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Understanding adolescents' perceived social responsibility: the role of family cohesion, interdependent self-construal, and social trust

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Understanding Adolescents' Perceived Social Responsibility: The Role of Family Cohesion, Interdependent Self-construal, and Social Trust

Abstract

Introduction

The present study tested the mediating mechanisms between family cohesion and adolescents' social responsibility via adolescents' interdependent self-construal and social trust.

Methods

A total of 386 Chinese children in Hong Kong (52.1% girls) and their parents completed self-report questionnaires twice 12 months apart.

Results

Findings based on structural equation modeling revealed that family cohesion was positively associated with interdependent self-construal and social trust. In addition, adolescents' interdependent self-construal and social trust were positively associated with social responsibility. Bootstrapping analysis showed that interdependent self-construal was a mediator between family cohesion and social responsibility.

Conclusion

Based on these findings, the study added new evidence to the literature by demonstrating the relations between family cohesion, interdependent self-construal, social trust, and social responsibility. The findings also provided a direction for promoting social responsibility in the Chinese context.

Understanding Adolescents' Perceived Social Responsibility: The Role of Family Cohesion, Interdependent Self-construal, and Social Trust

Social responsibility refers to individuals' concern for other people in the society that extends beyond self-interest (Gallay, 2006). Researchers over the years have examined possible correlates of adolescents' social responsibility from a socioecological perspective (Lenzi, Vieno, Santinello, Nation, & Voight , 2014; Wray-Lake, Syvertsen, & Flanagan, 2016; Wray-Lake & Syvertsen, 2011). According to Bronfenbrenner's socioecological theory (Bronfenbrenner, 1979), the family provides an immediate environment for civic development among youths (Mahatmya, 2011; Wilkenfeld, 2009). Importantly, some studies indicated that family processes, such as family cohesion, serve as important agents for children's development of social responsibility (e.g., Bronfenbrenner, 1979; Such & Walker, 2004).

Positive family interactions, such as family cohesion, can cultivate adolescents' social responsibility (Wray-Lake et al., 2016). Family cohesion refers to the degree of concern, commitment, and support among family members (Lanz & Maino, 2014; Moos & Moos, 1994). Previous research showed that family cohesion was correlated with adolescents' development of prosocial behavior (Hur, Taylor, Jeong, Park, & Haberstick, 2017). Accordingly, family cohesion facilitated adolescents' development of familial and moral responsibility in response to others' needs, thereby cultivating their sense of social responsibility. Relatedly, greater parent-adolescent closeness also predicted a higher level of adolescents' responsibility towards the community (Lenzi et al., 2014). When Latino youth reported a high level of familism, i.e., an orientation toward family's welfare (Gaines et al., 1997) with strong family identification and attachment (Mendez-Luck, Applewhite, Lara, & Toyokawa, 2016), they also experienced greater family bonding as well as social responsibility (Castro et al., 2007). Adolescents' familism was

also related to more perspective taking, which further predicted prosocial tendencies (Knight, Carlo, Basilio, & Jacobson, 2015). As such, family processes including parent-adolescent relationship closeness, familism, and family cohesion play a positive role in adolescents' prosocial development and behaviors – a behavioral expression of social responsibility (Silke, Brady, Boylan, & Dolan, 2018). Nevertheless, there exist inconsistent findings in the literature. One study failed to show a relation between family cohesion and college students' global social responsibility (Gordon, 2003). Another study also revealed that familism was negatively correlated with civic engagement (Realo, Allik, & Greenfield, 2008). Interestingly, Pavlova and colleagues (2016) found that family warmth and support negatively predicted civic engagement in Finland, such as lower political activism and less volunteering. Given the inconsistent findings, further research is needed to clarify the mechanisms and strength of associations between family cohesion and social responsibility.

