



(RESEARCH ARTICLE)



## Content validity and reliability of the adult attachment interview in a sample of Moroccan young adults

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World Journal of Advanced Research and Reviews, 2023, 18(01), 149–156

Publication history: Received on 22 February 2023; revised on 01 April 2023; accepted on 04 April 2023

Article DOI: <https://doi.org/10.30574/wjarr.2023.18.1.0534>

### Abstract

The aim of this study was to adapt and validate the Adult Attachment Interview (AAI), relying on content validity of the AAI, using discourse analysis and test-retest reliability as proposed in the literature. We hypothesized that participants with the same attachment style would use similar semantic systems, and that people who belong to different categories of attachment would use divergent semantic systems. Overall, 20 participants volunteered to take part in this research. The interviews were transcribed, coded and classified following the AAI protocol instructions, relying on the classification and coding system manual. We created a textual corpus composed of the interview transcripts. Each interview was analyzed manually. Of the 20 interviews, 35% were classified as secure attachment style, 50% a dismissing style, 15% and a preoccupied style. The reliability of the AAI classifications was quite high (75%). Results confirmed the relationship between attachment category and representations, In particular, the secure participants tend to be metacognitive, distinguished by a coherent mind and transcript, while dismissive participants exhibited to idealization, passivity of thought and inability to recall, and preoccupied participants prone to an incoherence of mind and transcript, due to their indulgence in talking about the memories of the past, which are still present with all their emotional charge.

**Keywords:** Content validity; Content analysis; Adult attachment; Reliability; Arabic version; Moroccan context.

### 1. Introduction

Bowlby's [1] attachment theory was crucial in defining and comprehending the aspects of attachment that children develop toward a primary caregiver and keep throughout their lives. Individuals differ in their attachment categories. Traditionally, attachment categories were categorized as secure or insecure. Individuals who have experienced a secure attachment have an internal working model that allows them to perceive themselves and others positively, whereas those who have experienced an insecure attachment have an internal working model that allows them to perceive themselves and others negatively, which influences their ability to discover their self-efficacy and the world around them [2].

The AAI is a semi-structured clinical interview in which the subject reveals the most important childhood events that currently influencing his adult life [3]. This interview focuses on the adult's state of mind while narrating different childhood events because the interview accentuates how the interviewee speaks about his experience rather than the experience or event itself. The interviewee, for example, can talk comfortably about a difficult previous event during childhood without being moved or invoking those feelings, whereas another may talk differently about the same event as if he is still etched in that stage, whereas yet another may present a kind of dismissing or denying toward these events, by idealizing his parents, or may express some difficulties remembering important acts.

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Grice, the linguistic philosopher, established the foundations that the speaker must adhere to during his conversation in order to be coherent and logical, according to George C et al [3], and he described them in the form of sayings: "Be truthful, and have evidence for what you say."

When the speaker frequently characterizes his father as having positive or very positive qualities, but there are some sections in his story that oppose those positive qualities, he violates this saying. Quantity: "Be succinct, and yet complete." This saying is violated, for example, when the speaker answers several questions honestly with the expression "I don't remember," or conversely replies at length, or talks comfortably after skipping the subject.

