

Buddhist Concepts as Implicitly Reducing Prejudice and Increasing Prosociality

Magali Clobert, Vassilis Saroglou, Kwang-Kuo Hwang

▶ **To cite this version:**

Magali Clobert, Vassilis Saroglou, Kwang-Kuo Hwang. Buddhist Concepts as Implicitly Reducing Prejudice and Increasing Prosociality. Personality and Social Psychology Bulletin, 2015, 41 (4), pp.513-525. 10.1177/0146167215571094 . hal-03265731

HAL Id: hal-03265731

https://normandie-univ.hal.science/hal-03265731

Submitted on 21 Jun 2021

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

ResearchGate

See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/272186792

Buddhist Concepts as Implicitly Reducing Prejudice and Increasing Prosociality

Article *in* Personality and Social Psychology Bulletin · February 2015

DOI: 10.1177/0146167215571094 · Source: PubMed

CITATIONS
43

READS
436

3 authors, including:



Magali Clobert
Université de Caen Normandie
14 PUBLICATIONS **171** CITATIONS

SEE PROFILE



kwang-kuo Hwang
National Taiwan University
125 PUBLICATIONS **6,298** CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:

Project

Theory Construction and empirical studies of Social Science for Chinese（華人社會科學理論建構與實徵研究（思源學會））View project

Project

Taiwan politics and culture View project

All content following this page was uploaded by Magali Clobert on 02 April 2015.

The user has requested enhancement of the downloaded file.

Personality and Social Psychology Bulletin

This is the preprint version. For the advanced online and the final published versions, see

http://psp.sagepub.com/

Buddhist Concepts as Implicitly Reducing Prejudice and Increasing Prosociality

Magali Clobert

Université catholique de Louvain and Belgian National Fund for Scientific Research

Vassilis Saroglou

Université catholique de Louvain

and

Kwang-Kuo Hwang

National Taiwan University

Author Note

This research was supported by a doctoral fellowship offered by the Belgian National Fund for Scientific Research to the first author under the supervision of the second author. We thank Laurie Finet and Jie-Lin Zhang for their help with data collection, respectively, for Experiments 2 and 3. Magali Clobert is currently postdoctoral visiting fellow at Stanford University.

9,923 words

Corresponding author:

Magali Clobert, Department of Psychology, Université catholique de Louvain, Place du Cardinal Mercier 10, B 1348, Louvain-la-Neuve, Belgium. E-mail: magali.clobert@uclouvain.be

Abstract

Does Buddhism really promote tolerance? Based on cross-cultural and cross-religious evidence, we hypothesized that Buddhist concepts, possibly differing from Christian concepts, activate not only prosociality but also tolerance. Subliminally priming Buddhist concepts, compared to neutral or Christian concepts, decreased explicit prejudice against ethnic, ideological, and moral outgroups among Western Buddhists who valued universalism (Experiment 1, $N = 116$). It also increased spontaneous prosociality, and decreased, among low authoritarians or high universalists, implicit religious and ethnic prejudice among Westerners of Christian background (Experiment 2, $N = 128$) and Taiwanese of Buddhist/Taoist background (Experiment 3, $N = 122$). Increased compassion and tolerance of contradiction occasionally mediated some of the effects. The general idea that religion promotes (ingroup) prosociality *and* outgroup prejudice, based on research in monotheistic contexts, lacks cross-cultural sensitivity; Buddhist concepts activate extended prosociality and tolerance of outgroups, at least among those with socio-cognitive and moral openness.

Keywords: religious priming; Buddhism; prosociality; prejudice

Buddhist Concepts as Implicitly Reducing Prejudice and Increasing Prosociality

The role of religion regarding pro and anti-social attitudes is paradoxical: religion may foster both prosociality and prejudice (Batson, Schoenrade, & Ventis, 1993). This is attested today by important evidence coming from two bodies of research: studies on individual religiosity and its social outcomes and studies on cognitions and social behaviors automatically activated following priming of religious ideas and symbols (for prosociality: Preston, Ritter, & Hermandez, 2010; Saroglou, 2013; for prejudice: Hunsberger & Jackson, 2005; Rowatt, Haggard, & Carpenter, 2014). However, this evidence comes mainly from studies among participants of Western Christian tradition, and from experiments using religious primes of the same tradition. Additional studies on Muslims and Jews, although limited in number, have confirmed the paradox of religious prosociality and prejudice (e.g., Ginges, Hansen, & Norenzayan, 2009), contributing to the idea that the above paradox may be universal, across different cultural and religious contexts.

Is the way religion shapes social behavior indeed universal or is there something culturally and religiously specific about its influence? More specifically, is the paradox of the co-existence of prosociality and prejudice also present in the context of Eastern religions? Recent developments in the understanding of social consequences of religion from a cross-culturally sensitive psychological perspective attest to the importance of investigating both universals and cross-religious differences in the psychological characteristics of religion (Cohen, 2009; Saroglou & Cohen, 2013). In the present work, we argued that Eastern religion, especially Buddhism, in difference from monotheistic religions, at least Christianity, does not intensify and may even attenuate the ingroup/outgroup distinction. We consequently tested the role of Buddhist concepts in implicitly activating not only prosociality but also decreased prejudice, i.e. tolerance. We detail below the rationale supporting the hypotheses.

Christian (Ingroup) Prosociality and Outgroup Prejudice

As clarified by extensive psychological research in Western Christian religious contexts, individual religiosity is followed, to some extent, by prosocial attitudes and behaviors, usually toward proximal others and ingroup members rather than outgroups, and especially value-threatening targets (Saroglou, 2013, for review). The nature of motivation may not necessarily be altruistic (Batson et al., 1993), and the effect may be amplified by impression management and conformity to stereotypes (Galen, 2012). Nevertheless, (ingroup) religious prosociality does exist and can be attested behaviorally (Saroglou, 2012). Studies using priming methodologies offer some complementary evidence: among Westerners, priming religious ideas from the Christian tradition has been found to (subliminally or supraliminally) increase cooperation (Preston et al., 2010), generosity (Shariff & Norenzayan, 2007), gratitude (Tsang, Schulwitz, & Carlisle, 2012), helping (Pichon & Saroglou, 2009), and charity (Pichon, Boccato, & Saroglou, 2007).

Not only does Christian religiosity and religion seem to imply prosociality which is mostly limited to proximal people and not necessarily extended to outgroups, but they seem to lead to or activate attitudes and behaviors of prejudice and discrimination. Religious fundamentalism, more consistently, but also mere religiosity to some extent, is associated with prejudice toward various moral and ideological outgroups (e.g., homosexuals, other religionists, atheists), as well as to "natural" outgroups like women or people of different ethnicity and race (Hunsberger & Jackson, 2005; Rowatt et al., 2014). Again, attesting some causal direction from religion to prejudice, or at least the activation of stereotypical associations, recent experiments using priming techniques showed that religious concepts or images from the Christian tradition automatically activate subtle racism against African Americans (Johnson, Rowatt, & LaBouff, 2010), sexism (Kaelen, Klein, & Saroglou, 2013), and negative attitudes against women, homosexuals, Muslims, and foreigners (Johnson, Rowatt, & LaBouff, 2012; LaBouff, Rowatt, Johnson, & Finkle, 2012).

East vs. West Differences and the Specifics of Buddhism

Theological, cultural, and psychological reasons converge on the idea that cognitive rigidity, dogmatism, and the ingroup/outgroup distinction may be attenuated within Eastern religions, especially Buddhism, compared to Western Christianity (Harvey, 1990; Ji, Lee, & Guo, 2010; Nisbett, Peng, Choi, & Norenzayan, 2001). Consequently, religious tolerance instead of prejudice may be more typically associated with Buddhism. Buddhist concepts should, even automatically, activate tolerance and universal prosociality. Three specific reasons are in favor of this expectation.

First, Buddhism emphasizes ideals of *compassion* and non-violence in a way that is possibly clearer than in the three monotheisms (Davidson & Harrington, 2002). A variety of teachings and means are used to help people develop a calmer, more integrated and compassionate personality (Harvey, 1990). Second, Buddhist teachings favor a more holistic and dialectical, thus probably less essentialist, thinking about the world, what allows for *tolerance of contradictions*. Interestingly, among Westerners converted to Buddhism, intensity of Buddhist beliefs and practice are unrelated to the epistemic need for closure (Saroglou & Dupuis, 2006), whereas high need for closure and structure explains religious prejudice among Christians (Brandt & Renya, 2010; Hill, Terrell, Cohen, & Nagoshi, 2010). Importantly, people that tolerate contradictory elements do not systematically attribute stereotypical qualities to the ingroup or outgroups (Spencer-Rodgers, Williams, & Peng, 2012) and are less susceptible to ingroup favoritism (Ma-Kellams, Spencer-Rodgers, & Peng, 2011). Third, concerns for harmony and interdependence between all life forms are particularly present in East Asian religions on various levels: between individuals, between groups, and between humans and nature (Ji et al., 2010). Correlational evidence suggests that, at least in the West, Buddhist religiosity relates to the value of universalism (Saroglou & Dupuis, 2006), contrary to Christian, Jewish, and Muslim religiosity (Saroglou, Delpierre, &

Dernelle, 2004). *Oneness with others* may thus in Buddhism attenuate the strong ingroup/outgroup distinction.

