



Contents lists available at ScienceDirect

# Personality and Individual Differences

journal homepage: [www.elsevier.com/locate/paid](http://www.elsevier.com/locate/paid)

## Development of the Adolescent Measure of Empathy and Sympathy (AMES)



Helen G.M. Vossen\*, Jessica T. Piotrowski, Patti M. Valkenburg

Amsterdam School of Communication Research, University of Amsterdam, The Netherlands

### ARTICLE INFO

#### Article history:

Received 19 June 2014

Received in revised form 1 September 2014

Accepted 24 September 2014

Available online 22 October 2014

#### Keywords:

Affective empathy  
Cognitive empathy  
Sympathy  
Adolescents

### ABSTRACT

The aim of the present study was to develop and validate a new instrument to measure empathy and sympathy in adolescents that differentiates between empathy and sympathy, and balances its emphasis on affective and cognitive empathy. The psychometric properties of the Adolescent Measure of Empathy and Sympathy (AMES) were established in two studies. In the first study, among 499 adolescents (10–15 years old), the structure of the AMES was investigated and the number of items was reduced. In the second study, among 450 adolescents, test-retest reliability and construct validity of the AMES was evaluated. Results indicate that the AMES met the standards of reliability and validity. By specifically distinguishing between affective empathy and sympathy, the AMES provides a distinct advantage over existing measurement tools and is useful in elucidating the relationship between empathy and behavior in adolescents.

© 2014 Elsevier Ltd. All rights reserved.

### 1. Introduction

Empathy plays an important role in the development of social behavior in adolescents. In its early days, researchers studying empathy mainly emphasized its affective nature and defined it as a vicarious emotional response to the perceived emotion of others (e.g., Mehabrian & Epstein, 1972; Stotland, 1969). Later, researchers acknowledged that this one-dimensional view of empathy erroneously omits the role of cognition. To that end, researchers now posit that empathy is a multidimensional concept consisting of both an affective and cognitive component (e.g., Feshbach, 1975, 1997; Hoffman, 2001). Whereas the affective component pertains to the experience of another person's emotional state, the cognitive component refers to the comprehension of another person's emotions. Although empirical literature has not consistently distinguished between these two subtypes of empathy, neurological research has indeed shown that these components reflect independent processes and are governed by separate brain systems (Nummenmaa, Hirvonen, Parkkola, & Hietanen, 2008; Shamay-Tsoory, Aharon-Peretz, & Perry, 2009).

Trait empathy has most commonly been studied in relation to prosocial and moral behavior of children and adolescents. The

research to date has shown that adolescents with higher levels of trait empathy exhibit more prosocial and altruistic behavior (McMahon, Wernsman, & Parnes, 2006; Roberts & Strayer, 1996) whereas adolescents with lower levels of empathy have been shown to be more aggressive (Jolliffe & Farrington, 2004, 2006b; Richardson, Hammock, Smith, Gardner, & Signo, 1994). Given the important role of empathy in social behavior, it is critical that researchers have a valid way of assessing this construct. At present, there are several scales available for researchers to use. These include the 'Index of Empathy for Children and Adolescents' (IECA, Bryant, 1982), the empathy subscale from the Children's Behavior Questionnaire (CBQ, Rothbart, Ahadi, & Hershey, 1994), the Interpersonal Reactivity Index (IRI, Davis, 1980) and the Basic Empathy Scale (Jolliffe & Farrington, 2006a). Although widely used, there are several critical limitations to these scales.

First, some of these scales do not distinguish between an affective and a cognitive component of empathy. Rather, they measure empathy as a single construct (e.g., IECA and the CBQ). Second, in many of the existing scales, item wording is often ambiguous. Items such as "I often get swept up in my friend's feelings" from the BES or "I am often quite touched by things I see happen" from the IRI are likely to result in differences in interpretation (i.e., what does it mean to be swept up or quite touched?). Given that ambiguous and vague items result in decreased measurement validity (De Leeuw, Borgers, & Smits, 2004), efforts to ensure that items are clear and unambiguous are justified.

Lastly, several empathy scales equate affective empathy with sympathy (e.g. IRI and IECA). Affective empathy and sympathy

\* Corresponding author at: Amsterdam School of Communication Research, University of Amsterdam, Nieuwe Achtergracht 166, Postbus 15793, 1001NG Amsterdam, The Netherlands.

E-mail addresses: [h.g.m.vossen@uva.nl](mailto:h.g.m.vossen@uva.nl) (H.G.M. Vossen), [j.piotrowski@uva.nl](mailto:j.piotrowski@uva.nl) (J.T. Piotrowski), [p.m.valkenburg@uva.nl](mailto:p.m.valkenburg@uva.nl) (P.M. Valkenburg).

are both emotional reactions to the perceived emotions of another person. However, in the case of empathy, the emotion is the same as the emotion of the other person (emotion congruence). With sympathy, however, individuals experience feelings of concern and sorrow about distressful events in another person's life (Clark, 2010). Some researchers believe that sympathy actually results from affective empathy (Eisenberg & Fabes, 1990), but few assessments actually distinguish between them. In the IECA (Bryant, 1982), there are several items that measure sympathy instead of empathy (e.g., "It makes me sad to see a girl who cannot find anyone to play with"). Similarly, the empathic concern subscale of the IRI consists of items which are much more closely aligned to sympathy than to empathy (e.g., "When I see someone being taken advantage of, I feel kind of protective towards them") and is often used as a measure of sympathy (Eisenberg, Cumberland, Guthrie, Murphy, & Shepard, 2005; Laible, 2004).

