Chapter 4
Guatemalan Adolescents' Reports of Helping in Urban and Rural Mayan Communities

Judith L. Gibbons

4.1 Introduction

Altruism, "a motivational state with the ultimate goal of increasing another's welfare" (Batson & Shaw, 1991, p. 6), has been the focus of a great deal of research in recent years. It is evident that altruistic behaviors are widespread throughout human societies and in nonhuman primates. Researchers have shown that even young children may act altruistically (Svetlova, Nichols, & Brownell, 2010). By 12 months of age, children may comfort someone in distress or retrieve out-of-reach objects. By 2 years of age, they deliver food to both themselves and another person, rather than to themselves alone (Brownell, Svetlova, & Nichols, 2009). The early emergence of helping behavior in children, as well as its appearance in other species, has led social evolutionary theorists to posit that altruism has evolved in humans because it is adaptive for the gene pool (see review by Bshary & Bergmüller, 2008). Despite a genetic contribution to helping behavior, the major role of culture in the expression of altruism has been well established (see Chap. 3 of this volume by Coe and Palmer (2013)).

Moreover, neuroimaging studies have provided evidence for the involvement of particular neural systems in empathy and altruistic motivation (e.g., Cheon et al., 2011; Huffmeijer, Alink, Tops, Bakermans-Kranenburg, & van IJzendoorn, 2012; Mathur, Harada, Lipke, & Chaio, 2010). The particular brain regions involved may differ depending on whether the altruism is expressed toward members of the ingroup or the outgroup (Cheon et al., 2011; Mathur et al., 2010). On the other hand, the hormone oxytocin may promote altruism toward both ingroup and outgroup members, as shown in studies in which the hormone was experimentally

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administered through nasal spray (Barraza, McCullough, Ahmadi, & Zak, 2011; Israel, Weisel, Ebstein, & Bornstein, 2012). Because of the overlap in the neural and hormonal systems involved in altruism and parenting, researchers have suggested that a caregiving system has evolved in humans that promotes nurturance of children and helpfulness toward others (Swain et al., 2012).

At the level of the individual, altruistic behaviors may vary depending on personality and status. A recent series of studies showed that humble persons were more helpful than non-humble ones (LaBouff, Rowatt, Johnson, Tsang, & Willerton, 2012). In general, people with fewer resources and lower status are more compassionate, altruistic, and generous than others (Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012; Piff, Kraus, Côté, Cheng, & Keltner, 2010; Rucker, Dubois, & Galinsky, 2011; Stellar, Manzo, Kraus, & Keltner, 2012; Visser & Roelofs, 2011). Also, people who have suffered may be more altruistic, especially toward disadvantaged outgroups (Vollhardt & Staub, 2011).

Most cross-cultural studies of altruism have focused on the demographic characteristics of communities that predict helpfulness toward strangers (e.g., Levine, Norenzayan, & Philbrick, 2001; Levine, Reysen, & Ganz, 2008). In those studies, confederates posed as a pedestrian dropping a pen, a person with an injured leg trying to recover dropped magazines, and a blind person attempting to cross the street. Among cities in the United States, residents of cities with high population density, economic purchasing power, and fast walking speed were less likely to help a stranger (Levine et al., 2008). In an international study of 23 large cities, the same methodology revealed large differences in helping that were significantly related (negatively) to economic prosperity (Levine et al., 2001); that is, less helping behavior was demonstrated in wealthier cities. Cultural individualism-collectivism did not correlate with helpfulness across cities.

The literature on altruism sheds little light on altruism under naturalistic conditions, helping in developing countries or helping kin rather than strangers. The last is particularly important, because a meta-analysis has revealed kinship as the strongest predictor of altruism (Kruger, 2003). Overall, there is little information from the everyday contexts in which altruism occurs, especially in the developing world.

