Dissociating Facets of Self-Reported Altruism in India and Germany: Preliminary Evidence

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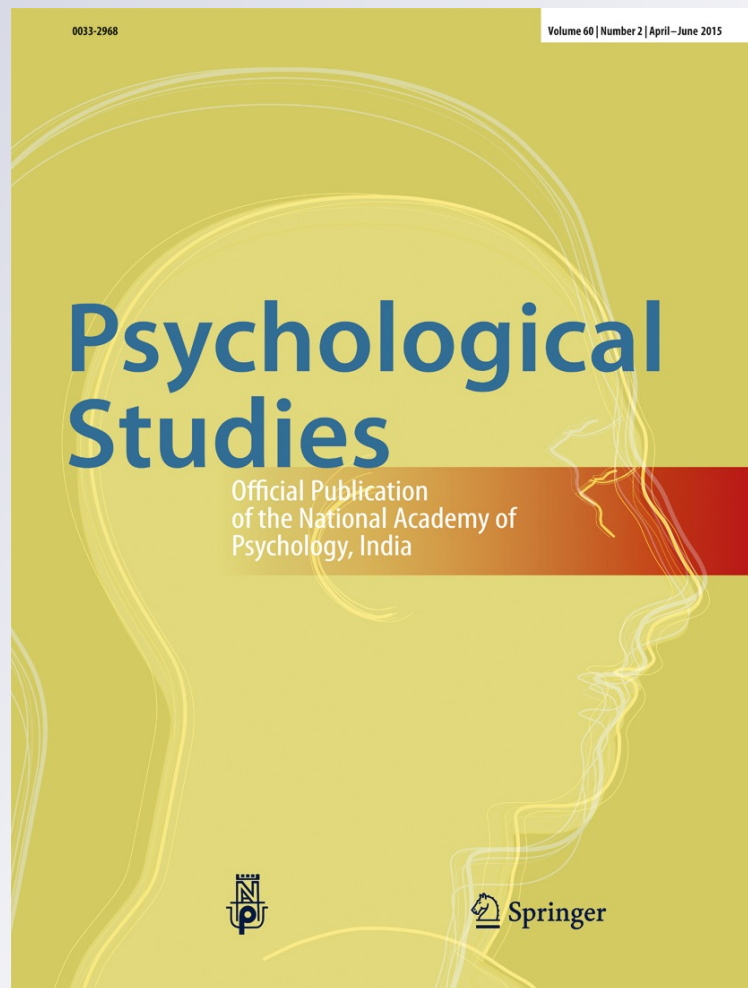**Suna P. Kinnunen**[1] · **Mona Singh**[1] · **Sabine Windmann**[1]

Abstract Altruism may not be a unitary concept but have multiple facets that are differentially subject to cultural influences. We compared helping, sharing, moral courage, and altruistic punishment between members of Indian (Eastern) and German (Western) cultures using self-report data taken in an online survey. We found higher self-reported willingness towards sharing and helping in the Indian sample, alongside higher feeling of oneness reflecting the experienced overlap between oneself and other individuals. By contrast, moral courage, and to some degree also altruistic punishment, were higher in the German sample. Our results demonstrate cultural differences in the appreciation of different forms of altruism and support the differentiation of gratifying types of altruistic behaviour from competitive, punitive ones. Future studies will need to replicate the results with behavioural observations.

Keywords Helping · Sharing · Altruistic punishment · Moral courage · Culture

Dissociating Facets of Altruism in Eastern and Western Cultures

Altruism is other-benefiting behaviour that bears costs to oneself, so altruistic acts sacrifice parts of one's own well-being for the well-being of others. In folk understanding, altruistic behaviour is usually identified with helping, sharing, and donating behaviours for their frequent occurrences in everyday life. Helping encompasses all types of aiding and assisting from letting a person with less groceries than you go first to the cashier or helping a senior citizen across the street (e.g., Alessandrini 2007; Bierhoff and Rohmann 2004; Levine et al. 2001). Sharing and donating represents offering one's possessions to others, for example, sharing money or food, donating blood, or giving clothes to charity, often accompanied by a positive, warm glow feeling (e.g., Harbaugh et al. 2007). In keeping with the biological and developmental literature, we use the term sharing for this kind of behaviour.

Sharing helps the one/s in need, so sharing can be seen as one form of helping. Central to both is that something valued (money, time, energy, information) is being provided without any preconditions other than the needy state of the recipient/s, which is why both helping and sharing are supported by feelings of empathy (Batson 1991). The difference is that sharing in the common sense of the term refers to the charitable redistribution of goods, be it active or passive, whereas helping tends to focus on voluntary actions. In experimental settings, altruistic sharing is typically measured with the Dictator Game (see e.g., Bolton et al. 1998; Eckel and Grossman 1996; Hoffman et al. 1996), where the donator passes money on to the recipient, while helping is typically assessed by asking participants to perform a routine task that is useful for the experimenter or someone else other than the participant (e.g., stage 3 of Experiment 2 in Peysakhovich et al. 2014; dependent measures in Schnall et al. 2010).

