

The effects of a self-observation-based meditation intervention on acceptance or rejection of the other

Daniel Pinazo and Edgar Bresó

Department of Social Psychology, Universitat Jaume I de Castello, Castellon, Spain

Research has demonstrated the many benefits of mindfulness training programmes for individual health and well-being. This study, however, explored whether mindfulness training might have effects on intergroup interaction. We tested the effects of a self-observation-based mindfulness course on several dimensions of acceptance of the other (i.e., non-judgement, non-reaction and observation). An initial study tested a mindfulness course training ($N = 197$). A second study then tested its effect on intergroup relationships ($N = 120$). A control group was used in both studies, and the subjects were tested before and after the course. Results indicate that participation in the course favoured intergroup acceptance of the other and suggest that mindfulness training represents a useful educational method for reducing social discrimination.

Keywords: Mindfulness; Acceptance of the other.

The duality between the self and the other is a source of conflict. The more pronounced this duality is, the more conflict is perceived in terms of the “self” being threatened by the “other.” Through various cognitive processes, such as attribution of blame to a third person or classifying the other as fundamentally different or alien, automatic rejection responses such as in-group favouritism (Tajfel, 1978) or psychosocial distance are activated. These responses express the motivation to reject the other and can be a source of aggression, prejudice or discrimination. Previous studies suggest that the development of mindfulness reduce the motivation to reject to the other. Mindfulness is associated racial stereotyping and processes of prejudice (Hessler-Smith, 2001) and a greater acceptance of interaction with diverse ethnic groups (Langer & Moldoveanu, 2000). A study by Burgoon, Berger, and Waldron (2000) concluded that mindfulness reduces misunderstandings linked to stereotypes and different cultures and in general enhances the effectiveness of the interaction. Learning to be mindful encourages more open attitudes to diversity and a predisposition against automatic reactions (e.g., Bishop et al., 2006; Langer, 1992).

Mindfulness training techniques have been designed to reduce the negative consequences of stress and other psychological dysfunctions (e.g., Segal, Williams, & Teasdale, 2002). The role of mindfulness training in intergroup relationships, however, is not sufficiently understood.

This article analyses a little explored topic. That is the effect of mindfulness in reducing rejection at level of social interaction. In particular, we analyse the effect of a meditation–mindfulness programme on the motivation to reject or accept another person.

In-group favouritism

Automatic cognitive responses of rejection are linked to the processes of stereotyping and prejudice and processes associated with shaping separate social identities. Individuals maintain conceptions of themselves and of others. Tajfel (1981) coined the term social identity to refer to the part of an individual’s self-concept that derives from belonging to a social group. Most of the research on the processes by which people acquire an individual or group identity suggests that we depend on interaction with others and on external sources (Tajfel & Turner, 1979). Identity, both individual and social, motivates us to accept people included in our category of social identity and reject those who are not. Social identity tends to divide the social world into two categories: our in-group (“us”) and various out-groups (“them”). This separation by social categories allows a deeper social identity to be formed, which simplifies social interaction. Tajfel (1981) maintains that groups tend to compete for a positive social identity by differentiating themselves

Correspondence should be addressed to Edgar Bresó, Department of Social Psychology, Universitat Jaume I de Castello, Av. Sos Baynat S/N 12.071, Castellon, Spain. (E-mail: pinazo@uji.es).

The authors gratefully acknowledge the selflessly contribution of Mr. Bradley Hayes in this article.

from other groups to their own advantage, highlighting the tendency to favouritism for one's own group. This paradigm demonstrates that simple categorisation, even when it is based on arbitrary criteria, produces in-group favouritism. These authors note that people strive to create the maximum possible difference between their own group and the out-group when resources are being shared out. Favouritism is therefore an automatic response deriving from identification with the social group favoured by the individual, to the detriment of the group or groups perceived as different, which are rejected.

