

Survey of determinants of prosocial behavior and social capital and their effect on subjective well-being

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1. Introduction

The selfish nature of human beings has moved away from a process by which humans evolve most appropriately through mutual benefit. Prosocial behavior is also one part of human nature.

Pro-social behaviors such as sharing, comforting, and helping emerge in various gregarious groups and organizations. According to Social Exchange Theory, people win mutually beneficial conditions for themselves in the process of offering helping behaviors, thereby increasing their social capital to ensure that they can emerge victorious in various competitions.

Pro-social behavior generally refers to all behaviors that meet social expectations and which are beneficial to others, groups, and society (Damon, W., 1998). Since the 1920s, researchers have undertaken extensive studies of pro-social behaviors such as cooperation, dedication, helping, and assistance. Especially during the past 20 years, psychologists have made useful contributions to exploring and explaining the occurrence, developments, conditions, and effects of pro-social behaviors from the perspective of social cognition. Economists of applied and empirical economics devote particular attention to related factors that affect helping behavior decisions and to the influences of helping behavior on the personality and perception of the related individuals.

Helping behavior is usually achieved by providing financial assistance or behavioral (time) assistance to others, such as donation and voluntary activities. Psychologists have found that helping people in terms of money and time has various effects on the subjective well-being of the helpers because of the distinct influence on individual mind-set. Money, as an important material capital, can not only meet people's physical needs such as safety and health. It can also contribute to their satisfaction of high-level psychological needs such as happiness. Money-helping behavior is affected by many factors. One study showed that an emphasis on time versus money can engender two distinct mind-sets that affect consumers' willingness to donate to charitable causes (Liu & Aaker, 2008).

Existing studies have explored the causes and factors of helping behaviors under different mechanisms such as self-interested models and altruistic models. Some studies have also explored

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the effects of economic policies on money-related helping behavior. Some researchers believe that social capital is of great importance in promoting pro-social behavior (especially donation behavior) (Coleman, 1988). Here are some issues: Do all types of social capital have a unified effect on the money-helping behavior? If it is not unified, what is the difference? Will changes in social capital change people's decision-making in helping others?

In addition, subjective well-being is a core factor in the study of helping behaviors. When practicing and observing subjective well-being, people evaluate their life in a positive manner in various ways (Diener, 2012). With the rise of positive psychology, the general public and researchers have devoted much attention to improving happiness¹⁾. The PERMA model presented by Seligman (2012) illustrates that positive emotions (P), engagement (E), relationships (R), meaning (M), and achievement (A) are the five core factors that lead people to achieve sustained happiness. Studies have revealed that the implementation of pro-social behaviors can bring people a sense of meaning and efficacy (e.g., Sonnentag & Grant, 2012) and therefore can be regarded as an important means for individuals to obtain happiness. Numerous studies have explored the relation between helping behavior and subjective well-being with particular attention to donation and volunteer activities.

In summary, social capital can be expected to affect a series of pro-social behaviors, including helping behaviors and donation behaviors. Pro-social behaviors will affect people's subjective well-being. These three elements form a complementary system. Therefore, this review sorts out the theoretical knowledge and existing research related to social capital, pro-social behavior, and subjective well-being, summarizes the discussions on their relation by economists, sociologists, and psychologists in their respective fields, and elucidates patterns of people's social behavior decision-making progress and their associated influences.

At the moment, affected by the COVID-19 epidemic, the international economic status and social environment are changing rapidly. We believe that exploring the factors and influences of people's pro-social behavior is an important strategy for creating a harmonious social environment, promoting income redistribution, and maintaining social stability. The research results obtained from studies in this field are of positive meaning for maintaining income changes and social relationship shocks affected by COVID-19. We hope this review can provide systematic theoretical and empirical support for government public policies and corporate and individual prosocial behaviors.

1) In recent years, positive psychology has shifted from emphasis on people's happy and satisfying experiences to the abundance and prosperity of life (Tov & Diener, 2013).

2. Pro-social Behavior and Money-helping Behavior

2.1 Manifestations and factors of pro-social behavior

The American researcher, Lauren Wispe, proposed the concept of pro-social behavior in 1972 in “Positive Forms of Social Behavior: An Overview”, which explained that pro-social behavior means that an actor wants to benefit others or the society for purposes of sympathy, charity, sharing, assistance, donation, disaster relief, and self-sacrifice (Wispe, 1972; Bénabou, R., & Tirole, J., 2006). Another definition from Eisenberg and Fabes suggests pro-social behaviors as including sharing, helping, cooperating, donation, and comforting others (Eisenberg & Fabes, 1998). Sharing is the joint use of a resource or space. Individuals can obtain happiness and establish good interpersonal relationships with others by sharing their wealth, rights, wisdom, abilities, emotions, and other resources. Cooperation is also a kind of pro-social behavior by which the cooperating decisions are the best choices for all participants (Baron, 2008). This definition explains why people choose to betray or cooperate with others in social life. Helping is a kind of moral behavior that voluntarily assists others to obtain a certain benefit, which refers to the behavior of gaining benefits for a specific individual or group. It is divided into two categories according to the motivation of the helping behavior: motiveless helping behavior and purposive helping behavior. Motiveless helping behavior is that associated with helping others without asking for any return or recompense, which is completely altruistic behavior. Purposive helping behavior is helping as well as gaining benefits from the action of help.

In fact, individuals make different decisions on pro-social behavior when being affected by diverse complex factors. They are classifiable as factors that implement pro-social behaviors, factors that accept pro-social behaviors, situational factors, and sociocultural factors.

Factors that implement pro-social behaviors include gender, age, personal characteristics and the emotional state of the helper. Results of research investigating the gender effect of pro-social behavior are mixed. Psychologists and behavioral neuroscientists have designed various experiments to study differences between men and women when facing behavioral decisions. In many cases, women respond more to social and emotional stimuli than men (Brody & Hall, 2010; McManis et al., 2001). Thereby, women devote more attention to the social environment and tend to adopt pro-social behaviors (Croson & Gneezy, 2009). However, some reports have described that men’s social behaviors are more stable than women’s (Croson & Gneezy, 2009; Miller & Ubeda, 2012). The subdivided age effect of pro-social behavior illustrates that the tendency of adolescents to engage in pro-social behaviors is variable. The conclusions of existing studies of this tendency are not consistent: increases (e.g., Eisenberg et al., 2005), decreases (e.g., Carlo et al., 2007), and stability (e.g., Nantel-Vivier et al., 2009) have been reported. However, pro-social behaviors of adults increase with

age (Matsumoto et al., 2016). When considering personal characteristics, studies show that people with high empathy, having a belief that the world is fair, with a strong sense of social responsibility, strong self-control ability, and low self-interest, are more likely to undertake pro-social behaviors (Bierhoff et al., 1991). In the aspect of emotional status, the idea that positive emotional states can stimulate pro-social behavior has been verified experimentally. Rosenhan et al. (1981) found that adults who experienced positive emotions provided more help than those who did not. Adults who spend more time volunteering work feel happier (Thoits & Hewitt, 2001). Increasing evidence shows that a cycle and self-reinforcement exists between positive emotions and pro-social behaviors: Not only can positive emotions promote pro-social behaviors; pro-social behaviors can also increase positive emotions. During a six-week study, adults who were assigned to behave well to others were happier than those in the control group (Nelson, Layous, Cole, & Lyubomirsky, 2016). Similarly, spending money on donation allows participants to obtain higher level of positive emotions (Aknin et al., 2013; Dunn, Aknin, & Norton, 2014), even when the donor has no direct contact with the beneficiary (Martela & Ryan, 2016).

Situational factors are generally separable into emergency situations and non-emergency situations. Earlier studies have indicated that people will judge the seriousness of the incident before undertaking helping behavior. The greater the urgency, the more willing people are to help. In non-emergency situations, a greater number of groups able to provide help implies a longer time until mounting or executing a response. Additionally, when the seeker turns outward to a specific individual, the individual will respond quickly (Markey, 2000). This “diffusion of responsibility” phenomenon also demonstrates why rural residents are more willing than urban residents to lend a helping hand (Amato, 1983; Hedge & Yousif, 1992; Steblay, 1987).

