

The Relation between Prosocial Behavior and Adolescents' Emotional Understanding

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Abstract. This paper discusses the relationship between adolescents' prosocial behavior and their emotional understanding abilities. Through reviewing relevant literature, this paper explored the positive effects of different groups' emotional understanding on adolescent prosocial behavior. The findings indicate that for others, whether it is a vulnerable group or a non-vulnerable group, a higher level of emotional understanding ability can bring a higher tendency towards pro social behavior to adolescents; On the contrary, lower emotional understanding abilities not only lead to a decrease in prosocial tendencies, but also lead to some antisocial behaviors, including violent behavior. On the other hand, for adolescent individuals, a higher level of emotional understanding ability will enable them to understand the correlation between prosocial behavior and their own emotional cognition, thus making them more inclined to implement prosocial behavior; On the contrary, lower emotional comprehension skills can lead them to overlook the correlation between emotions and current events, and engage in non pro social behaviors such as self-serving lying. This paper can provide some reference for research in relative fields. Future research should expand the scope of the subjects, such as more various age groups, and include them in longitudinal dynamic tracking studies, and calculate the impact of third-party factors. Also, research need to include individual personality differences, to find the most balanced relationship between adolescent emotional understanding and prosocial behavior.

Keywords: Prosocial behavior, empathy, emotional understanding.

1. Introduction

Today, during adolescence, a sensitive period of thought, teenagers quickly understand the emotions expressed by others around them, and express or regulate their own feelings [1]. When each individual's emotional understanding ability develops and matures in adolescence, it will help to solve social problems and develop academic problems [1].

On the other hand, prosocial behavior is another aspect of positive social development. Prosocial behavior is a broad class of behaviors defined as involving costs to oneself and bringing benefits to others [2]. According to the degree of benefit, prosocial behavior can also be divided into mutualism and altruism [2]. Since prosocial behavior and emotional understanding can greatly promote the development of society and adolescents' individual social skills, but there is currently a lack of relevant analysis of the relationship between the two, this article will elaborate on the relationship between adolescents' emotional understanding and prosocial behavior.

In terms of prosocial behavior, studies have confirmed that adolescence is an important time period for prosocial behavior to change with age [3]. Another point is that there are certain differences between the degree of prosociality of adolescents of different genders: the degree of prosociality of females is slightly higher than that of males [4]. In addition, there are also studies exploring the relationship between the behavior of group activities and prosocial activities of adolescents [5]. In terms of emotional understanding, research has explored the relationship between domestic violence and dating violence among adolescents—emotional understanding plays a key role in processing or expressing the impact of violence [6]. Through numerous investigations conducted by previous researchers, this article will review the correlation between adolescents' emotional comprehension ability and their propensity towards prosocial behavior.

Specifically, this article will analyze the relationship between emotional comprehension ability and prosocial behavior. For prosocial behavior, this article will summarize its definition, development,

and important influencing factors through previous literature. For emotional understanding, this article will divide the concept into empathy and self emotional understanding ability for understanding, and explain the importance of the entire emotional understanding. Next, this article will delve into the relationship between the two variables and discuss the concept of emotional understanding by dividing it into empathy and self emotional understanding. Then, the positive and negative effects of the two aspects of emotional understanding on adolescent prosocial behavior will be discussed.

2. Prosocial Behavior

2.1. Definition & Classification

Prosocial behavior is one specific kind of behavior that make benefits on others while costing on people themselves [2]. There are two types of prosocial behavior: mutualism and altruism. If there are benefits for both the pro-socialist implementer and the beneficiary, then this is mutualism; if the beneficiary has benefits but the implementer has costs, then this is altruism. In altruism, pure altruism acts entirely for the idea of "benefiting others", while the purpose of impure altruism is still for the perpetrator itself [2]. However, altruism is also different from prosocial behavior: prosocial behavior is pure behavior, but altruism needs to combine factors such as behavior and motivation of the perpetrator [2].

2.2. Theory

Currently, through previous research, there are three major theoretical directions regarding prosocial behavior, namely the evolutionary direction, cognitive direction, and biological foundation direction [7].

2.2.1 Evolutionary

Researchers have steadily developed an evolutionary theoretical framework that encompasses theories such as reciprocity theory, group selection theory, and kinship selection theory in order to explain the prosocial behavior displayed by both animals and humans.

Firstly, research has found that individuals are more inclined to help their relatives than unrelated individuals, which is consistent with the kin selection theory [8]. According to this hypothesis, people help their blood relatives first in order to better perpetuate their genes. The prosocial propensity is stronger the closer the kinship [8].

Next, prosocial behavior is explained at the group level by the group selection hypothesis. If two groups are directly competing, the group with a greater proportion of pro-social individuals (those who are ready to give up their own interests in favor of the group as a whole) will prevail [7].