Psychological distance from an unknown person

Rejection of the other is also expressed through an in-group perception of the other, which is linked to a psychosocial emotion of psychological distance. This psychosocial distance assumes that we perceive the other not only as different but also as emotionally distant. In the absence of any socio-emotional involvement, perception of the other has negative consequences for aspects linked to social acceptance, such as reduced prosocial behaviour (Green, 2003). Two significant studies in the area of cooperation, Hoffman, McCabe, Shachat, and Smith (1994) and Hoffman, McCabe, and Smith (1996), have shown how perceived social distance increases with selfish attitude and anonymity. In addition, there is a correlation between social distance and self-image. According to Sherif and Sherif (1975), the members of a group that perceives itself as dominant in a relationship maintain greater social distance from out-groups that they perceive as inferior. Other studies in the field of economics have found that social distance is associated with economic discrimination against people perceived as emotionally distant (e.g., Rege & Telle, 2004). In general, social distance is associated with rejection as it encourages discriminatory conduct or denial of help, particularly in situations of anonymity. In intergroup relationships, social distance makes it easier for the dominant group to discriminate against the dominated group and is a source of various forms of violence (Sherif & Sherif, 1975). Thus, anger, in-group favouritism and social distance are three social mechanisms of reject to the other that can be modified by the development of mindfulness.

The development of mindfulness

Mindfulness is a receptive mental state of attention to the present experience, which consists in observing attentively what is happening (Brown, Ryan, & Creswell, 2007; Kabat-Zinn, 2003). We argue that mindfulness affects the way we think about the other and our decisions about them and emphasises responses of comprehension or inclusion of the other; therefore, we

consider its practice affects social interaction. In this way mindfulness may enhance responses of inclusion in social interaction, in contrast to the responses of rejection that are manifested when the other is perceived as a threat (Chatzisarantis & Hagger, 2007; Langer & Moldoveanu, 2000). Empirical and theoretical evidence suggests that practicing mindfulness reduces the perceived threat of the other and can arouse more prosocial responses while inhibiting emotional responses of rejection (Kemeny et al., 2012). Through the practice of mindfulness, the person is able to interact with others in a non-defensive manner (Brown, Ryan, Creswell, & Niemiec, 2008). It reduces emotional reactivity (Arch & Craske, 2006), as well as one's tolerance to uncomfortable or unpleasant states (Eifert & Heffner, 2003). Langer (1989) suggests that mindful people process intergroup process information reducing the heuristic responses.

Some scholars have suggested that mindfulness could play two functions in promoting more positive intergroup perception (Fiol & O'Connor, 2003). First, negative attitudes towards the out-group could result from a lack of mindfulness in the process of social categorization. Mindfulness allows members of a social group to review their simplified negative perceptions and polarised stereotypes of the out-group. Second, it enables them to re-establish their response perception patterns, enabling them to focus their attention on the aspects that bring them closer to the other. Put differently, it allows external experience to be re-categorised (Bodner & Langer, 2001) by either postponing categorisation or re-categorising perceived events. Langer (1992) states that mindfulness is a process through which an individual develops new social categories based on greater openness and sensitivity to previously unnoticed elements in the setting. Whereas less mindful individuals trust their relational criteria to memorised categories, mindful individuals emphasise the process of generating new social perspectives in the relationship. As this is a creative process, based on self-observation centred on the present moment, the response to the interaction is more personal. Mindfulness has been associated with social interaction in different settings such as communication processes (Burgoon et al., 2000) and aggressive interactions to the other (Borders, Earleywine, & Jajodia, 2010; Pinazo & Vázquez, 2014). However, social inclusion or rejection as a result of a process deriving from meditation and the development of mindfulness has seldom been analysed (Brown et al., 2007; Chatzisarantis & Hagger, 2007). Thus, this is the first study, as far as we know, that analyses the practice of meditation and its effect on group interactions.

Our study analyses the responses of meditation-mindfulness practitioners in social identity. The practice of meditation-mindfulness has been found to develop an inclusive awareness characterised by a lower perception of threat from the other. The lower perception of threat brought about by the practice of meditation-mindfulness

can be observed in at least two inter-groupal aspects of relationships with others: (a) at the intergroup relationship level, the person will, through meditation, become more inclined to share scarce resources with members of out-groups; (b) at the level of the individual relationship with other social groups, socio-psychological distance will diminish, thus favouring greater acceptance of the other.