Hypotheses: Targets, Mediators, Moderators, and Cultural Contexts

We thus hypothesized Buddhist concepts to be associated with prosociality and tolerance even toward outgroup members. We expected this to be the case even at the implicit level of cognition, with Buddhist concepts supraliminally presented to activate extended prosociality and outgroup tolerance measured through explicit and implicit attitudes and behavioral intentions. Moreover, based on the main characteristics of Buddhism and East Asian religions in general, as presented in the previous section, we expected the decrease of prejudice as a consequence of Buddhist priming to be explained by three potential mediators: the emotion of compassion, tolerance of contradiction, and the feeling of oneness with others.

Note that positive links between religiosity among Eastern Asians (mostly Buddhists) and tolerance were established in a recent series of studies (Clobert, Saroglou, Hwang, & Soong, 2014). Among Eastern Asians (mainly Buddhists), high religiosity was found to predict high explicit inter-religious tolerance and a lack of, or weaker, antigay prejudice relative to Christians (Study 1), decreased explicit prejudice against various religious outgroups, except atheists (Study 2), and low implicit inter-religious and ethnic prejudice (Study 3). In the present work, the hypothesis of decreased prejudice following Buddhist priming responds to a distinct question. The social outcomes of Buddhist religiosity concern characteristics of high believers compared to non-believers, whereas the effect of Buddhist priming concerns implicit associations in people's minds, possibly independent of their personal beliefs and degree of investment on Buddhism.

We also expected the hypothesis of weak prejudice following Buddhist primes to apply to different kinds of targets, i.e. ideological (other religions, non-believers), ethnic, and moral (homosexuals) outgroups. Evidence suggests that high versus low prejudice is a

common global tendency toward a variety of targets (Akrami, Ekehammar, & Bergh, 2011) even if distinct psychological processes may be involved in prejudice toward specific targets (e.g., Asbrock, Sibley, & Duckitt, 2010). Nevertheless, a clearer effect on weak prejudice was expected for prejudice against religious and ethnic outgroups, given previous correlational evidence on Eastern Asian religiosity and prejudice (Clobert et al., 2014) as well as an experiment where Buddhist primes decreased ethnic prejudice among Westerners (Clobert & Saroglou, 2013). However, our hypothesis was less obvious with regard to antigay prejudice. The latter, although lower among Buddhists than Christians, was found to positively relate to individual religiousness (Detenber et al., 2007) and to increase after the priming of Buddhist concepts among Buddhists (Ramsay, Pang, Johnson Shen, & Rowatt, 2014) and Christians (Vilaythong, Lindner, & Nosek, 2010).

Do Buddhist concepts activate prosociality and tolerance among all people, independently of their personality or religiosity? We investigated this question in the present work by including, as possible moderators, the degree of investment to Buddhism as well as two constructs of individual differences that are typical predictors of tolerance vs. prejudice, i.e. valuing universalism and authoritarianism (Duckitt & Sibley, 2008; Sagiv & Schwartz, 1995). One could expect Buddhist concepts to automatically activate prosociality and tolerance among all participants, but more clearly among those who are more strongly attached to Buddhism, value universalism, or score low in authoritarianism.

Indeed, studies often show that religious priming implicitly activates social outcomes independently of participants' religiosity or individual dispositions on constructs typical of closed-mindedness (Galen, 2012, for review). However, several studies have shown that the effects are stronger or significant only among those who are religious (e.g., Blogowska & Saroglou, 2013; Shariff & Norenzayan, 2007), value universalism (Clobert & Saroglou, 2013), or are low in authoritarianism (Van Pachterbeke, Freyer, & Saroglou, 2011). It is

reasonable to presume that the association of Buddhist ideas with tolerance may constitute a kind of cultural knowledge shared across people in general. However, the activation by Buddhist primes of tolerance-related cognitions and behaviors should be clearer among participants highly attached to Buddhism (having thus better internalized Buddhist values) and/or participants (high universalists, low authoritarians) who place high importance on the activated construct of outgroup tolerance in their life in terms of worldviews, personal dispositions, and values (thus more eager to detect prosocial and tolerant aspects in various ideologies and beliefs systems). Note that high universalism and low authoritarianism may overlap to some point, but the former emphasizes moral (prosocial) emotions, whereas the latter denotes socio-cognitive open-mindedness.

Finally, the impact of Buddhist concepts on prosocial attitudes was tested here across three distinct populations, i.e. (1) Westerners converted to Buddhism, (2) Christian and secular Westerners, and (3) Buddhist/Taoist/folk believers and secular East Asians. We expected the hypotheses to apply across all three cultural/religious groups. However, one could be hesitant to expect the effects to hold mainly for converts to Western Buddhists (because of the high intrinsic motivation to convert and specifically endorse Buddhist values; Rambo & Farhadian, 2014) or among Westerners in general (because of the highly positive perception of a tolerant Buddhism in the West; Goldberg, 2006), and not among Buddhist/Taoist East Asians (prosociality weakens when religion is based on socialization and thus is extrinsic; Batson et al., 1993). Alternatively, it might be that the Buddhist primes, are not effective, as hetero-religious primes, among Western Christians (Vilaythong et al., 2010; but see Clobert & Saroglou, 2013), but activate tolerance in their natural cultural land, i.e. East Asia.

Overview of the Experiments

The role of Buddhist concepts in activating pro- and anti-social attitudes was tested across three experiments. In Experiment 1, we investigated the effect of supraliminal Buddhist primes on explicit prejudice against various outgroups. The participants were Europeans converted to Buddhism attending Buddhist centers. The study also examined the possible moderating role of religious identification and the value of universalism. In Experiments 2 and 3, the impact of subliminal Buddhist primes, compared to Christian and neutral ones, on ethnic and inter-religious prejudice was tested. Ethnic and religious prejudices were assessed implicitly, using Implicit Association Tests. These two experiments were carried out among Belgian (of Christian background, Experiment 2) and Taiwanese (of Buddhist/Taoist/folk believing background, Experiment 3) young adults and included measures of individual religiosity, universalism, and authoritarianism as possible moderators. Finally, three possible mediators were investigated in Experiments 2 and 3, i.e. compassion, tolerance of contradiction, and oneness with others.

Experiment 1

The aim of Experiment 1 was to test the role of Buddhist concepts on activating decreased prejudice against various targets. As a first step, this experiment was carried out among Westerners familiar with Buddhism. After being supraliminally primed with Buddhist versus neutral words, participants were asked to fill out explicit measures of prejudice against ethnic, religious, convictional, and moral outgroups. Religious identification and valuing universalism were measured as possible moderators.

Method

Participants.

Participants (N = 116; 56% women) were recruited through Buddhist centers in Belgium (N = 87) and France (N = 29) and took part in the study voluntarily. The study was advertised as research investigating the rise of Buddhism in the West and the characteristics

of converted believers. Questionnaires were distributed either in French (76%) or English (24%). Participants self-identified as Buddhist, atheist, agnostic, Taoist or "other" (respective *Ns* = 104, 2, 6, 1, and 3). Mean age was 49.3.

Material and Procedure.

Priming material. Participants, randomly assigned to two conditions, were asked to complete a word-search puzzle which served as a priming manipulation. Depending on the condition, the ten words hidden in the puzzle were either Buddhist-related or non-religious. The Buddhist words (e.g., *Buddha, Dharma, Sutras*) were pretested and all rated positively in valence (all *Ms* > 5).Ten positive non-religious words (e.g., *sun, flower, freedom*) as a control condition were taken from Pichon et al. (2007).

Prejudice. Prejudice toward ethnic (Americans and Africans), religious (Christians, Hindus, and Muslims), convictional (non-believers), and moral (gays and single mothers) outgroups was measured. For each target, participants answered three questions commonly used in international surveys: "Would you like to have this person as a (1) neighbor, (2) political representative, and (3) husband/wife?" (Likert scales ranged from *1 = totally dislike* to *7 = totally like*). As reliability was satisfactory each time for the three items by target (αs ranging from .72 to .89), the scores were averaged, after being reversed, thus providing a single score of prejudice for each target[1].