4.2 Altruism During Adolescence

The life stage of adolescence may be particularly important for the development and maintenance of altruism. Developmentally, an increase in cognitive abilities at adolescence allows teenagers to engage in more elaborate and mutual perspective-taking (Selman, 1980); better perspective-taking skills have been linked empirically to increased helping behavior (Eisenberg, Cumberland, Guthrie, Murphy, & Shepard, 2005). In addition, an international study of over 8,000 adolescents revealed that kindness, along with honesty, was the quality that was most highly

valued in the ideal person (Gibbons & Stiles, 2004). In that study, approximately one-fourth of the adolescents spontaneously drew the ideal person helping or caring for others. Correlational studies have shown that engaging in volunteer activities or fund-raising as an adolescent is related to altruism during adulthood (Rosen & Sims, 2011). The authors suggest that altruism may be habit-forming. In another correlational study, engaging in helping behavior was associated with positive social relations and greater well-being in adolescents, although there were some gender differences in the relations (Schwartz, Keyl, Marcum, & Bode, 2009). A study conducted in 13 countries revealed that students were more likely to volunteer than were adults and that the motives they gave for volunteering were most often altruistic (see Chap. 6 of this volume by Grönlund (2013)). Finally, interventions that promote volunteerism in adolescents lead to positive outcomes for adolescents. For example, in an experimental study of the Teen Outreach Program, adolescents randomly assigned to the intervention that involved volunteering showed more academic success and fewer problems such as early pregnancy and school dropout (Allen, Philliber, Herrling, & Kuperminc, 1997). In sum, adolescence may be a critical period for the development of altruistic motivation and helpful behavior, and altruism may be beneficial to adolescent well-being.

4.3 Child Development and Collaboration in Indigenous Communities

A marked feature of child development in indigenous communities of the Americas is the emphasis on child collaboration and participation in the daily activities of the household (López, Najafi, Rogoff, & Mejía-Arauz, 2012).

In Yucatec Mayan communities in Mexico, children from an early age are routinely involved in everyday household tasks (Gaskins, 2008). From ages 3–6, children often independently bathe and dress themselves or do simple tasks, although they also spend a great deal of time observing the work of adults and older siblings. Beginning at age 6, they may take care of younger siblings, run errands, or help older siblings with chores outside the house. By age 12 and beyond, about 60 % of adolescents' time is spent doing significant chores that benefit the family. For example, in a single day young adolescent Pancho weeded the family cornfield all morning with his father. During the afternoon he fed the pigs, went shopping, and helped his father repair a fence. His sister Juana helped her mother prepare food, clean the house, and do laundry; she also went shopping. According to Gaskins (2003), children's participation in and observation of daily activities prepare them for future roles in the community.

In a Mayan community in Guatemala, Rogoff and her colleagues observed that children learned primarily through "guided participation" in cultural activities (Rogoff, Mistry, Göncü, & Mosier, 1993). In a subsequent study, Mayan mothers with little education engaged children in "horizontal multiparty engagements." In other

words, children and mothers worked collaboratively on tasks, without mothers taking charge and supervising (Chavajay & Rogoff, 2002).

In summary, children in indigenous communities are often incorporated into ongoing activities. They participate eagerly and may receive guidance from others who are present (López et al., 2012). A cultural value that may be associated with children's collaboration in indigenous communities is represented by the Spanish word *acomedido/a* (López et al., 2012). It connotes helpfulness and accommodation to ongoing activity. An acquaintance of mine, a young father, described how his 17-month-old son carries pieces of firewood to the woodpile and tries to sweep the floor, "*Es muy inteligente* [he is very intelligent]," he said proudly.

At a societal level, Mayan communities are well known for their cargo system, a practice that redistributes wealth (Cancian, 1965). Under the cargo system, families that have achieved greater economic success assume religious and civic responsibilities that mandate, not only service, but also economic contributions to the welfare of the community. Participation, while financially costly, increases the status of the family in the community. For a thorough discussion of cargo as altruism in Mesoamerica, see Chap. 11 of this volume by Chick (2013). The expectation that children will contribute to the family well-being may be early training for participation in community activities such as cargo.

