

A Questionnaire to Assess Affective and Cognitive Empathy in Children

Carsten Zoll

Gruppe für Interdisziplinäre Psychologie
Otto-Friedrich-Universität Bamberg
carsten.zoll@uni-bamberg.de

Sibylle Enz

Gruppe für Interdisziplinäre Psychologie
Otto-Friedrich-Universität Bamberg
sibylle.enz@uni-bamberg.de

Abstract

Empathy measures that involve both cognitive and affective aspects of empathy are scarce. The aim of the work presented in this paper was to develop an instrument for the assessment of both aspects of dispositional empathy in children aged eight to fourteen, based on a variety of existing measures and results from the validation of a first preliminary version.

Empathy

Empathy can be defined as the ability and tendency of a person (“observer”) to understand what another person (“target”) is thinking and feeling in a given situation. It was first introduced by Titchener (1909) as an English translation of the German term “Einfühlung” (Vischer, 1873; Lipps, 1903) which was originally used in aesthetics to describe the relation between a person and an art object. During the 20th century the term was more and more applied to inter-human relationships, with more or less two accentuations emerging, one referring to the affective components of empathy, the other to the cognitive components of empathy. While some researchers embrace both aspects in their empathy

definitions (e.g. Holz-Ebeling & Steinmetz, 1995; Davis, 1996) – an observer’s understanding of the internal state of a target as well as the observer’s emotional reaction to what he/she perceives as being the internal state of a target – others emphasise either the one or the other (e.g. Hogan (1967) cognitive empathy, or Hoffman (1977) affective empathy).

For the purpose of the questionnaire development presented in this paper, both affective and cognitive empathy are relevant.

Two Aspects of Empathy

Cognitive empathy grasps different cognitive processes within the observer ranging from relatively simple associative processes over learning mechanisms to the point of explicitly taking over someone else’s perspective. To achieve this, the observer has to focus his/her attention on the target, reading expressive signals as well as situational context cues, and try to understand the current reactions of the target. This process operates based on what he/she knows about emotional expressions in general, meanings of situations in general, and previous reactions of the target. Additionally,

motivational preconditions, as well as perceptual accuracy are necessary. While experiences of the self are at the basis of all empathic understanding (serving as a knowledge base for detecting and identifying internal reactions to external stimuli), the cognitive ability to distinguish between the self and the other is essential for empathy (Bischof-Köhler, 1989). Cognitive empathy in this sense is very tightly related to the concept of theory of mind. Theory of mind means (1) the ability to develop a comprehension of mental states in others, which are not directly observable (e.g. to recognize that people can express a certain emotion while feeling a different one) and (2) to draw inferences related to the future reactions and behaviours of others. To make these predictions it is assumed that the observer has a "theory of mind" of the other (Premack & Woodruff, 1978).

Affective empathy relates to the process where emotions in the observer emerge due to the (conscious or unconscious) perception of internal states in a target (either emotions or thoughts and attitudes). Affective empathy thus can be the result of cognitive empathy, but can also grow out of the perception of expressive behaviour that immediately transfers emotional states from one individual to another (emotional contagion). In this case, qualitatively highly similar affective states are evoked in the observer, resulting from a direct link or transfer of emotional states between individuals through verbal, para-verbal and non-verbal cues. This link serves the biological function of fostering social identity and adaptation to the group, e.g. when it is vital for a herd of animals to react quickly to a predator that is only detected by one or few members of the group. In case of reactive affective empathy emerging due to cognitive

(empathic) processes, a more complex conglomeration of affective states (like gloating) may result as opposed to the highly similar emotional states that result from emotional contagion.

The Empathy Questionnaire (EQ)

The questionnaire method is used to assess empathy as children's self-reported dispositional reaction towards hypothetical situations.