Relationship: "Be relevant to the topic as presented". This category is violated, for example, by questions about the mother's early relationship, talks about contemporary relations with her, or answers about the speaker's relationship with his children. Manner: "Be clear and regular" This saying is violated when, for example, his speech becomes grammatically incoherent, psychology jargon and loose jargon are frequently used, or he fails to finish statements he started. Based on the Grice foundations for analyzing the discourse, George C et al [3] identified the following categories to describe the state of mind in relation to attachment: Secure/autonomous attachment: (F) During the interview, the interviewee places value on the attachment but appears objective about any particular event or relationship, consistently describes and evaluates experiences related to attachment, whether appropriate or inappropriate and the discourse does not penetrate any of the basics of good speech identified by Dismissing (Ds): The discourse is described by incoherence, the speaker rejects attachment to experiences and relationships, describes the parents in an idealistic manner (or very ordinary, or wonderful...), with general representations of his unsupported narratives or contradictory to his sayings, a violation of Grice's foundations related to quality, and the written version of his speech is very brief, thus breaching Grice's foundations related to quantity. Preoccupied attachment: (E) the speaker appears irritated, fearful, or lazy, he uses long, grammatically incorrect phrases, or filled with loose terms, he has thus pierced Grice's principles related to the manner and propriety of speech, and the text is long, penetrating in that quantity. Disorganized Attachment: (D) The speaker exhibits remarkable lapses in the logical manner of reasoning during talks of loss or ill-treatment. For example, the speaker can quickly express his belief that a dead person is still living, and he can also express his belief that a person, for example, was murdered because of childhood thoughts, and he can fall into lengthy silences or a speech full of compliments.

George, Kaplan, and Main [3] assessed the AAI's psychometric properties. The AAI is known as one of the most reliable and valid techniques for evaluating adult attachment [4], allowing attachment to be measured through the study of adult narratives and the identification of internal working models of the self and attachment. Previous research has demonstrated the reliability, discriminant validity, and content validity of the AAI [4, 5, 6, 7]. The AAI has a wide range of clinical applications, including facilitating therapeutic relationships and responsiveness to therapy, revealing traumatic experiences and significant losses, identifying the range and degree of a patient's dependence on defensive mechanisms, recognizing the gravitational effect from early relationship patterns on an adult's mental and behavioral states, utilizing it to aid in placement, enabling credible observation of reflective functioning, clinician selection and training, and facilitating the selection and training of clinicians.

Despite the importance of the AAI in accurately determining the adult's attachment style and state of mind, as well as its good psychometric characteristics, in addition to its adoption as a basic measure in various fields, particularly psychotherapy, to the best of our knowledge, there has been no published study that has adapted and validated it in the Moroccan context, and thus this study will be a valuable addition to attachment research, and it can be used by trained researchers or practitioners.

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## 2. Material and methods

### 2.1. Participants

This study's sample size was determined by pragmatic considerations related to time constraints [10], N=20; 13(65%) males, and 7(35%) females. The mean is 1.35, and the standard deviation is 0.49. All participants are students with a reasonably good level of education (1st–5th year).

### 2.2. Measure

*Adult Attachment Interview:* The AAI [3] is a semi-structured and semi-clinical assessment that lasts for 60 minutes to an hour and a half and consists of 20 questions. It focuses on early attachment experiences and their impacts on adults currently alive. The interviewee is questioned about five characteristics that characterize his childhood relationship with both of his parents individually, as well as childhood memories that provide proof for those

characteristics. The respondent is also questioned about his childhood closeness to one of his parents, and why; any acts of rejection; and how they handled him from his point of view; and how these events may have influenced the development of his personality. This technique was designed as a "surprising the unconscious," and the interview guide, through its conception, gave many opportunities to the respondent through questions, to contradict or fail to support the answers he gave early during the interview, or to be honest in his statements, in addition to asking him about any influential loss experience he lived during his childhood.

### **2.3. Adaptation of the Adult Attachment Interview in the Arabic Language**

To adapt the semi-structured interview guide (20 questions) to the Moroccan context, a number of steps [11] must be taken. The committee's technique was employed as the first step to translate and prepare the original version of the interview guide. The first author translated the interview guide from English into Arabic, and both the translated and original versions were sent to two university psychology professors to compare and evaluate the content. Following that, the first and second authors revised the translated version based on the professors' feedback, and it was sent to an expert in translation from and to the two languages, along with the original interview guide, for language accuracy review. Finally, the two authors revised the initial version to evaluate how well the translated questions correctly reflected the original meaning of the interview guide. To ensure the interview guide's content validity and reliability, it's essential to maintain the original format and follow the same guidelines in the Arabic form [11].