Hypotheses

The initial hypothesis of this research (hypothesis 1) is that *participants in the meditation programme will report lower values of in-group favouritism and lower social distance than a control group who will not participate in the programme.*

METHOD

Study 1

Participants and procedure

A total of 197 university students took part in this study, 38.5% male and 61.5% female; 46.4% under the age of 25, 33.3% between 25 and 35 and 20.3% above 35). Of this total, 100 students participated in a meditation-training group (*intervention group #1*) and 97 students formed the control group (*control group #1*). All students were notified by e-mail and posters were also posted in university hallways to announce the 8-session meditation course. A total of 205 students expressed interest in attending the course through which, using practical exercises, they were told they would develop their ability to meditate. Only 103 students were admitted in the end however and of those 3 were disqualified from the study. The assignment was random, and those who were not selected for the course were put on a waiting list for a course to be given at a later date. A total of 102 students were assigned to the control group, 5 of whom decided not to participate.

The communication channels of the university were used to offer students 8-week training courses in meditation and developing mindfulness. One experienced instructor ran all the training courses following the same methodology for groups of 25–30 students. All the applicants were informed that, if they agreed to take part in the course, they would be participating in research into the effects of meditation on quality of life. Similarly, participants were told that if they were receiving any psychological or psychiatric treatment they should not take part, so as to exclude participants who required professional psychological attention. No other tests were carried out, however, to verify the psychological state of participants at the time of the course. The students at the same university who had expressed interest but were not assigned to

take part in the meditation courses (those who were placed on a “waiting list”) made up the control group. This group was asked to complete the questionnaires voluntarily after being informed that it was part of a study into the effects of meditation on quality of life. The period of time between T1 and T2 was 3 months, and this period was the same for both the control group and the intervention group. All the participants in both groups were given a meditation diary, a mindfulness questionnaire and vignettes depicting an action that the observer might reject.

Materials

Intervention. Intervention group #1 ($N = 100$) participated in a meditation-training programme directly designed to develop the capacity for self-observation and, indirectly, skills for observing their own mental/emotional/physical experiences without judgement or automatic reaction. Although the participants were interested in learning how to meditate, they had no prior practical experience of meditation. They were asked to note in the diary whether they had spent time meditating during the day and, if so, for how many minutes ($M = 353.31$; $SD = 52.08$). This measure did not include the time spent meditating during the training sessions. To ensure similar rates of course participation, participants who did not attend 90% of the sessions were expelled from the course (three students dropped out, all of them due to “personal issues” not related to the course content or process itself). The mean time spent on meditation by the control group over the 8 weeks was 0 minutes.

The course was structured in three parts. The first part was aimed to set the “weekly goals”. The second part was to practice the meditation exercises previously proposed. These exercises develop attention to body and thoughts pass through the mind. The third part was aimed to exchange experiences, share concerns and experience initiated in the course. Finally, a practical guide was offered and explained for applying and bringing mindfulness in their everyday life.

The sessions were conducted by two experimented instructors. One of them was focused in the breathing and meditation sessions, and the other was the responsible for the reflection and analysis meetings. The objectives were structured as follows: Session 1: What is mindfulness?; Session 2: Listen to your body and reactions to experiences; Session 3: Awareness of judgements and mind control; Session 4: Awareness of emotions and their effect, complaints; Session 5: Awareness of emotions and their effect on inter-personal relationships; Session 6: Awareness of resistance against mindfulness; Session 7: Attitude of compassion and gratitude and Session 8: Overview and personal responsibility. On the other hand, while the intervention group was involved in the meditation-training programme, the control group

participated in a training course on relaxation and stress management.

Timing

Before the start of the programme, all the participants (i.e., control group and intervention group) filled in questionnaires on and social distance (Time 1). At the end of the 8-week course, both groups completed the questionnaire for a second time (Time 2).

Participants were asked to write a code to identify their responses in T1 and T2. Questionnaires were administered individually, and all the participants were informed that the data they provided would be used anonymously; their explicit consent to participate in the research and to include the identification code was obtained. Once T2 had been completed and the codes compared, that part of the questionnaire was erased from the database and the data were randomised to render their identification impossible. These conditions comply with the university's code of ethics.