Empirical and theoretical investigations have identified two other behaviours that meet the criteria for altruism that appear to have little to do with empathy, but instead with anger and the desire for revenge arising from observation of injustice and violation of moral values. The first is *altruistic punishment,* the act of enforcing social norms by punishing

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uncooperative individuals for violation of fairness rules, even though the act of punishing is costly. In experimental settings, this means paying for the punishment of individuals who fail to contribute their fair share to the common goods (de Quervain et al. 2004; Fehr and Fischbacher 2003; Fehr and Gächter 2002; Peysakhovich et al. 2014; Strobel et al. 2011; Wischniewski et al. 2009). In real life, this can take the form of reporting to authorities and pressing charges (Mendes and Aguirre 2012), engaging in gossip, ostracism, or exiting a mutually beneficial relationship (Smirnov 2007), and withholding rewards that are otherwise provided (Balafoutas et al. 2014). The crucial aspect is that the behaviour is costly to the actor but, through its adverse consequences for the defector, is beneficial to other members of the group because it cultivates cooperation and abolishes free-riding and other unfair behaviour. For the punishment to be altruistic, the cost of the punishment should be greater for the actor than the benefits he or she could have from resulting norm compliance of the defector.

The second corrective or punitive form of altruism is *moral courage.* This is apparent when despite imminent threat, a person is willing to speak up or take action for the rights of another individual or group of individuals, for example, when defending someone who is being discriminated against for their race, origin, or religious beliefs (e.g., Baumert et al. 2013). The courageous act typically goes against the selfish interest of powerful others, of the majority of other people, or against established norms or traditions. Consequently, the actor is likely to face adverse reactions, including humiliation, loss of social status, and verbal or even physical abuse. This motivation to act nonetheless for the sake of other individuals or minorities requires, at least to some degree, moral reasoning at the post conventional level (Kohlberg 1973).

Moral courage is similar to altruistic punishment in that it is incited by negative affect and interpersonal conflict. However, according to current usage of the terms, the two also differ in at least two ways: First, while altruistic punishment is aimed at rectifying the behaviour of defectors in line with common norms and conventions, moral courage is not bound to such norms but strictly follows one's own moral convictions. If promoting human rights and civil-democratic values, this form of altruism can also be classified as *civil courage* (for prominent examples see http://www.civilcourageprize.org/honorees.htm, accessed 13 March 2015). Second, while altruistic punishment is usually understood to involve fairly predictable and controllable costs, moral courage involves willingly taking uncertain social and physical risks that can dramatically change or even end one's life. For example, confronting a group of young males loudly cussing about foreigners on the underground train requires moral courage. By contrast, taking the time and effort to report a hit-and-run to the police is an example of altruistic punishment that does not involve much risk, especially when done anonymously.

Moral courage is also different from helping/sharing, as it involves confrontation of perpetrators and moral wrongdoers, and not of victims or other needy individuals. For that same reason, moral courage is also different from heroism (Franco et al. 2011): Although both require the courage to overcome fears of experiencing physical harm and social degradation, heroism is aimed at helping other people in need (Rand and Epstein 2014), whereas moral courage refers to the active defence of civil democratic moral values against powerful opponents.

Unlike altruistic punishment and helping/sharing, moral courage is rarely investigated in Psychology, although some theoretical papers and case studies have been published in the fields of medicine (e.g., Curtis 2013; Lindh et al. 2010) and business ethics (e.g., Sekerka et al. 2009). A few experimental studies have taken behavioural probes of moral courage in the laboratory by observing whether participants engage in an ethically motivated, yet dangerous intervention. One example is signing up for a discussion group on the integration of foreigners with a group of young inmates who have been imprisoned for violent crimes against foreigners. Using this measure, two studies found that moral courage differs from its cognitive and motivational underpinnings from gratifying helping/sharing. Kayser et al. (2010) found that moral courage relies on abstract reasoning about group norms and identity, whereas helping depends on mood states. Along similar lines, Kinnunen and Windmann (2013) found that moral courage is promoted by preferences for rational cognition over intuitive thinking, while the reverse is true for sharing behaviour assessed via economic games. More generally, Peysakhovich et al. (2014) found that gratifying forms of altruism do not correlate with punishing forms, although moral courage and helping were not clearly distinguished in that study from altruistic punishment and sharing, respectively. Nonetheless, it is justified to say that the available evidence suggests that there are different forms of altruism that are empirically dissociable on cognitive and motivational grounds.