Sociocultural factors indicate that any behavior or cognitive style of an individual is bound to be affected by social and cultural factors. People tend to behave with suitable pro-social behavior under a specific social environment (Wade-Benzoni, 2002). In a society with a high degree of empathy, an individual will feel a good atmosphere of friendship, harmony, happiness and mutual assistance that makes the individual more willing to implement pro-social behaviors (Bulman, 2002). Furthermore, religion and family culture might also be sociocultural factors that affect pro-social behavior (Shariff & Norenzayan, 2007; Xia et al., 2021).

Past research investigating pro-social behavior has been constrained by some limitations. One marked difficulty is that most studies have been conducted under experimental conditions, which gives subjects a strong sense of compliance with the experiment. However, most earlier studies were conducted under a presumption that makes the results tendentious. In response to the two issues raised above, the data in our study were collected by questionnaires with large sample sizes. The respondents came from different social and cultural backgrounds as well as different regions, which can reduce sampling bias to the greatest degree possible. However, the questionnaires were

not aimed at a specific research topic, but instead used comprehensive questionnaires with multiple topics and different forms to avoid predisposition difficulties to the greatest degree possible.

2.2 Altruism and helping behavior

Helping behavior is a subordinate concept of pro-social behavior aimed at bringing benefits to others or promoting their well-being. Helping behavior reflects good interpersonal interaction of both donors and recipients (Penner et al., 2005). From a cognitive perspective, whether individuals choose to help depends on their processing of social information in the situation, including the identity recognition and their own and others' social needs.

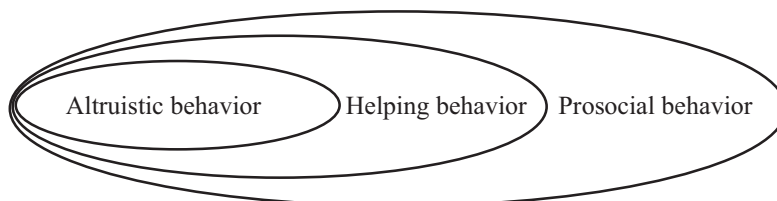
The discussion of pro-social behavior in the fields of psychology and sociology emphasizes examinations of altruism, which is the purest form of pro-social behavior. According to Steinberg, altruistic behaviors are intentional and voluntary. They are aimed at improving the welfare of others with no form of external reward. However, some professionals argue that altruism might never exist: behavior is motivated completely by reciprocity (Pinel, 2013). People help others to obtain rewards, which might be immaterial, delayed, or even completely spiritual, such as improving the happiness of the helper.

Generally, pro-social behavior, helping behavior and altruistic behavior all benefit the society. However, behavior that is more primed by altruism yields fewer personal gains from the behavior (Krebs, 2005). The figure below portrays the relationships.

Various forms of helping behaviors exist, such as showing the way to others, donation, or acting bravely. What motivates people to offer help? One example is the soaring number of people donating blood after the 911 incident (Glynn et al., 2003). Soon after the terrorist attack, the blood banks of the donation center became unable to hold more blood. The staff had to refuse some donors. However, before the incident, blood bank ischemia was a long-standing difficulty. Many studies have been undertaken to explain this phenomenon. One possibility is that when people's sense of order and justice are threatened by violence, they will convince themselves through moral actions that other members of the social group can be trusted (Skitka et al., 2009).

The motivation behind the act of helping is complex. Following are some mainstream theories about helping behavior motivations.

Figure 1. Relationships of pro-social behavior, helping behavior and altruistic behavior.



- (1) The altruism model holds that people can help others selflessly. This model indicates that people can be altruistic because when others are in danger, people are more willing to offer help. Batson et al. proved that pro-social behaviors increase with the development of emotions. The increase in empathy promotes altruistic behavior (Batson et al., 1981; Batson, 2010).
- (2) Social criteria. The criteria which affect helping behavior mainly include reciprocity criteria and responsibility criteria. Wilke and Lanzetta (1970) pointed out that people often help those people who have been helpful to oneself before. This tendency of paying-back is a manifestation of reciprocity. Another form of this criterion is social responsibility. People are more willing to help if they feel a sense of responsibility towards society and social members (Berkowitz & Daniels, 1963). Many statistics on donations from charities support this theory. In 2008, the amount of personal donations to charities in the United States was as high as 307.55 billion U.S. dollars (Giving USA Foundation, 2009). During 2014-2015, more than 60 million Americans had volunteered for at least one organization (U.S. Bureau of Labor Statistics, 2015).
- (3) The selfish model is centered on cost-benefit analysis. People are more inclined to help when they can benefit directly from the helping behavior. Individuals weighing the needs of others according to their own must decide whether to help others (Dovidio et al., 1991). People intend to provide help when the behavior does not harm their own interests. In addition, if helping others reward themselves, then people will also help. This kind of reward includes money (Wilson & Kahn, 1975), emotional improvement (Gueguen & De Gail, 2003), improvement of skill (Perlow & Weeks, 2002), reputation and ratification (Fisher & Ackerman, 1998; Utne & Kidd, 1980). Even a simple “thank you” can be an effective reward (McGovern et al., 1975).

Factors affecting the helping decision are also diverse. Several self-related factors affect humans' helping behaviors.

- (1) Cognitive factors. Researchers agree that helping behavior is strongly affected by the cognition of the helper. The discussion on the cognitive factors of helpers mainly specifically examines their ability of perspective taking and moral judgment. Perspective taking is “standing at another person's viewpoint”, including examination of the attitudes of others, observation of the thoughts and emotions of others, putting oneself in consideration for others. Studies have shown that a child with high ability of perspective taking would behave altruistically when a person can understand other people's needs (Barrett & Yarrow, 1977) and be confident of having the skill of offering help (Peterson, 1983). Grusec and Lytton (1988) also reported that children's helping behavior can be improved by offering training on perspective taking. Moral judgment refers to the psychological process by which individuals use existing moral concepts and moral cognition to analyze, identify, evaluate, and select moral phenomena. People with mature ability of moral judgment can not only help others quickly; they can also share pains with friends as well as condemning others who are apathetic (Underwood & Moore, 1982). One study has shown that

children with a higher level of moral judgment are more generous (Eisenberg, 1991; Emler & Rushton, 1974; Rubin & Schneide, 1973; Fehr, E., & Fischbacher, U., 2003).

- (2) **Empathy.** Empathy is a psychological process by which a person puts himself into consideration for others, recognizes and experiences the emotions and feelings of others. Empathy is generally regarded as an important source of motivation for helping others and as an important intermediary factor of altruistic behavior (Hoffman, 1975). People are more willing to provide help when they put themselves in the position of others to experience the needs and pains of the person concerned. Therefore, people with strong empathy are more likely to help others (Schlenker & Britt, 2001). Eisenberg (1999) reported that the development of children's empathy can promote the maturity of pro-social reasoning to a large degree and can encourage them to care and help anyone in trouble selflessly. However, the research conclusions related to empathy and helping behavior are not consistent. Studies have shown that empathy can enhance helping behaviors such as helping and sharing. High-empathy people are more proactive in helping those who experience grief than low-empathy people are (Batson et al., 1995). A study conducted by Robert and Strayer (1996) also demonstrated that empathy is indeed consistent with altruism. By contrast, some articles describe that empathy is related only weakly to some helping behaviors and describe that empathy does not play an important role in motivating helping behaviors (Einolf, 2008).
- (3) **Mood.** Mood can also affect people's behavior. Much evidence indicates that people are more willing to help others when they are in a good mood (Cunningham, 1979; Wegener & Petty, 1994; Wilson, 1981). Isen (1970) proved through experimentation that when success makes people feel satisfied and happy, it is more possible to produce helping behavior. When failure disappoints people and makes them feel unpleasant, it is not easy to help others. Dolinski and Nawrat (1998) also found that a positive relaxed mood can promote helping behaviors significantly. Why are people with a positive mood more willing to help? Some researchers believe that a positive mood will produce positive thoughts and positive self-esteem, which engenders positive behaviors (Berkowitz, 1987; Cunningham et al., 1990; Isen et al., 1978). Others have reported that a good mood affects people's understanding of the situation. When you are in a good mood, it is easier to recall positive thoughts, experiences, and emotions, which might include positive experiences of helping others. Therefore, it is likely to prompt people to make helping decisions (Isen et al., 1978).