### **2.4. Preparation for Conducting the Adult Attachment Interview**

According to the AAI protocol [3], and prior to performing the study, the interviewers must prepare the AAI by interviewing themselves and practicing with at least three participants who will serve as study pilots. We practiced the interview, memorized the questions, and administered it as an interviewer and interviewee, with the aid of a researcher friend, to be able to see the interview from both angles: the researcher and the respondent.

Following that, the AAI was conducted as pilot interviews with three respondents other than the research sample to examine the accuracy of the questions, as well as to inquire about the respondents' opinion about the difficulty or ease of the questions, as well as about the questions that seemed difficult or incomprehensible to them, and to record all observations that can be taken into account to improve the quality of the interview and conduct it in the best conditions to obtain good results. To that end, an appointment was scheduled with the three voluntary subjects, two males and one female, other than the research sample. The three voluntaries were previously informed about the purpose of the research and its procedure, then after obtaining signed informed consent from them, the first interview was conducted with volunteer I1, followed by the second interview with volunteer I2, followed by the third interview with volunteer I3, all in a quiet and closed room in a library, away from the noise, to avoid disruption during the interview. The three interviews lasted between an hour and an hour and a half. Finally, the volunteers were asked about their comments or opinions concerning the interview questions and if they had any suggestions. The following were the most relevant interview responses: "It was a wonderful experience; I felt like I went back in time"; "There were many questions, but I did not feel the passage of time"; "The questions were clear and simple"; "This interview made me connect my childhood memories with the current ones"; "I felt like I grew up quickly, after all the memories I told you"; "I spoke freely and comfortably with you"; "I would like to invite my colleagues to leave this beautiful experience as well."

The interviews were transcribed and analyzed in accordance with the George, Kaplan, and Main [3] method. After practicing and memorizing the interview questions, it is feasible to conduct it with the research sample, through whom we expect to examine the validity and reliability of the AAI.

As a first step, we asked the help of some university students and the three participants from the pilot study to help us recruit volunteers for this research. We described the purpose of the study as well as the conditions for participation, which included the participants' ages (19 and 25 years old) and their status as students. The location has already been determined, and the time has been negotiated with each participant via phone and text message, based on his or her availability. On the date and time agreed upon, twenty volunteers attended the meeting in a library near the university. After being welcomed and thanked for their participation they were reminded of the study's aim as well as the various measures to take. The first step was to obtain signed informed consent from each participant. Finally, the participants were thanked, and the next appointment was arranged for one month later in the same location to finish the interview for the second time.

## 2.5. Analytical Procedure

We had to undergo a few rigorous steps to validate the AAI's content. The first step was to transcribe the interviews. Following the guidelines for the rating and classification of AAI [12], the second step was to categorize each interview in its main attachment category, namely Secure/Autonomous, Preoccupied, and Dismissing. In the current research, we concentrated exclusively on the participant's state of mind, particularly on the following scales: Idealization, Inability to recall, Passivity of thought, Coherence of mind, Coherence of transcript and Metacognitive. The third step was to evaluate the content validity of the AAI using the lexical approach used in previous studies by Civilotti et al [13] and Loritio and Scrima [8], except that in this study, the analysis of each interview was completed manually, using Microsoft Word, to avoid misinterpretation of words and expressions. Each attachment group's interview was analyzed in order to identify and highlight the important lexical terms of each attachment category with a distinct color. The terms highlighted in each group were then searched for in the remaining interviews performed for this study. For example, Independent "Now, I can do things by myself, I'm independent"; Busy "My father was always busy "; Amazing "My relationship with my parents was amazing!"; To encourage "They encourage me to do more".

