary linguistic and contextual adaptation of a Social Information Processing (SIP)-based social exclusion vignette for Indonesian adolescents. The adaptation process involved translation, expert review, cognitive interviews, and pilot testing. The findings suggest that the adapted vignettes are generally understandable and relevant to adolescents' experiences, and that the structure is broadly consistent with the SIP framework. However, the results also revealed important psychometric limitations, particularly the low reliability of the hostile intent dimension and the limited stability associated with using only two items per factor. Therefore, the instrument should be considered a preliminary prototype rather than a validated tool and is not yet suitable for research or practical application without further development. Future studies are needed to refine the items, expand the number of indicators per dimension, and conduct confirmatory validation with larger samples.

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1. INTRODUCTION

Social exclusion refers to a condition in which individuals are unable to access social participation, resources, or relationships that are expected within a given social context (Tutlys et al., 2025). In adolescent peer contexts, social exclusion may manifest through behaviors such as being ignored, left out of activities, or subtly rejected by peers. Although often used interchangeably, social exclusion is conceptually broader than ostracism. Ostracism specifically refers to being ignored or excluded by others, whereas social exclusion encompasses a wider range of structural and relational processes, including unequal access to social participation and belonging. Clarifying this distinction is important, as different forms of exclusion may involve distinct cognitive and behavioral responses.

In school settings, social exclusion is a prevalent yet often overlooked phenomenon. In Indonesia, exclusion may arise from socioeconomic disparities (Islami, 2020), geographic differences (Yanwarin & Rahawarin, 2023), as well as ethnic and religious diversity (Wulandari & Poerwandari, 2021). Unlike overt bullying, social exclusion tends to occur in subtle and indirect forms, making it difficult for teachers and parents to detect. Despite its covert nature, research has consistently shown that social exclusion is associated with negative psychological outcomes, including increased stress, reduced self-esteem, anxiety, and aggressive behavior (Mazzone et al., 2021; Wirth et al., 2024; Yue & Zhang, 2023). These findings highlight the importance of understanding not only the experience of exclusion but also how adolescents cognitively interpret and respond to such situations.

To explain how individuals process social situations, the Social Information Processing (SIP) model proposed by Crick and Dodge (Crick & Dodge, 1994) provides a useful theoretical framework. The SIP model conceptualizes social behavior as the outcome of a sequence of cognitive steps, including cue interpretation, goal clarification, and response selection. In the context of social exclusion, this model is particularly relevant for understanding how adolescents attribute intent (e.g., hostile vs. non-hostile), formulate social goals (e.g., revenge vs. reconciliation), and choose behavioral responses (e.g., aggression or withdrawal). However, the applicability of the SIP model in collectivist cultural contexts such as Indonesia requires careful consideration. In collectivist societies, social harmony and group acceptance are highly valued, which may influence how adolescents

interpret social cues and regulate their responses. For example, individuals may suppress antisocial intentions to conform to social norms, potentially affecting the measurement of constructs such as hostile intent and antisocial goals.

Despite the relevance of the SIP model, most existing instruments related to social exclusion, such as the Social Exclusion Scale for Children (Jiang et al., 2022) and the Ostracism Experience Scale for Adolescents (Gilman et al., 2013)It primarily focuses on measuring subjective experiences rather than the underlying cognitive processes. As a result, these instruments are limited in their ability to capture how adolescents interpret and respond to exclusion situations. This gap highlights the need for measurement tools that can assess cognitive mechanisms underlying social behavior.

One approach to capturing such processes is the use of vignette-based instruments. Vignettes present short, structured narratives that simulate real-life situations, allowing participants to engage with meaningful social contexts and generate cognitively and emotionally relevant responses (Agostini et al., 2024). Compared to behavioral observation or ecological momentary assessment (EMA), vignette-based methods offer practical advantages, including feasibility in school settings, control over situational variables, and the ability to systematically assess internal cognitive processes that are not directly observable (Baguley et al., 2022). However, vignette methods are also susceptible to response biases, particularly when assessing hypothetical social-cognitive processes, which must be considered in both instrument design and interpretation.

The vignette-based instrument developed by Mazzone et al. (Mazzone et al., 2021) represents an important attempt to operationalize the SIP model in the context of social exclusion. This instrument uses short scenarios followed by items measuring hostile intent attribution, antisocial goals, and aggressive responses. While this approach provides valuable insights into adolescents' social information processing, previous findings have indicated psychometric limitations, particularly low reliability in the hostile intent dimension. These limitations highlight the importance of careful adaptation and further validation when applying the instrument in different cultural contexts.

To date, there is no vignette-based instrument available in Indonesia that specifically measures adolescents' cognitive responses

to social exclusion based on the SIP framework. This gap limits the ability to conduct theory-driven assessments and to design targeted interventions in educational settings. Therefore, adapting and preliminarily validating such an instrument is a necessary step toward developing culturally relevant assessment tools.

This study aims to conduct a linguistic and cultural adaptation of a social exclusion vignette based on the SIP model and to examine its initial psychometric properties among Indonesian junior high school students. Specifically, this study evaluates content validity, response processes, and internal structure as part of a preliminary validation effort.

2. METHOD

This study was conducted under the supervision of the Master's Program in Psychology, Universitas Padjadjaran. Although formal institutional ethical approval was not required for this low-risk study, all procedures were carried out in accordance with ethical principles for research involving human participants. Informed consent was obtained from all participants and the school, as the institutional authority responsible for the students. Participants were informed about the purpose of the study, their voluntary participation, and their right to withdraw at any time. Given the potential sensitivity of social exclusion scenarios, precautions were taken to minimize psychological discomfort. Participants were monitored during and after data collection, and support was made available if any distress arose, although no such cases were reported.