The results of research on the influence of negative mood on helping behavior are not consistent. Studies have demonstrated that feelings of guilt can increase people's helping behavior. Carlsmith and Gross (1969) reported that when mistakes we make become known to others, we want to use the helping of others to recover ourselves. Even if our guilt is unknown to others, we will take action to alleviate it (Regan et al., 1972). Studies have also revealed that negative moods

can reduce children's helping behaviors (Amato, 1986; Isen et al., 1973; Kenrick et al., 1979) but can increase adult helping behaviors (Aderman & Berkowitz, 1970; Apsler, 1975; Cialdini & Kenrick, 1976). The reason is that when adults are in guilty, sad, or other negative moods, helping behavior helps to offset bad feelings, whereas helping behavior has no similar reward for children. Children cannot get much happiness from helping others.

- (4) Age. Many reports have described that age has strong effects on helping behavior. The existing research on age and helping behaviors mostly specifically examine children and adolescents. Helping behaviors increase as children grow. For example, after Rushton studied the donation behavior of children aged 7-11, it was reported that the donation behavior of 11-year-old children is greater than that of 7-year-old children (Rushton, 1982). However, some reports have described that altruistic behavior shows no linear growth trend with age (Eisenberg, 1990). A few studies of adults have demonstrated that increasing age promotes helping behaviors (Van Lange et al., 1997). The conclusions of experimentation reported by Matsumoto et al. (2016) confirmed this result.
- (5) Gender. The research conclusions related to the influence of gender on helping behavior differ. Some researchers have reported that women are more helpful than men (George, Carroll & Kersnick, 1998; Otten, Penner, & Waugh, 1988). However, others have described that no marked gender differences exist in helping behaviors (Gurven, 2004; Henrich et al., 2005). Self-reports indicate that almost no difference exists between women and men in terms of the amount of sympathy and the willingness to comfort, help, or share resources with others. Eagly and Crowley's research indicates that women are more likely than men to act altruistically in situations involving parenting. However, men are more likely than women to provide help in situations that are perceived as dangerous (Eagly & Crowley, 1986).
- (6) Personality Characteristics. Many researchers believe that a certain relation exists between personality characteristics and helping behavior, i.e., a kind of altruistic personality exists (Rushton, 1980; Staub, 1986). Staub (1986) found that the altruistic indicators in a personality questionnaire are positively correlated with helping behavior in certain situations. Some personality traits make people tend to help in some situations and not help in other situations. The altruistic personality is partly mediated by the sympathetic response of the individual to the person in need of help in a specific situation. In addition, people who have strong self-monitoring ability will cater to other's expectations and can be expected to offer help if they believe that the behavior can get social praises (White & Gerstein, 1987). Individuals with strong beliefs in an impartial world or careful and moral emotions are more likely to provide help voluntarily than individuals without such beliefs (London, 1970). Other reports have described that people who trust others are more likely to help than people who do not trust others (Christian Cadenhead & Richman, 1996).

Studies of helping behaviors have revealed that even the most helpful people will not help others in certain situations, which makes situational factors an extremely important effect on people's behavior. It is generally believed that helping behavior is determined by both the person and the situation. The helper would first observe the situation before offering help, i.e., the helper must consider the objective conditions of helping others (Lind, 1989). An individual will exhibit completely different behaviors in different situations.

- (1) Bystander effect. When the number of bystanders increases, the probability of any one bystander providing help will decrease. Even if they respond, the reaction time will be prolonged. The psychologist's explanation is that the responsibility of helping others will spread among bystanders. The greater the number of bystanders, the less likely a person is to provide help. This phenomenon is the so-called "diffusion of responsibility" by which onlookers play a role in decentralizing responsibility. Many studies have confirmed the phenomenon of responsibility diffusion, but some studies have indicated that the number of bystanders has no effect on helping others (Piliavin, Rodin, & Piliavin, 1969).
- (2) Physical environment. Some aspects of the physical environment such as weather, city size, and school environment also affect helping behavior. Some researchers have pointed out that weather conditions play an important role in people's altruistic behavior (Taylor et al., 2011). People are more willing to help others in sunny and moderate weather conditions (Barr & Higgins-D'Alessandro, 2007). Some studies have indicated that city size affects helping behavior. The smaller the city and the population density, the greater the degree to which altruistic behaviors can be expected to exist (Amato, 1983). Furthermore, noise can engender a decrease in helping behaviors (Mathews & Canon, 1975).
- (3) Time pressure. Time pressure is another situational factor affecting helping behavior. Generally, helping behaviors increase significantly when people have sufficient time. Time rush will reduce the occurrence of helping behaviors. Darley and Batson (1973) reported that people who have plenty of time are more able to help others than people who are in a hurry. Christensen (1998) believes that with the increase in emergency level, people's helping behavior will also increase.

Furthermore, factors related to the recipients also affect the helpers' helping behavior. People are most eager to help those who are attractive and those who people want their approval (Krebs, 1970). Any factor that can increase interpersonal attraction will also increase the probability of altruistic behavior. In addition, people are more willing to help recipients who are similar to themselves (Dovidio & Morris, 1975; Hayden, Jackson & Guydish, 1984) because similarity tends to make people feel intimacy. Then they are more likely to be happy when giving help. In many cases, physically attractive recipients are more likely to receive help from others (Benson & Karabenick, 1976), beautiful women are especially more likely to receive help from men (West & Brown, 1975).

Considering the factors related to recipients, we consider social connectedness as an aspect of studying helping behavior. Social connectedness is an important representation of the sense of belonging constituting the core of interpersonal relationships. Lee and Robbins have reported that social connectedness includes not only the real self, but also subjective feelings from the intimate relationship between individuals and society. This subjective feeling includes some individual differences. Some individuals can experience an intimate relation with others, such as family, friends, peers, and even strangers, although some other individuals cannot. Research results have indicated that people participate in volunteer activities or organizations, not only for the meaning of the activity itself, but also to seek connection with others, thereby expressing and serving the goal of social connectedness (Baur & Abma, 2012). Moreover, compared with strangers, people are more willing to provide financial support to their familiar friends or colleagues (Aknin et al., 2012). Maslow's hierarchy of needs theory holds that love and belongingness are basic human needs. People will therefore actively seek organizations that can satisfy the sense of belonging, such as the family, circles of friends, and social activities to achieve subjective belongingness from contact with others. This tendency demonstrates that people's helping behavior reflects the value of reciprocity. Individuals hope that they can gain emotional satisfaction through helping behavior. Our study divides recipients into five categories according to interpersonal relations and explores the differences of decision on helping behavior when people facing distinct recipients from different relationships.

2.3 Money-helping behavior

Money-helping behavior is a unique act that differs from other ways of helping behavior. Money usually refers to currency in the field of economics. It is closely related to modern life. The influence of money on individual behavior has attracted the attention of psychologists and economists. For example, reports have described that people who spend money on others report greater happiness. The benefits of such pro-social spending emerge among adults around the world. However, some reports have described that recipients with high sensitivity to indebtedness reported lower negative effects when they received autonomous help than when they received controlled help (Takebe and Murata, 2017). Earlier studies of the influence of money on the psychological mechanism of helping people are divisible mainly into the following four perspectives.

- (1) Self-sufficiency theory holds that people's social use of money will increase their sense of self-need and independent motivation, of showing indifference and insensitivity to other people, of believing that all individuals can resolve difficulties on their own, thereby providing fewer helping behaviors. Therefore, the self-sufficiency induced by money will adversely affect relational pro-social behavior (Vohs et al., 2006).
- (2) Mind-set theory, as presented by Liu and Aaker of Stanford University, holds that individuals tend

to make decisions based on a perspective of utility and benefits when they consider helping behavior together with money because a tight relation exists between money and the concept of maximum benefit (Liu and Aaker, 2008). Compared with the helping behavior of time investment, such individuals are more inclined to invest in work than in social interaction under the consideration of money, which adversely affects relational pro-social behavior (Mogilner, 2010).

