Empathy and Late Adolescents' Self in Digital Age

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Abstract
Adolescents develop a sense of self by exploring the world through social interaction. However, the digital technology nowadays changes the way how adolescents interact. By spending time online, adolescents enjoy to interact with others virtually than face-to-face. This superficial interaction might reduce their capacity to understand what others' thinking and feeling, which is called by empathy. The objective of this study was to describe the perception of empathy, and also to validate the Basic Empathy Scale (the BES) by Jolliffe & Farrington (2006) towards late adolescents in digital age. A total of 656 college students at various universities in Jakarta participated in this research. By convenience sampling, participants were divided into two groups: (1) 201 college students (61 males dan 140 females) participated in Focus Group Discussion to investigate the empathy comprehension; (2) 455 college students (132 males and 323 females) from three courses (social and humanity, health, and engineering) completed the questionnaire in order to validate the BES. The results revealed that late adolescents more comprehend empathy in affective than in cognitive meaning. Further analysis also found that female students have higher empathy than male. It is also found that students in health science have higher empathy than two other courses. Finally, this research implies that adolescents must elevate their ability to empathize in order to develop a sense of self and, yet make interaction succeeded.

Keywords: empathy, affective-cognitive empathy, late adolescents

Introduction

Adolescents are exploring 'self' by social interaction. The main characteristic such as egocentrism now is replaced by a balance between self and other interest. However, digital age has changed the way they interact with, where spending time online would rather to choose than direct interaction. As we know that how we treat others online is not correlated positively with how we would treat people in person. In fact, meaningful interaction between humans requires effort and desire to interpret the viewpoints and feeling of each other. Therefore, the key to a person's success in fully interacting within his environment depends on being able to recognize and understand, interpret and anticipate the thoughts and behaviors of others. In other words, the ability to understand others' feeling or empathy shall decrease.

Empathy is an ability to understand and experience the feelings of others (Jolliffe & Farrington, 2006). Empathy falls into two dimensions, affective empathy and cognitive empathy. Affective empathy is described as a vulnerability to experience the emotions of others, when the cognitive empathy is defined as the mental ability that facilitates the understanding and identification of the emotions of others.

The emergence of empathy can be seen in children since they were born. Although it grows naturally, family and environment must cultivate a child to develop his/her empathy since very early age. Furthermore, Hoffman (2007) divided empathy into four levels: (1) Global empathy emerges in the first year. Examples of this stage such as how the newborn infants appear crying while another infant is crying, a mother smiles at her baby and the baby catches her emotion and smiles back. This sort of crying seems to match the emotion of others because the infants cannot clearly distinguish between his distress and other's distress.; (2) The egocentric empathy, this kind of empathy gradually moves in to difference reaction in toddler stage. In this second year, children actively offer help but kind of help offered is what they themselves would find comforting and is in that sense egocentric. For example, while she saw her mother crying, she was giving her mother something to make her mother feels better; (3) Empathy for another's feeling. In the third year, children become aware that other people's feelings can differ from their own due to the emergence of role taking skills. Now children begin to develop role-taking capabilities and associate their emotions with the feelings of others. The child recognizes that someone's feeling may be different from his feeling, thus, he tries to find simple ways to comfort; (4) Empathy for another's life condition. By late childhood or early adolescence children become aware that others' feelings may not just be due to the immediate situation but stem from their more lasting life situation. Empathy may also be found with respect to entire groups of people (the poor, the oppresses, etc) and thus transcend immediate experience

The impact of having weak empathy causes the inability to interact with the social environment. In childhood, low empathy is associated with poor relationships between peers, hostility and violence (Findlay, Girardi, & Coplan, Coplan, 2011; 2006; Mayberry, Espelage, 2007), while low empathy in adolescence affects aggression and antisocial behavior (Lovett & Sheffield, 2007). The main issues highlighted the negative behavior of both children and adolescents that they are unable to distinguish between their own feelings and thoughts from others. Therefore it is easy for teenagers to get caught into peer pressure problems, to be apathetic, to do

something bad instantaneously and many other things which make them unproductive. This kind of behaviors actually becomes a contradiction because empathy should reach the highest level in late teens (Hoffman, 1987).

Generally, females are assumed to show more empathic responses than are their male counterparts. The different social roles assigned to females and males within society influences their opportunities to practice and learn about empathy may explain about gender differences. Traditionally, females are expected to be highly emotional and caring, whereas male are often depicted as being less emotional and stronger in time of weakness.Therefore, the purpose of this study is to describe the adolescents' empathy both by gender and by courses (Eisenberg, Fabes, Carlo, Troyer, Speer, Karbon, & Swotzer, 1992; Spinrad, Losoya, Eisenberg, Fabes, Shepard, Cumberland, 1999).

A total of 656 college students at various universities in Jakarta participated in this research. By convenience sampling, participants were divided into two groups: (1) 201 college students (61 males dan 140 females) participated in Focus Group Discussion to investigate the empathy comprehension; (2) 455 college students (132 males and 323 females) from three courses (social and humanity, health, and engineering) completed the questionnaire in order to validate the BES. Adolescents' perception of empathy was measured through open-ended questions that were built by researcher.