There were four adaptation stages conducted in this study: translation, expert review, cognitive interview, and pilot testing. Progression between adaptation stages was guided by predefined criteria: (1) translation equivalence was established when forward and backward translations showed no substantial semantic discrepancies; (2) expert review was considered satisfactory when I-CVI values met recommended thresholds; (3) cognitive interview results indicated no major comprehension issues; and (4) pilot testing provided initial evidence regarding the instrument's psychometric properties.

The translation process was conducted through forward and backward translation in accordance with instrument adaptation procedures. During the forward translation stage, two translators translated the vignettes from English into Indonesian, and the

translations were then reconciled to produce the version that was most linguistically and conceptually appropriate. Subsequently, backward translation was performed by two different translators to ensure equivalence of meaning with the original version.

The translators were selected based on the criteria of being native Indonesian speakers with adequate English proficiency, as evidenced by a TOEFL score above 500. Additionally, each stage of forward and backward translation involved a translator with a background in psychology to ensure the accuracy of terms within the field of psychology. This process produced an Indonesian version ready for use in the next stage of adaptation.

The expert panel consisted of three graduate students in psychology with a background in undergraduate psychology training and current specialization in child and adolescent development. Their academic training provided relevant theoretical knowledge to evaluate the developmental appropriateness and clarity of the instrument. The experts assessed the relevance and clarity of the linguistically adapted vignettes using a 1–4 Likert scale. The results of this assessment were used to calculate the instrument's content validity. This approach is considered appropriate for early-stage instrument adaptation, where the focus is on assessing clarity and developmental relevance rather than establishing definitive expert consensus.

Referring to Polit and Beck (Polit & Beck, 2006)Content validity is analyzed at two levels: the Item-Level Content Validity Index (I-CVI) and the Scale-Level Content Validity Index (S-CVI). The I-CVI is calculated based on the proportion of experts who rated an item as relevant (scores of 3 and 4) and irrelevant (scores of 1 and 2) with reference to the construct. At the scale level, S-CVI can be calculated using two approaches: Universal Agreement (S-CVI/UA) and Average (S-CVI/Ave). S-CVI/UA represents the proportion of items rated as relevant by all experts, while S-CVI/Ave is the average of all I-CVI values. Polit and Beck (Polit & Beck, 2006) Recommend an I-CVI value of ≥ 0.78 for expert panels of more than six members or 1.00 for panels of fewer than five members, as well as an S-CVI/Ave value of ≥ 0.90 and an S-CVI/UA value of ≥ 0.80. The S-CVI/Ave approach is more commonly used because it is more tolerant of inter-rater variation, while S-CVI/UA requires absolute agreement.

A cognitive review was conducted to qualitatively assess the readability of a social exclusion vignette adapted from Mazzone et al.

(Mazzone et al., 2021) among 10 junior high school students, comprising 5 female and 5 male participants aged 12–14 years. This study was conducted at a school in the Jatinangor area of Sumedang using convenience sampling. Participants were selected based on the school's recommendations, taking into account gender representation and grade level. This study obtained permission from the school as the students' guardian, as well as informed consent from each participant.

The cognitive review procedure does not involve any significant risks, and participants receive support from the researchers both during the interview process and after the activity is completed. All participating students are native speakers of Indonesian and possess the ability to read Indonesian texts. The cognitive review was conducted in the form of a Focus Group Discussion (FGD). The researcher posed a series of questions based on the Tourangeau Cognitive Model (comprehension, retrieval, judgment, and response) as applied in the study by Susanto et al. (Susanto et al., 2023).

For the comprehension stage, participants were asked to explain the meaning of each item in their own words and identify any unclear terms or phrases. In the retrieval stage, participants were prompted to recall relevant experiences or situations that came to mind when reading the item. The judgment stage involved questions about the ease of selecting an answer and the level of confidence in their responses. Finally, in the response stage, participants were asked to explain their choice of response options and how they distinguished between scale points.

All discussions were audio-recorded and transcribed verbatim. The data were analyzed using thematic coding to identify potential issues in comprehension, retrieval, judgment, and response processes. To enhance analytic rigor, coding was conducted independently by three researchers, and discrepancies were resolved through discussion to reach consensus.

In the final stage, pilot testing was conducted on 87 junior high school students, comprising 56 female participants and 31 male participants aged 12–14 years in the Jatinangor area of Sumedang. The sample size for the pilot testing corresponds to approximately 14 participants per item, which falls within commonly cited guidelines in exploratory factor analysis (e.g., 5–20 participants per item(Sukserm, 2025)). However, such guidelines should not be interpreted as fixed thresholds, as sample adequacy depends on multiple data characteristics (Winter et al., 2009). In the present study, the relatively

small number of items and theoretically defined dimensions reduces model complexity and may support factor recovery under smaller sample conditions. Nevertheless, the findings should be interpreted as preliminary.

All participants were asked to complete the Indonesian-language adaptation of the social exclusion vignette, which had previously undergone linguistic and cultural adaptation. Data collection was conducted collectively in the classroom with full supervision by the teacher, while the researcher provided instructions on how to complete the vignette and the implementation procedures to the teacher before the activity began. The students received instructions from the teacher without any academic consequences and with assurance that their responses would remain confidential.

Prior to analysis, data were screened for missing values and response inconsistencies. Cases with incomplete responses were excluded from analysis, as the proportion of missing data was minimal (<5%). Item nonresponse was examined descriptively, and no systematic pattern of missingness was identified. Although data collection was conducted in a classroom setting under teacher supervision, students were explicitly instructed that their responses would remain confidential and would not affect their academic evaluation, in order to minimize social desirability bias.