Naturally, the prevalence of all forms of altruistic behaviours in real life depends on moral convictions which are, at least in part, culturally shaped. Whether someone is regarded as in need, as requiring help, as violating fairness norms and deserving to be punished or otherwise challenged is subject to societal norms, values and traditions, and likewise is the perceived personal obligation to show the required altruistic engagement. Some empirical research has therefore linked cultural differences in attitudes, norms and conventions to altruistic behaviours, often with a focus on helping and sharing. Many of these studies have compared Western and Eastern cultures while relating these to individualism and collectivism, respectively (Hofstede 1980; Triandis 1995). In individualistic cultures, the needs of an individual can take precedence over the needs of the group, and the self is defined as an autonomous entity independent of groups. By contrast, in collectivist

cultures, needs of the group surpass the needs of an individual, and the self is defined in terms of connectedness to others in various ingroups, hence groups bind and obligate individuals (e.g., Kitayama et al. 1997; Markus and Kitayama 1991; Oyserman et al. 2002). Other distinctions on vertical and horizontal dimensions notwithstanding (Singelis et al. 1995), the relevance of the collectivism/individualism distinction for altruism is apparent when individualistic cultures see relationships between individuals as malleable, allowing their members to question the rules of social exchange as much as the underlying values and morals. By contrast, in collectivist cultures, individuals adhere to group norms and conventions in order to maintain the group in a relatively stable status where people have firm and harmonious ties with each other to enhance the well-being of the group.

Results of these studies are somewhat ambiguous, and have never involved comparison of the different forms of altruism distinguished here. Regarding sharing, one study (Buchan et al. 2006) found that members of an individualistic culture (United States) both send and return more money in a trust game to ingroup compared to outgroup members, while the reverse is true for members of a collectivist culture (China). The authors discuss the possibility that the Chinese participants may have done so out of resistance to the artificial grouping that has been constructed by the researchers for the purpose of the experiment. When the authors determined participant's collectivist/individualistic mindset in the cooperation game itself at the individual level (across cultures) with a short questionnaire, the ingroup>outgrup difference was found only for individualistic participants.

In studies on information sharing, a different pattern was found. Participants from the Chinese culture were more willing than American participants to share information if this was good for the organization, even if this was potentially disadvantageous personally (Chow et al. 1999, 2000); however, these participants were less likely than participants from the American culture to share information with an outgroup member (Chow et al. 2000). Another study with Asian-American participants showed lower defection rates in a Prisoner's Dilemma game in a group of participants whose Asian identity was triggered via experimental means compared to a group of participants whose American identity was triggered (LeBeouf et al. 2010). Overall, these studies suggest higher sharing with members of the ingroup in collectivist societies relative to individualistic societies.

On the other hand, higher individualism within the USA has been found to be positively related to charitable giving and volunteerism, particularly for causes that are compatible with core individualistic values (Kemmelmeier et al. 2006). The relationship between sharing and individualism/collectivism thus appears to depend on context factors, one of them being identification with the receiving group or individual. While collectivist cultures seem to have a duty-based view of interpersonal responsibilities, assuming a strong general obligation to support members of their (natural) ingroup, individualistic societies tend to have a more option-oriented view, so that helping and sharing depends on the relationship between actor and recipient/s and on the perceived level of need, responsibility, and opportunity for reciprocation (Miller 1994; Miller, et al. 1990).

Regarding altruistic punishment, some researchers have shown that in Western cultures, altruistic punishment promotes cooperation (e.g., Fehr and Fischbacher 2003; Fehr and Gächter 2002), while in the Chinese culture, the level of cooperation appears to either remain the same or decrease compared to situations where punishment is not possible (Wu et al. 2009). On the other hand, a meta-analysis of Ultimatum Game experiments performed to assess altruistic punishment did not confirm these interpretations: Although the study did indeed find that altruistic punishment differs across cultures, these differences did not map onto cultural traits such as individualism/collectivism (Oosterbeek et al. 2004).

Empirical evidence on cultural differences in moral courage is essentially lacking, although some studies have compared moral reasoning between individualist and collectivist cultures. In a dilemma reasoning study comparing American and Indian participants, Indian respondents tended to prioritize interpersonal responsibilities over justice obligations whereas the opposite was true for the respondents from the United States (Miller and Bersoff 1992). Indian participants also view the failure to help strangers in situations ranging from life-threatening to minor need in moral terms, while American participants see it in moral terms only in life-threatening situations (Miller et al. 1990). Although it remains unclear from these studies what cultural setting would encourage courageous acts in defence of moral codes, a recent study suggests that the degree of experienced identity fusion with other members of the group may play a crucial role (Whitehouse et al. 2014). The study found that frontline combatants among Lybian revolutionaries reported stronger, family-like bonds between themselves and their local battalions relative to logistic supporters, and suggested that this form of identity fusion might motivate them to risk their lives.

No prior study has compared the four types of altruism distinguished here with respect to cultural differences. We set out to address this matter, in comparing German and Indian cultures as examples of more individualistic vs. more collectivist cultures, respectively. While both cultures clearly have also vertical features (i.e., hierarchies) implemented in their societal structures (Singelis et al. 1995), their difference in collectivism is expressed by the Hofstede individualism (IDV) index, which is 48 for Italy compared to 67 for Germany (Hofstede et al. 2010). Based on that same reasoning, Soosai-Nathan et al. (2013) have shown that Indians relative to Western participants (Italians) define prosocial

behaviour more with reference to values/virtues, and less in terms of care for another person, perhaps confirming a more norm oriented motivation to act altruistically than one that is motivated by individual needs. Moreover, the authors showed Indians to experience more spiritual beneficiaries of altruism, while seeing overload as a major obstacle, which might point to fewer available physical resources (including money, time, and energy). Whether and how these cultural differences transform to differences in the appreciation of helping, sharing, altruistic punishment and moral courage, remains unclear. However, given the culture-specific understanding of moral values, fairness norms, and reciprocity expectations, we find such cultural differences likely.