Design

The Empathy Questionnaire includes 28 items and a five-point response format ("I strongly agree" - "I strongly disagree"). It tackles cognitive and affective empathy and was developed using new items as well as items from existing instruments for empathy assessment: from Bryant's (1982) Index of Empathy Measurement for Children and Adolescents which is a child and adolescent version of Mehrabian & Epstein's (1972) adult measure of emotional empathy, items from Leibetseder's E-Skala (2001), and items from an adaptation of Davis' Interpersonal Reactivity Index (IRI) for children by Garton and Gringart (2005). The items that were picked seemed suitable to represent the two theoretical aspects of empathy: cognitive empathy and affective empathy (for details, see table 1). The items developed by the authors were developed to enhance the item pool. For reasons of further validation, the six items from Eisenberg et al.'s Child-Report Sympathy Scale (1996, 1998) were also included.

Quality factors

Results regarding the reliability and validity of the instrument can only be reported from a previous study with a previous version of the questionnaire. The data was collected from 623 children from the UK, Portugal, and Germany, 472 from the UK (234 male, 238 female), 96 from Germany (56 male, 40 female) and 55 from Portugal (31

male, 24 female). The participants' age ranged from eight to fourteen years (M=9.90; SD=.92). Principal Axis Analyses indicated that items with negative wording formed a separate factor which resulted in deleting these 12 items from the item pool. The resulting analyses yielded two factors that explained 31.19% of the total

variance. No differences between the three countries emerged.

Based on these exploratory findings, the 22 items of the EQ (excluding the six Eisenberg items) add up to two subscales: cognitive empathy (12 items) and affective empathy (10 items); for details please refer to table 2.

Table 1: Items of the Empathy Questionnaire.

<i>Source</i>	<i>Item</i>
Bryant's Index of Empathy Measurement (1982)	It makes me sad to see a child [girl/boy] who can't find anyone to play with (2 items in Bryant's questionnaire). Seeing a child [girl/boy] who is crying makes me feel like crying (2 items in Bryant's questionnaire). I really like to watch people open presents, even when I don't get a present myself. Sometimes I cry when I watch TV. I get upset when I see a child [girl/boy] being hurt (2 items in Bryant's questionnaire). I get upset when I see an animal being hurt. Some songs make me so sad I feel like crying.
Leibetseder's E-Skala (2001)	I often try to understand my friends better by seeing things from their point of view.
Garton & Gringart's (2005) IRI version	When I am angry or upset at someone, I usually try to imagine what he or she is thinking or feeling When I am arguing with my friends about what we are going to do, I think carefully about what they are saying before I decide whose idea is best I think people can have different options about the same thing
New items	When my parents get upset I feel bad I can tell by the look on my parent's face whether it's a good time to ask them for something I often know the ending of movies or books before they have finished It upsets me when another child is being shouted at On the phone I can tell if the other person is happy or sad by the tone of their voice When I walk by a needy person I feel like giving them something When I see someone suffering, I feel bad too I can often guess the ending of other people's sentences because I know what they are about to say I notice straight away when something makes my best friend unhappy I can tell what mood my parents are in by the look on their faces I can tell by looking at a person, whether they are happy
Eisenberg's Child-Report Sympathy Scale (1996, 1998)	I feel sorry for other kids who don't have toys and clothes. When I see someone being picked on, I feel kind of sorry for them. I feel sorry for people who don't have the things that I have. When I see another child who is hurt or upset, I feel sorry for them. I often feel sorry for other children who are sad or in trouble. I <u>don't</u> feel sorry for other children who are being teased or picked on.

Table 2: Scales of the Empathy Questionnaire.