The data from the completed vignettes were used to test the internal structural validity of the adapted instrument. The initial stage involved item analysis using item-total correlations to determine each item's contribution to the overall construct being measured. Item-total correlations were calculated using Pearson correlation coefficients, which are appropriate for Likert-scale data treated as continuous variables. Next, exploratory factor analysis (EFA) was conducted to assess the suitability of the factor structure based on the instrument's theoretical framework. EFA was conducted using Minimum Rank Factor Analysis (MRFA) with Promax rotation, as this approach allows for correlated factors and is appropriate for identifying latent constructs underlying psychological data. Prior to factor analysis, assumptions were evaluated, including sampling adequacy using the Kaiser-Meyer-Olkin (KMO) measure and sphericity using Bartlett's test. Reliability testing was conducted using the Spearman-Brown coefficient, which is more appropriate for two-item scales to evaluate the internal consistency of the instrument.

To provide a comprehensive overview of the research process, a detailed research flow diagram is presented in Figure 1. The diagram illustrates the entire sequence of the study, from problem formulation to data analysis and conclusion, ensuring transparency and reproducibility of the adaptation procedure.

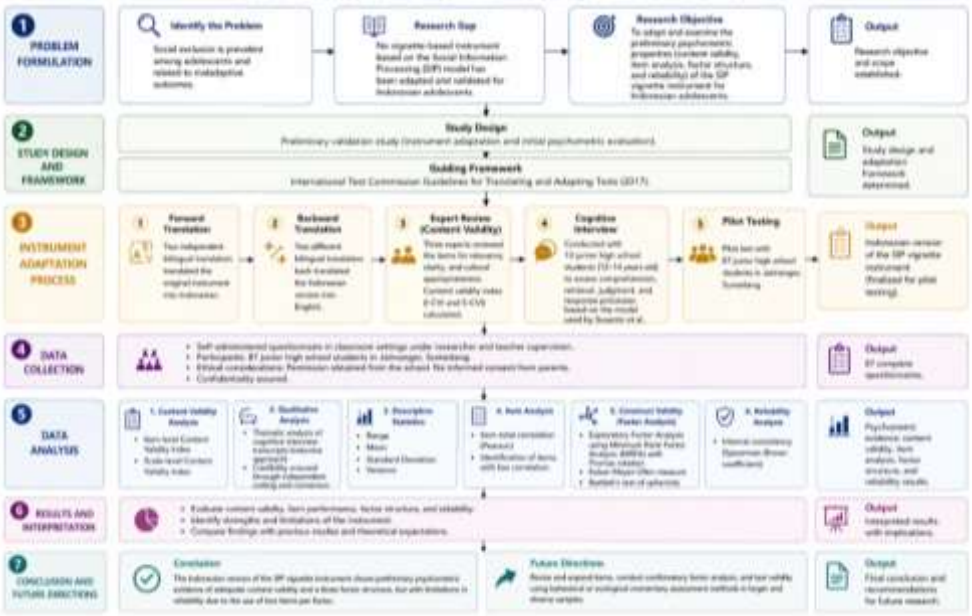

Figure 1. Research Flowchart of the Study

3. RESULTS

The process of adapting the social exclusion vignette instrument included the following stages: translation, expert review, cognitive interviews, and pilot testing. All of these stages were conducted to ensure that the instrument possesses conceptual equivalence, linguistic clarity, and adequate psychometric quality.

3.1. Translation

The language adaptation process was carried out through forward translation, synthesis, and backward translation. During the forward translation process, both translators produced translations that were semantically equivalent to the original version. The synthesis process successfully combines these two translations into a single Indonesian version that is more natural and easier for adolescents to understand. The results of the backward translation indicate that the meaning of the instrument in Indonesian remains consistent with the original meaning in English, without any

conceptual changes or significant shifts in meaning in the vignettes or items.

Following the backward translation process, a synthesis stage was conducted to adapt the vignette contexts to make them more relevant for adolescents in Indonesia. In the first vignette, the original situation of a teenager not being invited to play soccer on the field was adapted to not being invited to play while in class. Meanwhile, the second vignette, which originally described a situation of not being invited to a birthday party, was adapted to a situation of not receiving a souvenir.

3.2. Expert review

Table 1 shows that all items have an I-CVI value of 1.00 for the relevance aspect. This finding indicates that the experts assessed each item as having a very high degree of alignment with the constructs being measured, namely the dimensions of hostile intent, antisocial goals, and aggressive response. The S-CVI/Ave scores for the relevance aspect also reached 1.00, indicating full agreement among experts regarding the content fit of the items in measuring the targeted concepts.

Regarding clarity, most items received an I-CVI score of 1.00; however, in Situation 2, Item b had an I-CVI score of 0.66. This suggests that one expert considered the language used to be somewhat unclear. The S-CVI/Ave score for the clarity aspect was 0.95, which reflects a high level of agreement, though it has not yet reached perfection. The experts provided a number of suggestions for improvement, particularly regarding the selection of vocabulary that is more natural for Indonesian teenagers and the simplification of sentence structure. An example of feedback from the expert panel is to change the terms "exclude" and "insult" to words that are more familiar to students.

Table 1. Content Validity Analysis Results

Item	***Relevancy***	***Clarity***
	I-CVI	**I-CVI**
Situation 1	1.00	1.00
Sit 1. Item a	1.00	1.00
Sit 1. Item b	1.00	1.00
Sit 1. Item c	1.00	1.00
Situation 2	1.00	1.00

Sit 2. Item a	1.00	1.00
Sit 2. Item b	1.00	0.66
Sit 2. Item c	1.00	1.00
Relevancy: S-CVI/Ave = 1.00; ***Clarity:*** S-CVI/Ave = 0.95		

Recommendations from the expert panel were then used to make editorial revisions to a number of items to ensure they were more closely aligned with the developmental and cultural context of Indonesian adolescents. The revisions included adjustments to vocabulary, simplification of sentence structure, and clarification of situational meaning to ensure that all items could be consistently understood by respondents. Overall, the results of the content validity test indicate that the revised vignettes possess good content quality and are suitable for proceeding to the cognitive review stage.