Variables

Mindfulness. We used the *Five Facet Mindfulness Questionnaire* (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). Specifically, we assessed the facets of non-judgement, non-reaction and observation. Participants responded on a 9-point Likert-type scale (1 = never or rarely, 9 = almost always or always true) were measured as a manipulation check, both at T1 and T2. These authors state that the facets can be used independently of the general questionnaire. Participants responded on a 9-point Likert-type scale (1 = never or rarely, 9 = almost always or always true). The non-judgement scale assessed the degree to which people judged their experience, a higher score reflected a greater tendency to make judgements. This scale has eight items, and its reliability at T1 for this study was $\alpha = .92$ ($M = 4.39$; $SD = 1.96$) and at T2, $\alpha = .90$ ($M = 3.96$; $SD = 1.82$); an example of item is: *I criticise myself for having irrational or inappropriate emotions*. The non-reaction scale measured the tendency or ability to react emotionally to personal experiences; a higher score on this scale denoted a greater tendency to react. This scale comprises seven items, and it had a reliability at T1 of $\alpha = .80$ ($M = 4.51$; $SD = 1.42$) and at T2 of $\alpha = .81$ ($M = 4.83$; $SD = 1.52$); an example of item is: *I perceive my feelings and emotions without having to react to them*. The observation scale measured the degree to which the person self-observes his or her internal responses; a higher score on this scale reflected greater self-observation skill. The observation scale comprised eight items, with a reliability at T1 of $\alpha = .84$ ($M = 5.39$; $SD = 1.60$) and at T2 of $\alpha = .86$ ($M = 5.94$; $SD = 1.63$); an example of item is: *When I'm walking, I deliberately notice the sensations of my body moving*.

Results study 1

Preliminarily, in order to test the similarity of both groups at time 1 (control #1 vs. intervention #1), a Multivariate analysis of variance was performed using group as independent variable and the three facets of mindfulness (i.e., self-observation, non-reaction and non-judgement) as dependent variables. The results showed a *non-significant* multivariate effect ($F = .847$, $p = .359$; $F = .074$, $p = .787$ and $F = .008$, $p = .930$) respectively. Then, a mean comparison was performed to verify whether participants "learned" and enhanced their capacity to meditate as a result of the training. Table 1 displays the *t*-test comparing the mindfulness facet values of the two groups (control #1 and intervention #1) at T1 and T2. In this way, we tested intragroup difference between T1 and T2 values. Results revealed statistically significant changes in the intervention group and no significant change in the control group. These results are shown in the self-observation facet, as well as the non-reaction and the non-judgement factors.

The aim of this study was to test the mindfulness training course effect. We first tested whether meditating introduces changes in the facets of mindfulness most closely related to impulsive response, such as reactivity and judgement and to the facet linked to the ability to detect thoughts. The study revealed that meditation training changes the mindfulness skills in these facets.

Study 2

Participants and procedure

A total of 121 university students participated in this study [29.1% male and 70.9% female; (48.7%, <25 years old; 29.9%, 25–35 years old and 21.4%, >35 years old), of whom 58 participated in the meditation–mindfulness training group (*intervention group #2*), and 63, the control group (*control group #2*). The same strategy as in study 1 was applied to allocate participants in groups. The university's communication channels were used to offer students 8-week training courses in meditation and mindfulness development over the academic year. The courses had the same characteristics as in Study 1 and followed the same procedure. All the participants were given a meditation diary, a questionnaire to assess social distance and a test to evaluate group acceptance and the need to share a benefit between the two groups.

The meditation-training course was designed to develop the capacity for self-observation and, indirectly, the skills to observe their own mental/emotional/physical experiences without judgement or automatic reaction. Again, participants had no previous meditation experience.