We therefore assessed endorsements of questionnaire statements on helping, sharing, altruistic punishment and moral courage of Indian and German participants in an online study. With the limits of self-report measures in mind, we presented brief descriptions of specific social interactions at different levels of social proximity (close, intermediate, anonymous) to the participants, and asked them to judge how much they appreciated altruistic behaviours in each of those situations. In addition, we assessed participant's degree of identity fusion using the "Inclusion of Others in the Self" scale, (IOS, Aron et al. 1992). We see this measure related to a form of collectivist understanding of the self (taken at different levels of social proximity), and expect cultural differences in the endorsement of altruistic behaviours to be reflected in differences in oneness.

Due to their presumed higher motivation for bonding and maintaining group stability, we expected Indian participants to show higher appreciation for the gratifying types of altruism, sharing and helping, but less for the competitive and punitive forms, moral courage and altruistic punishment. We expected German participants with their Western and more individualistic cultural background to potentially show the reversed pattern.

Method

Participants and Procedures

Participants were recruited in Germany via university e-mail lists and in India through social network platforms and internet discussion forums. Of the 196 participants who responded, 79 were Indian (48 male), 117 were German (25 male), and two chose not to reveal their sex. The percentage of female participants in the Indian group was 38.5 and in the German group 78.4, the difference was statistically significant, Chi (1194)=31.77, $p<.001$. The age of the participants ranged from 16 to 66, $M=25.66$, $SD=7.47$, $Mdn=23.00$ years, and did not differ significantly between the Indian and the German groups, *Mann–Whitney U*=4399.50, $p=.636$. Educational

level was measured in the German group with an eight-point scale and in the Indian group with a seven-point scale. For the comparison, the variables were standardised. Educational level did not differ between the two groups, *Mann–Whitney U*= 4380.00, $p=.536$. The participants were asked to estimate their income level after redacting necessities, such as rent, although some left the item empty. The income estimates were converted into current international dollars, Geary-Khamis dollars, for the comparisons, to account for differences in purchasing power between countries. After transformation, the income level of the German group was still significantly higher compared to the Indian group, German: $N=98$, $Mdn=797.10$ 2013 Int\$; Bootstrapped 95 % CI Indian: $N=97$, $Mdn=454.52$ 2013 Int\$; Bootstrapped 95 % CI; *Mann–Whitney U*=1767.00, $p<.001$.

Materials

The survey presented a total of 31 statements about a variety of situations and circumstances (with 12 statements negatively poled) representing the four altruism types in every-day life (see Appendix). Helping (HG) was described by situations in which help is being provided to someone in need despite costs. Sharing (SH) described situations in which (usually) money is given to someone else or a group of people such as charity organizations. Altruistic punishment (AP) described prosecution and/or punishment of behavior that violates legal or ethical norms despite costs. Moral Courage (MC) described behavior that defends minorities and moral values despite imminent risk of loss of health, safety, or social status.

The survey was constructed by a bilingual member of the research group and double-checked by a native English speaker. In approximation to IOS, the survey was designed to encompass altruistic behaviour across the various levels of social proximity: close friends and family members (proximity level: close), distantly known others and country fellows (proximity level: medium), and anonymous others (proximity level: distant). Participants rated their agreement with each statement on a six-point Likert-scale ranging from "I totally disagree" to "I totally agree". The survey as such did not undergo any statistical evaluation or revision due to the small number of items contained; instead it was taken at face value because the aim of the study was only to compare the two cultural groups on the described statements.

The Social Value Orientation (SVO, Murphy et al. 2011) Slider Measure was used to assess generally how much concern a person has for others. It consists of six primary items (and nine secondary items, not used in this study) where the participant indicates by selecting on a continuum their resource allocation choice. On the online assessment, the participant wrote his or her allocation choice for both him/herself and the anonymous other. The measure gives an angle, which indicates the participant's social value orientation, and it can

be categorised as follows: Greater than 57.15° altruistic, between 22.45° and 57.15° prosocial, between −12.04° and 22.45° individualist, and less than −12.04° competitive. German and English versions of the measure were used. The answers of all participants were transitive.

The Inclusion of Other in Self (IOS) Scale (Aron et al. 1992) consists of Venn-like diagrams representing different degrees of overlap of two circles and measures the degree of interpersonal closeness. We used a modified version (Kinnunen and Windmann 2013) of the scale by Aron et al. (1992). In the modified version, a diagram where the two circles are clearly separate was added and the participants were asked to select the diagram that best described their relationship to a) other people in general, b) people they know, but are not friends with, c) their closest friend, d) their spouse, and e) their closest blood relative. In contrast to the circles that Aron et al. (1992) introduced, the circles in the modified scale did not vary in size across response alternatives to prevent the idea that the self is reduced in size when its overlap with others increases. The English instructions followed the ones by Aron et al. (1992), the German instructions were constructed by a native German speaker and checked by another.