The Role of Interdependent self-construal

According to Markus and Kitayama (1991), individuals with higher interdependent self-construal define themselves in light of the social context and place a greater value on harmonious social relationships than personal goals (see also Singelis, 1994). Consistent with Bronfenbrenner's socioecological theory (1979), family socialization processes, such as family cohesion, may foster and shape adolescents' cultural values, thereby affecting how adolescents perceive themselves in relation to the social context (Trommsdroff, 2006). For example, M. Friedlmeier and W. Friedlmeier (2012) found that adolescent girls' perceived warmth and support from parents predicted interdependent self-construal. Based on a Hispanic college student sample, Schwartz (2007) found that familism was positively correlated with interdependent self-construal. Likewise, family cohesion was also associated with Vietnamese-

American adolescents' interdependent self-construal (Lam, 2006). Ochs and Izquierdo (2009) further postulated that socialization in the family could promote children's sense of interdependence, and such interdependence is one of the possible pathways to promote their development of responsibility. In short, previous studies supported that positive family relationship, such as family cohesion, is a socialization process contributing to interdependent self-construal.

According to self-determination theory (Ryan & Deci, 2000), relatedness is a fundamental psychological need that was found to promote prosocial behavior (Pavey, Greitemeyer, & Sparks, 2011). As prosocial value is relational (Yoo, Feng, & Day, 2013) and social responsibility depends on one's concern about others, social relationships place an important foundation for adolescents' development of social responsibility. In a similar vein, adolescents' sense of interdependence with others may also influence their values in social responsibility (Markus & Kitayama, 1991). In a recent study, interdependent self-construal was correlated with more prosocial choice, i.e., a social value orientation (Yaban & Sayıl, 2019). As a component of collectivistic orientation, interdependent self-construal was also associated with high school students' acceptance of civic obligations and civic participation (Bos, Williamson, Sullivan, Gonzales, & Avery, 2007). Furthermore, interdependent self-construal was positively associated with college students' social responsibility in the forms of environmental protection (Arnocky, Stroink, & DeCicco, 2007) and volunteering (Seo & Scammon, 2014). These findings collectively highlighted the potential importance of family processes in adolescents' interdependent self-construal (e.g., their perception of connectedness to the society), which may be further linked to their social responsibility.

The Role of Social Trust

Social trust refers to people's beliefs in whether their treatment in the society is fair (e.g., people treating each other equally without stereotype) and trustworthy (people treat us the same way as we wish them to be) (Wray-Lake & Flanagan, 2012). Social trust as a value could be derived from social interaction. For instance, people invest time and effort in maintaining positive social relationships and creating social networks (Woolcock, 2001). The reciprocal and cooperative interactions in the social network further generate trust (Fukuyama, 1996). Woolcock (2001) described trust as a consequence of social capital, which refers to the resources existing in personal networks, such as family relationships and community organization (Field, 2003). For adolescents, family is the core of their social capital (Pinkerton & Dolan, 2007). Previous research suggested that greater family cohesion was related to more social trust among Chinese youths (Wang & Li, 2012). Apart from family cohesion, other family processes were also related to social trust. For example, messages of family compassion and democratic parenting positively predicted social trust among American adolescents (Wray-Lake & Flanagan, 2012). These findings suggested that positive family dynamics were important components of adolescents' social capital associated with social trust.

Social trust lays the foundation for the development of social responsibility (Flanagan, 2003). Notably, previous research suggested that civic engagement and social trust were bidirectionally related (Brehm & Rahn, 1997). In an experimental study involving a social dilemma, college students' social trust predicted prosocial behaviors, i.e., a behavioral expression of social responsibility (DeCremer & Stouten, 2002). Akin to how interdependent self-construal is linked to social responsibility by forgoing self-interest, social trust may promote one's willingness to share scarce resources with other parties of the society. In sum, the above findings suggested that social trust, as fostered by family dynamics, was associated with social

responsibility. These findings may be particularly relevant to the Chinese collectivistic context.