4.4 Photographic Methods in Research

> As researchers, we see ordinary people's everyday lives as interesting, complex, and having the potential to reveal important understandings about the human condition. (Rich, 2002, p. 409)

A valuable tool in understanding ordinary people's everyday lives is the method known as photovoice, or auto-photography (Wang & Burris, 1997). In this procedure, individuals take photographs that reveal their lives or an aspect of their lives. Because the participants control the content of their depictions and actively engage in telling their stories, photovoice has been seen as a means to empower individuals (Castleden, Garvin, & Huu-ay-aht First Nation, 2008). Photovoice may be a particularly valuable procedure for adolescents from indigenous communities who may have limited literacy and may prefer to express themselves visually rather than in words. Among rural home economics students in the United States, Blinn and Schwartz (1988) found that adolescents' photographs of their future depicted occupations, families, home ownership, and driving/automobiles. In another study that used photovoice with adolescents, students took photographs of what made them feel safe, happy, and healthy, or unsafe, unhappy, and unhealthy. From their photographs, they developed group social action projects to address those issues (Wilson et al., 2007).

4.5 The Present Study

The present study was designed to understand the lives of Guatemalan adolescents living in distinct communities—a rural indigenous K'iche'-speaking community and an urban community. A fuller report of the findings can be found in Gibbons (2003). Based on previous literature, it was expected that adolescents from the rural indigenous communities would depict more images and more often mention helping others than would adolescents from the urban setting.

In this rural community of several thousand persons, the economy was based on agriculture; the primary crops were corn, apples, and plums. The community had been influenced by national and local changes. The Guatemalan Peace Accords of December 1996 had mandated bilingual education in Mayan communities. At the time of the study, most teachers were fluent in the local Mayan language, K'iche' (as well as Spanish), although few could read and write it. At the time of the study, the recent completion of a road (two concrete paths) had made the village more accessible.

For comparison, the urban setting was in Antigua, Guatemala, a colonial town of about 25,000 people known for its colonial architecture and as a tourist destination. The economy is based on tourism and coffee production in the surrounding areas; the local market attracts both Guatemalans from surrounding towns and tourists.

The participants were 73 adolescents, ages 11–16 (32 boys, 41 girls; 30 from the urban school, 43 from the rural school). Students from the public rural school were in grades 4–6. Urban participants attended a private school, known for its strict discipline; the tuition of about $13 per month is well beyond the means of many Guatemalans. Urban students were in *básico* (junior high school), in grades 7–9. Thus, although ages were matched, the urban sample had experienced more years of education.

In the year 2000, with the approval of the Institutional Review Board, school officials, and parents, 73 adolescents were provided with disposable cameras (with flash) through their school classrooms. Based on the procedure of Blinn and Schwartz (1988), their instructions were to take 10 photographs that represented their life in the present. For each photograph, answer the following questions: (1) Who took the picture? (Use no names. Write myself, my friend, my sister, etc.) (2) What is the picture of? (3) Where was the picture taken? (4) What aspect of your life does the photo show? (5) How do you feel about this? Then take 10 photographs that represent your life in the future. For each photograph, answer the following questions: (1) Who took the picture? (2) Where was the picture taken? (3) What aspect of your life does the photo show? (4) How do you feel about this? (5) How old will you be when this happens? Take the remaining seven photos of anything you would like. In addition, several demographic questions, such as age and year in school, were included. The cameras and instruction sheets were distributed and photography explained and demonstrated. Approximately 2 weeks later, the

cameras and questionnaires were collected from the participants. After the photographs were developed and printed, copies of the photographs were returned to each participant during a brief interview in which questionnaire responses were matched to the photographs.

Categories were developed for scoring the photographs, and each photograph was scored by three raters. The reliability of coding as determined by intraclass reliability coefficients ranged from .57 for religious symbols to .98 for number of males in the picture. The responses to questionnaires on the questionnaire were typed (maintaining grammatical and spelling errors) and then translated from Spanish into English (with spelling and grammar corrected.) The verbal samples were then analyzed in 74 categories using the LIWC program (Pennebaker, Francis, & Booth, 2001). In addition, the verbal samples were scored for mentioning help or helping (*ayuda, ayudar*) in three categories: helping family members, helping people outside the family, and being helped. The total number of comments about help was also recorded.

4.6 Results

Participants reported that they enjoyed the exercise; many said that they had never before used a camera. In addition, they said that it was an interesting way to learn something new.

Overall, 33 % of the participants mentioned helping in their comments. See Table 4.1 for the types of helping mentioned and sample statements.