Procedures

Participants answered the online survey during 4 month period between February and May 2013. On the first page of the assessment, they were given the description of the study, the privacy policy (anonymous participation), and the contact information of the investigators. They were asked to continue with the survey only if they agreed with the conditions, and were advanced to the next screen only when they checked the appropriate option.

The first section of the actual assessment was the social value orientation scale (SVO), followed by the inclusion of other in self scale (IOS) and the altruism survey. On the final section of the survey, the participants were asked a number of questions about themselves including sex, age, nationality, country, highest educational achievement, income level, and profession.

Data Analysis

The study followed a 2×4 design with Group (Indian, German) as between subjects and Altruism Type (helping, sharing, moral courage, altruistic punishment) as within subjects factors. Data distributions were found to be symmetrical, but deviating from normal in most conditions. We therefore used either nonparametric or permutation-based significance tests in addition to parametric testing via ANOVA to double-check all main and interaction effects. The permutation-based significance test runs the ANOVA 10,000 times with randomly permuted labels, then assesses the number of F-values

under permutation which were equal or larger than the observed F-value, and determines the final p-value by dividing this number by 10,000.

The p-values obtained from the ANOVAs were quite similar to those obtained with the permutation procedure. We report both results, but conclude that for the present data, parametric tests are robust against the violations of assumptions. For ANOVAs involving repeated measures, Huynh-Feldt corrected p-values are reported when needed to correct for sphericity violations.

For all analyses, we first partialled out the effects of gender to control for the different gender ratios in the two samples, but found no significant main or interaction effects. We then repeated all analyses with International Dollar as a covariate, albeit with some data loss due to missing values (remaining $N=59$ in the Indian group and $N=97$ in the German group). We found no significant main or interaction effects involving this covariate either. We therefore dropped the covariates to maintain the largest possible sample sizes.

For exploratory purposes, we also analyzed the three levels of social proximity separately. This design added another within-subject's factor named Proximity with three levels (high, medium, low) to the ANOVA. Results are reported but should be treated with some caution as mean values in this analysis are based on only two or three (Helping, Sharing) or three of four (Moral Courage, Altruistic Punishment) items. We are also unable to provide a permutation test for this complex design.

Results

Indian participants had lower SVO angles, $M=25.77$, $SD=25.04$, $N=77$, compared with German participants, $M=32.65$, $SD=12.29$, $N=117$, suggesting lower prosocial orientation towards an unspecified other person, $F(1192)=6.47$, $p=.012$; partial $\eta^2=.03$. However, the effect disappeared in a nonparametric test, Mann–Whitney $U=4091$, $p=.278$, which was performed because the variance of the Indian group was twice as large compared to the German group.

Indian participants showed higher Inclusion of Others in the Self overall, as reflected in a significant main effect of Group, $F(1194)=9.26$, $p=.003$, partial $\eta^2=.05$; permuted $p=.003$. This group effect interacted with IOS level; $F(4776)=2.54$, Huynh-Feldt $p=.050$, partial $\eta^2=.01$; permuted $p=.048$, as shown in Fig. 1. The group difference was almost non-existent for individuals the participants knew non-intimately, $p=.940$, but significant for all other levels, General: $p=.033$, Friend: $p=.021$, Spouse: $p=.051$, Relative: $p<.001$.

The core testing of our main research question analysed group differences in the four altruism types. Results are presented in Fig. 2. There was no significant main effect of Group
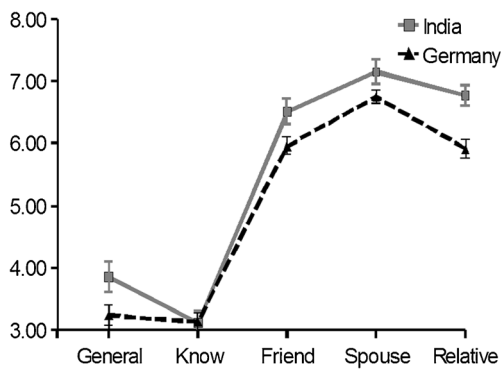
Fig. 1 Inclusion of others in the self for the Indian and the German participants

Table 1 Results of the 2 (Groups) × 4 (Altruism Types) × 3 (Proximity) ANOVA

Variable	df	F	p	Partial η²
Altruism Type	3, 582	74.98	<.001	.28
Altruism Type×Group	3, 582	7.29	<.001	.04
Proximity	2, 388	2.50	.086*	.01
Proximity×Group	2, 388	0.26	.760	.00
Altruism type×Proximity	6, 1164	28.51	<.001	.13
Altruism type×Proximity×Group	6, 1164	6.57	<.001	.03

*Huynh-Feldt corrected p-value

$p=.400$, but a significant interaction of Group x Altruism Type, $F(1194)=8.88$, Huynh-Feldt $p<0.001$, partial $\eta^2=.04$; permutated $p<.001$. The Indian sample showed higher Helping, $p=.002$, and marginally higher Sharing, $p=.081$, but lower Moral Courage, $p=.037$, and marginally lower Altruistic Punishment, $p=.096$.