<i>Scale</i>	<i>Item</i>
Cognitive Empathy	<p>When I am angry or upset at someone, I usually try to imagine what he or she is thinking or feeling</p> <p>I can tell by looking at a person, whether they are happy</p> <p>I really like to watch people open presents, even when I don't get a present myself</p> <p>When I am arguing with my friends about what we are going to do, I think carefully about what they are saying before I decide whose idea is best</p> <p>I can tell what mood my parents are in by the look on their faces</p> <p>I notice straight away when something makes my best friend unhappy</p> <p>I can often guess the ending of other people's sentences because I know what they are about to say</p> <p>I often try to understand my friends better by seeing things from their point of view</p> <p>On the phone I can tell if the other person is happy or sad by the tone of their voice</p> <p>I often know the ending of movies or books before they have finished</p> <p>I think people can have different opinions on the same thing</p> <p>I can tell by the look on my parent's face whether it's a good time to ask them for something</p>
Affective Empathy	<p>It makes me sad to see a child who can't find anyone to play with</p> <p>Seeing a child who is crying makes me feel like crying</p> <p>Sometimes I cry when I watch TV</p> <p>It get upset when I see a child being hurt</p> <p>Some songs make me so sad I feel like crying</p> <p>When I see someone suffering, I feel bad too</p> <p>When I walk by a needy person I feel like giving them something</p> <p>It upsets me when another child is being shouted at</p> <p>When my parents get upset I feel bad</p> <p>I get upset when I see an animal being hurt</p>

References

- Bischof-Köhler, D. (1989). *Spiegelbild und Empathie. Die Anfänge der sozialen Kognition*. Bern: Huber.
- Bryant, B. K. (1982). An Index of Empathy for Children and Adolescents. *Child Development*, 53 (1), 413-425.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44(1), 113-126.
- Davis, M. H. (1996). *Empathy. A Social Psychological Approach*. Boulder, CO: Westview Press.
- Eisenberg, N. & Strayer, J. (1987). *Empathy and its development*. New York: Cambridge University Press.
- Eisenberg, N., Fabes, R. A., Shepard, S. A., Murphy, B. C., & Jones, S. (1998). Contemporaneous and longitudinal prediction of children's sympathy from dispositional regulation and emotionality. *Developmental Psychology*, 34, 910-924.
- Garton, A. F. & Gringart, E. (2005). The development of a scale to measure empathy in 8- and 9-year old children. *Australian Journal of Education and Developmental Psychology*, 5, 17-25.
- Hoffman, M. L. (1977). Empathy, its development and prosocial implications. In: Kaesy, C.B. (Ed.) *Nebraska Symposium on Motivation*, Vol. 25 (pp 169-217). Lincoln: University of Nebraska Press.
- Hogan, R. (1969). Development of an empathy scale. *Journal of Consulting and Clinical Psychology*, 35, 307-316.
- Holz-Ebeling, F. & Steinmetz, M. (1995). Wie brauchbar sind die vorliegenden Fragebogen zur Messung von Empathie? Kritische Analysen unter Berücksichtigung der Iteminhalte. *Zeitschrift für Differentielle und Diagnostische Psychologie*, 16, 11-32.
- Izard, C. E. (1991). *The Psychology of Emotions*. New York: Plenum Press.
- Lipps, T. (1903). *Einfühlung, innere Nachahmung und Organempfindung*. Archiv für die gesamte Psychologie. Leipzig: Engelmann.
- Leibetseder, M., Laireiter, A.-R., Köller, T. (2001). E-Skala: Fragebogen zur Erfassung von Empathie – Beschreibung und psychometrische Eigenschaften. *Zeitschrift für Differentielle und Diagnostische Psychologie*, 1, 70-85.
- Mehrabian, A. & Epstein, N. (1972). A measure of emotional empathy. *Journal of Personality*, 40, 525-543.
- Miller, P. A. & Eisenberg, N. (1988). The Relation of Empathy to Aggressive and Externalizing/Antisocial Behavior. *Psychological Bulletin*, 103(3), 324-344.
- Premack, D., & Woodruff, G. (1978). Does the chimpanzee have a theory of mind? *Behavioral and Brain Sciences*, p. 515-526.
- Preston, S. D., & de Waal, F. B. M. (2002). Empathy: Its ultimate and proximate bases. *Behavioral and Brain Sciences*, 25(1), 1-71.
- Stotland, E. (1969). Exploratory investigations of empathy. In: Berkowitz, L. (Ed.) *Advances in experimental social psychology*. New York: Academic Press, p. 271-314.
- Titchener, E. (1909). *Experimental psychology of the thought processes*. New York: Macmillan.
- Vischer, R. (1873). Über das optische Formgefühl: Ein Beitrag zur Ästhetik. In *Drei Schriften zum ästhetischen Formproblem* (pp 1-44). Halle: Niemeyer.
- Wellman, H. M., & Hickling, A. K. (1994). The Mind's "I": Children's Conception of the Mind as an Active Agent. *Child Development*, 65, 1564-1580.
- Wellman, H. M., & Liu, D. (2004). Scaling of Theory-of-Mind Tasks. *Child Development*, 75(2), 523-541.
- Wimmer, H., & Perner, J. (1983). Beliefs about beliefs: Representation and constraining function of wrong beliefs in young children's understanding of deception. *Cognition*, 13, 103-128.