Moderators. Individual differences on (1) self-identification as Buddhist ("To what extent do you consider yourself as a Buddhist?") and (2) the value of universalism, using the eight items from the Schwartz (1992) Value Survey (α = .80 for this data), were measured post-experimentally (7-point Likert scale for both measures).

Results

Means and standard deviations of prejudice for each target, distinctly by condition, are detailed in Table 1. ANOVA analyses showed significant differences between conditions in

all cases (see also Table 1). Participants primed with Buddhist words were more tolerant toward all targets.

In a moderated multiple regression analysis, we subsequently investigated whether the effect was moderated by religious identification and universalism[2]. As the outcome variable, an aggregate measure of prejudice against all the eight targets was used ($\alpha = .97$). Condition, the two hypothesized moderators, and the interactions of condition with each moderator were entered as predicting variables. In addition to the condition, high identification as a Buddhist predicted low prejudice, $\beta = -.20$, $t(5,108) = -2.30$, $p = .023$, but did not moderate the priming effect, $\beta = .05$, $t(5,108) = 0.61$, *ns*. However, the interaction of universalism with condition was significant, $\beta = -.21$, $t(5, 108) = -2.44$, $p = .016$ ($R^2 = .24$). A simple slope analysis revealed that the decrease of prejudice following exposure to Buddhist concepts occurred for those highly valuing universalism (one SD above the mean), $\beta = -.53$, $p < .001$, 95% CI [-.77, -.27], but not those not valuing it (one SD below the mean), $\beta = -.10$, *ns*.

Discussion

Experiment 1 confirmed the main hypothesis. After being primed with Buddhist words, participants reported lower explicit negative attitudes toward all kinds of outgroups. The effect was clearly present among participants valuing universalism (see also Clobert & Saroglou, 2013), which suggests that the implicit association between tolerance and Buddhism is stronger among those who are dispositionally oriented toward the values of equity and social justice. Degree of identification as a Buddhist did not moderate the priming effect, possibly because the sample was mainly composed of converted Buddhists, a fact that reduced variation.

Buddhist concepts decreased prejudice toward not only ethnic and religious targets, but also convictional (non-believers) and moral (homosexuals) outgroups. The last finding does not seem to be in line with two previous studies showing that Buddhist primes activate

sexual prejudice (Ramsay et al., 2014; Vilaythong et al., 2010). However, the highly extended prosocial outcomes of Buddhist concepts in the present study may be due to the sample's characteristics. Westerners converted to Buddhism (compared to Christian Westerners or people socialized as Buddhists) may be particularly prone to distance themselves from traditional values and strongly internalize Buddhist ideals of compassion and tolerance.

Experiment 2

In Experiment 2, the role of Buddhist concepts on prejudice was further investigated through additional questions and several extensions compared with Experiment 1: (1) participants were primed subliminally through a Lexical Decision Task; (2) ethnic and religious prejudice was measured using an Implicit Association Test; (3) a Christian priming condition was added; (4) prosocial behavioral tendencies were investigated; (5) three mediators were included; (6) authoritarianism was measured as an additional moderator; and (7) the hypotheses were tested in a population with a much lower mean attachment to Buddhism, i.e. Westerners of Christian background. We expected that, among Westerners, the exposure to Buddhist concepts, compared to Christian and neutral concepts, would lead to decreased implicit ethnic and religious prejudice. However, in accordance with previous studies, we hypothesized that both religious primes (Christian and Buddhist) would increase participants' prosociality compared to a neutral condition.

Three mediators of the hypothesized effects were tested: (1) tolerance of contradiction (cognitive dimension), (2) compassion (emotional dimension), and (3) oneness with others (relational dimension). Moreover, Experiment 2 included, in addition to universalism (a motivational disposition for valuing the welfare of all people and the world) and religiosity (Experiment 1), a measure of authoritarianism (a socio-cognitive orientation to endorse established social norms), as this construct is known to typically shape prejudiced attitudes.

Method

Participants.

Participants were 117 students from a Belgian French-speaking university (88% female; mean age = 20 years; *SD* = 1.99). They self-identified as Catholic (45%), atheist (43%), agnostic (8.5%), or Protestant (1.5%), whereas 2% reported "other". They took part in this study (presented as a recognition and categorization task) in exchange for course credit and entered the lab in small groups (from 3 to 10 people).

Material and Procedure.

Lexical decision task (LDT). Participants were randomly assigned to one of three priming conditions, and were invited to complete in the lab a lexical decision task designed to subliminally prime respectively Buddhist, Christian, or neutral concepts. The words used for the LDT and for the neutral prime condition were taken from Pichon and colleagues (2007). The Buddhist (e.g., *Buddha, monk, reincarnation*) and Christian words (e.g., *Jesus, Church, Bible*) were pretested among 25 Belgian participants.

Hypothesized mediators. Immediately after the LDT, participants completed short measures of three constructs: tolerance of contradiction, compassion, and oneness with others. For *tolerance of contradiction* we provided in short statements three pairs of seemingly contradictory scientific findings (see Peng & Nisbett, 1999). Participants rated the plausibility of the findings on a 9-point Likert scale. The absolute difference (reversed) between the ratings of two seemingly contradictory findings indicated a stronger tolerance of contradiction. *Compassion* was measured with six items (α = .85) of the Compassionate Love Scale (Sprecher & Fehr, 2005). The two items with the best factor loadings on each of the three dimensions of that scale were selected (7-point Likert scales). *Feeling of oneness* was measured with the Inclusion of Others in the Self Scale (Aron, Aron, & Smollan, 1992). Participants were asked to select the picture that best described their relationship with others

from seven Venn-like diagrams representing different degrees of overlap of two circles (me and the others). The scores ranged from 1 (no overlap) to 7 (highest overlap).

Implicit Association Test. Afterwards, participants were invited to complete two Implicit Association Tests (IAT; Greenwald, McGhee, & Schwartz, 1998) designed to measure implicit prejudice against African people and Muslims. Each IAT consisted of five blocks (total of 10 blocks, with blocks 1, 2, 4, 6, 7, and 9 constituting simple practice and blocks 3, 5, 8, and 10 being the critical test phases). For the first IAT (African people), the target categories used were *Caucasian* and *African* (10 faces of each) and the attribute categories were *positive* and *negative* (10 words each). The associated stimuli for targets were Caucasian and African neutral-expression male faces generated using FaceGen Modeller (Version 3.5). For the second IAT (Muslims), the target categories were *Christian* and *Muslim* (10 first names of each), whereas the attribute categories were *positive* and *negative* (10 words each). The Christian (e.g., *Christian, Mary, Matthew*) and Muslim (e.g., *Mohammed, Fatima, Aziz*) first names were selected after a pre-test in an independent group of 26 young adults.

Each of the practice blocks (1, 2, 4, 6, 7, and 9) consisted of a total of 20 trials. Each of the test blocks comprised 40 trials with targets and attributes presented in a random order. In each trial, participants focused on a blank screen for 395 ms, at which point either a target or an attribute appeared on the screen for 10,000 ms. During this time, participants had to press the key corresponding to the correct category. Feedback followed the response, indicating participants' accuracy and response times. The IAT score was computed using the improved D algorithm (Greenwald, Nosek, & Banaji, 2003).

Prosociality. Afterwards, participants were invited to write down what they would do if they won 100,000 Euros, specifying each expenditure and the amount of money they would allocate toward each. The percentage of money participants spontaneously allocated to all kinds of "others" (not to the self) was coded as a measure of prosociality. This global

prosociality score was further decomposed into posociality toward proximal targets (family, friends) and prosociality toward distal/unknown targets (charity, non-governmental organizations).

Post-experimental measures. After a distraction task (neutral words-search puzzle), participants completed a last questionnaire measuring (1) the degree of valuing universalism, as in Experiment 1, (2) authoritarianism, with a 12-item Right Wing Authoritarianism scale (Funke's, 2005, adapted for the international context by Van Pachterbeke et al., 2011), and (3) religiosity, using a 3-item index measuring the importance of God in life, the importance of religion in life, and the frequency of prayer. For all measures (7-point Likert scales), reliabilities were satisfactory (respective αs = .74, .72, and .92). Finally, participants completed a funneled debriefing.