3.3. Cognitive interviews

A cognitive review was conducted to assess participants' reading comprehension and understanding of the vignettes and statement items. Based on the Tourangeau Cognitive Model (comprehension, retrieval, judgment, and response) as applied in the study by Susanto et al. (Susanto et al., 2023)This approach allows researchers to identify potential difficulties participants may experience in understanding or interpreting items that could affect the quality of their responses. The thematic analysis identified recurring patterns across participants' responses, particularly in the judgment stage, where concerns about social evaluation influenced response choices. The following is a breakdown:

3.3.1. Comprehension

The comprehension task focused on analyzing participants' understanding of the vignette content and statement items. The interview results indicate that both hypothetical situations, which are Situation 1: "being ignored when asking to join a play in class" and Situation 2: "being the only person not given a souvenir," as well as the accompanying questions, were well understood by all participants. The participants were able to accurately rephrase the meaning of both situations and then identify them as experiences of social exclusion.

They were also able to define the term "excluded" with various meanings, such as "feeling rejected, "not being heard," being talked about behind one's back," "being the subject of gossip," and "feeling left out." Additionally, the participants were able to put themselves in the situation and express their feelings if they were in a situation of being

excluded, such as feeling sorry for themselves, sad, stressed, hurt, and feeling forgotten. Based on the steps taken, no comprehension issues were found regarding the use of specific words in the vignette or items. All participants stated that no words needed to be changed or were considered difficult. Thus, from the perspective of language and contextual understanding, the vignette proved to be easy to understand (equivalent to a readability score of 3–4 when assessed quantitatively).

3.3.2. Retrieval

The retrieval stage aimed to analyze the memory processes participants used to retrieve information and experiences relevant to the questions. The results of the cognitive review indicated that both vignettes successfully provoked experiences and emotions relevant to the theme of exclusion. Participants reported that Situation 1 triggered strong negative feelings such as irritation, disappointment, sadness, and a sense of not being valued, as well as a tendency to overthink the reasons behind such treatment. Meanwhile, Situation 2 also triggered feelings of sadness and confusion. Some participants added that they had personally experienced similar situations, such as not being invited to play or witnessing others being excluded. Others expressed empathy, such as "feeling sorry for myself" or "feeling sorry for the person being excluded."

Nevertheless, some participants demonstrated positive coping mechanisms by stating "it's no big deal" or "it's okay" because they viewed the exclusion as the other person's right or because they still had other social alternatives. This indicates that the vignette successfully evoked diverse emotions that remained relevant to the construct of social exclusion. There was no indication that the items in the vignette failed to trigger relevant memories or feelings to respond to.

3.3.3. Judgement

The judgment process assesses participants' difficulty in evaluating retrieved information and forming appropriate judgments to answer questions. In this stage, issues with item judgment related to antisocial goals were identified (measuring Step 3 of the SIP). For Item b in situations 1 and 2, participants explicitly stated difficulty in selecting a response reflecting vengeful intent due to social norm considerations, namely "fear of being perceived as 'oh, so overly emotional'." This indicates that judgment regarding internal intent

(the desire for revenge) is hindered by concerns over negative perceptions and stigma from peers. Participants were more likely to choose responses that were socially acceptable rather than those consistent with their internal feelings. Consequently, this item risks undermining the validity of the response process because respondents adjusted their answers to align with social norms rather than their actual feelings.

3.3.4. Response

The response phase focuses on the process by which participants map their ratings onto the response scale. All participants demonstrated good proficiency in using the 4-point Likert scale (1 = strongly disagree – 4 = strongly agree). Participants demonstrated good proficiency in mapping their ratings. For example, for Sit 1, Item a, Participant 2 selected 4 (strongly agree) because they were certain that friends must have heard and that the exclusion was intentional. Some participants also explained that they chose their scores based on personal experience, not just answering randomly; some mentioned "I've experienced it, so I know," or "I answered immediately because I've experienced both situations." This indicates that the scale categories provided functioned adequately and could be used to distinguish the intensity of participants' beliefs or behaviors.

A cross-stage analysis of participants' responses across the four cognitive processes revealed several consistent patterns. Overall, participants demonstrated a strong understanding of the vignette content and were able to relate it to personal or observed experiences of social exclusion. The vignettes successfully elicited relevant emotional and cognitive responses, indicating good contextual engagement. However, variations emerged in the judgment and response stages, particularly in relation to socially sensitive constructs such as antisocial goals, where participants tended to adjust their responses to align with perceived social norms. Additionally, although the response scale was generally well understood, some participants indicated reliance on personal experience rather than deliberate evaluation, suggesting potential variability in response interpretation. These findings highlight both the strengths of the vignette in capturing meaningful social-cognitive processes and potential limitations related to social desirability and response consistency.

Table 2. Summary of Cognitive Review Results

Cognitive coding	**Strength**	**Issue**	**Implication**
Comprehension	Clear understanding	-	Good readability
Retrieval	Emotionally engaging	-	Good ecological validity
Judgment	Social desirability	Bias	Threat to validity
Response	Scale works	Experience-based answers	Response variability

Based on these findings, the cognitive review involving 10 participants indicates that the adapted social exclusion vignette demonstrates adequate qualitative validity in the comprehension, retrieval, and response stages. However, limitations were identified in the judgment stage, where participants' responses appeared to be influenced by concerns about social acceptance. Participants tended to adjust their answers to align with socially acceptable norms rather than their actual intentions.