- (3) Free-market value theory holds survival of the fittest as the core concept and holds that natural elimination from competition is a common phenomenon in human society (Spencer, 1860). Caruso et al. (2013) reported that individuals under the money mechanism strongly agree with free market values. They believe that the existence of the gap separating the rich and the poor in society is unavoidable and common. With further development of society, less altruistic and pro-social behaviors can be found in social decision-making. Therefore, emotional and attitude effects of pro-social behaviors are more negative (Caruso et al., 2013).
- (4) Researchers investigating the theory of social cognition found that personal decision-making behavior involves three factors (Aquino et al., 2009): moral identity, self-concept, and situational factors. People communicate with others by two modes: market mode and communal mode (Gasiorowska et al., 2016). These two modes were reported originally by Fiske (1992) who proposed the types of social relations: communal sharing, authority ranking, equality matching, and market pricing (Clark & Mills, 1993). Heyman and Ariely (2004) further summarized the modes of interpersonal communication and divided them into a market mode and public mode. Heyman and Ariely (2004) specifically reported that the social model including communal sharing, authority ranking and equality matching are based on non-monetary exchange. Money priming will reduce the individual's helping behavior, making the individual more independent. If the individual socializes in the communal mode, then the helping behavior might increase. For example, research reported by Johnson and Grimm (2010) has demonstrated that individuals who conduct human-computer interaction in communal mode are more inclined to help others or transfer benefits to others without considering rewards. Sandel (2012) reported that the main symbol of the market mode is money. All transactions rely on money. Money initiation can induce individual behave with market mode. Individuals will consider the income and cost of interacting with others, thereby reducing their helping behavior (Gasiorowska et al., 2016; Vohs, 2015). In other words, money can be regarded as an inducement to market mode.

2.4 Donation behavior

Generally, social psychologists did not conceptualized "charitable behavior" as a separate term but rather classified it as "pro-social behavior" or "altruistic behavior" according to its basic definition: "Giving behaviors that benefit others or the public because of compassion". The main reason donation behavior is treated as a separate research topic herein is that it differs from other forms of

helping behavior. In the context of charitable donation behavior, the recipient is usually not present, but most of the research related to helping behavior refers to the presence of recipients. Whether or not the recipient is present is a key factor affecting the motivation and social interaction of the helping behavior. The current classic review of charitable donations is from Bekkers and Wiepking, who reviewed more than five hundred empirical studies of charitable donations (Bekkers & Wiepking, 2011). In this chapter, we mainly discuss the motivation and cognition mechanism and influencing factors of donation behavior.

Similarly to the motivations of pro-social behavior above, donation behavior is also influenced by altruism and egoism theories. Supporters of the altruism theory believe that compassion is the core distinction between humans and animals. Humans are born with a psychology of sympathy for suffering, misfortune, and other adverse phenomena affecting others. Solidarity and mutual assistance are consequently very powerful motivations, and constitute the natural essence of human beings, more than egoism or the essence of power pursuit (Kropotkin, 1902). Because of this altruistic nature, people's perceptions of the emotional state of others will automatically stimulate their own corresponding emotional state (De Waal, 2008). Results of another study have indicated that when people's positive emotional concept is activated, their willingness to donate will increase significantly (Lamy, Fischer-Lokou, & Guéguen, 2012). By contrast, several researchers claim that charitable donations are not purely altruistic. They have held that it is the self-interest contained in charitable behavior that makes it possible to be preserved. People found that donations not only benefit others but also provide more protection for themselves (e.g., the survival and reproduction of races) so that they can gain a sense of group belonging and strengthen their status in society. Eventually, it was conducive to one's own genes to be continued through kin-selection or group-selection (Leider, Möbius, Rosenblat, & Do, 2009; Sigmund & Hauert, 2002). In this way, the behavior of charitable donations started with "selfishness" and produces altruistic effects. Therefore, researchers put forward the "reciprocity theory", i.e., while donating behavior benefits others, donors themselves also expect different forms of beneficial recompense. Charity is not completely selfless. It is a rational behavior based on a balance of "pay and benefit" (Ajzen, 1991). For example, people are more willing to donate when they learn that helping others makes them happier (Anik et al., 2009). However, it is noteworthy that altruism and egoism are two ends of a continuum. Self-interest and the interests of others are not opposed. It is difficult to separate one from another. Therefore, altruism motivation and self-interested motivation are not necessarily mutually exclusive. Rather, they share a coexistence relation by which different individuals under dissimilar situations have different dominant motivations.

People have different degrees of knowledge about the benefits and costs that a charitable donation might include. Individuals will weigh the main benefits and costs, seeking greater benefits, lower costs, and higher incidence of donations. According to Andreoni's theory of "impure altruism"

(Andreoni, 1989), most donors have expectations of benefits to varying degrees. Income exists in three forms: material, psychological, and social. Studies have revealed that additional material benefits will indeed attract more donations (Andreoni & Petrie, 2004). For people whose self-interest is the primary consideration, material benefits provide them with a reason to donate. However, some doubts persist about whether the provision of material benefits will transform charitable donations into a consumption or transaction behavior, which undermines the original intention of donors who are purely altruistic (Zuckerman, Iazzaro, & Waldgeir, 1979). However, charitable donations can enable individuals to maintain an elevated level of self-esteem, maintain a positive self-image, and avoid cognitive dissonance caused by non-compliance with standards of social ethics (Smith & McSweeney, 2007). Neurological and brain science research has also revealed that when people overcome selfishness and make altruistic choices, the activity of the prefrontal cortex increases significantly (Moll et al., 2006), which triggers neuronal activity related to reward mechanisms (Harbaugh, Mayr, & Burghart, 2007). “Donation makes people happy” is also corroborated in the physiological mechanism. In addition, Twenge et al. confirmed through seven experiments that social exclusion significantly reduces willingness to make charitable donations (Twenge et al., 2007). Therefore, getting the recognition and praise of others in society and improving personal influence are the most potentially valuable benefits and the most fundamental reason for the development of charitable behaviors. The cost of charitable donations mainly represents the economic cost. Several studies have pointed out that when the economic cost of donations decreases, the probability of donations increases greatly (Bekkers, 2005; Eckel & Grossman, 2004; Karlan & List, 2007). Some studies have indicated that increasing the requested amount of donations appropriately can increase the final fundraising performance (Doob & McLaughlin, 1989). In addition, other forms of costs include behavioral and psychological costs. As individuals perceive fewer obstacles they have a higher probability of being willing to donate (Smith & McSweeney, 2007). Studies have found that temperature, physical distance, and demographic distance (such as differences in nationality, race, social class, religious beliefs), psychological distance (such as conflict of value orientation), and other factors affect donation behaviors (Ein-Gar & Levontin, 2012; Jiobu & Knowles, 1974).