## 3. Results

### 3.1. Content Validity of the Adult Attachment Interview

Of the 20 interviews, 10 (50%) respondents were classified as dismissing, 7(35%) respondents were classified as secure, and 3(15%) respondents were classified as preoccupied. Subjects with dismissing attachment were found to have high scores (5-9points) in Idealization (e.g.my father was amazing; I had a happy childhood), Passivity of thought(e.g. No answer; silences, and short answers(yes and no)), and Inability to recall( e.g. I don't remember anything about this period; I forget how I felt at that time) scales, whereas subjects with secure attachment reached high scores in Coherence of mind, Coherence of transcript, and Metacognitive (e.g. I believe this is due to their lack of understanding of educational fundamentals; If I were in their shoes, I would treat my children in the same manner) scales, while subjects with preoccupied attachment recorded low scores in Idealization, Inability to recall, Passivity of thought, Metacognitive, and low to moderate scores in Coherence of mind and Coherence of transcript scales. After classifying the current study's interviews, we proceeded to evaluate the content of the interviews, utilizing a lexical approach and concentrating on the occurrences of words related to each category with respect to attachment. The results for the secure, dismissing, and preoccupied attachment categories are given sequentially in Tables 1, 2, and 3.

**Table 1** Output Table of Specificity Analysis for the Secure Attachment Category

Terms	Occurrence
To tell	48
To love	42
To care	36
To trust	24
Self relying	22
Strong	15
Satisfied	14
To learn	12
To play	12
To encourage	12
To help	12
To communicate	12
Friends	11
To improve	10
Happiness	10
Mature	10

Relaxed	8
Good situation	8
To accomplish	7
Aware	7
Out going	6
To share	6
To comprehend	6
Self confidence	6
To equilibrate	4
Good health	4
Total	412

**Table 2** Output Table of Specificity Analysis for the Dismissing Attachment category

<b>Terms</b>	<b>Occurrences</b>
I don't remember	52
Busy	42
Normal	41
Absent	35
Good relationship	35
The same	26
Very good	24
I don't think	21
Amazing	20
Positive	18
To present	12
To accept	12
Habituated	12
Limits	11
Perfect	10
Compassion	9
Psychic	9
Proud	8
Spoiled	8
The first child	5
Hero	2
Total	411

**Table 3** Output Table of Specificity Analysis for the Preoccupied Attachment Category

<b>Terms</b>	<b>Occurrence</b>
To bit	37
To hide feelings	23
Etched in memory	22
Alone	21
Neglected	21
To cry	20
Scared	20
To humiliate	16
Harsh	12
To threatened	10
To hate	10
Contrast	8
Problems	8
Shocked	8
To refuse	8
Sick	8
Sad	7
Harassment	6
To obey	6
Hypervigilant	6
To scream	5
To escape	5
Psychological problems	5
Total	293

Tables 1, 2, and 3 show the significant term occurrences that characterize each attachment category. They represent the terms and expressions frequently used by the respondents to express their childhood memories and their impact on their adult lives, as well as to describe their relationship with their parents and how they evaluate it currently. The terms they use to express themselves are words they use, whether consciously or unconsciously. Table 1 regroups repeated terms that significantly represent the semantic field of the category of secure attachment (e.g., to tell, to love, to care, to trust), while Table 2 includes the terms (e.g., I don't remember, busy, normal, absent, good relationship), which were frequently repeated by the respondents, representing the semantic field of dismissing attachment, whereas Table 3 presents the most used and repeated terms by the respondents in their interviews, which can be included in the semantic field of preoccupied attachment.

By comparing the totals of the tables' outputs, we found that the total occurrences of secure attachment terms in the first twenty interviews reached 412, while the ones of dismissing attachment reached 411, while it reached 293 in the total occurrences of preoccupied attachment. This means that the frequencies of secure and dismissing attachments are higher than those of preoccupied attachment.

These findings are in accordance with the classification related to the attachment categories of the interviews conducted in the current research, which confirms the content validity of the interview in the Moroccan context.

### 3.2. Test-retest reliability

Of the 20 interviews, 15 (75%) were classified into the same main categories twice. Of the 10 respondents classified as dismissing in the first interview, 8 (80%) were again classified as dismissing and 2 (20%) as secure. Of the 7 respondents classified as secure in the first interview, 5 (83%) were again classified as secure, 1 (14%), as dismissing, and 1 (14%), as preoccupied. Of the 3 respondents classified as preoccupied in the first interview, 2 (67%) were again classified as preoccupied, and 1 (33%) as dismissing.