Across the entire sample, a medium correlation between Sharing and Helping was found, Pearson's $r=.44$, $p<.001$, $N=196$. Remarkably, Sharing and Helping correlated somewhat higher with Moral Courage, Pearson's correlations of .24 and .29, respectively, relative to Altruistic Punishment, Pearson's correlations of .16 and -.00, respectively. Moral Courage and Altruistic Punishment showed only small albeit significant intercorrelation, Pearson's correlation $r=.17$, $p<.02$, $N=196$.

Finally, for exploratory purposes, we considered social proximity in the comparison of altruism types between groups. To this end, we added the three proximity levels as another factor with repeated measures to the ANOVA comparing the two groups on the four altruism types. Results are reported in Table 1 and Fig. 3. The analysis shows that the group differences in altruistic punishment occurred primarily at high levels of social proximity (i.e., in close relationships). It is also at this close interpersonal level where group differences in sharing and helping behaviour were largest. The effect sizes were large for Altruism Type, medium for the
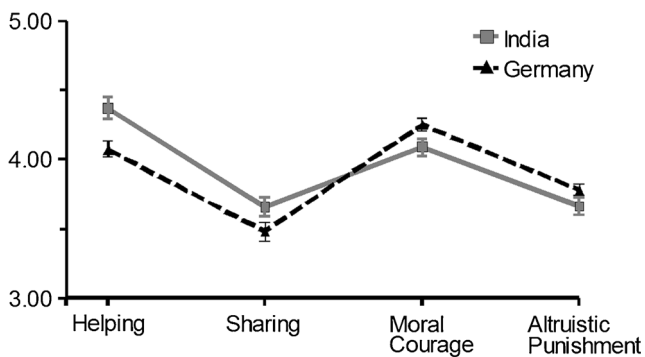
interaction of Altruism Type and Proximity, and small for the other effects (guideline of operational definition by Cohen (1988)).

Discussion

We have focused on cultural differences between a Western and an Eastern culture in self-reported attitudes towards altruistic behaviours. We compared Germany as a representative of a culture with more negotiable interpersonal relationships, where the needs of an individual can surpass the needs of the group, with India, a culture valuing the well-being of the group alongside firm, harmonious ties within groups, so that identities between individuals are felt to overlap more strongly than in the German culture.

We first investigated whether indeed members of the two cultures differed significantly on how fused they saw their own selves with other people, expecting that this might to some degree parallel the difference on collectivism and individualism between the two cultures (Hofstede 1980; Oyserman et al. 2002). We found this hypothesis confirmed: Across all levels of personal relationships, with the exception

Fig. 2 Self-reported attitudes towards four types of altruism in Indian and German participants
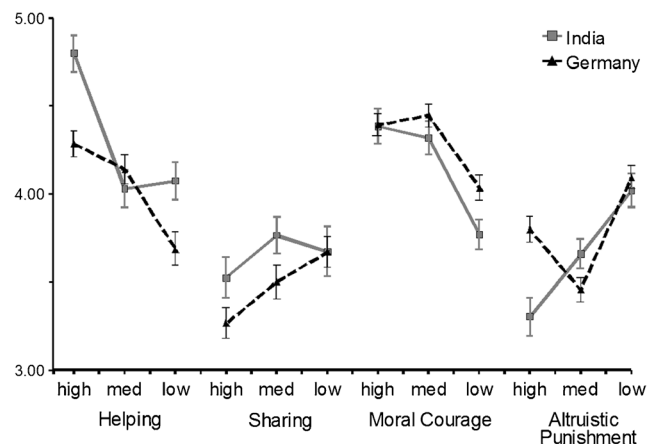

Fig. 3 Level of agreement on the four types of altruistic behaviours reported by the Indian and German participants for high, medium (med) and low levels of social proximity

of "known" individuals (acquaintances), Indian participants reported more Inclusion of Others in the Self (IOS, Aron et al. 1992) relative to German participants. This suggests a more responsive and fluid concept of the self among the Indian population relative to the German, one that incorporates the self within the boundaries of other individuals or groups of individuals. A higher IOS has been suggested to better predict altruism than does empathy (Cialdini et al. 1997), pursuing the notion that IOS may be a proxy for felt kinship (Whitehouse et al. 2014). This would suggest that Indians see themselves as more interrelated than do Germans.

We have then compared Indian and German cultures on the statements regarding four different types of altruistic behaviour, namely helping, sharing, moral courage, and altruistic punishment. We found that Indian participants estimated their willingness to help those in need higher than did German participants, and also may be more likely to share from their resources than do German respondents. These results are in line with our hypothesis and support the view that Eastern cultures with their presumed higher motivation of bonding, cooperation, and maintaining group stability, promote gratifying forms of altruism. Similar results have been found in previous research linking Asian cultures with higher sharing of money with outgroup members (Buchan et al. 2006), higher sharing of information when it is good for the organization (Chow et al. 1999, 2000), and higher cooperation in monetary games (LeBeouf et al. 2010).