Conclusions

There are four findings of this research. First, adolescents in defining empathy are more likely to discuss in the context of 'feeling' (affective), not in the cognitive context or even both. Based on the above definition, this study found that only 17.9% of students who define empathy as a whole based on two existing dimensions, affective and cognitive dimensions. Those definitions' example are "feeling the other person feel by using the right way of thinking in order to help him, knowing what others feel, the sense of belonging and being able to understand others, and understanding or understanding the feelings of others". Meanwhile, some 38.3% of students perceive empathy directly leading to the affective dimension and only 4% define within the framework of the cognitive dimension. The definition of empathy that students often mention within the framework of affective dimensions such as, "the ability to feel what others feel, to feel what other people feel or taste arises from compassion". Meanwhile, the definition of empathy is incorporated into cognitive dimensions such as, "imagining / positioning as others, understanding other people's feelings and thinking about the feelings of others." The remaining 39.8% define empathy as a behavior or attitude that is often translated into the word matter in general. For example, "a caring attitude toward others, an act of sympathy, caring, etc.". In essence, the definition put forward is still in the context of behavior that is still very common.

Based on these findings, it can be seen that adolescents in defining empathy are more likely to discuss in the context of 'feeling' (affective), not in the cognitive context or even both. This becomes very interesting when we relate this in the context of parenting based on culture in Indonesia. Need to be noticed and proven by further research considering the perspective of parenting (Baumrind in Donita & Maria,

2015) or attachment (Bowlby, in Stern & Cassidy, 2017) due to families have a crucial role in the development of both affective and cognitive individuals.

Second, female students found having higher empathy than male. This study is in line with the research from Jolliffe & Farrington (2006) and Ambrosio et al., (2008) which uses the BES scale to show differences in empathy based on sex, namely that men have lower empathy than women. The difference in the two studies shows that affective empathy in women is higher than that of men, whereas in this study women were better at affective and cognitive empathy than men. Research on empathy using different measuring instruments also found similar results that there were differences in empathy based on sex, where women were known to have higher empathy both cognitively and affective than men (Joliffe & Farrington, 2006; Baron-Cohen, Richler, Bisarya , Gurunathan, & Wheelwright, 2003; Lawrence et al., 2004 and Mehrabian, 2000). The reason for this difference is that it is now unclear whether this is due to differences in socialization and social roles in women or methods of assessing empathy that might cause bias in the work of self-report (D'Ambrosio, Oliver, Didon & Besche, 2009). Nonetheless, the research that produced behavioral data found that there were differences in strategies (brain tissue & physiological amplitude) in men and women when they assessed their emotions in response to others which caused women to have higher empathy scores (Han, Fan, & Mao, 2008; Schulte-Ruther, Markowitsch, Shah, Fink & Piefke, 2008).

Third, the results of this study also found that students from the health sciences had the highest empathy compared to other science groups (social humanities and techniques), especially in affective empathy. Ouzoni & Nakakis (2012) clarifies empathy through 5 conceptualizations namely human nature, professional status, a process of communication, caring and special relationships. In particular, the health sciences emphasize that empathy is an essential component of a caring and important relationship in providing quality time. In a therapeutic relationship, empathy becomes a primary value that can build the understanding of health experts on the feelings of their patients, as if they were the patients (Hojat, Gonella, Nasca, Mangione, & Magee, 2002). In fact, teaching about empathy to medical students has become an important commitment in the S1 curriculum program Diez-Goni & Rodrigues-Diez, 2017). Medical students are believed to be able to handle patients better and provide appropriate tretments if they have fundamental qualities called empathy (Cowley, 2016).
Meanwhile, the social sciences-humanities and engineering family does not emphasize the urgency of empathy for students as a basic ability that must be possessed. Therefore, the amount of commitment in instilling empathy for students in the health sciences can explain why their empathy is higher than other clusters of science.

Last, the BES validation shows its sufficient construct validity, which demonstrates a valid tool to measure empathy among college students in Jakarta, Indonesia. In the affective empathy dimension, there are five items valid with a factor loading value ranging from 0.46-0.63 and the estimated reliability (ER) value of 0.843. The dimensions of affective empathy also have good fit indicators, namely ($\chi 2 = 8.29$, df = 4, p = 0.08161, RMSEA = 0.049, GFI = 0.99). In the dimensions of cognitive empathy, there are seven items valid with a factor loading value ranging from 0.44-0.75 and the estimated reliability (ER) value of 0.905. The cognitive empathy

dimension also has a good indicator of fit, namely ($\chi 2 = 24.92$, df = 13, p = 0.02367, RMSEA = 0.045, GFI = 0.99). Overall, the test of the Basic Empathy Scale according to the Student version in Jakarta found 5 valid items from 11 items on the affective dimension and 7 valid items from 9 items that existed on the cognitive dimension.

This study implies that systematically efforts should be made to increase adolescents' empathy both affectively and cognitively. The results of this study can be considered for the development of curriculum at the university in providing direction for each faculty to insert empathy values in learning process. The findings, however, is a beginning to gain more comprehensive study about empathy. It should be taken into account that our data was still a beginning of this study. Furthermore, the next research will build the empathy scale based on Indonesian culture.

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