Then the reciprocal altruism theory holds that while prosocial actions cost the individual, it also brings benefits that are sometimes immediate and sometimes delayed. There are two phases to the reciprocity hypothesis [7]. Early altruistic theories of reciprocity held that people engaged in pro-social conduct because it may benefit them personally. Fundamentally, it focused on pro-social behavior's inclination toward selfishness, which is a clear example of reciprocity [7].

2.2.2 Cognitive

Researchers have been challenging the evolutionary hypothesis of prosocial behavior since the 1980s, and the study of social cognition has advanced quickly. Some theories that explain prosocial behavior from a cognitive perspective have emerged as a result of researchers starting to pay attention to the cognitive process of prosocial behavior. They believe that prosocial behavior is a more rational behavior and are working to prove this hypothesis in experimental contexts.

First of all, the loss reward incentive model makes the assumption that before helping, people absorb information cognitively [9]. The final decision to provide assistance or not is mostly

determined by a comparison of the possible losses incurred by the behavior implementer in addition to the gains from doing so [9].

Next, the social information processing model suggests that the first stage of prosocial behavior is encoding, which involves noticing social cues for others to seek help, such as observing expressions of pain from others. The ability to perceive the pain of others is crucial during this stage [10]. So, encoding and experiencing the pain cues of others - empathy - is the foundation of prosocial behavior [10].

2.2.3 Biological foundation

The biological foundation hypothesis of prosocial conduct was put out by researchers as they sought to investigate the mechanism of prosocial behavior utilizing cutting-edge technologies with the advent of the 21st century and the growth and maturity of science and technology [7]. These theories share the common presumption that a person's prosocial behavior is not reflexive but rather dependent on their physical, emotional, or motivational states. This implies that a person's prosocial behavior has a biological foundation, such as genetic, neurological, etc [7].

The biological emotional hypothesis of prosocial conduct is the first. According to Buck, there are pro-social and selfish emotions [11]. He originally concentrated on biological emotions, which are sentiments and wants with fundamental neurochemical underpinnings. He contends that prosocial sentiments and emotions are more strongly associated with the left brain than the right brain [11]. These feelings encourage productive dialogue, which eventually results in collaboration [11]. This idea has been criticized since there aren't enough actual research showing that pro-social and selfish emotions are processed differently in the brain's two hemispheres [11].

The brain mechanism model of prosocial behavior is presented next [7]. Particularly, social cognitive and cognitive control systems have an impact on cooperative decision-making via controlling reward systems. The midbrain limbic system, which includes the ventromedial prefrontal cortex, ventral striatum, dorsal striatum, and orbitofrontal cortex, is one of the brain areas implicated in the reward system [7]. This system is activated in various decision-making processes due to the requirement to process the outcomes of various decisions, determine the likelihood of receiving rewards, encode the importance of rewards, and notify pertinent regional update behaviors when rewards may not meet expectations [7]. To make cooperative decisions, however, the reward system is far from sufficient; social cognitive systems and cognitive control systems must also play a controlling role [7].

2.3. Development of prosocial behaviour

For the development of prosocial behavior for adolescents, through related longitudinal studies, it can be known that the prosocial behavior tendency of adolescents will fluctuate over time, and there are gender differences: for males, their prosocial behavior is relatively stable before the age of 14, and it will increase at the age of 17, but then declines; for women, their prosocial behavior increases at age 16 and then declines [12]. Models that stress the connection between biologically based inclinations and socialization experiences have superseded theories regarding the formation of prosocial tendencies that had a major environmental bias in the last 10 to 15 years [13].

2.4. Major influencing factors

The development of adolescents' prosocial values is influenced by their parents' education. Studies have shown that adolescents' prosocial values, which are positively correlated with their propensity to engage in prosocial behavior (as reported by parents and teachers like that), are positively correlated with the extent to which they expect their parents to respond appropriately to their prosocial behavior [7]. In addition, expectations of parents can indirectly lead to the tendency of adolescents to engage in prosocial behaviors [14]. However, adolescents' perceptions of the appropriateness of their parents' responses to antisocial behavior did not predict their prosocial values [14]. Some prosocial

behaviors of adolescents, like "compassion", have intrinsic motivations; the rest of the prosocial behaviors have extrinsic motivations [15].

On the other hand, peer relationships are also the main factor leading to prosocial behavior among adolescents. The term 'peer relationship' in this article will follow Yu's definition of 'peer relationship' in her article, which refers to the equal interpersonal relationship established through social interaction between individuals of the same age or age [16]. For adolescents, peer relationships are extremely important and have a significant impact on their future. According to Yu's research, the better the peer relationships among adolescents, the lower their level of prosocial behavior [16].