Results

Descriptive statistics of the hypothesized outcomes and mediators, distinctly by condition, are detailed in Table 2. Because we had clearly defined a priori hypotheses, our analytical strategy followed the suggestion made by Abelson and Prentice (1997): for each theoretical prediction, a contrast that described the hypothesized rank ordering of the means was created. We then created a contrast of interest (Contrast 1: -1, -1, 2; corresponding respectively to the Christian, the neutral, and the Buddhist condition). This contrast of interest was opposed to an orthogonal contrast (Contrast 2: -1, 1, 0; corresponding respectively to the Christian, the neutral, and the Buddhist condition). The results were considered to be consistent with the theoretical prediction when two conditions were satisfied: the contrast of interest was significant and the orthogonal contrast was not significant.

Two multiple moderated regressions, one on prejudice against Africans and the other on prejudice against Muslims, were conducted, with the contrast of interest and the orthogonal contrast entered as predictors. No main effect of contrast was found for any of the

two kinds of prejudice. Subsequently, three multiple moderated multiple regressions were conducted, each including as predictors the two contrasts, one of the three moderators (universalism, authoritarianism, or religiosity), and the interactions of the latter with the contrasts. This was done once for prejudice against Africans and once for prejudice against Muslims. Two significant interactions were found, one between Contrast 1 and authoritarianism in predicting prejudice against African people, $\beta = .24$, $t(5,111) = 2.61$, $p = .013$, 95% CI [.05, .38], and another between Contrast 1 and universalism in predicting prejudice against Muslims, $\beta = -.22$, $t(5,110) = -2.32$, $p = .02$, 95% CI [-.41, -.02]. A simple slope analysis revealed that the priming had no effect on prejudice among high authoritarians (one SD above the mean), $\beta = .17$, *ns*, or those not valuing universalism (one SD bellow the mean), $\beta = .22$, *ns*. However, Buddhist priming decreased prejudice against Africans among low authoritarians (one SD bellow the mean), $\beta = -.30$, $p = .015$, 95% CI [-.38, -.04], as well as prejudice against Muslims among participants highly valuing universalism (one SD above the mean), $\beta = -.28$, $p = .030$, 95% CI [-.41, -.02].

Regarding prosociality, on the basis of our hypothesis, a contrast comparing both religious conditions to the neutral condition was created (Contrast 3: -1, 2, -1; corresponding respectively to the Christian, the neutral, and the Buddhist condition) and opposed to an orthogonal contrast (Contrast 4: -1, 0, 1; corresponding respectively to the Christian, the neutral, and the Buddhist condition) [3]. Not fully in line with our hypothesis, a regression analysis with the two contrasts as predictors showed that the hypothesized contrast was not significant. We thus decided to test whether only Buddhist concepts increased prosociality using the contrast designed for prejudice (Contrast 1: -1, -1, 2 ; corresponding respectively to the Christian, the neutral, and the Buddhist condition) and comparing it with an orthogonal contrast. The exposure to Buddhist concepts was then found to predict high prosociality compared with Christian and neutral concepts, $\beta = .20$, $t(2,114) = 2.22$, $p = .035$, 95% CI [.01,

.26]. To better understand this result, we focused on the two sub-scores of prosociality representing the generosity toward either distal/unknown or proximal people. A regression analysis on each type of prosociality clarified that the above result was only valid for prosociality toward distal/unknown people, $\beta = .28$, $t(2,114) = 3.13$, $p = .002$, 95% CI [.07, .32]. Finally, being a believer or not did not interact with condition (Contrast 1) in predicting prejudice or prosociality.

Finally, compassion, but not tolerance of contradiction or oneness, was enhanced by the Buddhist primes (Contrast 1), $\beta = .20$, $t(2,114) = 2.16$, $p = .033$, 95% CI [.01, .27]. A simple mediational analysis was then conducted with Contrast 1 as the independent variable, compassion as the mediator, and the three social attitudes and behavior as outcome variables (prejudice against Africans, prejudice against Muslims, and prosociality). An indirect effect of condition on prosociality (Buddhist, but not Christian or neutral, priming increasing prosociality) through compassion was found, IE = .05, SE = .02, 95% CI = [.01, .11]. Standardized regression coefficients for this model are reported in Figure 1.

As far as prejudice was concerned, the simple mediation models were not significant. Subsequently, we tested whether this mediational model could be significant at different levels of the hypothesized moderators (i.e. universalism, authoritarianism, and religiosity). Bootstrap analysis revealed that the indirect effect of condition on prejudice against Africans (Buddhist, but not Christian or neutral, priming decreasing prejudice) through compassion was significant, IE = -.05, SE = .03, 95% CI = [-.13, -.01], among low authoritarians (one SD below the mean), but not among high authoritarians (one SD above the mean), IE = .02, SE = .02, 95% CI = [-.01, .09]. Regression coefficients are displayed in Figure 1. To ensure the unique validity of our model, alternative models were tested but were not significant (see conceptual models 5, 8, 15, and 58 in Hayes, 2013).

Discussion

Experiment 2 replicated, to an important extent, through implicit, rather than explicit, measures of prejudice and in a very different sample, and extended (in conditions, outcomes, mediators, and moderators) the findings of Experiment 1. Implicit activation of Buddhist concepts among Westerners (this time non-Buddhists), comparatively to Christian primes and a neutral condition, lead to reduced religious (Muslim) and ethnic (African people) prejudice among respectively high but not low universalists, and low but not high authoritarians. Moreover, the power of Buddhist concepts in nonconsciously activating tolerance was explained by their capacity to increase compassion among low authoritarians.

The role of moderators was in line with Experiment 1. Religiosity did not impact the results. However, personal dispositions denoting socio-cognitive and motivational open-mindedness were powerful in leading, after Buddhist priming, to decreased prejudice, i.e. strictly speaking, given the measures used, decreased social distance and exclusion (Experiment 1) and attenuated in- vs. out-group bias (Experiment 2). As far as the distinct role of each of the two moderators with regard to ethnic (low authoritarianism) and religious (universalism) tolerance is concerned, in order to avoid speculative over-interpretations, we think it premature to provide distinct explanations.

Finally, although the effect of religious priming on prosociality did not exactly adhere to all aspects of our hypothesis (i.e. both religions would activate prosociality), the results were consistent with those found for prejudice: Buddhist concepts activated prosocial behavioral tendencies, in particular universal prosociality toward distant and unknown others. We have no solid explanation as to why Christian primes in the present experiment did not lead to increased prosociality, as was the case in several previous studies (e.g., Pichon et al., 2007; Shariff & Norenzayan, 2007). The present findings are at least in favor of the idea that Buddhism emphasizes, in a stronger way, ideals of harmony, universal compassion, and non-violence (Davidson & Harrington, 2002; Ji et al., 2010).

Experiment 3

In Experiments 1 and 2, Buddhist concepts were found to respectively undermine prejudice and foster prosocial behavioral intentions among Western Buddhists but also among Westerners of Christian background, most often among people with personality dispositions for open-mindedness. Do the findings hold only for Westerners with highly positive stereotypes on Buddhism or having importantly internalized compassionate Buddhist values but not in East Asia where, in its "natural" home, Buddhism may be trivialized in the everyday life and therefore be less enthusiastically connoted and efficient? Alternatively, the effects of Buddhist concepts on tolerance and prosociality could be equally present if not stronger when tested in their natural environment among Easterners, due to the natural correspondence between religious ideals and cultural ethnic characteristics. Experiment 3 aimed thus to test the generalizability of the findings by replicating Experiment 2 in an East Asian context. The same design and hypotheses as in Experiment 2 were applied, but this time among East Asians (Taiwanese young adults) of a Buddhist/Taoist background.

Method

Participants.

Chinese-speaking undergraduate students (N = 122; 59% female) from National Taiwan University took part in this study in exchange for course credit. Mean age was 21.4 (SD = 3.6). Participants self-identified as follows: folk believers[4] (47.5%), atheists (32%), Buddhists (8.5 %), Taoists (3.3%), and "other" (8.7%). They entered the lab in small groups (3 to 10 people) and completed the task on a computer. The study was advertised as a recognition and categorization task.

Material and Procedure.

Lexical decision task. Participants were randomly assigned, as in Experiment 2, to a Buddhist, Christian, or neutral priming condition. The words used for the lexical decision task

and for the neutral priming condition were the same as in Experiment 2, translated into traditional Chinese. The Buddhist (e.g., *Buddha, Sangha, Sutras*) and Christian (e.g., *Jesus, Bible, Church*) words were selected based on a pre-test conducted with 27 Taiwanese undergraduate students.

Hypothesized mediators. Participants completed measures of tolerance of contradiction, compassion (α = .88), and oneness after the LDT, as in Experiment 2. All measures were translated, adapted, and back-translated to traditional Chinese by a team of bilingual experts. Using principal component analysis, we found an equivalent one-factor structure between the Taiwanese and the Belgian sample (Experiment 2) for tolerance of contradiction (φ = .91) and compassion (φ = .99). The Tucker's Phi equivalence indices were satisfactory (> .90; Van de Vijver & Leung, 1997).