We note that helping and sharing are conceptually not easily distinguishable, because helping essentially means sharing resources such as time, expertise, and energy; and sharing involves helping if the shared resource is needed. Given the pattern of group differences found here, and the relatively strong intercorrelation between the two self-reported behaviours, we suggest that the two forms might be merged into a single cluster of gratifying altruistic behaviours that form and strengthen social bonds and thereby make clans and groups stronger. Interestingly, in the additional exploratory analyses, we found that the cultural differences between the willingness to help and share with others occurred most strongly in close social relationships, i.e., for natural ingroups. Close social proximity offers the possibility to track and memorize rewarding behaviours towards others, thereby encouraging reciprocation. Such inverse correlation between social distance, extending to anonymous situations, and reciprocity, has previously been established in classroom laboratory settings and on the internet (Charness et al. 2003, 2007). However, at this level of differentiation, some of our results are based on only two statements and should therefore be considered preliminary.

Of the more competitive and correctional forms of altruism, a significant difference between the Indian and German cultures was found on their attitudes towards moral courage. The Indian participants appreciated situations requiring moral courage less than did the German participants. This could reflect the cultural difference of Indian individuals maintaining higher standards of interpersonal commitment compared to Western cultures (Miller and Bersoff 1992) and thus a reduced willingness to stand up or speak for the rights of individuals and minorities. Social pressure, especially in conjunction with non-democratic policing, may additionally lower their willingness to question common practices and authorities. Also, moral courage requires exposing oneself to the risk of humiliation and loss of social status (Baumert et al. 2013), which may well be more serious consequences for an individual from a more collectivist culture, where the self is defined in terms of connectedness to others in various ingroups (see e.g., Kitayama et al. 1997; Oyserman et al. 2002). Indeed, a study on personal collectivism (allocentricm) has found that individuals in more collectivist cultures are more sensitive to rejection compared to those in more individualistic cultures (Yamaguchi et al. 1995).

We found a similar trend for altruistic punishment, so that German respondents endorsed taking altruistically punitive action against norm violators more compared to Indian respondents, despite relatively low intercorrelation between moral courage and altruistic punishment. The additional exploratory analysis suggested that this difference is prominent mainly in close social relationships, perhaps reflecting the fact that defending ingroup norms is most important in close social proximity. These results can further support the idea that in Eastern cultures, the connectedness to central others, and the conventions to maintain firm and harmonious ties with other members of the group may surpass the desire to rectify any one's behaviour (see e.g., Kitayama et al. 1997; Markus and Kitayama 1991; Oyserman et al. 2002). Stronger commitment to established traditions may further prohibit a person from taking action in a situation that requires moral courage or altruistic punishment, especially in close relationships, when repercussions of shunning and rejection are possible.

Notably, as we performed a survey study with a self-designed, and previously untested questionnaire, our results reflect the self-evaluation of participants and how they think they would endorse the situations described, not necessarily their actual behaviour in such situations. Results may thus more closely reflect participants' attitudes than their behavioural motivations. However, the items of the survey carefully specified the contexts and the targeted (groups of) individuals (at three defined levels of social proximity), thereby avoiding unspecific or highly general statements. Consequently, the survey took very specific samples of the four types of altruism in every-day life, almost as in vignettes. With this measure, we succeeded in showing a double dissociation between culture and type of altruism: Indians reported more willingness to help and share while Germans reported more willingness towards moral courage and altruistic punishment. The question of whether these differences in self-report transcend into

actual behavioural dispositions can only be investigated with direct behavioural observations, made either in every-day life situations or experimental setups (e.g., Balafoutas et al. 2014; Levine et al. 2001; Henrich et al. 2006; Peysakhovich et al. 2014; Schnall et al. 2010). However, differentiating and comparing the various forms of altruism in behaviour within one single study will be extremely difficult, especially when it comes to moral courage.

The group differences in attitudes we found in this study support the conceptual distinction between at least these two types of altruistic behaviour: One gratifying, bond-seeking cluster of behaviours involving help-giving and sharing, and perhaps another cluster of reactive and corrective actions including moral courage and altruistic punishment (although the relationship between these latter two forms remains less clear given their relatively low intercorrelation). The underlying mechanisms separating the two clusters of behaviours seem to include intuitive as opposed to rational thinking, positive affect (warm glow) as opposed to negative affect (anger), empathy and care as opposed to courage and competition, and high as opposed to low inclusion of others in self (cf., Kayser et al. 2010; Peysakhovich et al. 2014; Kinnunen and Windmann 2013). From the present data, we cannot directly infer what mechanisms may have driven the cultural differences observed here, although we presume that they may be related to experienced oneness and collectivist versus individualistic perspectives. However, we emphasize that these are qualitative differences in altruism profiles between the groups, and not general differences in response bias due to participant motivation, social desirability or other unspecific factors, as these should have resulted in a main effect of group.