Chang also makes the case that teenage prosociality, empathy, and peer connections are interconnected [17]. In particular, Chang's study from 2023 discovered a substantial inverse association between middle school pupils' prosocial conduct and peer relationships, but a large inverse relationship between prosocial behavior and empathy [17]. Peer connections and empathy have a strong negative link. While empathy considerably positively predicts prosocial conduct, peer relationships might be a negative predictor of prosocial behavior. Empathy somewhat mediates the association between prosocial conduct and peer relationships.

3. Emotional Understanding

Emotional understanding is the ability to recognize and evaluate the emotions of oneself, others and groups. Generally, people with high emotional intelligence have a relatively high ability to understand the emotions of others while knowing their own moods at all times [18]. Emotional labor is associated with organizational rules of group activities, social loafing, physical symptoms, and individual and job characteristics [19]. In addition, these findings can be used to investigate the generality of emotion regulation in the future, the role of personality, and how organizations can buffer the negative effects of emotional labor on group members [19].

Emotional understanding consists of two parts, one is the understanding of the emotions of others, which is namely 'empathy ability', and the other is the ability to understand one's own emotions.

3.1. Empathy

3.1.1 Definition

Titchener was the one who originally put out the idea of empathy. According to Titchener, empathy is an emotional state that people develop after seeing another person's inner world [20]. There are now many distinct cognitive directions for empathy in the field of psychology due to the development in study on the idea. The two most well-known ones are emotional and cognitive orientation. According to the cognitive perspective, empathy is the capacity to comprehend and evaluate the feelings of others. According to the emotional orientation, empathy indicates that people can relate to and resonate with one another's feelings.

The definition of empathy in this article will continue to follow Chang's definition in his research, which is the ability of an individual to empathize with others' emotional perspectives and experience their emotions from the perspective of others [17].

3.1.2 How to measure empathy

Due to the multiple orientations of empathy in psychology, each orientation has different measurement methods, so there are also many measurement methods for empathy. Hogan, a researcher from outside the country, created the Empathy Scale (HES) for cognitive perspective in 1969 [21]. There are 64 total items on the scale. It primarily assesses a person's capacity to guess about, comprehend, and react to the emotional condition of others. This scale will evaluate the empathy ability of participants from five aspects [21]:

1. Has social perception for a variety of interpersonal stimuli;
2. Appears to be conscious of his impact on others;
3. Is adept at using comedy, playing, and imaginative play as social skills;

4. Has awareness of one's own intentions and actions;
5. Evaluates how people interpret things based on their motivation.

By evaluating many different groups, categorizing and archiving these evaluations, and matching them with the empathy criteria mentioned earlier. In Hogan's study, the sample's score range was between -0.58 and +0.68.

3.2. Self Emotion Understanding

3.2.1 Definition

In Han's study, it was concluded that the goal of self emotional understanding is to understand the emotions of the individual [22]. Specifically, self emotional understanding ability refers to an individual's ability to interpret the emotional cues and contextual information they face, including facial expression recognition, emotional situation recognition, and mixed emotion recognition. This review will continue to use Han's definition of self emotional understanding in the review [22].

3.2.2 How to measure self emotion understanding

At present, the vast majority of existing studies have obtained the self emotional understanding ability of individuals by grouping them into personalized stories. Han divided participants into three different experimental groups [22]. By asking the participants in the first experimental group to narrate a story that made them feel proud/guilty, and then telling these stories to the second experimental group for verification [22]. Immediately, the participants of the second experimental group filled out their emotions in the questionnaire through these stories [22]. These emotions filled out in the questionnaire will be evaluated by psychological experts, and then corrected for a second time through a third experimental group, resulting in 10 scenario stories for analysis [22].

4. Relationship Between Adolescents' Prosocial Behaviour and Emotional Understanding

As mentioned earlier, prosocial behavior can be divided into impure altruistic behavior for oneself and pure altruistic behavior for others. The trend of prosocial behavior varies depending on the object of emotional understanding. At the same time, different emotional understandings of the same object can lead to changes in the degree of prosocial behavior.

4.1. Emotional Understanding for Others

4.1.1 Positive Effect

According to different groups of people, a high degree of emotional understanding can lead to the tendency of adolescents to engage in prosocial behavior in the future.

At present, the most common group of teenagers in society is this general population, namely "non vulnerable groups", including students, teachers, and non-vulnerable groups encountered in the community. For teenagers, including middle school and high school students, the biggest social venues are still on their campuses. The peer relationships established through interaction and communication with students and teachers on campus can have an impact on the psychological thoughts of teenagers. Chang found through a survey visit to a Chinese junior high school that there is a significant positive correlation between empathy behavior (i.e., emotional understanding of others) among junior high school students and their prosocial behavior [17]. However, due to the current high level of technological progress in the world, the significance of campuses as social occasions for teenagers is gradually decreasing [17]. In other occasions in the community, teenagers also have ample opportunities to empathize while socializing with others. This is particularly prominent in community volunteer activities. Through research on the Russian government and students, Kislyakov, Shmeleva and Gowin found that students by understanding the motivations of volunteers and becoming familiar with their typical ideas, voluntarily engage in selfless behavior for the benefit of others [23]. Therefore, the emotional understanding of non-vulnerable groups, including school-

based groups and community volunteer groups, can motivate teenagers' prosocial behavioral tendencies.