ACKNOWLEDGEMENTS

This work was partially supported by European Community (EC) and is currently funded by the eCIRCUS project IST-4-027656- STP with university partners Heriot-Watt, Hertfordshire, Sunderland, Warwick, Bamberg, Augsburg, Würzburg plus INESC-ID and Interagens. The authors are solely responsible for the content of this publication. It does not represent the opinion of the EC, and the EC is not responsible for any use that might be made of data appearing therein.

Empathy Questionnaire

We would like your help by filling in the items in this questionnaire. We would like to find out about how you think and feel about different things. For each item we would like you to say how much you agree or disagree with it. Please fill in **each item** with only **one response** by ticking the box that you think is the right one for you!

You can test it with the following statement:

1 I like school holidays.

I strongly disagree	I somewhat disagree	I don't agree or disagree	I somewhat agree	I strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have fun completing the questionnaire! Lets go.....

2 I feel sorry for other kids who don't have toys and clothes.

I strongly disagree	I somewhat disagree	I don't agree or disagree	I somewhat agree	I strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3 When I am angry or upset at someone, I usually try to imagine what he or she is thinking or feeling.

I strongly disagree	I somewhat disagree	I don't agree or disagree	I somewhat agree	I strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4 It makes me sad to see a child who can't find anyone to play with

I strongly disagree	I somewhat disagree	I don't agree or disagree	I somewhat agree	I strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5 I can tell by looking at a person, whether they are happy.

I strongly disagree	I somewhat disagree	I don't agree or disagree	I somewhat agree	I strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6 Seeing a child who is crying makes me feel like crying.

I strongly disagree	I somewhat disagree	I don't agree or disagree	I somewhat agree	I strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 I really like to watch people open presents, even when I don't get a present myself.

I strongly disagree	I somewhat disagree	I don't agree or disagree	I somewhat agree	I strongly agree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8 Sometimes I cry when I watch TV.

I strongly disagree <input type="checkbox"/>	I somewhat disagree <input type="checkbox"/>	I don't agree or disagree <input type="checkbox"/>	I somewhat agree <input type="checkbox"/>	I strongly agree <input type="checkbox"/>
---	---	---	--	--

9 When I see someone being picked on, I feel kind of sorry for them.

I strongly disagree <input type="checkbox"/>	I somewhat disagree <input type="checkbox"/>	I don't agree or disagree <input type="checkbox"/>	I somewhat agree <input type="checkbox"/>	I strongly agree <input type="checkbox"/>
---	---	---	--	--

10 When I am arguing with my friends about what we are going to do, I think carefully about what they are saying before I decide whose idea is best.

