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Measuring empathy: A literature review of available tools

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ABSTRACT. L’empatia è definita come la capacità di un individuo di capire come si sente l’altro, acquisirne lo stato d’animo e stargli emotivamente vicino. Lo scopo di questo studio è stato, attraverso la ricerca della letteratura e la definizione dell’empatia, quello di evidenziare l’importanza del costrutto, evidenziando le metodologie più usate negli ultimi 15 anni. È emerso che la tipologia di metodi più usata sono i questionari self-report ma che esistono altri strumenti per misurare l’empatia, i quali non sono di facile impiego a causa della scarsa esplicazione sull’uso o sulla categoria di strumento a cui sono riferiti.

SUMMARY. Empathy is described as a complex construct that develops the whole life of a person. It is defined as the capability of a person to understand the other person’s feelings, to be able to feel the same way the other person does and to be capable to take action to resolve the problem of that individual. There are three major categories of empathy, i.e., affective, cognitive and compassionate. All are very important to clinical psychology, interpersonal relationships, and psychological assessment. The aim of this study was to conduct a literature review to describe the most widely used instruments to measure empathy in the range of the last fifteen years. The results showed that there are different approaches to measuring empathy, with the most popular ones being self-reports.

Keywords: Empathy, Measure, Self-report, Review

INTRODUCTION

Empathy is a complex construct that is defined as a process that changes more or less the whole life of the individual (Zillmann, 1991). It starts to develop from the minute that the person is born till the end of his life (Zahn–Waxler, Robinson & Emde, 1992). However, there is no proof that empathy increases with age, even if some developmental changes of it are typically seen in childhood (O’Brien, Konrath, Gruhn & Hagen, 2012) – this change is determined by the increase of cognitive capabilities – like the capability to take other’s perspective and decide how to act in a certain situation. Also, no cross-sectional study suggests an age-related increase in empathy, while the only systematic longitudinal study available indicates that self-reported empathy may decline with age, but quite modestly. Given this state of art of the literature, we still do not know whether empathy shows long-term modifications and, if so, whether long-term change in empathy depends on people’s age or other person characteristics, such as a cognitive decline due to elderly (Grühn, Rebucal, Diehl, Lumley & Labouvie–Vief, 2008).
However, not always a person can choose how to react, sometimes it is an automatic response that a person has from the beginning of his life (Wellman, Cross & Watson, 2001). There are also different factors that influence the development of empathy. For example, the temperament a child is born with (Cornell & Frick, 2007), environmental, cultural factors and mental capabilities. Empathy is defined as a capability of a person to understand how another person feels, be able to feel those feelings together or be able to find a way to help solve problems that caused those feelings (de Waal, 2009). All these factors depend on different types of empathy. Affective empathy refers to the ability of a person to perceive and share other individual's emotional states and feelings (de Waal, 2009). Emotional empathy is the one that a person is born with – in other words, it is an automatic emotional response to the environmental stimulus (Martin & Clark, 1982). If a person is capable to understand how another person is feeling, or how his behavior might influence another person's feelings – that would be cognitive empathy (Decety & Lamm, 2006). Said differently, cognitive empathy is a skill that human beings develop throughout their whole life span – from the personal experiences and different types of emotions. It is learned from daily life, and in adulthood it allows a person to decide what type of response to adopt depending on the situation, or not to show any reaction at all (Batson, Ahmad & Stocks, 2004). If a person is capable to understand another person's feelings because of the situation he is in, and is able to try to find a way to resolve that problem – that would be compassionate empathy (Borg, Brenner & Berry, 2014). Thus, compassionate empathy is a more sophisticated level, which develops with age. In adulthood, one should be able to evaluate the situation, and to take an actual action to resolve it (Goleman, 2007). Empathy is considered to be the most important element of the relationship between patient and a person who works in the clinical environment (Hojat et al., 2002), and it is a crucial element to be considered during psychological assessment – as a lack of empathy characterizes several psychopathological conditions such as narcissism, antisocial disorder, and psychopathy. Despite the relevance of empathy to psychological assessment and clinical psychology, the literature on this construct is not very well organized, and for this reason, it is often difficult to find what a professional is looking for, especially when one needs to decide which instrument(s) to adopt for his/her clinical or research purposes. To fill this gap, the aim of the current article was to analyze and summarize literature of last fifteen years, so as to put all the most popular ways to measure empathy in one place. In this way, a researcher can see what is available for him/her and can choose the type of measurement that is most likely best for him/her. As such, our goal was to find all tools of measurement, describe their advantages and disadvantages, define the structure of each instrument and, of course, describe its psychometric characteristics. Moreover, we also intended to describe the tools that appear doubtful, and that maybe would not be so good to use when measuring empathy.