The number of comments in each category and the mean number of help comments overall were analyzed by a 2 Gender by 2 Community analysis of variance (ANOVA).[1] The analysis revealed that, contrary to predictions, students in the urban community mentioned help (a mean of 1.6 times total mentions) more than did

Table 4.1 Prevalence of comments about help

Category of comment	Percentage of participants	Examples
Help family members	9.6	Helping my mom
		I have to help my brother
Help others, not family	24.7	Help my fellow man
		I would like a project in the future to help children
Help me or us	14.1	This helps us. It helps me to see how I am
Any mention of help	32.9	Any of the above

[1] Analysis of variance (ANOVA) is a statistical technique for determining whether the mean differences between groups are likely to have occurred by chance. A p value of $< .05$ is usually the criterion for significance and indicates that the probability is less than one in 20 that the difference occurred by chance. η^2 (eta-squared) is the effect size, the proportion of the total variance accounted for by the evaluated effect.

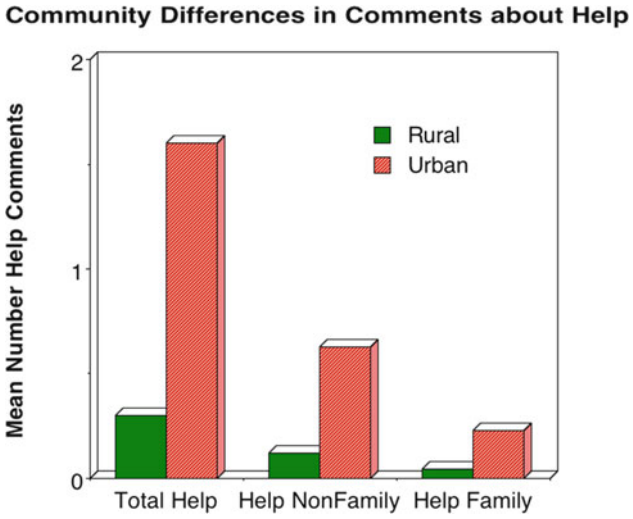

Fig. 4.1 Mean number of help comments in the two communities

students in the rural community (a mean of .32 times total mentions), F (1, 69) = 10.41, p = .002, and η^2 = +.105. There was no significant effect for gender. For mentioning helping others, not family members, there was a significant effect for community, F (1, 69) = 12.63, p = .01, and η^2 = .113, with urban adolescents more likely to mention helping those outside the family. Boys mentioned helping others outside the family more than did girls (mean for boys = .55, mean for girls = .22), F (1, 69) = 5.64, p = .02, and η^2 = .050. There was a trend toward adolescents in the urban community mentioning helping family members more than adolescents in the rural community, F (1, 69) = 3.84, p = .054, and η^2 = .141. Boys reported helping family members more than did girls, F (1, 69) = 10.76, p = .002, and η^2 = .114. There were no significant community or gender differences for mentioning being helped. These results are graphically presented in Fig. 4.1.

A typical photograph is depicted in Fig. 4.2. This photo was taken by a 16-year-old boy from the rural community. He wrote that, "my Dad [took the picture]," "of the bakery," "in the bakery," "it is good to help my Dad," "happy, because making bread is very good." The face has been blurred to maintain anonymity.

The photographs were also scored for the total number of children present (in all 20 photos). A 2 Gender by 2 Community ANOVA revealed that girls took more photographs of children than did boys (girls' mean = 9.03, boys' mean = 4.28), F (1, 66) = 5.06, p = .028, and η^2 = .034. In addition, adolescents from the rural community took more photographs of children than did adolescents from the urban community (rural adolescents' mean = 10.31, urban adolescents' mean = 3.00), F (1, 66) = 11.93, p = .001, and η^2 = .080.

Based on data from the LIWC program, the frequency of using the word "we" was also analyzed by a 2 Gender by 2 Community ANOVA. The results showed that

Fig. 4.2 A photograph taken by a 16-year-old boy from the rural community

the word "we" was used more by adolescents from the rural community than by those from the urban community (mean for rural adolescents = 2.93, mean for urban adolescents = .88), F (1, 68) = 9.58, p = .003, and η^2 = .074. Gender differences were not significant.