Implicit Association Test. Participants then completed two IATs designed to measure implicit prejudice against African people and Muslims. The IATs were designed similarly to Experiment 2 but the target categories were adapted. For the first IAT (African people), the target categories used were *Asian* and *African* and the associated stimuli were 10 Asian and 10 African neutral-expression male faces generated using FaceGen Modeller (Version 3.5). For the second IAT (Muslims), the target categories were *Buddhist* and *Muslim* (10 and 10 words). The Buddhist words were the same as those used for the LDT. The 10 Muslim words (e.g., *Islam, mosque, Koran*) were selected after a pre-test with an independent group of 27 Taiwanese participants.

Prosociality. As in Experiment 2, we measured spontaneous behavioral intentions to share hypothetical gains except that the amount of money was presented in New Taiwan dollars.

Post-experimental measures. Three moderators were measured, as in Experiment 2, i.e. universalism, authoritarianism, and religiosity (αs = 76, .58, and .60). Using principal

component analysis, we found an equivalent one-factor structure between the Taiwanese and the Belgian sample (Experiment 2) for all three measures (respective φs = .98, .90, and .99). At the end, participants completed a funneled debriefing. No participant guessed the study's aim or was able to recall the primed words.

Results

Descriptive statistics of the hypothesized outcomes and mediators are reported, distinctly by condition, in Table 2. As in Experiment 2, our analytical strategy followed Abelson and Prentice (1997). Since the hypotheses were the same as in Experiment 2, the same two contrasts 1 (-1, -1, 2) and 2 (-1, 1, 0), respectively for the Christian, neutral, and Buddhist conditions, were created as in Experiment 2. The same analytic strategy as in Experiment 2 was applied (initial multiple moderated regressions to test the main effect of contrast on each type of prejudice; and subsequent regressions including additionally each of the moderators and its interactions with the two contrasts).

There were significant differences between conditions (Contrast 1) on prejudice against African people, in line with our hypothesis of decreased prejudice (strictly speaking: attenuated in- vs. out-group opposition) after Buddhist priming, β = -.19, $t(2,117) = -2.14$, $p = .034$, 95% CI [-.24, -.01]. No main effect of the condition was found on prejudice against Muslims, β = -.12, $t(2,118) = -1.36$, *ns*, but the interaction between Contrast 1 and authoritarianism in predicting prejudice against Muslims was significant, β = .19, $t(5,114) = 2.01$, $p = .047$, 95% CI = [.01, .40]. A simple slope analysis revealed that no priming effect among high authoritarians (one SD above the mean), β = .09, *ns*, but the Buddhist primes, compared to the neutral and Christian ones, decreased prejudice against Muslims among low authoritarians (one SD below the mean), β = -.26, $p = .039$, 95% CI [-.34, -.01].

As far as prosociality was concerned, unlike Experiment 2, the hypothesized (Contrast 3) and not the orthogonal contrast (Contrast 4) turned out to be a significant predictor: both

Buddhist and Christian conditions increased prosocial behavioral intentions compared to the neutral condition, β = -.25, $t(2,118) = -2.81$, $p = .005$, 95% CI [-.30, -.06]. Finally, tolerance of contradiction (but not compassion and oneness), was affected by condition (Contrast 1), β = .18, $t(2,118) = 2.02$, $p < .05$, 95% CI [.01, .24]. We subsequently investigated whether this variable mediated the effect of condition (Contrast 1) on prejudice against Africans and Muslims. The indirect effect of condition on prejudice against Muslims (Buddhist, but not Christian or neutral, priming decreasing prejudice) through tolerance of contradiction was significant, IE = -.02, SE = .01, 95% CI [-.06, -.01]. Standardized regression coefficients for this model are reported in Figure 2. No significant mediations were found regarding the effect of conditions (Contrast 2) on prosociality.

Discussion

Experiment 3 revealed that the positive implicit outcomes of Buddhist concepts are not restricted to a cultural context in which Buddhism is seen as particularly attractive, exotic, and valued (Experiments 1 and 2). In East Asia too, where Buddhism is a dominant religion and part of culture, the exposure to Buddhist concepts, compared with neutral and Christian concepts, activated decreased ethnic and religious prejudice, mainly among low authoritarians, as in Experiment 2. Strictly speaking, given the nature of the IAT, the priming lead to the attenuation of the in- vs. out-group distinction.

Tolerance of contradiction was found to mediate the effect on prejudice against Muslims: Buddhist priming, compared with neutral and Christian priming, activated increased tolerance of contradiction, which in turn decreased prejudice. It would be too speculative to provide solid interpretations of why, in Experiment 3, tolerance of contradiction, but not compassion, explained Buddhist concepts' influences on (religious) tolerance, whereas compassion, not tolerance of contradiction, explained Buddhist concepts' influences on (ethnic) tolerance in Experiment 2. One can see the two mediators as complementary rather

than as competitors (they were indeed unrelated; *rs* = .-.05 and -.07, *n.s.*, in Experiments 2 and 3). Alternatively, it may be that tolerating others' religious ideas and worldviews involves primarily cognitive openness, whereas tolerating ethnic outgroups is rather an issue of affective compassion.

Moreover, Experiment 3 confirmed the hypothesized positive effect of primes from both religions, Buddhist and Christian, on prosocial behavioral inclinations, in particular among low authoritarians. The fact that in Experiment 3, carried out among East Asians, both Christian and Buddhist primes seemed to activate prosociality, whereas in Experiment 2, carried out among West Europeans, only Buddhist primes showed this effect, may indirectly indicate that among the former participants the two religious systems are perceived as being less in conflict and to equally promote altruistic human values.

Finally, some prudence is needed not to accept findings of Experiment 3 as necessarily fully equivalent to those of Experiment 2. The ethnic (Africans) and religious (Muslims) outgroups may not have the exact same (negative) valence or psychological sources as possible targets of prejudice across the two different societies.

General Discussion

Across three experiments carried out in a Western and an East Asian country (Belgium and Taiwan) and including, in addition to non-believers, converted Buddhists (Experiment 1), Christians (Experiment 2), as well as Buddhists, Taoists, and folk believers (Experiment 3), evidence was provided that Buddhist concepts automatically activate prosociality and tolerance, in particular among people with socio-cognitive open-mindedness. The implicit exposure to Buddhist concepts, consistently across the studies, lead to increased prosocial behavioral intentions (Experiments 2 and 3) and undermined, most often among participants with socio-cognitive openness, ethnic and religious prejudice, whether this was measured explicitly (Experiment 1) or implicitly (Experiments 2 and 3). The power of

Buddhist concepts in contributing to prosociality and tolerance seems thus to be an empirical reality and not simply a pro-Buddhist positive social perception, albeit with certain limitations that will be discussed in this section. Interestingly, the activation of tolerance by Buddhist concepts also extended to convictional and moral outgroups like atheists and homosexuals, at least among Westerners converted to Buddhism (Experiment 1) who may be suspected of being socially unconventional.

Experiments 2 and 3 provided additional comparative information. In line with the East-West religious prejudice difference hypothesis, the exposure to Buddhist concepts, compared to Christian and neutral ones, decreased—in general or among participants with socio-cognitive openness--prejudice toward ethnic and religious outgroups, and did so among both Westerners (Experiment 2) and Easterners (Experiment 3). In line with the East-West religious prosociality similarity hypothesis, Christian primes, along with Buddhist primes, activated prosocial behavioral intentions among Taiwanese (Experiment 3), although this was not the case among Westerners of Christian background (where only Buddhist primes activated universal, not ingroup, prosociality; Experiment 2). Taken as a whole, these findings solidify the main hypothesis. Whereas previous research shows that Christian concepts often activate (mostly ingroup) prosocial and outgroup anti-social attitudes and behaviors, depending on the target's status, the present works shows that Buddhist concepts activate both universal prosociality and, to some extent (given the role of individual differences), tolerance of people holding other religious beliefs or belonging to other ethnic groups.

Also as hypothesized, compassion and tolerance of contradiction seemed to play a role in, at least partly, explaining the positive impact of Buddhist concepts on prosociality and tolerance. These two mechanisms may be complementary, but note that increased compassion was found to mediate the effects in the West (Experiment 2) whereas tolerance of contradictions was an efficient mediator in the East (Experiment 3). If not by chance, this

difference may be explained by specific approaches toward Buddhism in the West and East. Westerners' interest in Buddhism may be driven by moral emotional reasons rather than doctrinal ones, and emphasize the ideal of Buddhist compassion and universal tolerance. Tolerance of contradiction represents a basic dimension of the holistic thinking style typically characterizing East Asian cultures (Peng & Nisbett, 1999) and thus may facilitate the Buddhism-tolerance association in this context.