**METHOD**

This literature review was made during October, 2015 and January, 2016. Two different databases were utilized, i.e., ProQuest and PubMed. The steps of this search were planned ahead of time. Firstly, by brainstorming, two lists of key–words were produced. In the first of these lists, some synonyms of “empathy” or related expressions were formulated; in the second, a list of words describing “measurement” was generated. The synonyms or expressions related to “empathy” utilized for the first list were: “empathetic,” “empathic,” and “empathizing”. In Appendix I, it is reported the second list of the words that were used to search for measurement.

For each search in both databases, these two categories were combined by using the option of “AND”, so that in each search one word from the empathy group and one from the measurement group were inputted. This procedure was repeated for all possible combinations, i.e., each and every key–word from both groups was searched together. The words that found at least 1 correspondence with empathy semantic group are shown in Table 1.

Secondly, some inclusion criteria were established. Specifically, it was decided to use articles in the time frame from 2000 and 2015, only in English language, only with availability of full texts, and only articles published in academic journals (the dissertations or theses were excluded). This choice aimed at restricting the field to the most psychometrically sound and widely used tools.

Initially it was also considered to search for key–words both between titles and abstracts of the articles, but millions of studies were found, and for this reason it was very difficult to understand which articles were useful and which ones were not of our interest. Therefore, ultimately it was chosen to limit our search to key–words only in the titles.

Later on, when all suitable for the criteria of the research
Can video games be an innovative tool to assess personality traits of the Millennial generation? An exploratory research

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**ABSTRACT.** Lo scopo della presente ricerca è quello di esplorare l’esistenza di una possibile relazione tra l’utilizzo dei videogiochi su dispositivi mobili (utilizzo dei videogiochi, frequenza di gioco e preferenze riportate rispetto alle diverse categorie e meccaniche di gioco) e i tratti di personalità, utilizzando il modello dei Big Five. I dati sono stati raccolti su un campione di 981 soggetti omogenei per genere e con un’età media di 23 anni; i risultati mostrano correlazioni positive e potrebbero gettare le basi per un utilizzo innovativo dei videogiochi come strumenti di selezione e valutazione delle risorse umane nelle organizzazioni.

**SUMMARY.** The main purpose of this paper is to explore the possible relationship between video games’ use on mobile devices and personality traits. Play’s developmental impact on learning has been long established, but little has been said about the possible different utilization of games, e.g. as a tool for skills, performance and personality traits assessment in HR and recruitment context. The research questions aimed to verify existing connections between one of the most well-known personality theory (Big Five model), video game utilization (gamers vs. non–gamers), gaming frequency (casual vs. hardcore gamers) and reported preferences to different video games categories and mechanics. Data from 981 subjects was analyzed by descriptive statistics, t–test, Effect Size and correlation analysis. Results showed that gamers differ from non–gamers on Neuroticism and its relative sub–dimension, Impulse and Emotion control; casual gamers (who play monthly or weekly) tend to prefer routine tasks, while hardcore gamers (who play every day or more than once in a day) tend to like unusual ideas, adventure and creative tasks. Players of Role Playing games seems to be more scrupulous and more open, in particular to experience, than those who do not play with games of this category. Players of Puzzle category seem to be more cooperative, friendly, scrupulous and perseverant than those who do not play to this game category, as well as logical, rational, and capable of impulse control. Simulation and strategy category share significant results in Openness to culture dimension. No statistically significant results were found for Action and Adventure categories. Correlations found between BFA dimensions and game mechanics could allow to imagine a new video games’ taxonomy that transcend both academic and industrial definitions toward a nomenclature substantiated on psychological basis. This kind of redefinition could help to lay the groundwork to use video games as an assessment tool in personnel selection and evaluation.

**Keywords:** Videogames, Assessment, Personality traits, Millennials generation, BFA, HR
Validation and psychometric properties of the Italian Copenhagen Psychosocial Questionnaire II - short version

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**ABSTRACT.** The contribution is finalized to provide an Italian validation of the COPSOQ II - short version (Copenhagen Psychosocial Questionnaire II - short version; Pejtersen, Kristensen, Borg, & Bjorner, 2010), a questionnaire aimed to investigate some of the main psychosocial risks in the workplace. The interest in this instrument derives from the number of critical aspects considered and its wide use in many international contexts. The statistical analyses, conducted on a large sample of workers in the industrial sector - and obtained through EFA, CFA, concurrent and discriminant validity - show good psychometric properties of the questionnaire. The 4 factors extracted are: 1) relationships with management, 2) support from superiors, 3) control, 4) relationship between work demands and health. The results obtained suggest the possibility of using the questionnaire also in the Italian work environment.