This finding suggests that items measuring antisocial goals (Item b in both situations) may be susceptible to social desirability bias and therefore require refinement. To address this issue, the wording of the items was revised to emphasize internal intentions rather than observable behaviors. For example, the original phrasing 'I take revenge…' was modified to 'I intend to take revenge…' in order to reduce the influence of social judgment on participants' responses.

To provide a clearer overview of the relationships between cognitive processes and the identified response patterns, a thematic map of the cognitive interview findings is presented in Figure 2.

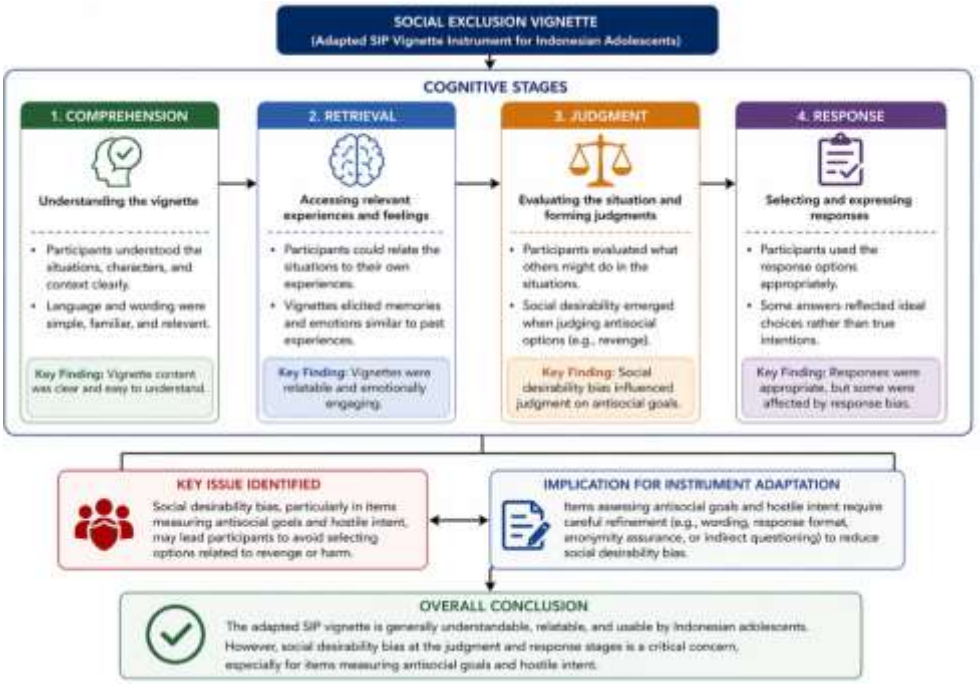

Figure 2. Thematic Map of Cognitive Interview Findings

3.4. Pilot testing

Prior to conducting the psychometric analyses, descriptive statistics were examined to assess the distribution and variability of the data. The results are presented in Table 3.

Table 3. Descriptive Statistics of Vignette Items

	Range	Mean	Std. Deviation	Variance
Sit. 1 Item a	2	3.05	0.548	0.300
Sit. 2 Item a	3	2.76	0.731	0.534
Sit. 1 Item b	3	1.77	0.758	0.574
Sit. 2 Item b	3	1.74	0.754	0.569
Sit. 1 Item c	3	1.32	0.581	0.337
Sit. 2 Item c	3	1.24	0.528	0.278

The mean scores of the items ranged from 1.24 to 3.05, with standard deviations ranging from 0.528 to 0.758. These results indicate that the items showed sufficient variability and no extreme clustering of responses, suggesting that the data were suitable for further analysis.

Flake et al. (Flake et al., 2017) state that the internal structural validity of the instrument is established through three main components: item analysis, factor analysis, and reliability. Item-total correlations were calculated separately for each dimension using Pearson correlation coefficients, as each dimension represents a distinct construct consisting of two items. This procedure resulted in three testing stages, covering the dimensions of hostile intent (item a in Situations 1 and 2), antisocial goals (item b in Situations 1 and 2), and aggressive response (item c in Situations 1 and 2).

Table 4. Item-Total Correlations

Dimension	Item Pair	r	p
Hostile intent	S1a – S2a	0.318	< .01
	S1a – Total	0.748	< .001
	S2a – Total	0.867	< .001
Antisocial goals	S1b – S2b	0.523	< .001
	S1b – Total	0.873	< .001
	S2b – Total	0.872	< .001
Aggressive response	S1c – S2c	0.693	< .001
	S1c – Total	0.928	< .001
	S2c – Total	0.912	< .001

For the hostile intent dimension, the correlation between items in Situation 1 and Situation 2 was moderate ($r = .318$, $p < .01$), while both items showed strong correlations with the total score of the dimension ($r = .748$ and $r = .867$, $p < .001$). For the antisocial goals dimension, the correlation between the two items was strong ($r = .523$, $p < .001$), with both items demonstrating very strong correlations with the total dimension score ($r = .873$ and $r = .872$, $p < .001$). Similarly, for the aggressive response dimension, the inter-item correlation was strong ($r = .693$, $p < .001$), and both items showed very strong correlations with the total score ($r = .928$ and $r = .912$, $p < .001$). These results indicate that the items within each dimension are significantly associated and contribute to measuring their respective constructs. However, the relatively lower inter-item correlation observed in the hostile intent dimension suggests potential variability in how participants interpret this construct.

Table 5. Kaiser-Meyer-Olkin Test

	MSA
Overall MSA	0.549
Sit. 1 Item a	0.462
Sit. 2 Item a	0.403
Sit. 1 Item b	0.549
Sit. 2 Item b	0.608
Sit. 1 Item c	0.562
Sit. 2 Item c	0.592

Table 5 shows that the overall MSA value obtained was 0.549. This value is above the minimum threshold of 0.50, indicating that the sample size indicates marginal sampling adequacy and that the partial correlations between items are relatively small. Furthermore, the results of Bartlett's Test of Sphericity showed a significance level of $p < 0.001$, indicating that the data were suitable for factor analysis.