4.7 Discussion

Although children and adolescents in indigenous Mayan communities participate extensively in family chores (López et al., 2012), this study did not confirm the hypothesis that adolescents from the rural Mayan community would report more altruism, defined as making comments about "helping" in describing their lives. In the present study, Guatemalan adolescents who attended a private school in an urban community mentioned helping others, both family members and persons outside the family, more often than did the rural adolescents. This finding at first glance not only refutes the hypothesis but also appears to be inconsistent with the finding that persons with fewer resources are more altruistic than persons with more resources or higher status (Kraus et al., 2012).

Another possible interpretation of these results is that the rural adolescents took their participation in family chores for granted and did not perceive their cooperation as "helping" but simply as their own role within the family. To encode a behavior as helping, one needs first to see the activity as another person's responsibility. It is possible that in indigenous families, adolescents see their participation in productive activities as their own responsibility and not as a favor to someone else.

A recent study of cooperative hunting among Martu women revealed that skilled hunters incurred costs; solitary hunting yielded more food (Bird, Scelza, Bird, & Smith, 2012). One of the better hunters explained her altruistic behavior:

> I like to hunt with someone who is going to share. If we hunt together, I will give you half of what I get. Then you have something to share even if you didn't get lucky yourself. You're looking out (*kanyinin*) for someone else. (p. 75)

Although the hunter did see her behavior as cooperative, it was not explicitly helping another person.

In the present study, some indirect evidence comes from the additional analyses of the numbers of children in the photographs of the participants and in the use of the word "we." One of the primary tasks of adolescent girls in preindustrial societies is the care of younger siblings (Rogoff et al., 1993; Schlegel & Barry, 1991). The greater presence of younger children in the photos of rural adolescents, specifically those taken by girls, suggests that the girls may be caring for younger siblings (without coding the activity as "helping" their mothers). The more frequent use of the word "we" among rural adolescents also suggests that, rather than thinking of an "I" who helps others, they might have been thinking of the tasks that "we" do as a community or family.

In the present study, helpfulness was also mentioned more often with respect to others outside the family than toward family members. This finding also contradicts the established pattern that altruism is more often expressed toward kin than toward non-kin (e.g., Kruger, 2003).

Overall, the use of verbal expressions of "helping" has revealed unexpected findings that can best be understood as participants expressing the noteworthy, rather than the taken-for-granted, aspects of their lives. Adolescents from the rural community did not describe their contributions to the ongoing tasks as "helping"; contributing to the family well-being was part of their expected role.

According to some researchers, behavior that is undertaken as part of one's social role is not altruism (see Chap. 2 of this volume by Smith et al. (2013)). Thus, according to the definition put forth by Smith, Smith, Pieper, Yoo, Ferris, Downs, Bowden, and Butler (2006), the urban adolescents' contributions to the family, which are not part of their expected role, are altruistic, while similar contributions by rural adolescents are not. Similarly, gender roles prescribe that girls help care for younger siblings; boys performing the same behaviors would be acting altruistically. In their use of the word "help" to describe their activities, adolescents in the present study appear to echo the definition of Smith et al. (2006). However, cultural and gender differences in social roles make this conception of altruism complex and variable.

Although the photovoice method yields a rich, thick description[2] of adolescents' perceptions of their lives, their perceptions may not be closely correlated with their actual behaviors. The next step in studying altruism among Guatemalan adolescents

[2] Clifford Geertz (1973) in *The Interpretation of Cultures* used the term "thick description" to mean a detailed contextualized account that allows the ethnographer to understand the meaning of behavior.

would be to heed the advice of Pawlik (2012) to evaluate behavior in its natural ecology. The technique of "ambulatory assessment," involving following participants and noting their behavior as it occurs, would be particularly useful. Independent of whether they encode their behavior as helping others, do Guatemalan adolescents engage in helping and other altruistic behaviors as they go about their daily lives?

The study of altruism where it occurs in everyday life is still in its infancy. To understand how altruism is enacted within societies, research that uses multi-methods in a variety of cultures and settings is necessary.

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