Family Cohesion, Social Trust and Social Responsibility in the Chinese Context

The Chinese culture emphasizes family values such as family harmony and integrity (Li, Lam, & Fu, 2000). In a cross-national study that examined family cohesiveness as a component of collectivism, it was found that individuals from Mainland China, Taiwan, and Hong Kong reported higher family cohesiveness than those from other Western societies (House et al., 1999). Consistent with Confucius values rooted in the Chinese culture, which encourage people to maintain cooperation and harmony in the family (Nisbett, 2003), empirical findings revealed the notion that people from diverse Chinese contexts highly value family cohesion (Meredith, Abbott, Tsai, & Zheng, 1994). In a similar vein, interdependent self-construal is prominent in the Chinese context. Of note, a cross-national study showed that individuals from Mainland China were more interdependent than were those from Canada (Han, Zhang, Bhatt, & Yum, 2006). In addition, close relationships in social networks and loyalty towards organizations or institutions are often emphasized in collectivistic contexts (Hofstede, 1980).

The link between social trust and social responsibility is also highly relevant to cultural contexts that value interdependence and collectivism. For example, social trust was found to predict prosocial behaviors in Japan (Taniguchi & Marshall, 2014). More social trust was also found to predict less cynicism about community engagement among Chinese adults in Hong Kong (Chiu, 2005). These findings suggested that social trust, which is emphasized in collectivistic contexts such as Hong Kong and Japan, had a significant role in civic engagement and prosocial behaviors.

The Present Study

Extending extant findings in the literature, in this study we sought to examine mediating variables linking family cohesion and adolescents' social responsibility. Specifically, we hypothesized that interdependent self-construal and social trust would mediate between family cohesion and social responsibility over time. In our study, family cohesion variable was measured by mother, father, and adolescent reports to provide a comprehensive representation of the family environment. To rule out potential biases and covariates, we tested the associations over and above the effect of gender, age, and baseline social responsibility among Chinese adolescents in Hong Kong.

Method

Participants

The present study was part of a larger project aiming to examine family processes and and adolescents' outcomes (see also Cheung et al., 2020). Prior to data collection, we conducted power analysis for conducting the hypothesized structural equation model. Based on Browne and Cudeck's (1993) and MacCallum et al.'s (2006) recommendations, we set alpha = .05, df = 13, desired power = .8, null RMSEA = .09, and alternative RMSEA = .05. Power analysis suggested that the minimum sample size required was approximately 382. Therefore, we recruited a sample of 386 adolescents to achieve a power of .8. Participants were Chinese families involving 386 children (185 boys, 201 girls), aged from 12 to 17 (M = 13.64, SD = 1.31). Mothers, fathers, and adolescents were recruited through school invitations and mass mailing. The median household income per month was HK$20001–$30000 (approximately US$2564.23–3846.15), which was similar to those obtained from Census data in Hong Kong (Census and Statistics Department, 2017a, 2017b, 2018). A majority of mothers and fathers had completed high school education (55.18% and 55.70%, respectively). The average household size was 3.94 (SD = 1.07). Twelve

months after completion of time 1 (T1) questionnaires, participating families were invited to complete a second packet of questionnaire at time 2 (T2). The retention rate was 85.49%, i.e., 330 families who participated in T1 also participated in T2. Retained and dropped-out participants did not differ in all study variables (*p*s > .05) except for father-reported cohesion, $t(300) = -2.18$, $p < .05$, $M_{retained} = 2.88$, $SD = .40$; $M_{dropped\text{-}out} = 2.72$, $SD = .43$, and adolescent gender, $t(384) = -3.61$, $p < .001$, with more boys than girls who dropped out at T2 ($n_{boys} = 38$; $n_{girls} = 16$).

Measures

Family cohesion

Mothers, fathers and adolescents reported their perceived family cohesion using the Family Environment Scale (FES; Moos & Moos, 1994). There were a total of nine subscale items describing the quality of relationships relating to family cohesion, rated on a 4-point Likert scale from 1 (*very incorrect*) to 4 (*very correct*). Higher averaged scores indicated higher levels of family cohesiveness. The Cronbach's alphas of the scale from fathers', mothers' and adolescents' report in our study were .62, .53, and .65 at T1 respectively. We have identified that XX items had lower inter-item correlation (e.g., "We rarely volunteer when something has to be done at home" and "There is very little group spirit in our family" for the mothers' report). When we deleted the items, the findings remain highly similar. Therefore, we have decided not to delete any items for the sake of wholeness of the scale and a standard measure of mother, father, and adolescent report.