Beyond an overall positive role of Buddhist concepts on prosocial attitudes and behaviors, the present experiments provide additional information on the role of key moderators. First, the observed effects seemed to be independent from participants' religiosity. This parallels previous studies where priming religion had comparable effects on believers and non-believers as religious concepts are part of culture and broad, not necessarily religious, socialization (Galen, 2012). However, it would be premature to take this as definitive: other studies (see also Galen, 2012) show that religious priming effects are stronger among believers. Moreover, variation in religiousness may have been restricted (e.g., participants in Experiment 1 were all converted Buddhists), and the measures of religiousness we used may have been too global to capture very specific aspects of Eastern Asian religiosity.

Second, whereas personality-related individual differences (universalism and/or authoritarianism) did not moderate the Buddhist priming effects on prosociality (Experiments 2 and 3), they importantly moderated the effects on prejudice (in most cases across the three experiments). It was most often people who highly endorsed the value of universalism (Experiments 1 and 2) or low authoritarians (Experiments 2 and 3) who were sensitive to the positive influences of Buddhist primes on outgroup tolerance. This is in line with the idea that priming effects occur, in general, to a greater degree, or even only, when the primed construct corresponds to personal dispositions (Bargh & Chartrand, 2014). They are also in line with

previous research showing that universalism and authoritarianism in particular interact with the implicit activation of religious concepts in predicting, respectively, tolerance (Clobert & Saroglou, 2013) and antisocial moral rigidity (Van Pachterbeke et al., 2011). These findings suggest that the implicit associations of Buddhist concepts with prosociality and tolerance are more present, or more easily activated, among people who have the capacity for, i.e. are characterized by socio-cognitive and moral openness. They also allow for the possibility of alternative causal directions: rather than Buddhist ideas enhancing tolerance universally across people, it may be that people with personal dispositions for open-mindedness, at both the social and moral domains, are particularly attracted by, select as pertinent for them, endorse and internalize, and/or easily recall in memory worldviews and values (here of tolerance) that correspond to their personality, be these worldviews and values located in Buddhism or in other, including secular, ideologies and belief systems. This points to the broader issue of the individual × priming interaction. For instance, individuals primed with the elderly stereotype exhibit memory deficits only to the extent that they associate the elderly with forgetfulness (Dijksterhuis, Aarts, Bargh, & Van Knippenberg, 2000).

These studies also provide interesting information on a broader issue that is the psychological universality versus cultural relativism of religion and its effects. Like cultures, religions function as systems (Cohen, 2009) and influence people's attitudes and behavior. Some of these effects may be universal, corresponding to similarities across religions, and others may be specific to a given religion and cultural context, leading to cross-religious differences (Saroglou & Cohen, 2013). The present studies offer evidence in favor of both universal consequences of religions (prosociality) and religion/culture-specific effects (outgroup prejudice vs. tolerance, universal vs. ingroup prosociality). Nevertheless, even when the outcomes are similar, it may be that the underlying mechanisms are culturally-religiously different.

The present work also has several limitations. In Experiments 2 and 3, the Implicit Association Test was used to measure prejudice. Although the IAT is one of the most widely used techniques to measure implicit prejudice, the IAT score remains hard to interpret in terms of outgroup derogation versus ingroup favoritism. Strictly speaking, it measures the degree of ingroup/outgroup distinction. Note however that the results in Experiments 2 and 3 were similar to those obtained in Experiment 1 using explicit measures of prejudice. Furthermore, beyond remarkable consistencies across the three studies, the effect sizes, especially of mediations, were rather small. Future research should thus focus on possible cognitive, emotional, and social mechanisms, other than those studied here, which may explain the positive influences of Buddhist ideas on social attitudes and behaviors. Finally, strictly speaking, priming effects only inform us about the stereotypic associations (cognitive and behavioral schemata) people have in mind. Does the present association reflect something more than implicit social perception, i.e. some causal role of Buddhism (ideas, values, rituals, symbols) in enhancing extended prosociality and outgroup tolerance? This is an interesting question for future research.

To conclude, we think that this work provides, for the first time, experimental evidence in favor of the idea that in both the East and the West, across people from both Christian and Eastern Asian religious traditions, Buddhist concepts automatically activate positive social behavioral outcomes, i.e. prosociality and low prejudice, in particular among people with personal dispositions of socio-cognitive openness. Unlike Christian and other monotheistic religious systems that paradoxically seem to encourage prosociality but also prejudice, Buddhist ideas favor both prosociality and outgroup tolerance and these ideals seem particularly efficient (in leading to action) for people with relevant personality dispositions. Emotional (compassion) and cognitive (tolerance of contradictions) mechanisms explain, to some extent, how Buddhist concepts, across cultural and religious contexts,

enhance prosocial and tolerant attitudes and behavioral tendencies. Religious and cultural characteristics “travel” and influence people’s attitudes and behavior in a globalized world even at the implicit level of consciousness.

Footnotes

[1] In Experiment 1, we had also included a 7-item measure of attitudes toward Buddhism (Saroglou & Dupuis, 2006) in order to explore whether emotional/relational versus cognitive dimensions of these attitudes may explain the impact of Buddhist primes in reducing prejudice. However, a mixed ANOVA analysis with condition as a between-subject factor and the two components of pro-Buddhist attitudes as a within-subject factor did not provide a significant interaction between the two factors. Moreover, a test of the mediating role of the emotional/relational pro-Buddhist attitudes on the priming-reduced prejudice link, although significant, did not explain a substantial part of the variance.

[2] No moderator in Experiment 1, but also in Experiments 2 and 3, was affected by the priming. Also, including gender in the analyses did not alter the findings of Experiments 1-3.

[3] In Experiment 2, the amount of money (%) given to the self, to others in general, and more specifically to proximal vs. distal others were as follows, respectively by condition: Buddhist (71.58, 28.42, 19.80, 8.62), Christian (82.24, 17.76, 14.79, 2.97), and neutral priming (78.37, 21.63, 18.84, 2.79). In Experiment 3, the amount given to the self and the others (the data in Chinese having been collected by a Master's student who is no more in the academia, we were unable to recode them into proximal vs. distal) were as follows: Buddhist (70.65, 29.35), Christian (74.73, 25.27), and neutral priming (80.98, 19.02)

[4] In 2010, 35% of the Taiwanese population self-identified as folk believer, 22% as Buddhist, 17% as Taoist, 5% as Christian, and 21% as non-religious (Gries, Su, & Schak, 2012). Folk religion is a blend of deities and practices coming from Buddhism, Taoism, divination, and ancestor worship. The main focus is on the propitiation of death including sacrifice to the ancestors, selecting auspicious burial sites, warding off "ghosts" or malevolent spirits, and worshiping a pantheon of gods (Gries et al., 2012).

References

Abelson, R. P., & Prentice, D. A. (1997). Contrast tests of interaction hypotheses. *Psychological Methods, 2,* 315-328.

Akrami, N., Ekehammar, B., & Bergh, R. (2011). Generalized prejudice: Common and specific components. *Psychological Science, 22,* 57-59.

Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of Other in the Self Scale and the structure of interpersonal closeness. *Journal for Personality and Social Psychology, 63,* 596-612.

Asbrock, F., Sibley, C. G., & Duckitt, J. (2010). Right-wing authoritarianism and social dominance orientation and the dimensions of generalized prejudice: A longitudinal test. *European Journal of Personality, 24,* 324-340.

Bargh, J. A., & Chartrand, T. L. (2014). The mind in the middle: A practical guide to priming and automaticity research. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (2nd ed., pp. 311-344). New York, NY: Cambridge University Press.

Batson, C. D., Schoenrade, P., & Ventis, W. L. (1993). *Religion and the individual: A social-psychological perspective*. New York, NY: Oxford University Press.

Blogowska, J., & Saroglou, V. (2013). For better or worse: Fundamentalists' attitudes toward outgroups as a function of exposure to authoritative religious texts. *International Journal for the Psychology of Religion, 23,* 103-125.

Brandt, M. J., & Renya, C. (2010).The role of prejudice and the need for closure in religious fundamentalism. *Personality and Social Psychology Bulletin, 36,* 715-725.

Clobert, M., & Saroglou, V. (2013). Intercultural non-conscious influences: Prosocial effects of Buddhist priming on Westerners of Christian tradition. *International Journal for Intercultural Relations, 37,* 459-466.