However, several items showed MSA values below the commonly recommended threshold of 0.60, particularly for the hostile intent items. This indicates that these items may have weaker shared variance with other items and could potentially reduce the overall factorability of the data. These findings further support the need for refinement of items within this dimension in future studies.

Following the confirmation of sampling adequacy, exploratory factor analysis (EFA) was conducted to identify the underlying dimensional structure of the six observed items. The analysis was performed using Minimum Rank Factor Analysis (MRFA) with Promax rotation, which is suitable for ordinal data such as Likert scales, in accordance with the literature recommendations of Lorenzo-Seva and Ferrando (Lorenzo-seva & Ferrando, 2023) regarding the Unrestricted Factor Analysis (UFA) procedure based on Unweighted Least Squares (ULS).

Table 6. Eigenvalues and Variance Explained

Factor	**Eigenvalue**	**Variance (%)**	**Cumulative (%)**
1	2.325	26.4	26.4
2	1.451	22.8	49.2
3	0.912	18.5	67.7

The results of the factor extraction indicated a three-factor solution. Based on the rotated solution, Factor 1 explained 26.4% of

the variance, Factor 2 explained 22.8%, and Factor 3 explained 18.5%, with a total cumulative variance of 67.7%. Although the third factor showed an eigenvalue slightly below the conventional threshold of 1 (0.912), it was retained based on theoretical considerations aligned with the Social Information Processing (SIP) model, which conceptualizes social behavior as comprising multiple interrelated cognitive processes. These results suggest that the three-factor structure provides a meaningful and theoretically consistent representation of the underlying data.

Table 7. Loading Factor of EFA

	Factor 1	**Factor 2**	**Factor 3**	**Uniqueness**
Sit. 1 Item c	0.938			0.121
Sit. 2 Item c	0.733			0.400
Sit. 1 Item b		0.961		0.224
Sit. 2 Item b		0.583		0.451
Sit. 1 Item a		0.334	0.352	0.613
Sit. 2 Item a			0.850	0.401

Note: The rotation method used is Promax

The factor loadings matrix generated from the EFA analysis following Promax rotation provides evidence of the grouping of items into their underlying factors. Based on the principle of simple structure, each item should be loaded substantially on only one factor, as determined by the highest loading. The results shown in Table 7 clearly reveal a three-factor structure.

Factor 1 is predominantly characterized by loadings of items related to aggressive response. Factor 2 is cohesively formed by items measuring antisocial goals. Factor 3 is defined by items measuring hostile intent. Although it has a relatively low loading value ($\lambda = 0.352$), Situation 1 Item a still shows its highest loading on Factor 3. However, it is important to note that the high uniqueness value for Situation 1 Item a (0.613) indicates that most of the variance in this item is not explained by the identified common factors. The high uniqueness value suggests that this item may not be well represented by the common factors, possibly reflecting ambiguity in the vignette context or variability in participants' interpretations. Overall, the EFA results suggest a tentative three-factor structure consistent with the

theoretical model, although its stability remains limited due to the small number of items per factor.

Given the use of Promax rotation, factor correlations were examined to assess the relationships between latent dimensions. The correlations ranged from 0.024 to 0.477, indicating that the constructs are weakly to moderately related. Factor 1 and Factor 2 showed a low to moderate correlation (r = 0.261), Factor 2 and Factor 3 showed a moderate correlation (r = 0.477), while Factor 1 and Factor 3 were minimally correlated (r = 0.024).

These findings suggest that the factors represent distinguishable but related constructs, supporting the use of oblique rotation in the analysis. However, it is important to note that each factor consists of only two items, which may limit the stability and interpretability of the factor structure. Therefore, the identified structure should be interpreted with caution and considered preliminary. As this study employed exploratory factor analysis, model fit indices were not the primary focus; future studies using confirmatory factor analysis are recommended to further evaluate model fit.

Reliability analysis was conducted for each dimension, each consisting of two items. The Spearman-Brown coefficient was used as it is considered more appropriate for two-item scales and provides a less biased estimate compared to Cronbach's alpha, which may underestimate reliability in very short scales (Eisinga et al., 2012).

The reliability analysis showed that the hostile intent dimension had a relatively low coefficient (0.483), which falls below commonly accepted thresholds for internal consistency. This suggests that the items within this dimension may not consistently measure the intended construct. This low reliability may be associated with the limited number of items as well as variability in how participants interpret hostile intent within the vignette context, as also indicated in the cognitive interview findings.

For the antisocial goals dimension, the inter-item correlation was 0.523, resulting in a Spearman-Brown coefficient of 0.687. This value indicates moderate internal consistency, suggesting that the items are reasonably consistent in measuring the construct. Similarly, the aggressive response dimension showed an inter-item correlation of 0.693, with a resulting Spearman-Brown coefficient of 0.818, indicating a relatively strong level of internal consistency for a two-item scale. Overall, while two of the dimensions demonstrate

acceptable reliability for preliminary analysis, the hostile intent dimension should be interpreted with caution and may require further refinement in future studies, particularly through the addition or revision of items.

To facilitate the interpretation of the exploratory factor analysis results, the three-factor structure of the adapted vignette instrument is illustrated in Figure 3.