**SUMMARY.** Introduction: In the current workplace it is important to consider psychosocial risks, as they can lead to negative consequences. The aim of this study is to analyse the psychometric properties of the Italian COPSOQ II - short version, a questionnaire which covers a broad range of psychosocial risks. Methods: The questionnaire was administered to 1,845 industry workers. Information about occupational hazards and health conditions was collected. The psychometric properties of the questionnaire were assessed by means of EFA, CFA, discriminant and concurrent validity. Results: The statistical analyses gave support to the validity of the Italian COPSOQ II. The factorial analyses demonstrated that the 4-factors model had the most reasonable good of fit to the data. Conclusions: The results provide evidence of the validity of the Italian COPSOQ II, that can be used to assess psychosocial risks in the Italian work environment across different economic sectors.

**Keywords:** COPSOQ II, Psychosocial factors, Validation
The CBQ-p: A confirmatory study on factor structure and convergent validity with psychotic-like experiences and cognitions in adolescents and young adults

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ABSTRACT. The Cognitive Biases Questionnaire for psychosis (CBQ-p), recently developed, is a self-report measure assessing cognitive distortions relevant to psychotic symptoms and experiences, specifically for the onset and maintenance of delusional ideas. In Italy, there is a lack of assessment tools measuring these aspects. In addition, no international study investigated the relations of CBQ-p with subthreshold psychotic-like experiences. The current study assessed the factor structure of the Italian CBQ-p with confirmatory analyses in community adolescents and young adults. A further aim was to examine its convergent validity with measures of aberrant salience, cognitive biases specific to psychosis, inferential confusion, worry, and subthreshold psychotic-like experiences. Three hundred eighty-eight adolescents and young adults of the community (mean age = 19.22, 55% females) completed the CBQ-p, measures of cognitive distortions of psychosis, aberrant salience, inferential confusion, worry and subthreshold psychotic-like experiences. Confirmatory factor analysis, internal consistency and Pearson's correlations were computed. The Italian CBQ-p demonstrated good psychometric properties; the total scale and subscales reported convergent validity with subthreshold psychotic experiences.

SUMMARY. The Cognitive Biases Questionnaire for psychosis (CBQ-p) is a recently developed self-report measure assessing cognitive distortions relevant to psychotic symptoms and experiences, specifically for the onset and maintenance of delusional ideas. In Italy, there is a lack of assessment tools measuring these aspects. In addition, no international study investigated the relations of CBQ-p with subthreshold psychotic-like experiences. The current study assessed the factor structure of the Italian CBQ-p with confirmatory analyses in community adolescents and young adults. A further aim was to examine its convergent validity with measures of aberrant salience, cognitive biases specific to psychosis, inferential confusion, worry, and subthreshold psychotic-like experiences. Three hundred eighty-eight adolescents and young adults of the community (mean age = 19.22, 55% females) completed the CBQ-p, measures of cognitive distortions of psychosis, aberrant salience, inferential confusion, worry and subthreshold psychotic-like experiences. Confirmatory factor analysis, internal consistency and Pearson's correlations were computed. The Italian CBQ-p demonstrated good psychometric properties; the total scale and subscales reported convergent validity with subthreshold psychotic experiences.

Keywords: Cognitive biases, Distortions, Cognitive Biases Questionnaire for psychosis, Psychotic experiences, Psychotic-like features, Adolescents
Raven’s Standard Progressive Matrices: Contribution to Italian standardization for subjects between ages 6 and 18

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| ABSTRACT. | Il lavoro presenta la taratura delle Standard Progressive Matrices di Raven su un campione italiano di 5438 ragazzi dai 6 ai 18 anni. Lo strumento è molto conosciuto e datato ma tuttora utile per una rapida valutazione delle abilità cognitive, confermata nella letteratura internazionale dal confronto con i risultati di altri test che misurano lo stesso costrutto. Il presente lavoro di taratura ha confermato l’aumento delle prestazioni dei ragazzi al test con il crescere dell’età ma anche l’influenza sulle stesse di variabili sociali, come la scolarità dei genitori presa come indicatore del livello socio-economico familiare. I punteggi grezzi ottenuti dal campione sono stati trasformati in punti standard per età (IQ con M = 100 e DS = 15); sono stati calcolati l’attendibilità e l’errore standard di misura; tali parametri sono riportati nel Report di Giunti Testing e servono a dare una corretta interpretazione dei punteggi ottenuti.

| SUMMARY. | This paper presents a standardization study of Raven’s Standard Progressive Matrices on an Italian sample of 5438 young people aged 6 to 18 years. This instrument is well known, and although it is dated it is still useful for fast assessment of cognitive abilities, as confirmed in international literature a comparison of results from other tests which measure the same construct. The study confirms that young people performance is related with age, and it is influenced by social variables, such as parents’ schooling level used as an indicator of social-economic level. The raw scores obtained by the sample were converted in standardized points for age (IQ with M = 100 and SD = 15). Reliability and standard measurement error were calculated. These parameters are included in the report by Giunti Testing; their purpose is to supply a correct interpretation of the scores obtained.

Keywords: Intelligence, Raven’s Standard Progressive Matrices, Youth, Adolescence, Cognitive Function