Clobert, M., Saroglou, V., Hwang, K-K., & Soong, W-L. (2014). Eastern religious tolerance: A myth or a reality? Empirical investigations of religious prejudice in East Asian societies. *Journal of Cross-Cultural Psychology, 45,* 1515-1533.

Cohen, A. B. (2009). Many forms of culture. *American Psychologist, 64,* 194-204.

Davidson, R. J., & Harrington, A. (Eds.). (2002). *Visions of compassion: Western scientists and Tibetan Buddhists examine human nature*. New York, NY: Oxford University Press.

Detenber, B. H., Cenite, M., Ku, M. K. Y., Ong, C. P. L., Tong, H. Y., & Yeow, M. L. H. (2007). Singaporeans' attitudes toward lesbians and gay men and their tolerance of media portrayals of homosexuality. *International Journal of Public Opinion Research, 19,* 367-379.

Dijksterhuis, A., Aarts, H., Bargh, J. A., & Van Knippenberg, A. (2000). On the relation between associative strength and automatic behavior. *Journal of Experimental Social Psychology, 36,* 531-544.

Duckitt, J., & Sibley, C. G. (2008). Personality and prejudice: A meta-analysis and theoretical review. *Personality and Social Psychology Review, 12,* 248-279.

Flanagan, O. (2013). The view from the East pole: Buddhist and Confucian tolerance. In S. Clarke, R. Powell, & J. Savulescu (Eds.), *Religion, intolerance, and conflict* (pp. 201-220). Oxford, UK: Oxford University Press.

Funke, F. (2005). The dimensionality of right-wing authoritarianism: Lessons from the dilemma between theory and measurement. *Political Psychology, 26,* 195-218.

Galen, L. W. (2012). Does religious belief promote prosociality? A critical examination. *Psychological Bulletin, 138,* 876-906.

Ginges, J., Hansen, I., & Norenzayan, A. (2009). Religion and support for suicide attacks. *Psychological Science, 20,* 224-230.

Goldberg, E. (2006). Buddhism in the West: Transplantations and innovations. In S. C. Berkwitz (Ed.), *Buddhism in world cultures: Comparative perspectives*. Santa Barbara, CA: ABC-CLIO.

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology, 74,* 1464-1480.

Greenwald, A. G., Nosek, B. A., & Banaji, M. R. (2003). Understanding and using the Implicit Association Test: An improved scoring algorithm. *Journal of Personality and Social Psychology, 85,* 197-216.

Gries, P., Su, J., & Schak, D. (2012). Toward the scientific study of polytheism: Beyond forced-choice measures of religious belief. *Journal for the Scientific Study of Religion, 51,* 623-637.

Harvey, P. (1990). *An introduction to Buddhism: Teachings, history, and practices*. Cambridge, UK: Cambridge University Press.

Hayes, A.F. (2013). *An introduction to mediation, moderation, and conditional process analysis: A regression-based approach.* New York, NY: Guilford Press.

Hill, E. D., Terrell, H. K., Cohen, A. B., & Nagoshi, C. T. (2010).The role of social cognition in the religious fundamentalism-prejudice relationship. *Journal for the Scientific Study of Religion 49,* 724-739.

Hunsberger, B., & Jackson, L. M. (2005). Religion, meaning, and prejudice. *Journal of Social Issues, 61,* 807-826.

Ji, L. J., Lee, A., & Guo, T. (2010). The thinking style of Chinese people. In M. H. Bond (Ed.), *The Oxford handbook of Chinese psychology* (pp. 155-167). New York, NY: Guilford Press.

Johnson, M. K., Rowatt, W. C., & LaBouff, J. (2010). Priming Christian religious concepts increases racial prejudice. *Social Psychological and Personality Science, 1,* 119-126.

Johnson, M. K., Rowatt, W. C., & LaBouff, J. P. (2012). Religiosity and prejudice revisited: In-group favoritism, out-group derogation, or both? *Psychology of Religion and Spirituality, 4,* 154-168.

Kaelen, R., Klein, O., & Saroglou, V. (2013, July-August). *Religious priming increases sexist attitudes, both benevolent and hostile ones*. Paper presented at the 121st American Psychological Association Convention, Honolulu, Hawaii, USA.

LaBouff, J. P., Rowatt, W. C., Johnson, M. K., & Finkle, C. (2012). Differences in attitudes toward outgroups in religious and nonreligious contexts in a multinational sample: A situational context priming study. *International Journal for the Psychology of Religion, 22,* 1-9.

Ma-Kellams, C., Spencer-Rodgers, J., & Peng, K. (2011). I am against us? Unpacking cultural differences in ingroup favoritism via dialecticism. *Personality and Social Psychology Bulletin, 37,* 15-27.

Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic versus analytic cognition. *Psychological Review, 108,* 291-310.

Peng, K., & Nisbett, R. (1999). Culture, dialectics, and reasoning about contradiction. *American Psychologist, 54,* 741-754.

Pichon, I., Boccato, G., & Saroglou, V. (2007). Nonconscious influences of religion on prosociality: A priming study. *European Journal of Social Psychology, 37,* 1032-1045.

Pichon, I., & Saroglou, V. (2009). Religion and helping: Impact of target, thinking styles and just-world beliefs. *Archive for the Psychology of Religion, 31,* 215-236.

Preston, J. L., Ritter, R. S., & Hermandez, J. I. (2010). Principles of religious prosociality: A review and reformulation. *Social and Personality Psychology Compass, 4,* 574-590.

Rambo, L. R., & Farhadian, C. (Eds.). (2014). T*he Oxford handbook of religious conversion*. Oxford, UK: Oxford University Press.

Ramsay, J. E., Pang, J. S., Johnson Shen, M., & Rowatt, W. C. (2014). Rethinking value violation: Priming religion increases prejudice in Singaporean Christians and Buddhists. *International Journal for the Psychology of Religion, 24,* 1-15.

Rowatt, W. C., Carpenter, T., & Haggard, M. (2014). Religion, prejudice, and intergroup relations. In V. Saroglou (Ed.), *Religion, personality, and social behavior* (pp. 170-192). New York, NY: Psychology Press.

Sagiv, L., & Schwartz, S. H. (1995).Value priorities and readiness for out-group social contact. *Journal of Personality and Social Psychology, 69,* 437-448.

Saroglou, V. (2012). Is religion not prosocial at all? Comment on Galen (2012). *Psychological Bulletin, 138,* 907-912.

Saroglou, V. (2013). Religion, spirituality, and altruism. In K. I. Pargament, J. J. Exline, & J. W. Jones (Eds.), *APA Handbook of psychology, religion and spirituality* (Vol. 1, pp. 439-457). Washington, DC: American Psychological Association.

Saroglou, V., & Cohen, A. B. (2013). Cultural and cross-cultural psychology of religion. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (2nd ed.). New York, NY: Guilford Press.

Saroglou, V., Delpierre, V., & Dernelle, R. (2004). Values and religiosity: A meta-analysis of studies using Schwartz's model. *Personality and Individual Differences, 37,* 721-734.

Saroglou, V., & Dupuis, J. (2006). Being Buddhist in Western Europe: Cognitive needs, prosocial character, and values. *International Journal for the Psychology of Religion, 16,* 163-179.

Shariff, A. F., & Norenzayan, A. (2007). God is watching you: Priming God concepts increases prosocial behavior in an anonymous economic game. *Psychological Science, 18,* 803-809.

Spencer-Rodgers, J., Williams, M., & Peng, K. (2012). Culturally based lay beliefs as a tool for understanding intergroup and intercultural relations. *International Journal for Intercultural Relations, 36,* 169-178.

Sprecher, S., & Fehr, B. (2005). Compassionate love for close others and humanity. *Journal of Social and Personal Relationships, 22,* 629-651.

Tsang, J.-A., Schulwitz, A., & Carlisle, R. D. (2012). An experimental test of the relationship between religion and gratitude. *Psychology of Religion and Spirituality, 4,* 40-55.

Van de Vijver, F. J. R., & Leung, K. (1997). *Methods and data analysis for cross-cultural research*. Newbury Park, CA: Sage.

Van Pachterbeke, M., Freyer, C., & Saroglou, V. (2011). When authoritarianism meets religion: Sacrificing others in the name of abstract deontology. *European Journal of Social Psychology, 41,* 898-903.

Vilaythong, O. T., Lindner, N. M., & Nosek, B. A. (2011). "Do unto others": Effects of priming the Golden Rule on Buddhists' and Christians' attitudes toward gay people. *Journal for the Scientific Study of Religion, 49,* 494-506.