Generally, individuals’ decision-making processes of donation might be affected by multiple factors and links. This chapter mainly presents discussion of those factors related to the donors themselves. Many studies that have analyzed demographic characteristics have identified factors such as economic status, age, gender, education level, and religious beliefs as strongly explaining donation behavior (Burgoyne, Young, & Walker, 2005). However, personality psychologists have summarized a type of “pro-social personality” that is connected intricately with pro-social behavior (Bekkers, 2006). Among them, agreeableness and empathy have been shown to have a positive effect on donation behavior (Bekkers, 2006; Verhaert & Van den Poel, 2011). People with a high degree of cooperation give more charitable donations (Luccasen, 2012). Studies have also found that the frequency and

involvement of charitable donations of people with impulsive personalities are higher than those of others (Bennett, 2009). In addition, the social values held by donors, such as humanitarianism and egalitarianism, are factors that cannot be ignored in studying charitable donations. People with altruistic values (Bekkers & Schuyt, 2008), people with pro-social values (Van Lange, Bekkers, Schuyt, & Van Vugt, 2007), people with low levels of materialism (Sargeant, Ford, & West, 2000), people who devote attention to moral care (Wilhelm & Bekkers, 2010), people who care about social order and social justice (Todd & Lawson, 1999), and people who are responsible for charities and society as a whole (Schuyt et al., 2010; Weerts & Ronca, 2007) are more involved in donation activities. In addition, the way individuals view money affects their donation behavior: irrespective of the actual economic situation, people who hold a conservative attitude towards money and those who worry about their financial situation have fewer charitable donations (Wiepking & Breeze, 2012). Finally, donation behavior is also affected by the current state of donors. For example, individuals are more likely to make charitable donations when they feel guilty because donations can improve the individual's self-evaluation in terms of responsibility and alleviate feelings of guilt (Basil et al., 2006). Studies have also found that people's donation intentions will be affected by the needs of recipients (Bekkers & Wiepking, 2011; Cheung & Chan, 2000). It is important that charitable donations differ from voluntary acts or other helping behaviors because the recipients are often not on-site, i.e., lack of direct interaction and understanding between donors and recipients. Therefore, raising donors' awareness of recipients' needs requires the support of a third party. Based on this, researchers have speculated and confirmed that if fundraising agencies and mass media vigorously promote the needs of the recipients, they will increase the demand for donations by distributing introduction materials, displaying pictures of recipients, and playing thematic public service advertisements. Therefore, the level of awareness and the possibility of responding to fundraising will increase accordingly (Dolinski, Grzyb, Olejnik, Prusakowski, & Urban, 2005).

In addition to the factors described above, the organizational characteristics and donation process of charities might affect the decision-making of donations (Bennett & Gabriel, 2000; Brockner, Guzzi, Kane, Levine, & Shaplen, 1984; Callen, 1994; Van Diepen, Donkers, & Franses, 2009). Different social and cultural environments might also affect donation behavior (Böhm & Regner, 2013; Brown & Ferris, 2007; Wang & Graddy, 2008). In recent years, the concepts related to social capital have been used widely in research fields related to social economics. Some studies have indicated that social capital profoundly affects pro-social behavior. Therefore, the next chapter presents an explanation of related concepts of social capital, as well as the theoretical mechanism and existing results of its effect on pro-social behavior and donation behavior.

3. Social Capital and Donation Behavior

3.1 Conceptual framework of social capital

The formal concept of social capital can be traced back to Hanifan (1916). After Putnam's book "Making Democracy Work: Civic Traditions in Modern Italy" became popular in 1993, it gradually attracted the eyes of scholars in various research fields such as sociology, political science, economics, education, and culture. After the continuous development and expansion of related research in various disciplines, social capital has become a powerful and popular research fields in social sciences (DurLauf & Fafchamps, 2003; Nahapiet, J., & Ghoshal, S., 1998). Different scholars have defined the concept of social capital from various aspects such as network organization, values, norms of behavior, mutual trust, and cooperative actions. To clarify the concepts of social capital, we have reviewed different connotations given by different scholars since its inception. Here are some of the most influential definitions from Bourdieu, Sander, Coleman, Putnam, and the OECD (Table 1).

Actually, Paldam (2000) and Durlauf and Fafchamps (2003) report that the core of the concept of

Table 1. Concepts of Social Capital

Author	Concept
Pierre Bourdieu	...“the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition.”... (1983)
Thomas Sander	...“the collective value of all social networks (who people know), and the inclinations that arise from these networks to do things mutual (norms of reciprocity).”... (2015)
James Coleman	... “various entities with two elements in common: they all consist of some aspect of social structure. Then they facilitate certain actions of actors...within the structure”... (1988)
Robert D. Putnam	... “connections among individuals - social networks and the norms of reciprocity and trustworthiness that arise from them.”... (2000)
OECD	...“networks together with shared norms, values and understandings that facilitate co-operation within or among groups”... (2001)

social capital mainly includes three aspects: social networks, norms, and social trust. Durlauf and Fafchamps (2003) pointed out that social capital is based on the behavioral norms formed by the network process and the trust between people. Then they can contribute to good social and economic results. Some scholars have also reported that not all trust can bring satisfactory results. For example, Fukuyama (1995) pointed out that trust only between family and relatives and friends will not necessarily bring benefits to the entire society. Therefore, he holds that the trust of social capital should be generalized trust, not personal trust.

At present, two popular methods exist for classifying social capital: macro and micro perspectives. The macro-level mainly covers the content of social organization and institutional structure, such as laws and regulations, the level of decentralization, the political system, and the degree of democratic participation in the policymaking process (Krishna & Shrader, 1999). The micro-level mainly refers to those organizations and social networks that contribute to social development, as well as the values and behavioral norms that are hidden in these organizations and networks. From another perspective, social capital is divisible into cognitive social capital and structural social capital. The former includes some subjective and intangible factors, such as common acceptance attitudes, values (trust, solidarity, and reciprocity) and social norms (behavior and ideas), whereas the latter refers to the objective and specific organizations and networks, including the community's spontaneous organizations, institutions, and various clubs. In addition, other classification methods can be used. For example, Woolcock and Narayan (2000) divide social capital into bonding, bridging, and linking.

Because of huge differences among the definitions of social capital, measuring social capital uniformly and convincingly is difficult. Current research has indicated two main types of methods: The first method is to use the network, the number of associations, and the number of members of the associations in a given society (or community) to measure the level of social capital of the society or the community. The second method is to assess the level of trust among people in a given society (or community) and the extent to which they participate in the decision-making processes of pro-social behaviors. Many studies have used the level of social trust as a proxy variable to estimate the level of social capital.

3.2 Theoretical basis and related studies of social capital affecting donation behavior

According to the concepts and measurement indicators discussed in the preceding section, the researchers obtained many cross-sectional and time series data through various sampling surveys and experimental methods and conducted a quantitative test on the economic and social effect of social capital. As discussed in Chapter 2, pro-social behavior is a complex social behavior. Willingness to participate is driven not only by its own altruistic motives, but also by the local culture, social network, and other social environments. Therefore, discussion of the influencing factors of

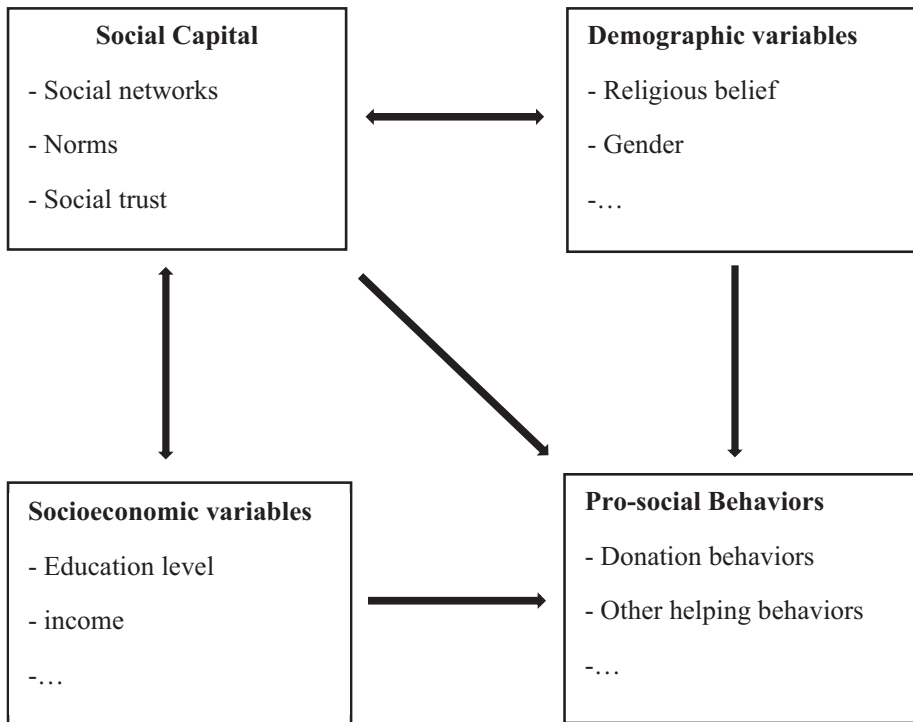
personal pro-social behavior participation cannot be limited to the individual level. It is also necessary to embed personal pro-social behavior into a specific social relationship network for consideration.