I strongly disagree <input type="checkbox"/>	I somewhat disagree <input type="checkbox"/>	I don't agree or disagree <input type="checkbox"/>	I somewhat agree <input type="checkbox"/>	I strongly agree <input type="checkbox"/>
---	---	---	--	--

11 I can tell what mood my parents are in by the look on their faces.

I strongly disagree <input type="checkbox"/>	I somewhat disagree <input type="checkbox"/>	I don't agree or disagree <input type="checkbox"/>	I somewhat agree <input type="checkbox"/>	I strongly agree <input type="checkbox"/>
---	---	---	--	--

12 I get upset when I see a child being hurt.

I strongly disagree <input type="checkbox"/>	I somewhat disagree <input type="checkbox"/>	I don't agree or disagree <input type="checkbox"/>	I somewhat agree <input type="checkbox"/>	I strongly agree <input type="checkbox"/>
---	---	---	--	--

13 I don't feel sorry for other children who are being teased or picked on.

I strongly disagree <input type="checkbox"/>	I somewhat disagree <input type="checkbox"/>	I don't agree or disagree <input type="checkbox"/>	I somewhat agree <input type="checkbox"/>	I strongly agree <input type="checkbox"/>
---	---	---	--	--

14 I notice straight away when something makes my best friend unhappy.

I strongly disagree <input type="checkbox"/>	I somewhat disagree <input type="checkbox"/>	I don't agree or disagree <input type="checkbox"/>	I somewhat agree <input type="checkbox"/>	I strongly agree <input type="checkbox"/>
---	---	---	--	--

15 Some songs make me so sad I feel like crying.

I strongly disagree <input type="checkbox"/>	I somewhat disagree <input type="checkbox"/>	I don't agree or disagree <input type="checkbox"/>	I somewhat agree <input type="checkbox"/>	I strongly agree <input type="checkbox"/>
---	---	---	--	--

16 I feel sorry for people who don't have the things that I have.

I strongly disagree <input type="checkbox"/>	I somewhat disagree <input type="checkbox"/>	I don't agree or disagree <input type="checkbox"/>	I somewhat agree <input type="checkbox"/>	I strongly agree <input type="checkbox"/>
---	---	---	--	--

17 I can often guess the ending of other people's sentences because I know what they are about to say.

I strongly disagree

I somewhat disagree

I don't agree or disagree

I somewhat agree

I strongly agree

18 When I see someone suffering, I feel bad too.

I strongly disagree

I somewhat disagree

I don't agree or disagree

I somewhat agree

I strongly agree

19 I often try to understand my friends better by seeing things from their point of view.

I strongly disagree

I somewhat disagree

I don't agree or disagree

I somewhat agree

I strongly agree

20 When I walk by a needy person I feel like giving them something.

I strongly disagree

I somewhat disagree

I don't agree or disagree

I somewhat agree

I strongly agree

21 On the phone I can tell if the other person is happy or sad by the tone of their voice.

I strongly disagree

I somewhat disagree

I don't agree or disagree

I somewhat agree

I strongly agree

22 It upsets me when another child is being shouted at.

I strongly disagree

I somewhat disagree

I don't agree or disagree

I somewhat agree

I strongly agree

23 I often know the ending of movies or books before they have finished.

I strongly disagree

I somewhat disagree

I don't agree or disagree

I somewhat agree

I strongly agree

24 When I see another child who is hurt or upset, I feel sorry for them.

I strongly disagree

I somewhat disagree

I don't agree or disagree

I somewhat agree

I strongly agree

25 When my parents get upset I feel bad.

I strongly disagree

I somewhat disagree

I don't agree or disagree

I somewhat agree

I strongly agree

26 I think people can have different options about the same thing.

I strongly disagree

I somewhat disagree

I don't agree or disagree

I somewhat agree

I strongly agree

27 I get upset when I see an animal being hurt.

I strongly disagree

I somewhat disagree

I don't agree or disagree

I somewhat agree

I strongly agree

28 I often feel sorry for other children who are sad or in trouble.

I strongly disagree

I somewhat disagree

I don't agree or disagree

I somewhat agree

I strongly agree

29 I can tell by the look on my parent's face whether it's a good time to ask them for something.

I strongly disagree

I somewhat disagree

I don't agree or disagree

I somewhat agree

I strongly agree

You've done it!



Thank you very much for your help!