Interdependent self-construal

Interdependent self-construal of the adolescents was measured by the Self-construal Scale (SCS; Singelis, 1994). The 15-item interdependent subscale was rated on a 7-point Likert scale

from 1 (*strongly disagree*) to 7 (*strongly agree*) and higher averaged scores indicated greater interdependent self-construal. The sample items included, “I will sacrifice my self-interest for the benefit of the group I am in”, “I feel my fate is intertwined with the fate of those around me”, “I feel good when I cooperate with others”, “I often have the feeling that my relationships with others are more important than my own accomplishments”, “My happiness depends on the happiness of those around me”, “I will stay in a group if they need me, even when I am not happy with the group” and “it is important for me to maintain harmony within my group”. The Cronbach’s alpha of the scale with our sample was .88 at T2.

Social trust

Social trust of the adolescents was measured by the 3-item Social Trust Measure (STM; Uslaner, 2002) and rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The items included: “Most people can be trusted”, “Most people are fair and don’t take advantage of you” and “Most people just look out for themselves rather than try to help others.” Higher averaged scores indicated higher level of social trust. The Cronbach’s alpha of the scale in our study was .51 at T2.

Social responsibility

Social responsibility of the adolescents was assessed by the Social Responsibility Scale (SRS; Flanagan, 2005). Adolescents rated the importance of the statement relating to social responsibility in a 7-item scale and rated on a 5-point Likert scale ranging from 1 (*not at all important*) to 5 (*very important*). The sample items included: “To help those who are less fortunate”, “To help others improve their lives”, “To donate time or money to charity” and “To participate in social or political movements.” Higher averaged scores indicated greater social responsibility. The Cronbach’s alpha of the scale with our sample was .91 at T1 and .93 at T2.

Data Analysis

Correlations, means, standard deviations, and the structural equation model were conducted via MPLUS, Version 8 (Muthén & Muthén, 2017). Specifically, structural equation modeling was used to investigate the mediating effect of adolescents' interdependent self-construal and social trust between family cohesion and adolescents' social responsibility over and above the effect of gender, age, and social responsibility at baseline (i.e., T1). otherGiven that we have mother-, father-, and adolescent-report of family cohesion, we created a latent construct to more objectively measure family cohesion. All other variables were maintained as manifest variables due to the small sample size of this study. Maximum likelihood method was used to examine the model fit to observed matrices of variance and covariance. To handle missing data, full information maximum likelihood estimation was used. The mediation effects were further investigated by bootstrapping, as previous research indicated that bootstrapping yields more accurate estimates of the indirect effect standard errors than do other approaches (Shrout & Bolger, 2002).

Results

Table 1 shows the correlations, means, and standard deviations of the variables in the structural equation model. The structural equation model fit adequately to the data, $\chi^2(13) = 24.42$, $p < .05$, CFI = .96, RMSEA = .05, SRMR = .04 (see Figure 1 and Table 2 for details). In the measurement model, the latent variable of family cohesion was significantly linked to manifest variables involving child-, mother-, and father-reports, ps < .001, respectively. In the structural model, T1 family cohesion was positively associated with T2 adolescents' interdependent self-construal ($\beta = .46$, $p < .001$) and social trust ($\beta = .19$, $p < .05$). T2 adolescents' interdependent self-construal and social trust were, in turn, related to T2 social

responsibility (β = .27 and .23, respectively, *p*s < .001), over and above the effect of T1 social responsibility (β = .46, *p* < .001). Adolescents' age was inversely associated with T2 social trust (β = -.15, *p* < .05) and positively associated with T2 social responsibility (β = .11, *p* < .05), but not with other variables (*p*s > .05). Adolescents' gender was not related to all variables under study (*p*s > .05).