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## 4. Discussion

We used the lexical approach to analyze the interview transcript given the fact that classifications are at the core of empirical and theoretical research on adult attachment [3] and words have historically been considered to reveal the individuals, thoughts, feeling, and way of thinking [13]. After classifying the interviews, we examined the validity of the content, following the same method adopted by Loritio and Scrima[8], that hypothesized that participants with the same attachment style would use similar semantic systems, and those who belong to different categories of attachment would use disparate semantic systems. The results of Loritio and Scrima's research [8] confirmed the relationships between attachment representations, which support the current study's findings. According to the outcomes of this research, the distribution of attachment categories is nearly identical to the order of the frequency of occurrences related to each attachment, i.e. linguistic profiles. This study found that dismissing and secure attachment are the most prevalent classifications when compared to preoccupied attachment, which is consistent with the results obtained when comparing the overall number of occurrences related to an attachment category: secure and dismissing are greater than preoccupied attachment, and thus these results are in the same direction as a previous study conducted by Civilotti et al [13], which used the same concept of examining the content validity using the text analysis, through which they assumed that the prevalence of dismissing attachment in women with anorexia would be associated to linguistic profiles of dismissing attachment. Although the study of Civilotti et al [13] found a coexistence of preoccupied attachment and linguistic profiles of dismissing, this slight deviation in the lexical field used may be due to the specificity of this sample in terms of the effect of emotional complexity, which is an excluded possibility in the sample of the current research because it's not currently undergoing any psychological or physical treatment.

In the present research, the reliability of the AAI classifications was quite high (75%). These results are supported by previous research by George et al [3], which found that AAI psychometric tests performed in different countries are consistent over 1- to 15-month intervals, with stability varying from 77% to 90%. Another research performed by Bakermans-Kranenburg and Van IJzendoorn [5] on 83 moms who were questioned twice, two months apart, discovered that the reliability of the AAI classification stayed consistent (78%), on the level of the three main categories. Furthermore, the results are supported by research by de Haas et al [14], which revealed no differences between the three AAI classifications.

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## 5. Conclusion

The objective of this research is to adapt and validate the AAI in the Moroccan context as part of our doctoral project titled "Decision-making styles and parental attachment," given the importance of parental attachment during childhood and its influence on adults' state of mind and decision-making styles.

The AAI is considered one of the most valid and reliable instruments for measuring adult attachment, and it allows attachment to be assessed through the analysis of narratives provided by adults, with many studies confirming its reliability and discriminant validity.

Despite the importance of the AAI and its advantages over the other attachment scales in terms of the accuracy and quality of information that can be obtained through it, due to the fact that his questions are designed to surprise the unconscious, to the best of our knowledge, there is no Moroccan study that attempted to adapt and validate the AAI. This is the only tool accessible in Morocco for measuring adult attachment through an in-depth interview. As a result, the availability of the AAI in Arabic will be a valuable benefit that may be employed in many adult attachment research projects, especially given the increased demand for attachment studies from researchers in various fields, particularly psychology, as well as in mental health and education. The psychometric characteristics of the instrument, according to the findings of this research, make it useful in the Moroccan context, particularly among young people. After training and applying the interview, the AAI was adapted to the Arabic language using the members' approach, and it was then used in a pilot study. The translated form was then applied to the study sample. The revealed psychometric properties were acceptable and pointed in the same direction as previous studies on the state of mind. The present research included only students aged 19 to 25, and the sample size was small. We recommend that future studies include a large

sample, including people from different regions of Morocco and ages, as well as compare it to some other measures, which we were unable to conduct due to time constraints associated with the completion of our doctoral project.

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## Compliance with ethical standards

### *Disclosure of conflict of interest*

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

### *Permission*

Permission was received for the measurement tool used in the study.

### *Statement of informed consent*

Informed consent was obtained from all individual participants included in the study.

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