Finally, we note two further aspects limiting our interpretations. First, in focusing on the collectivism/individualism distinction, we have certainly taken a simplistic view on the diverse subpopulations coexisting within India and Western Europe. Other cultural distinctions exist that may be relevant for altruism, and differentially so for the different facets of altruism. One of them is the vertical/horizontal dimension (Singelis et al. 1995), which refers to hierarchical structures within a society. This can differentiate e.g., between India with its caste system from China where equality is being stressed, although both these cultures score low on Hofstede's IDV index.

The second aspect is that the observed cultural features may be transitory to the degree that the world is changing. In particular, future generations of the Indian population will have growing access to information and education which hopefully 1 day will reach all rural areas, while international cooperation, tourism, and immigration remain increasing. This educational and economic advance is likely to shift the Indian society and culture towards Western values (Hamamura 2011). As an Eastern country and with the second highest population in the world, but being influenced by Western culture to a greater extent, India is already a country where both individualistic and collectivist values strongly co-exist (Sinha and Tripathi 1994). Our understanding of the effects of the mixed belief systems, traditions, religions, and political positions can be enhanced by continued studies of social values and norms.

Appendix: Survey on Altruism

Helping – Proximity Level: Close

(+) I would always help a good friend, who needs help, even if I am under pressure to complete pending tasks for my job.

(+) I feel obliged to help close family members always, no matter what situation I am exposed to.

(+) When a good friend needs help with moving, I would not offer my help to her if I am massively under time pressure for business reasons.

Helping – Proximity Level: Medium

(−) I would refuse to help a distant acquaintance, whom I would meet by chance at the station, and who would ask me to help him find the right platform, if I were pressed for time to get a ticket for my own train.

(+) A colleague, who would ask me to check her house for some days (i.e., watering the plants, feeding the animals, emptying the mailbox), while she is on holidays, I would certainly aid, even if it is huge circumstance for me to get to her house.

Helping – Proximity Level: Distant

(+) There should be a global legislation that basically requires people to help disabled individuals in daily life, regardless of their time.

(−) In my view it is right that uninvolved witnesses of a minor accident with unfamiliar people can decide on their own whether they want to stop and offer their assistance.

Sharing – Proximity Level: Close

(−) If you do not know a charity organization, or if you do not identify with their goals, you should not donate money for it, even if your best friend asks you to do so.

(+) If a close relative of mine was in need of money, I would support him financially, even if I would have to rely on my long-time savings to buy a house.

Sharing – Proximity Level: Medium

(−) One should better not lend money to distant acquaintances or colleagues.

(+) If a classmate asked me to give her lessons on a subject that she achieves poor grades in, I would respond to her request, even if I could not finish my own homework.

Sharing – Proximity Level: Distant

(−) On vacation in a foreign country, I generally refuse to give money to beggars or street children.

(+) I would donate my clothes to an international organization, even if it is unknown to me.

Moral Courage – Proximity Level: Close

(+) If a good friend should be attacked on the bus because of his religious beliefs, I would protect him absolutely through my intervention, even in case of an assault.

(−) As an outsider, you should always keep out of family matters, even if things get unfair.

Moral Courage – Proximity Level: Medium

(−) If a fellow student from my country of origin should be verbally attacked during a semester abroad, I could imagine keeping out of it to avoid an escalation.

(+) In a divorce war between two colleagues, there are sometimes deliberately spread rumors in order to damage the other's reputation. In such a situation one should address the affected colleagues.

(+) I would protect a classmate, who is being bullied by my friends and called a nerd, at the risk of making myself unpopular.

Moral Courage – Proximity Level: Distant

(−) For reasons of self-protection and uncertainty on a trip road, I would rather not engage in a situation where someone is assaulted by youths.

(+) Regardless of one's own convictions, you have to get involved if an apparently peaceful demonstration group is attacked for no apparent reasons by the police by contacting the team leader.

(−) In other countries and cultures, I can tolerate if parents use mild forms of corporal punishment as a method of education.

(+) I would put myself out actively for human rights and rule of law by writing letters and signing petitions, even if some countries would put me on a list of subversive-minded individuals.

Altruistic Punishment – Proximity Level: Close

(−) It is right for me that I can refuse to answer questions in front of the court against my relatives at any time, so I do not disturb the peace within the family.

(+) I would press charges against my family for violent crimes with injury, even if the relationship will be destroyed.

(+) If a girlfriend disappoints me, I would withdraw from her to show her that she cannot treat me so.

Altruistic Punishment – Proximity Level: Medium

(+) I would easily pay more taxes in order to intensify the search for insurance frauds in this country.

(+) I would give much to pull polluters in my home country to justice.

(−) I think that the possibility of criminally liberated, voluntary disclosure of tax evasion is right, because in this way at least some money flows back into the treasury.

Altruistic Punishment – Proximity Level: Distant

(+) If strangers do not make the same contribution voluntarily to the community as members, they should not be surprised if one excludes them.

(−) In internal political affairs of other states, such as the question of freedom of expression, one should rather not interfere when the relationship is good otherwise.

(+) Corrupt governments must be excluded from international organizations, even if economical disadvantages arise for other members therefrom.

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