The indirect effects from T1 family cohesion to T2 adolescents' social responsibility via interdependent self-construal and social trust were significant (β = .12, *p* < .01 and β = .04, *p* = .05, respectively). Based on 1000 bootstrap samples with replacement, the 95% confidence interval (CI) indicated that the standardized indirect effect between family cohesion and adolescents' social responsibility via interdependent self-construal did not include a zero [CI: (.05, .29)], thereby suggesting interdependent self-construal as a mediator. However, the standardized indirect effect via social trust did include a zero [CI: (-.002, .11)], suggesting social trust was not a mediator.

Supplementary Analyses

To test the possible alternative direction of effects, we analyzed the direction of T1 social responsibility predicting T2 family cohesion via T2 interdependent self-construal and T2 social trust. The model fit of this alternative direction of effects was poor with $\chi^2(27) = 59.53$, $p < .001$, CFI = .90, TLI = .80, RMSEA = .06, SRMR = .05. On the other hand, we also analyzed the direction of T2 interdependent self-construal in predicting T2 social responsibility via T2 family cohesion. The model fit of this alternative direction of effects was poor with $\chi2(15) = 36.97$, $p < .05$, CFI = .91, TLI = .82, RMSEA = .07, SRMR = .06. Unfortunately, given that we did not collect data for xx and xx at T1, we were only able to conduct the analyses cross-sectionally. As Based on these findings, we concluded that these alternative directions of effects

were ruled out.

Discussion

This study examined adolescents' interdependent self-construal and social trust as mediating mechanisms between family cohesion and social responsibility. Supporting existing findings in the literature (Arnocky et al., 2007; Castro et al., 2007; Lenzi et al., 2014; Yaban & Sayıl, 2019), our data suggested that interdependent self-construal was, indeed, a mediator over and above the effect of gender, age, and social responsibility at baseline. Although social trust was related to both family cohesion and social responsibility, it did not emerge as a mediator in the bootstrapping analysis. Altogether, this study contributed to the socioecological framework (Bronfenbrenner, 1979) by identifying nuanced contextual and psychological mechanisms. It also advanced our understanding about adolescents' social responsibility in the Chinese context.

In this study, interdependent self-construal emerged as a perception of how adolescents perceived themselves in relation to the social context that contributing to development of social responsibility. As addressed in the introduction, self-construal can be developed through social interactions under specific cultural and family contexts (Magno, Profugo, & Mendoza, 2009; Markus & Kitayama, 1991). Supporting the literature that shows a positive association between family cohesion and interdependent self-construal (Lam, 2006; Park, Kim, Cheung, & Kim, 2010), we found that family cohesion was associated with interdependent self-construal over time, thereby substantiating the socioecological assertion that family plays an important role in adolescents' development of cultural values.

Consistent with previous research showing that interdependent self-construal was related to prosocial choices, civic engagement, and social responsibility in environmental protection (Arnocky et al., 2007; Bos et al., 2007; Yaban & Sayıl, 2019), we found that interdependent self-

construal predicted adolescents' perceived social responsibility in prosocial orientation and civic engagement. This finding showed that people's greater orientation towards others was linked to their responsibility towards the society. The finding is particularly relevant to collectivistic contexts, such as Hong Kong, which emphasize harmonious relationships and collective wellbeing (Paz, Neto, & Mullet, 2008; Singelis, 1994). Furthermore, our novel finding of interdependent self-construal as mediator between family cohesion and social responsibility revealed a pathway through which family cohesion fostered social responsibility in the Chinese context.

This study corroborates previous research (DeCremer & Stouten, 2002; Taniguchi & Marshall, 2014; Wang & Li, 2012; Wray-Lake & Flanagan, 2012) and shows that social trust was related to both family cohesion and social responsibility, thereby supporting social capital theory for family cohesion as a capital that promotes positive youth development (Laser & Leibowitz, 2009). At the same time, our findings contradicted a previous study that showed family cohesion negatively predicted youth's civic engagement and had no effects on general organizational involvement (Pavolva et al., 2016). We speculate that the difference may be due, in part, to our study's focus on general social responsibility instead of different types of civic engagement. Thus, future studies should further examine the relationship between family environment, interdependent self-construal and specific type of civic engagement. Additionally, our findings suggested that, compared to interdependent self-construal, social trust was less prominent as a mediator between family cohesion and social responsibility. It is possible that family cohesion may simultaneously foster social trust and social responsibility. As such, longitudinal studies with multiple time points are needed to distinguish the relations. On the other hand, interdependent self-construal served more important functions in linking family cohesion and

social responsibility than did social trust in a cultural context with substantial concerns for harmonious relationships and collective well-being (Paz et al., 2008). Even though social capital theory considered trust as a central factor that "glues" the society together to enable people to achieve community objectives (Coleman, 1994; Tonkiss, Savage, Tampubolon, & Warde, 2004), other values such as interdependent self-construal was shown to be a more important mechanism in the Chinese context.