Putnam’s social capital theory (2000) embeds social capital into the social network of a region or even a country and provides an effective theoretical tool and explanatory paradigm for exploring the influencing factors of pro-social behavior participation in a specific social relationship. The theoretical model of the influence of social capital on personal pro-social behavior is shown below in Figure 2. This model represents an attempt to solve two main problems: first, will social capital affect pro-social behavior? If there is an effect, how does social capital affect pro-social behavior? Second, is the influence of social capital on individual donation behavior and voluntary behavior consistent? What are the differences?

According to Putnam’s classification of social capital, one can explore the theoretical relation between social capital and pro-social behavior according to the classification of social networks, norms, and social trust, and can summarize existing results obtained for the effects of social capital on pro-social behavior in earlier studies.

(1) Social networks: As individuals participate in more social networks, they have more opportunities

Figure 2. Theoretical Model of Social Capital and Pro-social Behaviors.



at which they are asked to donate, which engenders a higher expectation of engagement (Putnam, 2000). Horizontal citizen participation networks, such as neighborhood organizations, choirs, cooperatives, sports clubs, and mass political parties, are basic parts of social capital (Putnam, 2000). Horizontal participation in network expansion not only enables the internal personnel of the organization to establish objective connections; it also increases personal exposure to information about voluntary services and increases the possibility of being persuaded. At the same time, it establishes subjective emotional connections, strengthens the sense of belonging among members of the organization, and forms an ethical code of mutual understanding and recognition, all of which help to incorporate the needs of others into the consideration of personal charitable decisions. However, continuous and stable social interactions enable people to form effective social supervision through mutual observation, increase the potential costs of deception, thereby restricting opportunistic behavior, and foster mutually beneficial cooperative behavior. Adding various voluntary associations has been demonstrated to increase donations and voluntary activities. Participating in church groups has a similar effect, but merely attending church does not elicit beneficial effects (Jackson et al., 1995). In addition, residents of high-trust regions will provide more donations and volunteer services to charities than similar residents in less trustworthy regions (Glanville, Paxton, & Wang, 2015).

- (2) Norms of Generalized Reciprocity: Putnam pointed out that norms of generalized reciprocity are highly productive social capital. A community that follows this norm can restrain speculation and solve collective problems more effectively (2000). Reciprocity norms are not realized as assisted by strong institutional constraints, but are internalized by socialized civic education into social norms and therefore realize the unity of self-interest and solidarity. In the process of participating in the discussion and management of grassroots affairs, individuals cultivate mutual respect and the sense of public responsibility that benefits society, which is conducive to inducing reciprocal behaviors that promote public interests. Norms of generalized reciprocity more strongly influence voluntary donation than civil networks and generalized trust. In addition, because neighbors are in a stable social relationship network, the two parties are in a relationship of repeated games. Under the influence of the future discount rate, taking altruistic cooperation and mutual assistance behaviors and forming reciprocal norms can yield greater benefits, thereby strengthening the willingness of individuals to engage in charitable behaviors. Some reports of the literature have pointed out that the nature of norms and individuals' trust in others and institutions are mixed, which engenders the measurement of the norms of generalized reciprocity being inaccurate (Brown & Ferris, 2007).
- (3) Trust: Social trust is an optimistic expectation. By establishing optimistic expectations for the behavior of others, it imposes "soft" constraints on self-interested behavior. Generalized trust and institutional trust are the two decisive factors of donation decision and donation amount (Irwin,

2009; Glanville et al., 2016). Generalized trust will reduce the perception of risk in an anonymous scenario. When engaging in activities with high uncertainty, people should have higher levels of generalized trust in others. Therefore, generalized trust is an important motivation for people to donate to institutions that are difficult to supervise and control (Wiepking, 2010). Actually, associations with institutional trust vary by social welfare regimes (Hustinx et al., 2010). When people subjectively believe that an individual who makes a commitment to fulfill social responsibility is worthy of trust, they believe that the commitment is fulfilled, which reduces doubts about others' self-interested behavior while guiding their own altruistic behavior orientation, thereby prompting fulfill social obligations. People with an elevated level of trust in others are more likely to contribute actively and serve society and participate in civic affairs (Uslaner, 2002).

In summary, analyzing people's donation behavior from the perspective of social capital is a study of important theoretical and empirical importance. Research investigating the influence of social capital on pro-social behavior and donation behavior in Western countries has formed a complete system. In recent years, scholars have devoted more attention to the promotion of social capital on organ donation, blood donation, and other helping behaviors. In Asia, the research contents of studies in this field are still small. Discussion of social capital mainly specifically examines its role in economic development and organizational management. At present, countries worldwide are affected by the COVID-19 epidemic. It has therefore become more difficult to maintain economic development and social networks. Under such conditions, one must devote more attention to the related research of social capital, strengthen social trust construction, and explore how to guide people to help others, maintain social relationships, realize income redistribution, enhance individual social participation, and promote individual subjective well-being.

4. Prosocial Behavior and Subjective Well-being

4.1 Factors affecting people's subjective well-being

Happiness, or subjective well-being, is not only the ultimate goal pursued by humankind but also the eternal theme of human discussion. Since the time of ancient Greece, the fields of philosophy, ethics, psychology, biology, and economics have all assessed happiness from different angles and methods. Economics mainly examines how to maximize individual subjective well-being under the constraints of wealth. From the perspective of early economists, utility is actually the degree of satisfaction with the enjoyment of happiness. Economics mainly emphasizes the ability of commodities to give consumers a feeling of happiness, i.e., "utility" (Mill, 1863); this utility is measurable. Later, Pareto (1896) replaced "happiness experience" with "preferences". Utility only became a function that showed the order of people's behavior preferences. Since then, economists no

longer delve into the nature of human desires but instead specifically examine the “objective counterpart” that measures subjective satisfaction: national income.

Easterlin, a well-known economist, reported in 1974 that no correlation can be found between income and subjective well-being in different countries. The difference in happiness between poor and rich countries might not be readily apparent. This difference warns orthodox economists who are immersed in wealth research: Excessive emphasis on material consumption, income, and economic growth will only compel human beings deviate from their ultimate goal of happiness in the pursuit of happiness. The role of income or wealth in enhancing human well-being is much less than theoretically expected. Other factors also affect the improvement of subjective well-being to a certain extent. In this section, we sort out the influential factors related to subjective well-being from the aspects of the economic, demographic sociological characteristics, institutional policies, and other broad environments.

- (1) Economic factors: Income is the earliest factor that economists treat as a variable that affects subjective well-being. Based on Easterlin’s famous “happiness paradox” in 1974, economists discussed its causes and policy implications. Research has revealed that the marginal happiness utility of income exhibits a diminishing trend. Before people’s basic life needs are met, the increase in absolute income will indeed bring about an increase in subjective well-being (Oreopoulos, 2007). However, the marginal happiness utility of income shows a declining trend. When the absolute income reaches and exceeds a certain level, subjective well-being will no longer increase with income growth, resulting in a “happiness paradox” (Easterlin, 2003). If one’s own income increases to the same degree as the income of others, the individual relative income status has not changed. In such a case, personal subjective well-being increases only slightly (Luttmer, 2005). The increase in subjective well-being of a small number of rich people because of their high income is lower than the loss of subjective well-being of most poor people due to their low relative income (Carbonell, 2005). Therefore, income redistribution can be expected to increase the overall level of happiness of the whole society. In addition, among all the influential factors of subjective well-being, unemployment has the largest negative effect on individuals, even exceeding factors such as divorce and separation (Clark et al., 1994). The negative effect of unemployment on happiness far exceeds that of inflation (Di Tella et al., 2001, 2003). Therefore, when formulating related policies, governments must consider negative effects of unemployment and inflation on residents’ subjective well-being.
- (2) Demographic sociological characteristics: People have different demographic sociological characteristics such as gender, age, race, education level, health status, marital status, religious beliefs, time allocation, social trust, and the relationships among relatives and friends, their subjective well-being shows big differences. First, the relation between health and happiness is two-way. Good physical and mental health can help improve people’s subjective well-being. Conversely,