In this case, the participants reported having meditated, outside the training sessions, for a mean time of 320.61

TABLE 1

Comparison of means with facets of mindfulness (intervention and control groups #1)

	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>
Self-observation				
Meditation T1	5.43	1.15	.271	.787
Control T1	5.36	1.64		
N = 197				
Meditation T2	6.51	1.37	5.31	.000
Control T2	5.36	1.67		
N = 197				
Meditation T1	5.42	1.52	-7.930	.000
Meditation T2	6.52	1.37		
N = 100				
Control T1	5.36	1.64	.054	.957
Control T2	5.36	1.67		
N = 97				
Non-reaction				
Meditation T1	4.52	1.41	.088	.930
Control T1	4.50	1.40		
N = 197				
Meditation T2	5.32	1.42	4.888	.000
Control T2	4.32	1.47		
N = 197				
Meditation T1	4.51	1.41	-6.371	.000
Meditation T2	5.32	1.42		
N = 100				
Control T1	4.50	1.40	1.267	.208
Control T2	4.32	1.47		
N = 97				
Non-judgement ^a				
Meditation T1	4.26	1.98	-.920	.358
Control T1	4.51	1.88		
N = 197				
Meditation T2	3.52	1.85	-3.577	.000
Control T2	4.42	1.67		
N = 197				
Meditation T1	4.25	1.99	4.932	.000
Meditation T2	3.52	1.85		
N = 100				
Control T1	4.51	1.88		
Control T2	4.42	1.67	.611	.542
N = 97				

^aValues are reversed scoring.

minutes ($SD = 46.12$) during the course period. The time spent meditating in the course sessions was added to this mean. In this case, no participant was eliminated for the study; it means, every participant attended at least seven sessions.

Control group #2 ($N = 63$) was made up of students from the same university as those in *intervention group #2*. Control group participation consisted of completing questionnaires as part of a practical session of their course, in which they had to observe the relationship between mindfulness and different aspects of quality of life. The participants were also required to complete a weekly diary noting whether they had meditated and if so, for how long. The mean time the group spent meditating over the 8 weeks was 0 minutes. Initially, 65 students were included in the control group but 2 students who reported having meditated were eliminated from the study.

Timing

Before starting the mindfulness course, both *intervention group #2* and *control group #2* filled in the questionnaires (Time 1). This procedure was repeated at the end of the course with both groups (Time 2). The procedure used to identify participants' responses at T1 and T2 was the same as in Study 1.

Variables

Group favouritism. We used an adaptation of Tajfel's (1970) minimal group experiment to design this variable. The participants in the intervention group were given the following information: "You belong to a meditation group. We will call your group the RED MEDITATION group. There is another meditation group on another course that we will call the GREEN MEDITATION group. Once this meditation course is over we would like to have a meeting to explain our results. However, the room we have available only has space for 25 people. Supposing that the RED group (to which you belong) has 25 members, and the GREEN group also has 25 members, how many people from the RED group and how many from the GREEN group do you think we should admit?" They were then asked to respond how they would divide the number of attendees to the meeting: RED group (yours) _____ + GREEN group _____ = TOTAL 25 people.

The same procedure was followed for the control group, but replacing MEDITATION with CONTROL. Responses in the distribution of people from the red or green groups were classified in three categories: (a) distribution favouring the in-group; (b) equal distribution between the two groups; (c) division favouring the out-group. We thus constructed a variable which we termed "group favouritism", graded from 1 to 3, where 1 represented in-group favouritism and 3, out-group favouritism. The responses rate for each category (i.e., 1-3) were 64, 18 and 2 (time 1); 53, 20 and 33 (time 2) respectively.

Social distance. We assessed the *perceived distance* between the participant and the social group using the Bogardus (1947) social distance scale. This scale, originally developed by Bogardus (1947) to measure the level of desirable contact with members of other groups, considers willingness to accept the other at various levels of proximity as an indicator of social distance from social groups. According to Biernat and Crandall (1993), it is one of the simplest, most useful instruments to measure prejudice against out-groups. The scale asks participants to evaluate the degree to which they would be willing to accept a person belonging to a threatening group (a score of 1 indicates no social distance as the person from the threatening group is completely accepted; a score of 9