Previous cross-sectional studies had examined the family cohesion as a mediator between interdependent self-construal and mental distress (Liu & Goto, 2007) and self-esteem (Lam, 2006). To rule out the possible alternative directions of effects, this study also tested the possibility of family cohesion as a mediator between interdependent self-construal and social responsibility. The results showed that these alternative directions of effects had poor model fit and should be ruled out in this study.

Limitations and Future Directions

The present study had several limitations that pointed to future research directions. First, Second, in addition to interdependent self-construal, independent self-construal may be another construct that could possibly play a role in the relation between family cohesion and social responsibility. Future studies could also examine how independent self-construal is related to family processes and social responsibility. Third, we measured the adolescents' social responsibility as a perception using self-report instead of evaluating their actual behaviors, which might have created potential self-report biases. Under potential influence of Chinese cultural values such as "keeping face" (Cho, 2000), some adolescents might have social desirability bias for demonstrating greater moral values and reported a higher level of social responsibility. Future work should include behavioral observations and multiple reporters to reduce potential biases.

Forth, our study only examined the variables at two time points, with autoregressive control of only baseline social responsibility. Moreover, interdependent self-construal was only measured at T2, which precluded us from to investigating its changes over time. To better understand the relationship between family environment and adolescents' development of social responsibility, future studies could include multiple time-points for all variables and additional time-points in a cross-lagged model to examine the longitudinal effects. Fifth, the study was conducted in Hong Kong and the findings might not be generalizable to adolescents in other contexts. A fruitful avenue would be to investigate potential cultural variability of these mechanisms in Western or other Chinese contexts. Sixth, although most of our measures showed adequate reliability, the family cohesion measure (Moos & Moos, 1994) had Cronbach's alpha range = .53 to .62 for this study. Likewise, the 3-item Social Trust Measure (Uslaner, 2002) in our sample showed a relatively low reliability (Cronbach's alpha = .51). Although it is common for scales with fewer than ten items to have low Cronbach's alpha (Pallant, 2007), the findings related to social trust should be interpreted with caution. Finally, the factor loadings of family cohesion ranged from small to moderate. Future studies are needed to further evaluate family members' differences in their perceptions of family cohesion.

Practical Implications

This study highlighted the mediating role of interdependent self-construal between family cohesion and social responsibility over and above the effects of gender, age, baseline social responsibility. Social trust was also related to family cohesion and social responsibility, but its mediating role was less prominent than interdependent self-construal in linking between family cohesion and social responsibility. Based on these findings, educators and practitioners can develop family and psychoeducation programs to promote social responsibility, with specific

considerations of family process, social trust, and interdependent self-construal. For example, educators can design relevant programs that emphasize an increase of family cohesion, the interdependence of all beings, and social trust. In the face of unique challenges and needs, the promotion for adolescents' social responsibility is in dire need in Chinese contexts such as Hong Kong. This study provided a direction for researchers, educators, and practitioners to consider the abovementioned variables for promoting social responsibility in the Chinese context.

Conclusion

Grounded on a socioecological framework (Bronfenbrenner, 1979), the present study revealed family and cultural significance towards social responsibility, over and above personal attributes, such as social trust, and demographic variables. Our findings provided new evidence to demonstrate interdependent self-construal as an underlying mechanism between family cohesion and social responsibility in the Chinese context. In addition, social trust was associated with both family cohesion and perceived social responsibility over time. Translational programs and intervention efforts gearing towards adolescents' development of social responsibility merit future investigation.

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