subjective well-being will exert important effects on health. Studies have shown that people's subjective well-being after disability can generally return to about 30-50% of their healthy well-being (Oswald, 2007). In addition, high-quality relationships can help improve happiness. Studies have revealed that people with stable marriages have a higher level of subjective well-being. Irrespective of gender, their happiness will be reduced in turn because of their married, unmarried cohabitation (Frey et al., 2000), divorced or widowed, or separated status (Helliwell, 2003). However, only when the family income increases with the number of children does the life satisfaction of parents increase (Lelkes, 2006). However, results reported by Demir (2010) indicate that the influence of friends on subjective well-being is not as important as people usually think. In addition, different individual characteristics can make a difference in the degree of happiness. Studies have revealed that age and subjective well-being are roughly U-shaped (Carbonell et al., 2010). Religious beliefs can help improve people's life satisfaction (Helliwell, 2003). No consistent conclusion about differences in subjective well-being between gender and education to date. Because differences in individual intelligence, motivation of education, and family background are expected to affect the quality of education, differences in education quality will make the effect of education on happiness present individually differences.

- (3) Other factors: Residents living under constitutional democracy have a higher level of subjective well-being because politicians are more motivated to govern society according to residents' interests (Dolan et al., 2008). Government expenditures provide residents with public services such as education, environmental protection, health care, and safety. Therefore, residents will reduce their prudent savings and convert future consumption into current consumption, which can be expected to enhance their subjective well-being. Increased government spending on social security (Veenhoven, 2000), unemployment (Di Tella, 2003), health care (Kotakorpi et al., 2010), public safety (Wassmer, 2009), and education (Hessami, 2010) can greatly improve residents' happiness level. Furthermore, studies of air pollution (Welsch, 2002), water pollution (Van Praag et al., 2010), and noise pollution (Praag et al., 2005) all indicate that environmental pollution can reduce residents' subjective well-being significantly. Urban residents have lower happiness than rural residents. Residents of larger cities have lower subjective well-being (Hayo, 2004).

4.2 Theoretical mechanism and related studies of the influence of pro-social behavior on subjective well-being

Pro-social behavior refers to all behaviors that meet social expectations and which are beneficial to others, groups, and society. Good interpersonal relationships are an important dimension of subjective well-being (Diener et al., 2010). Therefore, pro-social behaviors meet people's needs for finding meaning in life and obtaining an abundance of life. This section presents the current mainstream theoretical mechanism of the pro-social behaviors affecting subjective well-being and

summarizes earlier related research results.

- (1) Self-determination theory: Humans must meet three basic psychological needs: autonomy, competence, and relatedness (Ryan & Deci, 2000). The satisfaction of these psychological needs can be expected to bring many positive effects such as better job performance (Vansteenkiste et al., 2007), higher athletic performance (Adie et al., 2012), and better physical health and higher happiness (Chen et al., 2014). Pro-social expenditure is an effective means of meeting these three basic psychological needs (Ryan & Deci, 2015). Pro-social spending can increase happiness by satisfying individual relationship needs. For example, Yamaguchi et al. (2016) reported that pro-social expenditures have a positive effect on individuals' social relationships, thereby allowing them to feel a higher level of subjective well-being, especially when they feel that the recipient is indeed helped, their level of subjective well-being will be higher (Lok & Dunn, 2020). This relationship will also be regulated by the objects of pro-social expenditure. The closer the recipient is to the donor, the greater the positive effect (Aknin et al., 2011). In fact, when people realize how their pro-social behavior affects others, it is easier to achieve happiness from helping others (Aknin et al., 2013). In addition, when the individual's initial sense of well-being is high, pro-social behaviors can maintain their sense of well-being by enhancing their sense of ability (Hui & Kogan, 2018). This finding indicates that pro-social behavior can indeed positively affect individual subjective well-being through the sense of satisfaction. In addition, several reports have described that autonomously motivated pro-social behaviors can increase demand satisfaction, thereby enhancing individual subjective well-being (Kindap-Tepe & Aktaş, 2019; Lok & Dunn, 2020). In contrast, being forced to participate in pro-social activities might be counterproductive and might therefore exert a negative effect (van Schie et al., 2015).
- (2) Social norm theory: Human beings have a strong desire to follow social norms and to imitate the behaviors of others (Bernheim, 1994). In a group, abiding by social norms is a way to gain recognition from others and society that makes individuals maintain a positive self-concept and generate an elevated level of subjective well-being (Batson & Powell, 2003; Morris et al., 2015). In contrast, individuals whose behavior does not conform to social norms have higher negative emotions and lower levels of happiness (Stavrova et al., 2012; Stutzer & Lalive, 2004). Social norms are generally divided into descriptive norms and imperative norms. Descriptive norms refer to the individual's perception of people's true behavior in a specific social situation, whereas imperative norms are the sums of behaviors which individuals perceive or oppose by others (Zhang et al., 2018). Individuals can make pro-social behaviors under both social norms. The amount of individual pro-social expenditures under descriptive norms is significantly greater than that of individuals under imperative norms (Agerström et al., 2016). Norms allow individuals to behave in line with the group, satisfy the individual's need for a sense of belonging, and reduce negative emotions. In addition, the universality of the influence of social norms on pro-social

expenditures has also been tested. Cross-cultural research in twenty-three countries found that when living in a country where pro-social norms are high, individuals who perform pro-social behaviors have higher life satisfaction (Oarga et al., 2015). This higher satisfaction indicates that, under pro-social norms, pro-social expenditures help individuals form a pro-social image and obtain social recognition, thereby generating a sense of happiness.

- (3) Evolutionary theory: From the perspective of evolution, the human mental mechanism can be understood as a set of adaptive decision rules (Kenrick et al., 2003). Pro-social expenditures must pay their associated costs. Individuals must receive certain rewards to participate in such activities, whereas emotional rewards are a potential mechanism that encourages people to participate in expensive pro-social behaviors (Dunn et al., 2020). The reason people are willing to make pro-social expenditures might be that it pays material costs but brings psychological happiness. One view is that the evolution of pro-social behavior is the result of kin selection. Many reports have described that humans are more inclined to help related people than unrelated people (Barrett et al., 2002). This kind of behavior is in line with the Inclusive Fitness Theory in the theory of evolution, which is more conducive to group survival. Therefore, if people provide pro-social spending on close people, they can achieve higher happiness (Rinner, 2019). Another view is that pro-social behavior is a reciprocal altruistic model in the evolution of non-relatives. Although pro-social expenditure entails material costs, it gives a return to others; although self-interest has direct material benefits, the cost might be higher (Crocker et al., 2017). People are more willing to make pro-social behaviors toward those who help them (Boster et al., 2001). Pro-social behaviors can leave a good impression on observers and can improve a person's status and reputation among community members (van Vugt et al., 2007; Wedekind & Braithwaite, 2002). Therefore, pro-social expenditures have evolved in the process of mutual help. Even if individuals spend money on strangers, they can also improve their subjective well-being. Pro-social tendencies are passed on between generations. Their physiological or neural processes are the basis for promoting pro-social behavior (Penner et al., 2005). Studies have indicated that pro-social tendencies are related to the rapid growth of the prefrontal cortex. The prefrontal cortex size matches the ability and willingness to accept pro-social behavior (Dunbar & Shultz, 2007). Therefore, in the history of human evolution, pro-social behaviors might have a short-term cost, but long-term benefits are also earned.
- (4) Social exchange theory: Social exchange refers to the exchange between two or more people in tangible or intangible, rewarding or expensive activities (Homans, 1961). Social exchanges of six main types are conducted by people: money, status, love, information, and goods and services (Schilke et al., 2015). Social exchange theory holds that human behavior is dominated by exchange activities that can bring rewards. All human social activities can be attributed to a type of exchange. The relationships that people form in social exchange are also exchange