TABLE 2
Mixed ANOVA for social distance and group distribution

	<i>M (SD)</i>		<i>Sum of squares</i>	<i>d.f.</i>	<i>F</i>	<i>p</i>	<i>d</i>
Social distance							
Meditation T1 × Control T1	4.06 (1.74)	Intergroup	0.012	1	0.004	.949	.000
	4.09 (1.79)	Intragroup	454.796	119			
		Total	457.95	121			
Meditation T1 × Control T1	4.57 (1.56)	Intergroup	12.82	1	0.004	.949	.000
	3.92 (1.79)	Intragroup	2174.89	119			
		Total	2512.60	121			
Group distribution							
Meditation T2 × Control T2	1.83 (.73)	Intergroup	3.40	1	5.947	.016	.048
	1.49 (.78)	Intragroup	332.79	1			
		Total	402.00	121			
Meditation T1 × Control T1	1.60 (.72)	Intergroup	.49	1	0.887	.348	.007
	1.48 (.75)	Intragroup	286.41	1			
		Total	352.00	121			

ANOVA, analysis of variance; d, effect sizes; d.f., degrees of freedom.

denotes the greatest social distance). Respondents were asked to reflect on their willingness to accept a supposedly threatening person by means of five items, each one of which represents closer social proximity to the respondent. The Bogardus social distance scale is a cumulative scale, as agreement with any item implies agreement with all the preceding items. The scale used in our study began with the following statement: “*Think of the type of person that you least identify with, whether from another ethnic group or religion or a person with other values. Would you be happy ... , 1. to have him/her as a visitor to your city?, 2. to have him/her as a neighbour in the same neighbourhood?, 3. to have him/her as a neighbour in the same building?, 4. to have him/her as a friend?, 5. to marry the person or have your son or daughter marry him/her?*”

We used five items of proximity in the study, from higher to lower social distance. A compound score for social distance was obtained by adding together the scores for each item, in accordance with the scale of 1 (greatest social distance) to 9 (lowest social distance) and dividing the result by 5 ($N = 121$; T1: $M = 4.08$; $SD = 1.75$; T2: $M = 4.23$; $SD = 1.7$).

RESULTS

Table 2 displays the mixed analysis of variance performed 2 (intervention #2 vs. control #2) × 2 (T1 vs. T2). The results reveal no differences between the control and the intervention groups at T1. However, after the meditation training (T2), the intervention group reported significantly lower values in-group favouritism and social distance than the control group. Hypothesis 1 is therefore supported.

Study 2 provides empirical evidence that meditating reduces the social distance between social groups and also lowers the tendency towards social favouritism. These tendencies can encourage less conflictive intergroup

relationships by reducing the category differences that favour social rejection. The size of the effect is very small. Given that the sample size is not very large, the small effects shown ($d = 0.037$ and $d = 0.048$) might suggest that the p -value is not conditioned by the effect of size, which could support its credibility and theoretical relevance. However, considering the relative novelty of the study area, we suggest there is a need to further explore these variables theoretically to overcome the limitations of this study.

DISCUSSION

The general aim of this study was to analyse the effect of the self-observation-based meditation-training course on relational aspects of daily life among a psychologically healthy population. The specific research aim was to study the effect of the course on social acceptance of the other at various levels of group and collective interaction. The results of the study verified the hypotheses. The effects were compared before and after the 8-week training course. The second study was designed to test whether meditation training would favour a more inclusive perception of the other. The hypothesis posed that the training would engender a reduction in-group favouritism and social distance. The results confirm the hypothesis, highlighting the idea that the meditation course leads to changes in perception of the other. This result is coherent with previous studies such as Farb et al. (2010) who demonstrated changes in the regulation strategies for self-representation following the mindfulness-based stress reduction programme. Our study suggests that the change in the mental representation of the other is positive, as it shifts towards a more inclusive representation.

The purpose of the mental training in this intervention was not so much to reduce the negative affective response as to prevent the consequences of these reactions in the

avoidance and/or rejection of the other. One of these consequences is the separation of the self from the other, creating two opposing categories. This study shows that even when the two categories are retained, the degree of separation is lower. An individual who has taken part in self-observation-based meditation training finds it easier to integrate the other into his or her category. These results, in line with other studies (Fiol & O'Connor, 2003), support the idea that members of a social group can revise their simplified reactive perceptions of the other, in intergroup or collective relationships, by generating cognitive responses of greater closeness to others.