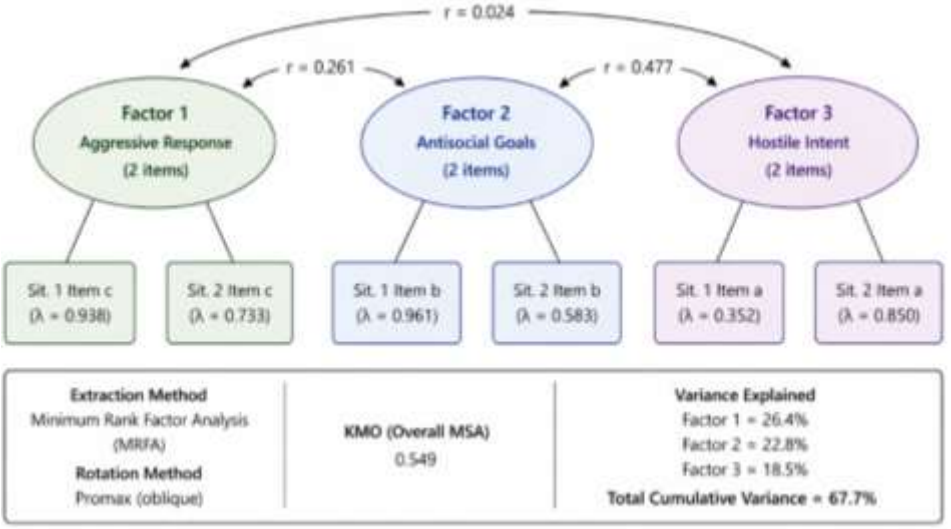

Figure 3. Three-Factor Structure of the Adapted SIP Vignette

4. DISCUSSION

The results of this study indicate that the process of adapting the SIP-based social exclusion vignette to the context of Indonesian adolescents provides preliminary evidence of semantic alignment, potential cultural relevance, and a factor structure consistent with its theoretical model. The translation phase produced a version that demonstrates semantic alignment with the original instrument, accompanied by minor revisions related to contextual adjustments regarding interactions among adolescents in school. The maintained consistency of meaning in the forward and backward translation process confirms that the instrument continues to preserve its psychological function, as recommended by the International Test Commission(International Test Commission, 2017).

The content validity obtained from the expert review reinforces the evidence that each item aligns with the construct intended to be

measured. I-CVI and S-CVI values of 1.00 for the relevance aspect indicate a very high level of expert agreement. However, minor revisions were made to the clarity aspect, such as replacing overly formal wording with more natural language appropriate for adolescents, as noted by the experts. This finding is consistent with broader literature on cross-cultural instrument adaptation, which highlights that response processes may vary across contexts even when linguistic equivalence is achieved. For example, the adaptation of the Indonesian version of the CRISO-PCQ (Faisaluddin et al., 2023) also adjusted item phrasing according to expert recommendations to ensure accurate measurement of the psychological construct. Furthermore, the cross-cultural adaptation procedures suggested by Iliescu (Iliescu, 2017) emphasize that literal translation alone is inadequate; cultural and linguistic adjustments are necessary to ensure the instrument remains valid for the target population.

Findings from the cognitive interviews provide evidence that participants were able to understand both social exclusion scenarios well, interpret the interpersonal contexts presented, and relate them to their personal experiences. This indicates that the vignettes used are relevant to the social experiences of Indonesian adolescents and are capable of triggering cognitive processes consistent with the SIP stages. However, difficulties arose during the judgment stage, particularly regarding items measuring antisocial goals. Students tended to refrain from acknowledging their desire for revenge due to concerns about negative judgments from peers, thereby creating a social acceptance bias. This phenomenon aligns with the findings of Giletta et al. (Giletta et al., 2021), which shows that peer perspectives have a significant and consistent influence on how adolescents determine their behavior.

These findings may be interpreted in relation to cultural norms that emphasize social harmony. However, it is important to note that this study did not directly measure cultural variables. Therefore, such interpretations remain speculative and should be examined in future research using explicit cultural measures. For example, in collectivist contexts, individuals are often encouraged to maintain social harmony and avoid open conflict (Zakiya & Hariyadi, 2022). Nevertheless, this explanation should be interpreted with caution, as no direct cultural indicators were included in the present study.

Therefore, participants' tendency not to explicitly express antisocial responses may be related to social norms that discourage

overt expressions of conflict. These findings suggest that instrument adaptation may involve not only linguistic translation but also consideration of contextual factors that can influence the response process. In this context, modifying items to emphasize internal intentions (e.g., 'I intend to take revenge') may help reduce overt social judgment. However, this approach does not fully eliminate the possibility of social desirability bias, as individuals may still regulate their responses to maintain a favorable self-presentation.

Furthermore, the results of the pilot testing provided an initial overview of the instrument's internal structure. Item–total correlations indicated that most items were strongly associated with their respective dimensions. However, the inter-item correlation for the hostile intent dimension was relatively lower compared to the other dimensions, suggesting greater variability in how this construct is interpreted.

The three-factor structure identified in this study is broadly consistent with the theoretical framework proposed by Crick and Dodge (Crick & Dodge, 1994) and aligns with the findings of Mazzone et al. (Mazzone et al., 2021), who also identified dimensions related to hostile intent, antisocial goals, and aggressive responses. However, unlike the original study, the present findings reveal weaker psychometric performance, particularly in the hostile intent dimension. This discrepancy may be attributed to differences in sample size, cultural context, and the limited number of items per dimension used in the current study.

Nevertheless, the high uniqueness value for one of the hostile intent items suggests that the situational context in the first vignette may not be strong enough to consistently generate perceptions of hostile intent. However, this issue may also be influenced by the limited number of items representing the construct, which reduces the stability of measurement beyond contextual factors alone. This finding aligns with Crick and Dodge's (Crick & Dodge, 1994) SIP theory posits that attributions of hostile intent are strongly influenced by the clarity of situational cues and contextual ambiguity. Therefore, the narrative construction or social cues in these vignettes need to be strengthened in future research.