relationships (Cao et al., 2015). Social exchange is first stimulated by social capital. Social capital not only promotes the development of social relations; it also restricts the development and results of social relations, such as power and fair distribution in the social process (Coleman, 1994; Wasko & Faraj, 2005). The core principle is that no matter what resources are exchanged, they must follow the principle of reciprocity, which enables the exchange of resources of equal value between the two parties so that the interests of both parties can be satisfied and reach relative fairness (Blau, 1964; Cropanzano & Mitchell, 2005). When the individual's payment and received benefit are in a balanced state, the individual will perceive the fairness of the exchange and experience a higher degree of satisfaction. When the invested resources and the return obtained are out of balance, the individual might be aware of the inequality of exchange, reduce their satisfaction, which has an adverse effect on the individual's pro-social decisions (Dainton, 2003). However, the cost-benefit analysis in social exchange theory is a subjective process (Blau, 1964; Homans, 1961), which is an analysis based on the individual's own values (Hamon & Bull, 2016). Even if the recipient does not give material returns to the donor, the donor can gain happiness immediately after pro-social expenditures (Curry et al., 2018; Martela & Ryan, 2016). Subjective well-being itself is an intangible return of pro-social behaviors. Therefore, pro-social behavior elicits happiness by sacrificing material resources and achieves the principle of reciprocity of exchange by exchanging tangible resources for intangible resources.

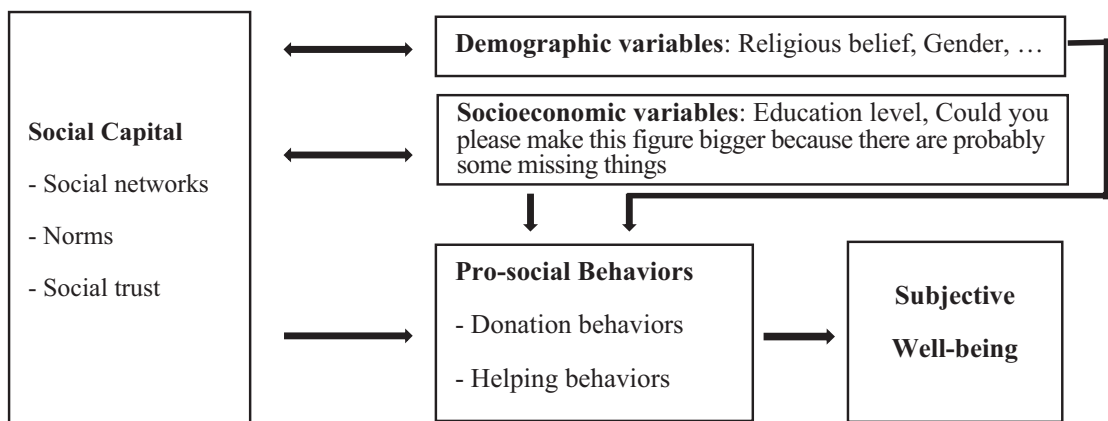
In summary, researchers in sociology, psychology, biology, and economics have applied the theories of their respective disciplines to explore effects of pro-social behavior on subjective well-being and confirmed the positive effect from different perspectives. In current research on related topics, most data are derived from psychological or sociological experiments, the sample size is small, and the source of experimental samples can readily engender selection bias. The existing empirical data support related to pro-social behavior in various countries is rare, especially in Asian countries. Empirical discussions of this topic remain insufficient. In addition, existing studies have mostly emphasized the study of pro-social expenditures on strangers, i.e., the effects of charitable donations on the subjective well-being of donors. No comparative discussions have been found of recipients of different relationships with donors. Differences among recipients also affect helping behavior (Aknin, Dunn, & Norton, 2012). Therefore, future research on this subject should specifically examine establishing the panel database with large sample sizes that are tracked continuously and which include diverse types of recipients. In addition, considering that the world is currently affected by COVID-19, the social environment and interpersonal relationships have undergone major changes because of such force majeure. Considering the changes in people's behavior and psychology and studying how the changes affect subjective well-being under exceptional circumstances and set comparative analysis of different countries and societies are necessary.

5. Conclusion and Discussion

Overall, the role and relations of social capital, pro-social behavior, and subjective well-being have been clarified through the analyses described in earlier chapters. Therefore, we can add subjective well-being to our theoretical model in section 3.2. Additional aspects of the theoretical framework are presented in Figure 3 below.

According to earlier results of social capital research, it has more than a functional principle. Social capital affects economic development, technological innovation, job hunting, status through social relationship networks, the results of acquisition, the flow of migrant workers, the improvement of human capital, and good governance in politics. When studying the theory of social capital, current work in academic circles specifically examines the attention to the results caused by social capital. Such emphasis is mostly placed on the economic function of social capital, but not much attention is devoted to the social development function, social stability function, and social support function of it. This review has introduced the concept of social capital into the system of pro-social behavior and subjective well-being. It has presented theoretical confirmation of the role and the function of social capital on social development. Many empirical analyses indicate that social capital has potential for economic and social performance. These effects include reduced crime rates, improved health, income redistribution promotion, economic growth promotion, and improved social democracy. Future directions of inquiry for research should be more oriented to the framework of social capital. It is necessary to study how people use social organizations and networks as carriers for spontaneous establishment or participation in certain social organizations, building social relations with relatives, friends, colleagues, and others. It can be expected to form a certain community-wide social structure and network, so that letting people have common values, norms of behavior, or stable expectations of

Figure 3. Theoretical Model of Social Capital, Pro-social Behaviors, and Subjective Well-being.



each other's behavior, which reflects the function of social development and stability of social capital. However, regarding the measurement indicators and survey statistics of social capital, although people have constructed numerous indicators to measure the levels of social capital, different definitions of the connotations of social capital still hinder the intensive investigations of researchers in different fields.

Influences of pro-social behavior and pro-social expenditure on subjective well-being have been clarified. The mechanism of action between pro-social expenditure and subjective well-being has received much empirical support (Hui & Kogan, 2018; Martela & Ryan, 2016). The social life of humankind is interdependent. The prosperity of humankind depends mainly on the creation, maintenance, and strengthening of social connections. Egoistic motives destroy mutual support relationships shared with others, whereas altruistic motives establish mutual support relationships with others (Crocker et al., 2017). Scholars have used different theoretical perspectives to explain the relation between pro-social behavior and subjective well-being, including self-determination theory, social norm theory, evolution theory, and social exchange theory, which has deepened people's understanding of this field.

Nevertheless, not all pro-social behaviors can be expected to bring about the same effects: they might be affected by some external factors and individual internal factors. Although scholars have gradually devoted attention to the study of the relation between pro-social behavior and expenditure with subjective well-being, most current research fields specifically examine whether pro-social behavior can affect individual happiness. Some difficulties in this field remain to be resolved, such as the objectives of pro-social behavior. For example, will factors such as the objectives and goals of pro-social behavior affect the subjective well-being of donors? The match between people's nature and activities that they prefer is a key factor affecting improvement of subjective well-being on pro-social behaviors. Currently, research efforts continue to emphasize the direct effects of pro-social expenditure on subjective well-being, ignoring the important role played by the match between individual personality characteristics and specific activities. Although some studies have explored this preliminary discussion (Lai et al., 2020), there are currently few studies of this aspect. Therefore, in future investigations, researchers must consider the matching degree of different personalities and pro-social expenditures comprehensively. In doing so, they can be expected to explore the most suitable pro-social expenditure methods for people of different personalities and to provide personalized suggestions for individuals on how to improve their subjective well-being through different forms of pro-social expenditures.

Finally, from the perspective of broad reciprocity, dynamic investigation of pro-social behavior participants can not only help to improve the subjective well-being of the parties; it can also help to elucidate mechanisms of widespread transmission of pro-social behavior. Especially in our current global environment, which has been affected by the COVID-19 epidemic, exploring the transmission

mechanisms and modes of influence of pro-social behavior is expected to be of positive importance for rebuilding social trust and for stabilizing the social environment.

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