Social identity provides the actual meaning of what we are in a group context. Our relationships with others are not possible without an identity to express (Tajfel, 1978; Tajfel & Turner, 1979). Identity is inevitable. Participating in a meditation training involves taking care of ideas related to the internal processes of response interaction, stimulating a sense of detachment from the result of experience. Therefore, the same internal experience of self-observation may be accompanied by a reclassification on the concept of self. People can develop their identity to engage and make it consistent with the experience living. Being an exclusive identity social categorization, which tends to engage those who are the same identity, the observed effect indicates that people may have developed a new identity towards a more inclusive social vision. This more inclusive vision is consistent with the idea of being meditator, as well as the effect of detachment and reduced reactivity of the practice of meditation. Langer (1992) suggests that meditation should be associated with a non-evaluative way of relating to the other, reducing heuristics. Our results suggest that meditation, at least change possible heuristics in-group defence to a more positive response to the other. So the internal effect on the mental processes that can produce practice is consistent with the effect on social reclassification and the formation of a new social identity.

When attention is focused on the other, we are unable to review the mental category from which we perceive and judge our experiences. By focusing attention on him or herself, an individual could be forming a more tolerant and peaceful mental representation of the other. The possibility that stimulating internal attention processes may favour the quality and acceptance of social relations, as suggested by the results of this research, calls for more thorough analysis. Future studies may consider the possibility that the processes of social categorisation undergo transformations that favour the inclusion of broader social categories when greater self-observation skills are acquired.

The results of this study have further implications. Self-observation training may create the necessary conditions for us to discover how the mind works in social interaction, so that response mechanisms are de-automatised. Social research should explore how social heuristics

related to intergroup conflicts can be de-activated through meditation. In a recent study, Wenger, Hooper, Meier, and Hoptrow (2012) found empirical evidence that as little as 5 minutes of mindfulness practice can reduce the detrimental effects of social threat. These authors highlight the importance of considering mediating variables such as the duration of the effect, and the training time needed before an effect is observed. Findings in this area would be useful for training in social skills that encourage peaceful relationships from a state of mental calm and self-responsibility.

In conclusion, the study provides evidence that meditating can contribute to harmonious relations between groups and individuals. Mindfulness has frequently been linked with quality of life, essentially in terms of well-being and health. In this study, we find empirical evidence that meditation and mindfulness can be associated with more peaceful and trusting social relationships. Reductions in the social distance and out-group discrimination associated with factors of mindfulness such as self-observation suggest that levels of trust increase in interactions with strangers. Proximity to the other associated with meditation suggests that this practice can help to improve social relationships.

LIMITATIONS OF THE STUDY

The main limitation of this study concerns the use of self-reporting measures. The measurement of social distance is correlational. It should be noted that the results of the programme could be because of non-specific components of self-observation or the meditation training. For example, perhaps the increased intergroup closeness may be a result of interaction among individuals in the course group. The members of the meditation and control groups were homogenous in their geographical origins, but not in age or educational background. The degree to which this group interaction could affect the results should be controlled for in future research. Finally, we would like to point out, as a limitation, the fact that we did not include in our design some other cognitive variables that could explain the hypothesised effects. Therefore, we encourage including them in future studies in order to go further in the research and knowledge of mindfulness interventions.

Manuscript received December 2014
Revised manuscript accepted August 2015

REFERENCES

- Arch, J. J., & Craske, M. G. (2006). Mechanisms of mindfulness: Emotion regulation following a focused breathing induction. *Behaviour Research and Therapy*, *44*(2), 1849–1858. doi:10.1016/j.brat.2005.12.007.

- Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment, 13*, 27–45.
- Biernat, M., & Crandall, C. S. (1993). Racial attitudes. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of political attitudes* (pp. 297–412). San Diego: Academic Press.
- Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., & Devins, G. (2006). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*(3), 230–241.
- Bodner, T. & Langer, E. (2001). *Individual differences in mindfulness: The Langer Mindfulness Scale*. Poster session presented at the annual meeting of the American Psychological Society, Toronto, Ontario, Canada.
- Bogardus, E. S. (1947). Changes in racial distances. *International Journal of Opinion and Attitude Research, 1*(4), 55–62.
- Borders, A., Earleywine, M., & Jajodia, A. (2010). Could mindfulness decrease anger, hostility, and aggression by decreasing rumination? *Aggressive Behavior, 36*, 28–44.
- Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry, 18*, 211–237.
- Brown, K. W., Ryan, R. M., Creswell, J. D., & Niemiec, C. P. (2008). Beyond me: Mindful responses to social threat. In H. A. Wayment & J. J. Bauer (Eds.), *Transcending self-interest: Psychological explorations of the quiet ego* (pp. 75–84). Washington, DC: APA Books.
- Burgoon, J. K., Berger, C. R., & Waldron, V. R. (2000). Mindfulness and interpersonal communication. *Journal of Social Issues, 56*(1), 105–127.
- Chatzisarantis, N. L., & Hagger, M. S. (2007). Mindfulness and the intention-behavior relationship within the theory of planned behavior. *Personality and Social Psychology Bulletin, 33*(5), 663–676.
- Eifert, G. H., & Heffner, M. (2003). The effects of acceptance versus control contexts on avoidance of panic-related symptoms. *Journal of Behavioral Therapy and Experimental Psychiatry, 34*, 293–312. doi:10.1016/j.jbtep.2003.11.001.
- Farb, N. A., Anderson, A. K., Mayberg, H., Bean, J., McKeon, D., & Segal, Z. V. (2010). Minding one's emotions: mindfulness training alters the neural expression of sadness. *Emotion, 10*, 25–33.
- Fiol, C. M., & O'Connor, E. J. (2003). The power of mind: What if the game is bigger than we think? *Journal of Management Inquiry, 13*(4), 342–352.
- Greene, J. D. (2003). From neural 'is' to moral 'ought': what are the moral implications of neuroscientific moral psychology? *Nature Reviews Neuroscience, 4*, 846–849.
- Hessler-Smith, C. (2001). Mindfulness and its effects on racial prejudice and stereotyping. US: ProQuest (information & learning). *Dissertation Abstracts International: Section B: The Sciences and Engineering, 62*(2), 1141.
- Hoffman, E., McCabe, K., Shachat, J., & Smith, V. (1994). Preferences, property rights and anonymity in bargaining games. *Games and Economic Behavior, 7*(3), 346–80.
- Hoffman, E., McCabe, K., & Smith, V. (1996). Social distance and other regarding behavior in dictator games. *American Economic Review, 86*(3), 653–60.
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice, 10*, 144–156. doi:10.1093/clipsy.bpg016.
- Kemeny, M. E., Foltz, C., Cavanagh, J. F., Cullen, M., Giese-Davis, J., Jennings, P., & Ekman, P. (2012). Contemplative/emotion training reduces negative emotional behavior and promotes prosocial responses. *Emotion, 12*(2), 338.
- Langer, E. (1989). *Mindfulness*. Reading, MA: Addison-Wesley.
- Langer, E. (1992). Matters of mind: Mindfulness/mindlessness in perspective. *Consciousness and Cognition, 1*, 289–305.
- Langer, E., & Moldoveanu, M. (Eds.) (2000). *Journal of social issues: Mindfulness theory and social issues*. New York: Society for the Psychological Study of Social Issues.
- Pinazo, D., & Vázquez, C. (2014). The effect of meditation based on self-observation on cognitive responses in conflictive social interaction. *Nordic Psychology, 3*(66), 202–215.
- Rege, M., & Telle, K. (2004). The impact of social approval and framing. *Journal of Public Economics, 88*(7), 1625–1644.
- Segal, Z. V., Williams, J. M. G., & Teasdale, J. D. (2002). *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. New York: Guilford Press.
- Sherif, M., & Sherif, C. (1975). *Psicología social*. Buenos Aires: Harla.
- Tajfel, H. (1970). Experiments in intergroup discrimination. *Scientific American, 223*, 96–102.
- Tajfel, H. (1978). Social categorization, social identity and social comparison. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 61–76). London: Academic Press.
- Tajfel, H. (1981). *Social identity and intergroup relations*. London: Cambridge University Press.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations*. Monterey: Brooks/Cole.
- Wenger, U. W., Hooper, N., Meier, B. P., & Hophrow, T. (2012). Mindful maths: Reducing the impact of stereotype threat through a mindfulness exercise. *Consciousness and Cognition, 21*, 471–475.