Table 1

Means, Standard Deviations, and Between-Condition Comparisons of Prejudice Against Various Targets (Experiment 1)

	Buddhist Priming		Non-religious Priming		Mean Comparisons		
Prejudice against	*M*	*SD*	*M*	*SD*	η^2	*F*(1,114)	CI
Christians	2.63	1.31	3.39	1.15	.09	11.07**	[.31, 1.22]
Hindus	2.51	1.29	3.50	1.17	.14	18.38**	[.53, 1.44]
Muslims	2.99	1.48	3.88	1.24	.10	12.24**	[.39, 1.40]
Atheists	2.60	1.37	3.22	1.12	.06	6.98**	[.15, 1.08]
Americans	2.67	1.32	3.32	1.13	.07	7.85**	[.19, 1.10]
Africans	2.71	1.34	3.50	1.08	.10	11.99**	[.34, 1.24]
Homosexuals	2.93	1.42	3.60	1.12	.07	7.96**	[.20, 1.15]
Single mothers	2.48	1.34	3.28	1.14	.10	11.89**	[.34, 1.27]

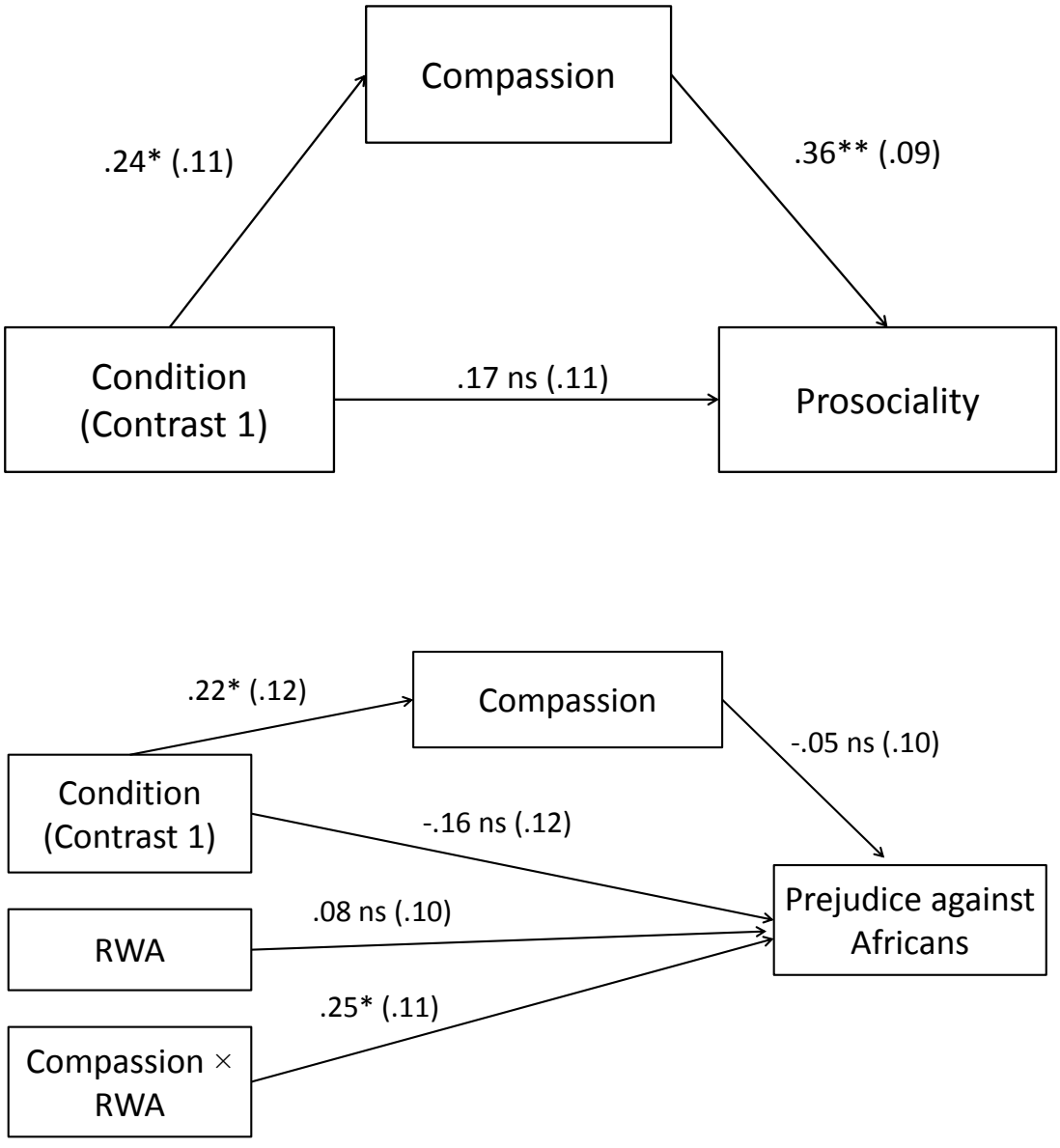
** $p < .01$.

Table 2

Means, Standard Deviations, and Between-Condition Comparisons for the Variables of Interest in Experiment 2 and 3

	Christian Priming		Neutral Priming		Buddhist Priming	
	M	*SD*	*M*	*SD*	*M*	*SD*
			Experiment 2			
Prejudice against Africans	0.46	0.40	0.44	0.33	0.39	0.38
Prejudice against Muslims	0.97	0.30	0.93	0.39	0.96	0.46
Prosociality (% to others)	17.76	16.73	21.63	20.43	28.42	24.28
Compassion	4.51	1.12	4.61	1.07	5.00	0.95
Tolerance of contradiction	5.57	1.01	5.57	1.04	5.82	0.94
Oneness	4.12	1.06	4.47	1.10	5.82	1.26
			Experiment 3			
Prejudice against Africans	0.62	0.33	0.54	0.58	0.41	0.42
Prejudice against Muslims	0.73	0.42	0.59	0.43	0.55	0.45
Prosociality (% to others)	25.27	21.96	19.02	18.46	29.35	28.47
Compassion	4.97	1.04	5.13	0.85	4.94	0.91
Tolerance of contradiction	6.02	1.28	6.20	1.17	6.49	0.76
Oneness	4.52	1.03	4.29	1.12	4.16	1.25

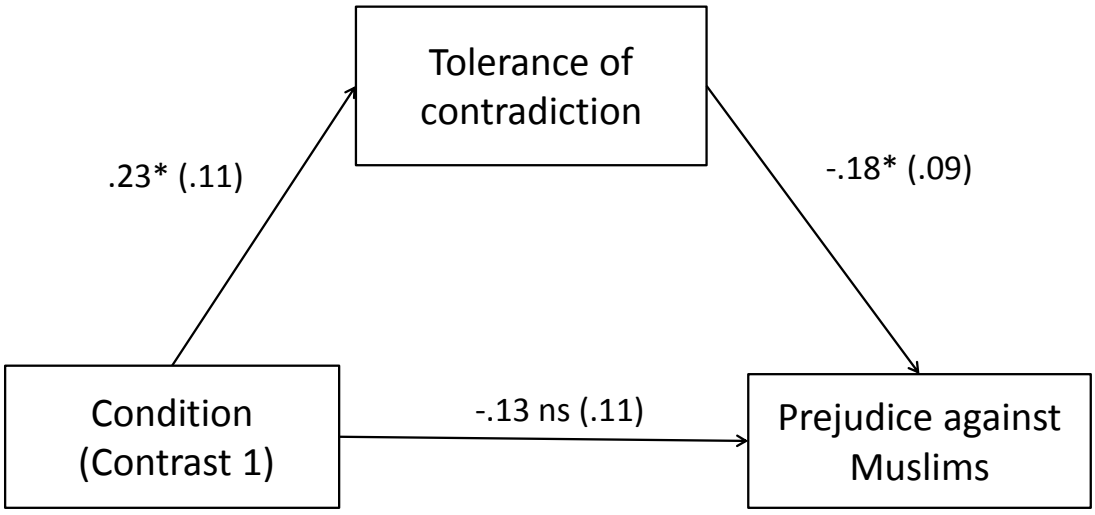
Figure 1. The indirect effect of condition (contrast 1: Buddhist priming vs. Christian and neutral priming) on prosociality through compassion (top) and the conditional indirect effect of condition (contrast 1) on prejudice against Africans through compassion at values of right-wing authoritarianism-RWA (bottom) in Experiment 2.



Note. Numbers on paths represent standardized regression coefficients; standard errors are in parentheses.

* $p < .05$. ** $p < .01$.

Figure 2. The indirect effect of condition (contrast 1: Buddhist priming vs. Christian and neutral priming) on prejudice against Muslims through tolerance of contradiction (Experiment 3).



Note. Numbers on paths represent standardized regression coefficients; standard errors are in parentheses.

* $p < .05$.

View publication stats