The emotional understanding of vulnerable groups, including the elderly, physically/mentally disabled, and economically disadvantaged groups, is an important factor leading to prosocial behavior among young people, as vulnerable groups are the main targets of their prosocial behavior. At present, existing literature lacks a direct explanation of the relationship between emotional understanding of vulnerable groups and prosocial behavior among adolescents. However, in a study done by Wellberry et al. aimed at increasing empathy among adolescents towards vulnerable groups, the conclusion suggests the connection between emotional understanding of vulnerable groups and prosocial behavior among adolescents: social empathy is a highly valuable concept, being able to support students in taking care of people with insufficient services [24]. Overall, as the object of prosocial behavior among teenagers, understanding the emotions of vulnerable groups can effectively help teenagers understand the difficulties and inconveniences of vulnerable groups, thereby amplifying their conscience and prompting them to engage in pro social behavior.

4.1.2 Negative effect

Given the correlation between empathy and prosocial behavior among middle and high school students by Chang and Yu, the empathy ability of adolescents is positively correlated with their prosocial behavior trends [16, 17]. In other words, if an individual's emotional understanding ability is low, their tendency towards prosocial behavior will also decrease. The frequent occurrence of campus violence on campus is an extreme situation caused by teenagers' lack of understanding of others' emotions. Xu proposed in his analysis of campus bullies that the lack of emotional communication skills among bullies is one of the important reasons for their bullying behavior [25]. Therefore, the low ability to understand others' emotions not only reduces the tendency of teenagers to engage in pro social behavior, but also promotes them to engage in antisocial behavior [25].

4.2. Emotional Understanding for adolescents themselves

4.2.1 Positive Effect

In fact, emotional understanding ability not only includes empathy, that is, understanding the emotions of others, but also understanding the emotions of individual adolescents themselves. In fact, understanding one's emotions is much more complex and abstract than empathy. Han once conducted a survey on middle school students and found significant age differences in their ability to understand the emotion of themselves: at the age of 13, their understanding ability was moderate, at the age of 15, their understanding ability was lowest, and at the age of 17, their understanding ability was highest [22]. Although there is currently a lack of literature on the correlation between prosocial behavior among adolescents and their emotional understanding abilities, this article can make preliminary speculations based on existing literature on emotional understanding abilities. Luo once pointed out that lying can become a self serving behavior among adolescents with lower emotional comprehension abilities [26]. Therefore, this article can speculate that adolescent individuals with higher levels of emotional understanding are more likely to engage in prosocial behavior after facing their own emotions and conscience directly [26].

4.2.2 Negative Effect

On the other hand, for adolescent individuals with lower self emotional understanding abilities, they will not be able to judge their intuitive feelings about a certain phenomenon or thing. For emotionally sensitive teenagers, this undoubtedly leads to them becoming uncontrollable individuals. The conclusion of the research conducted by Luo just mentioned indicates that self emotional understanding ability plays a moderating role in adolescent lying behavior [26]. Due to the inability of adolescents with low self emotional understanding abilities to understand the correlation between sad emotions and lying behavior, they are more inclined to engage in self-centered lying, a non-prosocial behavior [26].

5. Summary

This review explored the impact of emotional understanding of adolescents on their future prosocial behavior tendency. This article delves into the characteristics of emotional understanding and prosocial behavior, as well as their importance for adolescents, and indicates that emotional understanding ability is closely related to the implementation of prosocial behaviors such as altruistic behavior in the future. This article thoroughly analyzes the impact of different aspects of emotional understanding on prosocial behavior, and selects different populations to analyze and compare them with cases in previous literature, demonstrating that different levels of emotional understanding are crucial for the (non) prosocial behavior of adolescent individuals.

However, the literature summarized in this article also has limitations. The literature may overlook the lying behavior of individual adolescents themselves, the third-party effects brought about by their personality traits, or may only focus on students in a high school/junior high school, or only study the dynamic emotional understanding ability and prosocial behavior tendencies of adolescents during a certain period, which is still not comprehensive enough. By expanding the scope of the participants and incorporating longitudinal dynamic tracking studies, it will be possible to establish a balance between prosocial behavior and adolescent emotional understanding.

In conclusion, this article provides an in-depth understanding of the relationship between emotional understanding and prosocial behavior among adolescents, and demonstrates the positive and negative effects of different objects' emotional understanding on their prosocial behavior. By addressing the limitations of previous literature through future research, the relationship between the two will be more specific and comprehensive.

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