Reliability estimates revealed mixed results. The reliability of the aggressive response scale was very good, the reliability of the antisocial goals scale was adequate, while the reliability of the hostile

intent scale remained low. This condition is also evident in the original version of the instrument, which shows low internal consistency for hostile intent ($\alpha = 0.58$) (Mazzone et al., 2021). The low reliability of the hostile intent dimension indicates that variations in context and the strength of social cues across vignettes do indeed affect response stability, both in the original instrument and the adapted version. Reliability is a prerequisite for valid measurement. Therefore, this finding suggests that conclusions related to this dimension should be treated with caution.

The literature also confirms that two-item scales are psychometrically highly susceptible to contextual differences and semantic proximity between items. Eisinga et al. (Eisinga et al., 2012) state that two items are not sufficiently robust to identify a construct reliably, and their reliability can easily decline when the assumption of item equivalence is not met. Thus, the low reliability scores in this study are to be expected. However, future research is advised to add items or strengthen the contextual equivalence of the vignettes to make the measurement of hostile intent more reliable.

Theoretically, the findings of this study support the SIP framework developed by Crick and Dodge (Crick & Dodge, 1994). The three-factor pattern that emerged, hostile intent, antisocial goals, and aggressive response, reflects the core stages of social information processing that occur when adolescents face ambiguous situations such as exclusion. This consistency may indicate that the cognitive mechanisms described in SIP theory are also relevant in the Indonesian cultural context, although there are variations in the expression of antisocial intent due to collectivist norms. Thus, these results suggest that the processes of attribution, goal setting, and selection of aggressive responses as theoretical structures can be explained by this adaptation of the instrument, while also affirming its conceptual validity in the Indonesian adolescent population. However, this interpretation should be considered provisional given the exploratory nature of the analysis.

This study contributes to the literature in several ways. First, it provides one of the first attempts to adapt a vignette-based SIP instrument within the Indonesian adolescent context. Second, it highlights critical methodological challenges in cross-cultural adaptation, particularly the instability of two-item dimensions and the influence of social desirability bias on response processes. Third, it

offers preliminary empirical evidence that can guide future instrument refinement and validation efforts.

From an application perspective, the SIP-based social exclusion vignette instrument may provide preliminary insights for educational and psychosocial intervention contexts in Indonesia. Through an understanding of how adolescents interpret others' intentions, formulate social goals, and select responses, this instrument may inform the development of future school-based assessment and intervention strategies. While the instrument shows potential for application in educational contexts, its current form should be considered preliminary, and further validation is required before practical implementation.

Therefore, this study provides an initial foundation for the development of a vignette-based instrument to measure adolescents' cognitive responses to social exclusion in the Indonesian context. Although the resulting structure aligns with the theoretical framework of Social Information Processing, the limited number of items in each dimension indicates that this instrument is still in the early stages of development and requires further expansion.

Further development is still needed to improve the structural stability and psychometric validity of the instrument. Future research is recommended to increase the number of items in each dimension and to develop a wider variety of situational contexts in order to more comprehensively represent the experiences of social exclusion among Indonesian adolescents. Furthermore, given Indonesia's collectivist cultural characteristics, responses to situations of social exclusion may be influenced by social norms related to group harmony and acceptance. Developing an instrument that is more sensitive to local cultural dynamics is crucial. Therefore, this instrument is best viewed as an initial prototype to pave the way for the development of a stronger, more stable, and more contextually grounded vignette-based instrument for understanding the social information processing of adolescents in Indonesia.

Overall, this study has provided evidence of content validity and response process validity, as well as an initial picture of the factor structure consistent with the theoretical framework for understanding adolescents' cognitive responses to social exclusion in Indonesia. Nevertheless, there are several limitations that need to be noted. First, the pilot test sample size remains limited, so generalizing the findings

requires caution. Second, this study has not conducted a test-retest reliability test, so the stability of scores over time cannot yet be confirmed. Furthermore, the limited number of items in each dimension may also affect the stability of psychometric estimates, particularly in factor structure analysis. With only two items per dimension, factor interpretation must be approached with caution, as scales with very few items tend to be more sensitive to estimation fluctuations.

Therefore, the findings of this study should be interpreted within the context of several methodological limitations, including the small sample size, the use of only two items per dimension, and the reliance on exploratory analysis. These limitations constrain the generalizability and stability of the results, highlighting the need for further refinement and confirmatory testing in future research.

5. CONCLUSION

This study provides preliminary evidence on the linguistic and contextual adaptation of a Social Information Processing (SIP) based social exclusion vignette for Indonesian adolescents. The translation process and expert review indicate that the adapted version demonstrates semantic alignment with the original instrument, while cognitive interview findings suggest that the scenarios are generally understandable and relevant to adolescents' experiences. However, the findings also highlight substantial psychometric limitations. In particular, the hostile intent dimension demonstrated low reliability (below 0.50), indicating that it does not yet provide a stable or interpretable measure of the intended construct. In addition, the current factor structure is based solely on exploratory analysis with only two items per dimension, which limits the stability and interpretability of the model.

Therefore, this instrument cannot yet be recommended for research or practical use without substantial revision. At its current stage, the instrument should be considered a preliminary prototype rather than a validated measurement tool. Future research should prioritize (1) increasing the number of items per dimension, particularly for hostile intent; (2) refining vignette scenarios to strengthen contextual clarity; and (3) conducting confirmatory factor analysis with larger and more diverse samples to evaluate structural validity. Additional validation procedures, including test–retest reliability and convergent validity, are also required.

Overall, this study serves as an initial step in the development of a culturally adapted vignette-based instrument for assessing adolescents' social information processing in Indonesia. While the current findings are promising, substantial refinement and validation are necessary before the instrument can be considered for broader application.

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