### 1.1. The Adolescent Measure of Empathy and Sympathy (AMES)

The limitations of the existing empathy measures demonstrate a clear need for an improved measure for adolescents. The aim of this study is to develop a validated measure of empathy and sympathy that addresses the aforementioned limitations of existing scales. Specifically, the Adolescent Measure of Empathy and Sympathy (AMES), (1) balances the emphasis on affective empathy and cognitive empathy, (2) uses unambiguous wording and (3) distinguishes between empathy and sympathy. In this scale, affective empathy is defined as "the experience of another person's emotion" (Mehabrian & Epstein, 1972), cognitive empathy is defined as the "comprehension/understanding of another person's emotion" (Hogan, 1969), and sympathy is defined as "feeling concern or sorrow for another person's distress" (Clark, 2010).

In order to establish reliability and validity for the AMES, two studies were conducted. In the first study, we investigated whether the items of the AMES clustered into the three expected subscales (i.e., affective empathy, cognitive empathy, sympathy) in an adolescent sample (10–15 years). Furthermore, in the first study, the number of items was reduced in order to minimize the response burden, which is preferable when working with young respondents. In the second study, we used a new and independent sample of adolescents to confirm the structure of the AMES identified in Study 1 as well as to investigate its test-retest reliability and construct validity.

### 1.2. Validation of the AMES

To assess the construct validity of the newly developed AMES, the relationships between the subscales of the AMES (i.e., affective empathy, cognitive empathy, sympathy) and similar and related constructs were investigated. These constructs are sex, empathic concern and perspective taking (as measured by the IRI), prosocial behavior, and physical aggression. Specific hypotheses for each of these constructs were developed.

As studies have consistently demonstrated that females score higher on measures of empathy (Mestre Escrivá, Samper García, Frias Navarro, & Tur Porcar, 2009) and sympathy (Lennon, Eisenberg, & Strayer, 1987), female adolescents were expected to score higher than males on all subscales of the AMES.

Empathic concern (EC) as measured with the IRI, is defined as the tendency to experience concern for others' negative experiences (Davis, 1980). Since empathic concern reflects emotional responses to others, we expected that empathic concern would be positively correlated with all subscales of the AMES. Given the focus on concern for others, we expected that empathic concern would be most strongly related to the sympathy subscale of the AMES. Also measured by the IRI, perspective taking is defined as

the tendency to adopt and understand the perspective of someone else (Davis, 1980). Since perspective taking measures emotional responses to others, we expected that it would be positively correlated with all subscales of the AMES. However, given the cognitive focus of the cognitive empathy subscale, we expected that perspective taking would be most strongly related to cognitive empathy.

Prosocial behavior refers to a range of positive behaviors including positive interactions (e.g., friendly play or peaceful conflict resolutions), altruism (e.g., sharing, offering help), and behaviors that reduce stereotypes (Mares & Woodard, 2001). Research with adolescents has shown that empathy and sympathy are positively related to prosocial behavior (e.g. Batson, Duncan, Ackerman, Buckley, & Birch, 1981; Malti, Gummerum, Keller, & Buchmann, 2009; Masten, Morelli, & Eisenberger, 2011). As none of these studies have made a distinction between affective and cognitive empathy, we expected that all three scales of the AMES will be positively correlated to prosocial behavior.

Finally, physical aggression is generally defined as harming someone face-to-face through physical attacks. Research, in general, suggests a negative relationship between empathy and physical aggression in adolescents (Kaukiainen et al., 1999; Miller & Eisenberg, 1988). Yet, studies which distinguish between the affective and cognitive components of empathy indicate that the affective component is related to direct aggression whereas cognitive empathy is not (Yeo, Ang, Loh, Fu, & Karre, 2011). Studies investigating the relationship between sympathy and physical aggression in adolescents have also found a negative relationship (Carlo, Raffaelli, Laible, & Meyer, 1999; McGinley & Carlo, 2006). Based on the extant literature, physical aggression was hypothesized to be negatively correlated to affective empathy and sympathy, but unrelated or weakly negatively related to cognitive empathy.

## 2. Study 1

The aim of Study 1 was to confirm the intended factor structure, to establish the internal consistency of the subscales, and to reduce the number of items to maximize the utility of the scale in adolescents.

### 2.1. Participants

After receiving approval from the sponsoring institution's review board (European Research Council), a private survey research institute in the Netherlands collected the data. Households with adolescents were recruited in May and June 2012 through an existing online panel (approximately 60,000 households) that is representative of the Netherlands. Data from 499 adolescents (aged between 10 and 15 years old) were collected. The mean age was 12.24 years ( $SD = 1.58$ ) and 52% was male. Completion of the questionnaire took approximately 24 min. Before completing the online questionnaire, written informed consent was obtained from the participating adolescent and one of their parents. To compensate adolescents, families received points which could be redeemed for prizes provided by the survey company.

### 2.2. AMES

Based on the aforementioned definitions and on existing empathy scales (BES, CBQ and IRI), a total of 19 items were generated. Care was taken to ensure that: (a) all items were suitable and relevant for adolescents, (b) the emotions mentioned in the items were varied (i.e., anger, sadness, joy and anxiety), and (c) the words used to refer to others in the items were varied (i.e., friend, someone else, people). Seven items were generated to measure affective

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات