CHAPTER 2

Social mindfulness
Skill and will to navigate the social world

Prosocial behavior comes in many flavors, and social mindfulness might well be one of them. Being socially mindful means to safeguard other people’s control over their own behavioral options in situations of interdependence. Recently, the concept of mindfulness has become a household term in both clinical and social psychology. Mindfulness-based psychotherapy, for instance, has shown to be an effective therapy for depression and anxiety disorders (e.g., Chiesa & Serretti, 2011; Greeson, 2009; Hofmann, Sawyer, Witt, & Oh, 2010), and everyday mindfulness as described by Langer (e.g., 1989, 1992) allows for more openness to all the options and alternatives that life has to offer – even providing a feeling of empowerment (Langer, Blank, & Chanowitz, 1978). However, contemporary discussions of mindfulness often overlook the original other-orientedness that is embedded in its Buddhist heritage (Black, 2011; cf. Gergen, 2009). Other than the prevalent inward awareness and inner dialogue of modern mindfulness, social mindfulness doubles back to its roots by incorporating a benevolent focus on the needs and interests of others.

General mindfulness starts with paying attention to the little things available to individual awareness; social mindfulness starts at a similar basic level. In daily life, it may sometimes be understood as simply being considerate or being polite. An example would be to deliberately not take the last peanut butter cookie from a plate that also holds a couple of chocolate chip cookies. Undoubtedly, various personal motivations and/or preferences may play a role in these kinds of decisions, but a readily available reason for refraining from taking the last single cookie is to leave a next person something to choose from – even if that is only the polite thing to do. Key factors in this decision process are to acknowledge the immediate or expected inclusion of someone else in a given situation, assess the effect of one’s actions on the remaining behavioral options for the other (i.e., interdependence is seen and established), and the level of positive regard given to this other (“Do I really care if uncle John can’t choose which cookie he wants, as long as he can still have one?”). Subtle but, as we will argue, socially effective actions like leaving or limiting choice options for others require a process of both perspective taking and empathic concern – uncle John might indeed get really upset and not want to play soccer anymore.

Perspective Taking and Empathic Concern are two of the four domains that Davis (1980, 1983) distinguished in the multidimensional concept of empathy – the other domains are Fantasy Scale and Personal Distress. Separately or in combination, these can be used to explain many other-oriented capacities and/or tendencies. Investigating social mindfulness as a human capacity in which the cognitive component of perspective taking and the affective component of empathic concern work together to signal prosocial intentions offers a practical and concise method to look at an under-investigated way of how people may balance a need for social inclusion with a need for individual differentiation (Brewer, 1991, 2012). The mindful sequence of to see it (i.e., the perspective of the other person) and to do it (i.e., to make choices that leave room for that other) requires both skill and will.

Socially mindful

Social mindfulness is minding the needs and interests of others in a way that honors the idea that most people like to choose for themselves (i.e., have a certain need for autonomy; Deci & Ryan, 2012). In terms of interdependence theory (e.g., Kelley & Thibaut, 1978; Van Lange & Rusbult, 2012), social mindfulness seeks to maximize other people’s control over their own outcomes. The socially mindful person makes sure that he/she does not determine or close up situations for others as far as outcomes are concerned. In interdependence theory, situations that require suspension of immediate personal
preferences for the sake of others have been relatively underexposed, and in our eyes deserve some attention. As mentioned, being socially mindful can be as simple as not taking the last peanut butter cookie when there are still other alternatives left. Situations like these make a good anchor point for any new measure of social mindfulness. Leaving or limiting outcome options for others will therefore constitute the core of the current investigation.

**Skill and will**

Perspective Taking is a well researched phenomenon (e.g., Batson, Early, & Salvarani, 1997; Ruby & Decety, 2004). Neural correlates of this human capacity for instance can be traced back to regions in the medial prefrontal cortex (mPFC; see Amodio & Frith, 2006). Related to Perspective Taking is the concept of Theory of Mind (ToM), which enables people to attribute mental states – for example, beliefs, intentions, desires, knowledge – to oneself and to others, and to understand that those others have beliefs, desires and intentions that are different from one’s own (e.g., Baron-Cohen, Tager-Flusberg, & Cohen, 1993; Wimmer & Perner, 1983). A basic ToM allows people to know that others have thoughts and feelings in the same way that they have, and thus recognizes the others as cognizant and sentient (Decety & Batson, 2007). An advanced ToM extends this ability to more complex situations in which other people’s perspectives may require some effort to assess. Yet another approach to acknowledge the views and feelings of others, for example used in person-centered and experiential approaches to psychotherapy (PCE), is called mentalizing, or to become aware of the presence and quality of mental states in self and others (MBT; e.g., Allen, 2006; Allen, Fonagy, & Bateman, 2008). Building on this extensive body of research, we reason that the skill to process other people’s perspectives will vary between people and between situations, thus laying down the affordance for social mindfulness.

Skill will set the perimeters, but the will to follow up is another issue. Early research has shown that especially affective perspective taking connects to a cooperative predisposition and altruistic behavior, rather than the ability to take the physical perspective of others (e.g., D. W. Johnson, 1975a, 1975b; Oswald, 1996; Vaish, Carpenter, & Tomasello, 2009). Affective perspective taking is part of the human faculty of empathy, mostly related to empathic concern. As the capacity to feel for and with others, one could expect empathic concern to play an important part in a benevolent approach to the needs and wishes of others, and therefore in social mindfulness. Motivating factors like these will bring the ability for perspective taking or mentalizing online. In other words: One needs the skill to assess for the will to address.

**Interdependence**

Our conceptualization of social mindfulness is deeply rooted in interdependence theory, which emphasizes the role of social orientations such as cooperation and fairness in settings of outcome interdependence (Kelley & Thibaut, 1978). Social mindfulness as we define and operationalize it extends the focus on outcome interdependence by including the notion that people’s behavioral choices and actions may codetermine the range of possible outcomes for others, rather than just the outcome itself (cf. Kelley, Holmes, Kerr, Reis, Rusbult, & Van Lange, 2003; Van Lange & Rusbult, 2012). In order to investigate these specific instances of interdependence, we asked participants in our experiments to imagine being in a dyadic situation where choices by the one would leave or limit outcome options for the other.
The operationalization of social mindfulness we discuss in this paper was inspired by the pen-choice paradigm initially used by Kim and Markus (1999) and further developed by Yamagishi, Hashimoto, and Schug (2008; see also Hashimoto, Li, & Yamagishi, 2011). In this paradigm, people were asked to pick one among five pens that came in two colors. The ratio was always two to three pens of the same color, or one to four. This obviously made one color the majority and the other the minority. Both research groups framed their findings in terms of cultural differences, but Yamagishi et al. (2008; see also Hashimoto et al., 2011) argued that instead of being internalized cultural norms – which is the point of the Kim and Markus (1999) study – preferences for minority versus majority objects were driven by strategies that people follow as what may be called “cultural game players” (Hashimoto et al., 2011, p. 140; cf. Yamagishi et al., 2012). They reached this conclusion by noticing that when by themselves or the last to choose, and thus without any social pressure, most people seemed to prefer the unique option regardless of cultural background. Picking the unique object therefore can be seen as the default choice in absence of other, extrinsically motivating factors.

Clearly, choosing one object rather than the other can be the result of a strategic choice. In order to transpose the pen-choice paradigm from unique versus majority choices to a measure of social mindfulness, we limited the total number of choice options to three, with a standard ratio of one to two (e.g., one blue pen and two green pens). Also, we repeated similar choices by adding more objects than pens alone. Furthermore, the setting was always dyadic and the choices socially consequential: Choosing one object would remove it for the other person. In this set-up, choosing the object of which there were two would leave the second person something to choose between (a blue or a green pen), whereas a first choice for the unique object would limit the options because there would only be two identical objects left to choose from.

In interdependence terms, we reasoned that the first person’s choice for the doubled object would count as cooperative/mindful, because it grants the second person control over the same amount and quality of options that were available to the first person. A first move for the unique object, however, removes this control. Granting this kind of control may have prosocial motives (cf. Magee & Langner, 2008) because it allows the other to have as much autonomous control over the outcome as the situation will allow. This reasoning also taps into self-determination theory (SDT; e.g., Deci & Ryan, 2000, 2012), in which autonomy is regarded as a basic need. Providing someone with a certain degree of autonomy, or at least not taking it away, may be perceived as an action that honors the needs and the perspective of the other; in other words, as an act of social mindfulness.

In the same realm, social value orientations (SVO) are conceptually related to social mindfulness. In past research, three major types of social value orientation have received the most attention, including (a) a prosocial orientation that seeks to enhance own and other’s outcomes as well as equality in outcomes; (b) an individualistic orientation that seeks to enhance outcomes for the self, and is largely indifferent to outcomes for another person; and (c) a competitive orientation that seeks to enhance the difference between outcomes for self and other in favor of the self (Messick & McClintock, 1968; Van Lange, Otten, De Bruin, & Joireman, 1997). Thus, relative to individualists and competitors, prosocials tend to be more other-regarding in that they are more strongly oriented toward helping others and pursuing equality in outcomes (Van Lange, 1999), expect others to be other-regarding as well (Kuhlman, Camac, & Cunha, 1986), and tend to view
various interdependence situations in terms of fairness and morality (for a review, see Balliet, Parks, & Joireman, 2009; Van Lange, Schippers, & Balliet, 2011). Prosocial more than individualistic or competitive orientations therefore can be expected to favor mindful behaviors that safeguard variation in options – or “choice” – for others.

Research overview and hypotheses
Social mindfulness seeks to maximize other people's control over their own outcomes in situations of interdependence; this makes it an effective tool for signaling and estimating prosocial intentions. To introduce and investigate this novel construct we conducted seven studies, with the concomitant goal of testing our new paradigm (the SoMi-paradigm, see general method section below). Social mindfulness makes people leave choice for others out of other-regard. Being specifically other-oriented therefore should lead to higher levels of social mindfulness than being self-oriented (orientation hypothesis). For a clear test of concurrent validity, we designed an experiment in which we explicitly told our participants to mind either their own or another person's best interest (Study 2.1a). Because the wish to gain more information about others might also influence whether to leave someone else a choice or not, we planned a replication with the additional instruction that participants would not be informed about the other person's choices (Study 2.1b). Next to gaining information, choosing behavior may also arise from a self-serving wish to make a favorable impression on others. This possible alternative explanation we addressed in a second replication (Study 2.1c).

Our general argument holds that social mindfulness signals prosocial intentions. But for this signal to be functional, it must of course also be understood as such. We tested this in two studies. In a laboratory setting, Study 2.2a looked at how participants would react after witnessing various levels of social mindfulness. We expected to find that a socially mindful person would be liked better and trusted more than a socially unmindful person (i.e., someone who leaves the other with little or no choice; perceived mindfulness hypothesis). In Study 2.2b we sought to replicate this in an online study using a different and USA-based population.

Because trust and trustworthiness make investing in social relationships a safer bet, one of our general expectations was that trust would play a role in social mindfulness; not only in the sense that socially mindful individuals will be trusted more than those who are not, but also to the extent that the mere appearance of being trustworthy will enhance the chance of being met with social mindfulness. In Study 2.3 we therefore explored whether seeing a stranger's trustworthy – as opposed to untrustworthy – face would be enough to elicit higher levels of social mindfulness (trustworthiness hypothesis).

In Study 2.4 we sought further validation by tracing social mindfulness in underlying personality structures. We expected social mindfulness to be specifically associated with personality factors that are geared towards enhancing or maintaining the relationship with others, like Honesty-Humility and Agreeableness (personality hypothesis). We also tested our expectation that Empathy would be associated with Social Mindfulness (empathy hypothesis), as well as a prosocial value orientation (SVO hypothesis).
General method: the SoMi paradigm

Inspired in part by past research on the pen-choice paradigm originally devised by Kim and Markus (1999) and extended by Yamagishi et al. (2008) and Hashimoto et al. (2011), we developed a paradigm for social mindfulness that for short we called the SoMi paradigm. The SoMi paradigm consisted of a computer-generated social decision-making task that let participants choose one among three objects in a series of different categories, for example pens, baseball caps, water bottles, or wrapped gifts. Per category, two of the objects were entirely identical, and the third only differed in a single aspect (e.g., one yellow baseball cap and two green ones). The specific instructions and number of categories varied somewhat per study, but participants always had to keep in mind that they were playing the decision task together with one other person in a dyadic interaction. They were told to imagine that they both would get to take home one of the three objects. Furthermore, it was emphasized that the objects would not be replaced; once chosen by the one, an object would no longer be available to the other. This combination of a consistently interdependent setting with the use of multiple objects formed the conceptual and theoretical next step that allowed the pen-choice paradigm to evolve into a measure of social mindfulness. Two example screenshots are provided in Figure 2.1.

![Figure 2.1. Screenshots from the SoMi paradigm.](image)
The rationale behind this paradigm assumed that if the participant would choose the object of which there were two, the other person would still have something to choose between (a green or a yellow cap); this would be scored as mindful (1). If the participant on the other hand would pick the unique option, he or she would leave the other with no choice but to take or leave the other object (only two identical green caps would be left); this would be scored as unmindful (0). The various categories as well as the three objects per category were presented in random order. In all but Studies 2.2a and 2.2b, participants had to make another choice in a second round within the same category, but now in counterbalanced order (e.g., two yellow and one green baseball cap). A final score (i.e., a proportion of socially mindful choices) was computed by averaging the scores over all decisions in both rounds, resulting in a number between 0 (only unmindful choices) and 1 (only mindful choices).

MINDING ME, MINDING YOU

We tested the orientation hypothesis in three consecutive studies by asking participants to either look after their own or another person’s best interest – which in a first test of concurrent validity comes down to either being selfishly or socially mindful. The “other” in the decision task was imaginary and not specifically defined. This reflected the set-up of the triple-dominance measure of social value orientation (SVO; e.g., Van Lange, 1999; Van Lange et al., 1997) that asks people to allocate points between themselves and an unknown other that they are not likely to meet in the future. A similar set-up allowed us to assess social mindfulness in a situation of generalized self- versus other-orientedness. In order to test whether leaving choice to others indeed comes from prosocial intentions, we hypothesized that the instruction to be other-oriented would result in higher levels of social mindfulness than the instruction to be self-oriented (orientation hypothesis), and that a predominantly prosocial value orientation would be associated with more social mindfulness than a proself orientation (SVO hypothesis; Study 2.1a). In Studies 2.1b and 2.1c we tested whether our initial findings would replicate in different samples while exploring two possible alternative explanations.

Study 2.1a

Participants. In this laboratory study, 41 men and 67 women participated \((N = 108), \ M_{age} = 20.75, SD = 2.25\). They were recruited at the campus of VU University Amsterdam by means of flyers distributed in two main cafeterias, and were compensated with €3.50 or study credits for their voluntary participation.

Procedure and materials. Upon arrival, participants were greeted and guided into separate cubicles equipped with computers. The experimenter then started the computer program and left the cubicle. All further instructions were provided onscreen. The experiment opened with the SoMi paradigm as described in the general method section above. In this case, it was played with five different object categories: Jars of jam, baseball caps, pencils, wrapped gifts, and apples. Participants were told to imagine playing with someone else they did not know and were not likely to meet in the near future.
**Instructing mindset.** In randomly assigned conditions, participants were either asked (a) to keep the perspective of the other in mind, (b) to keep the other’s best interest in mind, or (c) to think of their own preferences. In a control condition (d) they did not receive specific instruction as to where to put their focus. We included two instructions that were aimed to induce other-orientedness (using “perspective” and “best interest”) to ensure that the findings would be similar and not dependent on a specific kind of wording. This was considered to be especially important for the validation of a new paradigm that extends the traditional focus on “outcomes.”

Preliminary analyses revealed a significant main effect for condition on social mindfulness ($M_{\text{overall}} = .60; \text{SD} = .22; F(3, 104) = 3.93, p = .011, \eta^2_p = .10$). However, pairwise comparisons revealed no significant difference between the conditions of Keeping the other’s perspective (1) versus best interest (2) in mind, $M = .63, \text{SD} = .24$, and $M = .69, \text{SD} = .18$, respectively, $F(1, 104) < 1, p = .329$, in combination with a significant difference between those two conditions combined (1 + 2) and the instruction to mind one’s own best interest (3), $M = .55, \text{SD} = .24, F(1, 104) = 5.30, p = .023$. For the main analysis we therefore decided to combine the two conceptually other-oriented conditions in a single condition for other-orientedness. This would then be contrasted with self-orientedness and no instruction (control) in a three-tiered variable called instruction.

Next, SVO was assessed by a computerized version of the nine-item triple-dominance measure of SVO (Van Lange, 1999; Van Lange et al., 1997). Eleven participants could not be classified for making less than six consistent choices, and were excluded from all analyses involving SVO ($n = 97$). In this sample, we found 53 people with a prosocial orientation (55%), 37 with an individualistic orientation (35%), and seven competitors (7%). Because of the small amount of competitively oriented participants, and to match up to the self/other orientation of the experimental conditions, we combined individualists and competitors into a single category of prosocial orientation (cf. De Cremer & Van Lange, 2001; Van Kleef & Van Lange, 2008); participants in this category ($n = 44$) would then pitted against those in the prosocial category ($n = 53$).

**Results**

To examine the role of instruction and SVO, we conducted a 3 (instruction; self-oriented, other-oriented, control) x 2 (SVO; prosocial, prosel) analysis of variance on the proportion of socially mindful choices. As predicted, this analysis revealed a main effect for instruction, $F(2, 91) = 5.06, p = .008, \eta^2_p = .10$. In line with the hypothesis, pairwise comparisons revealed that under instruction of other-orientedness ($M_{\text{other-oriented}} = .66, \text{SD} = .21$), participants scored higher on social mindfulness than under instruction of self-orientedness ($M_{\text{self-oriented}} = .55, \text{SD} = .24$), $F(1, 105) = 5.30, p = .023$, or no instruction at all, ($M_{\text{control}} = .52, \text{SD} = .17$), $F(1, 105) = 8.89, p = .004$. Being other-oriented differed from both other conditions together as well, $F(1, 105) = 10.47, p = .002$. There was no significant difference between self-orientedness and the control condition, however, $F(1, 105) < 1, p = .558$. Thus, other-orientedness differed in social mindfulness from self-orientedness.

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1 In Dutch, these instructions were: (a) “Probeer je steeds zo veel mogelijk te verplaatsen in de ander,” (b) “Probeer steeds zo veel mogelijk rekening te houden met de belangen van de ander,” and (c) “Probeer steeds zo veel mogelijk te letten op je eigen voorkeur.”

2 For completeness and clarity, we here report pairwise comparisons that include the unclassifiable participants in the SVO-task that were excluded from analysis in the main model. Running the same comparisons without those participants did not structurally alter significance patterns and effect sizes.
and/or no instruction (i.e., other-oriented participants scored higher), whereas no instruction and self-orientedness did not differ in their effect on social mindfulness.

The main model also revealed a significant effect of SVO, $F(1, 91) = 5.05, p = .027, \eta^2_p = .05$. This supported our hypothesis that prosocals ($M_{prosocial} = .64, SD = .20$) would exhibit greater social mindfulness than proselfs ($M_{proself} = .54, SD = .23$; SVO hypothesis). The interaction between instruction and SVO was not significant, $F(2, 91) < 1, p = .458, \eta^2_p = .02$.

Study 2.1b
The first study provided good support for our hypotheses. While the new methodology seems to assess a key aspect of social mindfulness in a relatively straightforward manner, we should acknowledge potential alternative interpretations. In particular, because we did not explicitly rule this out, participants in Study 2.1a could have thought or assumed that they would be informed about the other person’s choices. Specifically, one motivation to choose for the doubled instead of the unique object could therefore have been to gain some information about the other’s preferences, thus offering an alternative explanation for the results. To test whether the findings of the previous study would replicate when participants would be certain not to receive any information about the other person’s choices, we conducted a new study with basically the same procedure as Study 2.1a, but now with an extra instruction emphasizing that “you won’t know what the other picked.” An additional goal was to seek replication within a culturally and age-wise different population.

Participants and procedure. Study 2.1b was conducted as an online survey for monetary compensation on Amazon’s Mechanical Turk, with participation limited to the USA (for a discussion of the reliability of this medium for psychology research, see Buhrmester, Kwang, & Gosling, 2011; Mason & Suri, 2012). Of the 140 participants who completed the survey, 32 failed a stringent combination of three manipulation checks (we here report on the most conservative approach in which participants had to pass all three manipulation checks, in which they had to reconfirm what frame of mind we asked them to adopt, the fact that they were first to choose, and that they would not be informed about the other person’s choices; however, the analyses reported below with all participants included did reveal virtually identical patterns and results – i.e., no change in the statistical [non]significance of the tests). The total sample included in the reported analyses therefore consisted of 118 participants: 60 men (50.8%) and 58 women (49.2%) between 18 and 68 years old ($M_{age} = 31.76, SD = 11.22$); 78.0% reported to be White/Caucasian, 8.5% Hispanic, 6.8% Asian, 5.1% African American, and 1.7% other.

On the basis of Study 2.1a, participants played the SoMi paradigm under the following general instruction: “You are the first to choose” with the additional instruction that “you will not get to know what the other will choose.” After being randomly assigned to one of three conditions, participants would subsequently receive no further instruction (Condition 1), the instruction to “be sure to keep your own best interest in mind” (Condition 2), or the instruction to “be sure to keep the other person’s best interest in mind” (Condition 3). These condition-specific instructions were repeated before each decision that was made. The dependent variable was the proportion of socially mindful choices.

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3 Six additional people opened but did not complete the study, and thus could not be included in the analyses.
Results. ANOVA with age and gender included in the (general linear) model revealed a strong and significant main effect of condition on social mindfulness, $F(2, 111) = 40.28, p < .001, \eta^2_p = .42$. As predicted, means revealed that social mindfulness was greater in the other-oriented condition ($M_{other-oriented} = .91, SD = .21$) than in the control condition ($M_{control} = .49, SD = .26$) or self-oriented condition ($M_{self-oriented} = .48, SD = .23$). Confirming the pattern we found in Study 2.1a, pairwise comparisons showed that other-oriented participants scored significantly higher on social mindfulness than self-oriented participants, $F(1, 111) = 65.81, p < .001$, or those in the control condition, $F(1, 111) = 51.79, p < .001$. Being other-oriented differed from both other conditions together as well: $F(1, 111) = 79.50, p < .001$. And again, we found no significant difference between the self-oriented and the control conditions, $F(1, 111) < 1, p = .622$.

We did not find an age effect, $F(1, 111) < 1, p = .900, \eta^2_p = .00$. Although the mean score for women seemed notably higher than the men’s score ($M_{female} = .68, SD = .30, M_{male} = .59, SD = .31$), this difference was not statistically significant, $F(1, 111) < 1, p = .516, \eta^2_p = .00$, nor was there an interaction with condition, $F(2, 111) < 1, p = .429, \eta^2_p = .02$.

Study 2.1c
Study 2.1b addressed the question of whether the wish to gain information about the other could alternatively explain our findings. But apart from gaining information, people may also wish to provide information to others by means of their choosing behavior. This communicative value of social mindfulness could of course be recruited from self-oriented or egoistical motives, and it is conceivable that choosing the redundant object may primarily serve to make a favorable impression on others without really considering their best interest. As a possible alternative explanation, this would challenge our claim that social mindfulness is inherently prosocial. But although we admit that promoting a favorable impression is part of what makes social mindfulness such a viable strategy in social life (which we will explore in Studies 2.2a and 2.2b), we do not expect that self-oriented utility would completely eliminate the truly prosocial intentions in accounting for social mindfulness. To test this alternative explanation, however, we conducted a second replication of Study 2.1a, but now crossed this with two conditions in which participants were told to imagine that the other either would or would not be informed about the task and their choices. If other-regard indeed forms an intricate part of social mindfulness, a pattern like we found in both Studies 2.1a and 2.1b should hold even in the knowledge that information about the task and the choices will not be passed on to the other, rendering active impression management futile.

Participants and procedure. Like the previous study, Study 2.1c was conducted as an online survey for monetary compensation on Amazon’s Mechanical Turk, with participation limited to the USA (see Buhrmester et al., 2011; Mason & Suri, 2012). Of the 278 people who completed the survey, 453 participants failed a stringent double manipulation check (again, we report on the most conservative approach in which, after having finished the task, participants had to both reconfirm whether they expected the other to be informed about the task and their choices or not, and what frame of mind we asked them to adopt [cf. Study 2.1b]; however, rerunning the

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4 Eleven additional people opened but did not complete the study, and thus could not be included in the analyses.
analyses reported below with a single manipulation check on information expectation only – \( N = 245 \) – showed virtually identical patterns and results. The total sample included in the analyses therefore consisted of 225 participants: 112 men (49.8%) and 113 women (50.2%) between 18 and 68 years old (\( M_{\text{age}} = 34.05, SD = 12.33 \)); 77.3% reported to be White/Caucasian, 6.7% Hispanic, 8.4% Asian, 4.4% African American, and 3.2% other.

Similar to Studies 2.1a and 2.1b, participants were told that they were the first to choose in the SoMi paradigm. In a 3 x 2 randomized experimental design, participants would subsequently receive no further instruction (Condition 1), the instruction to “be sure to keep your own best interest in mind” (Condition 2), or the instruction to “be sure to keep the other person’s best interest in mind” (Condition 3), crossed with two conditions telling them that the other in the task (Condition i) “would be informed about the task and the choices you made” or (Condition ii) “would not be informed about the task and the choices you made.” The dependent variable was again the proportion of socially mindful choices.

**Results.** Replicating studies 2.1a and 2.1b, a 3 (orientation; control, self-oriented, other-oriented) x 2 (information; other informed versus not-informed) ANOVA, with age and gender included in a general linear model, revealed a significant main effect of orientation on social mindfulness, \( F(2, 217) = 48.82, p < .001, \eta^2_p = .31 \). As expected, social mindfulness was again greater in the other-oriented condition (\( M_{\text{other-oriented}} = .83, SD = .26 \)) than in the control (\( M_{\text{control}} = .58, SD = .24 \)) or self-oriented (\( M_{\text{self-oriented}} = .47, SD = .18 \)) conditions. Pairwise comparisons showed that other-oriented participants scored significantly higher on social mindfulness than self-oriented participants, \( F(1, 217) = 94.66, p < .001 \), or those in the control condition, \( F(1, 217) = 44.73, p < .001 \). Being other-oriented differed from both other conditions together as well: \( F(1, 217) = 87.60, p < .001 \). Similar to the previous two studies, the overall difference between the self-oriented and control conditions was relatively small, but this time it did reach significance, \( F(1, 217) = 9.84, p = .002 \).

Information, subdivided in two conditions where participants were told that the other person in the paradigm would or would not be informed about the task and their choices, led to identical mean scores on social mindfulness (\( M_{\text{info}} = .62, SD = .23; M_{\text{no-info}} = .62, SD = .31 \)), and accordingly did not have a main effect, \( F(1, 217) = 1.32, p = .251, \eta^2_p = .01 \), nor did we find an interaction-effect between the orientation and information conditions, \( F(2, 217) < 1, p = .940, \eta^2_p = .00 \). Although the men in this sample generally seemed to score slightly higher than women (\( M_{\text{male}} = .63, SD = .26 \), and \( M_{\text{female}} = .61, SD = .28 \)), this difference was not significant, \( F(1, 217) = 2.35, p = .127, \eta^2_p = .01 \). Age did not have a main effect either, \( F(1, 217) < 1, p = .676, \eta^2_p = .00 \). Taken together, these results make it safe to conclude that other-regard must play a defining role in social mindfulness, regardless of whether one expects the other to hear about it or not.

**Discussion**
In support of the orientation hypothesis, a self-oriented or neutral mindset made participants leave less choice to others than an other-oriented mindset. When explicitly brought to attention, the others in our paradigm were left more room to maneuver. By not immediately choosing what they otherwise impulsively might have, people indeed acted socially mindful toward their immediate social environment. This pattern also emerged when the options to gain information about the other or to make a favorable impression were explicitly blocked. Leaving choice to others in
the SoMi paradigm may thus be seen as an other-regarding action based on prosocial intentions. This builds on what Yamagishi et al. (2008) noticed when their studies showed that most people preferred the unique option when by themselves, but at the same time tended to avoid this unique option when under social pressure. They explained this pattern by an underlying wish to not stand out in a negative way. We extend this reasoning by arguing that a strong prosocial motivation to choose the doubled object in our paradigm may be strengthened by the active wish to make an impression in a positive way by leaving some choice for the person who comes next. A prosocial value orientation also showed to be a likely candidate in the motivational mix for social mindfulness.

MEETING MINDFULNESS

Our reasoning holds that socially mindful behavior is a sign of underlying prosocial motivations, and can be used as a strategy in interpersonal communication. But for that strategy to be successful in social interaction, this signal first has to be picked up. The question therefore is whether an act of social mindfulness will be seen and appreciated by others. Does it indeed make the actor more likeable? This we investigated in Studies 2.2a and 2.2b. We hypothesized that increasing perceived mindfulness would lead to increased liking and more favorable social judgments (perceived mindfulness hypothesis). We programmed the SoMi paradigm in such a way that participants went through an interaction in which someone else made the first choice, after which we assessed how this person was perceived and rated on a series of social judgments. It might make a difference if people are directly involved in such an interaction and personally feel the consequences of the other’s choices, or if they only witness an interaction between two other people. Is mere perceived mindfulness enough to alter social judgments, or does an observer need to be personally involved? To test this, participants in Study 2.2a could either be the second chooser in a dyadic situation or the neutral observer of such an interaction between two other people. The first chooser in the task – the target person – could always make two mindful choices, one, or none at all. Study 2.2b was a basic online replication sampling a different population.

Study 2.2a

Participants and design. For Study 2.2a, we recruited 29 men and 38 women (N = 67) at the campus of VU University Amsterdam, $M_{\text{age}} = 20.79, SD = 3.15$. They were compensated for their voluntary participation with €2.50 or study credits. The experiment was constructed in a 2 (condition receiver; receiver versus observer) x 3 (perceived mindfulness; never, once, or twice mindful) design. Participants were assigned to conditions in a randomized procedure.

Procedure and materials. Upon arrival, participants were greeted and told that this study consisted of three unrelated parts. The study was run in completely closed cubicles equipped with computers. Part 1 started off with a few questionnaires assessing various personality-based tendencies and orientations, meant both as filler and control variables (all on a 7-point Likert scale), including Self-Control (11 items, e.g.; “I wish I had more self-discipline,” $\alpha = .76$; Tangney, Baumeister, & Boone, 2004), Dispositional Trust in Others (9 items, e.g., “I fully trust most other people,” $\alpha = .75$), Empathic Concern (7 items, e.g., “I often have tender, concerned feelings for people less fortunate than me,” $\alpha = .81$) and Perspective Taking (7 items, e.g., “I sometimes try to
understand my friends better by imagining how things look from their perspective,” $\alpha = .72$; IRI, Davis, 1983).

In Part 2, participants were ostensibly connected to a server on which a variety of other participants appeared to be logged in. In reality, this connection was virtual and the presence of the others preprogrammed. Participants were informed that this electronic collaboration between a couple of universities in Holland allowed for a variety of tasks and games. To make this multi-task set-up more credible, we started with a simple task in which participants had to recognize numbers that were hidden in differently colored backgrounds. This was performed alone. The next task, in fact our manipulation, was run in one of two conditions: Participants either played a game with someone else (Condition 1) or observed the same game played by two other people (Condition 2).

In Condition 1, participants were told that they were randomly teamed up with one of the other participants logged in. However, this always turned out to be “Hans.” Besides the name, no further information was provided. Next, the computer determined the roles for the following task (SoMi paradigm; see general method section). It was decided and communicated that Hans would be the one to make the choices. In other words, the program was rigged in such a way that the participant would always have to wait and see what was left after Hans had made his decisions. Hans then portrayed one of three behaviors: Out of two rounds, he would (a) pick the unique object twice, and thus never show to be mindful of the participant; (b) pick the unique object once and the doubled object once, thus making one mindful and one unmindful choice; or (c) pick the doubled object twice, which made for two mindful choices.

In Condition 2, participants were chosen to observe an interaction between two people who turned out to be “Hans” and “Patrick.” Again, Hans was ostensibly chosen by the computer to make the first choices. The participants subsequently witnessed how Patrick was met with no mindful choice at all, one mindful and one unmindful choice, or two mindful choices. This concluded Part 2, and participants were “logged off.”

As dependent variables, in Part 3 we subsequently assessed how participants rated the virtual actor Hans on a range of social skills and aspects. These included a scale for Perceived Self-Control (how much self-control do you think Hans possesses; 11 items, $\alpha = .75$; Tangney et al., 2004), willingness to collaborate (how much would you like to collaborate with Hans; 3 items, $\alpha = .91$), desire to meet in real life (how much would you like to meet Hans; 3 items, $\alpha = .81$), Liking (how much do you like Hans; 3 items, $\alpha = .81$), Relationship-Specific Trust (how much do you trust Hans; 3 items, $\alpha = .86$), Perceived Self-Interestedness (how self-interested do you think Hans is; 3 items, $\alpha = .77$), and Inclusion of Other in Self (how close do you feel to Hans; IOS, Aron, Aron, & Smollan, 1992). On completion of this last part, participants were thanked and fully debriefed.

**Results**

We conducted a 2 (receiver; receiver versus observer) x 3 (other’s mindful behavior; never, once, or twice mindful) multivariate general linear model including Empathic Concern, Perspective Taking, Self-Control, and Dispositional Trust to examine how the level of other people’s mindful behavior would impact the collected judgments. At the outset, we should note that at the multivariate level we did not observe any significant effect involving differences between receiver versus observer, neither as main effect, $F(7, 45) = 1.44, p = .214, \eta_p^2 = .18$ (Pillai’s Trace), nor as interaction
with the Other’s Mindful Behavior, $F(14, 92) = 0.77, p = .703, \eta^2_p = .10$ (Pillai’s Trace). At the same time, and as predicted, we did find a strong main effect for the Other’s Mindful Behavior (i.e., perceived mindfulness), $F(14, 92) = 4.30, p < .001, \eta^2_p = .40$ (Pillai’s Trace).

Qualifying this, ANOVA between subjects showed a pattern suggesting that increasing perceived mindfulness made for participants who liked Hans better, $F(2, 51) = 10.73, p < .001, \eta^2_p = .30$, were more eager to collaborate with him, $F(2, 51) = 11.76, p < .001, \eta^2_p = .32$, trusted him more, $F(2, 51) = 7.55, p = .001, \eta^2_p = .23$, and thought him to possess more self-control, $F(2, 51) = 7.49, p = .001, \eta^2_p = .23$. Participants also felt somewhat closer to Hans (IOS), $F(2, 51) = 3.68, p = .032, \eta^2_p = .13$. On the other hand, they thought that a less mindful treatment was a clear sign of Hans being more self-interested, $F(2, 51) = 25.47, p < .001, \eta^2_p = .50$. But notwithstanding a similar pattern, Hans’ way of choosing did not seem to influence how much participants would like to meet him in real life, $F(2, 51) = 0.48, p = .620, \eta^2_p = .02$. These results, including mean scores, are summarized in Table 2.1.

Table 2.1
Simple effects and mean scores for perceived mindfulness (never, once, or twice mindful treatment) in Study 2a

<table>
<thead>
<tr>
<th></th>
<th>$F(2, 51)$</th>
<th>$p$</th>
<th>$\eta^2_p$</th>
<th>$M_{never}$ (SD)</th>
<th>$M_{once}$ (SD)</th>
<th>$M_{twice}$ (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liking</td>
<td>10.73</td>
<td>&lt; .001</td>
<td>.30</td>
<td>3.65 (1.04)$^a$</td>
<td>4.51 (0.68)$^b$</td>
<td>4.63 (0.71)$^b$</td>
</tr>
<tr>
<td>Trust</td>
<td>7.55</td>
<td>.001</td>
<td>.23</td>
<td>3.57 (0.93)$^c$</td>
<td>4.49 (1.01)$^d$</td>
<td>4.56 (0.76)$^d$</td>
</tr>
<tr>
<td>Collaboration</td>
<td>11.76</td>
<td>&lt; .001</td>
<td>.32</td>
<td>3.52 (1.26)$^e$</td>
<td>4.51 (1.12)$^f$</td>
<td>4.86 (0.62)$^f$</td>
</tr>
<tr>
<td>IOS</td>
<td>3.68</td>
<td>.032</td>
<td>.13</td>
<td>2.86 (1.80)$^g$</td>
<td>3.89 (1.05)$^h$</td>
<td>3.78 (1.63)$^h$</td>
</tr>
<tr>
<td>Self-Interest (perc.)</td>
<td>25.47</td>
<td>&lt; .001</td>
<td>.50</td>
<td>5.21 (0.93)$^i$</td>
<td>4.25 (0.91)$^j$</td>
<td>3.11 (0.86)$^j$</td>
</tr>
<tr>
<td>Self-Control (perc.)</td>
<td>7.49</td>
<td>.001</td>
<td>.23</td>
<td>3.81 (0.62)$^k$</td>
<td>4.46 (0.53)$^l$</td>
<td>4.44 (0.42)$^l$</td>
</tr>
<tr>
<td>Meeting</td>
<td>0.48</td>
<td>.620</td>
<td>.02</td>
<td>3.44 (1.28)$^m$</td>
<td>3.90 (1.33)$^n$</td>
<td>3.95 (1.12)$^n$</td>
</tr>
</tbody>
</table>

Note. No significant effects for the receiver/observer condition included in the model, and no interaction with perceived mindfulness and/or empathy. Mean scores on a 7-point Likert scale. Significant differences per row are indicated by dissimilar superscripts.

Pairwise comparisons showed that a little mindfulness goes a long way: In general, mean scores proved statistically different between the conditions of never mindful on the one hand, and the conditions of once and/or twice mindful on the other (except for perceived self-interestedness, where all differences were significant), whereas the scores between once and twice mindful generally were not statistically different (see superscripts in Table 2.1). This indicates that it might be mainly the absence of social mindfulness that people pick up as most salient.

Because of its close relation with social mindfulness, scores on the two domains of the Interpersonal Reactivity Index (Davis, 1980, 1983) might have moderated the effects reported above. However, Empathic Concern did not significantly interact with perceived mindfulness, $F(14, 92) = 1.36, p = .187, \eta^2_p = .17$ (Pillai’s Trace), or the Receiver condition, $F(7, 45) = 2.17, p = .055, \eta^2_p = .25$ (Pillai’s Trace), nor did it have a main effect, $F(7, 45) = 0.70, p = .670, \eta^2_p = .10$ (Pillai’s Trace). Main and interaction effects of Perspective Taking were also non-significant, $F(7, 45) = 1.93, p = .086, \eta^2_p = .23$ (Pillai’s Trace) for the main effect, and $F(14, 92) = 1.52, p = .121, \eta^2_p = .19$ versus $F(7, 45) = 1.66, p = .143, \eta^2_p = .21$ (Pillai’s Trace) for the interactions with perceived mindfulness and the
Receiver condition, respectively. Self-Control was not significant as well, $F(7, 45) = 0.71, p = .665$, $\eta^2_p = .10$ (Pillai’s Trace), but Dispositional Trust had a significant main effect of $F(7, 45) = 2.39, p = .037$, $\eta^2_p = .27$ (Pillai’s Trace); participants with higher levels of general trust seemed to like Hans better, $F(1, 51) = 14.45, p < .001, \eta^2_p = .22$, trust him more, $F(1, 51) = 7.73, p = .008, \eta^2_p = .13$, and be more willing to collaborate with him, $F(1, 51) = 13.74, p = .001, \eta^2_p = .21$.

Study 2.2b

Study 2.2b was aimed at providing replication of Study 2.2a, with one small but potentially important modification. The basic procedure was the same as in part 2 of Study 2.2a, without the number identification task. Participants witnessed someone else making two more or less mindful choices. Because the receiver versus observer condition did not elicit different responses in Study 2.2a, we simplified the manipulation to an interaction in which the participant would always be the second to choose (i.e., receiver). Also, instead of ostensibly logging in to a live research session, we now told participants that somebody else had already made his choices at an earlier moment, and that we would use these results. This otherwise anonymous person was to be named “Chris,” of whom no further information was provided. Furthermore, participants were told that Chris would not be informed about which of the objects they would like (cf. Study 2.1b).

Participants and procedure. Study 2.2b was conducted as an online survey for monetary compensation on Amazon’s Mechanical Turk, with participation limited to the USA (Buhrmester et al., 2011; Mason & Suri, 2012). The survey was completed by 139 participants: 73 men (52.5%) and 66 women (47.5%) between 18 and 69 years old, $M_{age} = 31.58, SD = 11.65; 84.9\%$ reported being White/Caucasian, 7.2\% African American, 3.6\% Asian, 2.9\% Hispanic, 1.4\% other.

After receiving an explanation of the SoMi paradigm and performing an example trial in which they could make a first choice themselves, participants went through the same procedure as in Study 2.2a; they saw Chris pick the unique object twice (never mindful), pick the unique object once and the doubled object once (once mindful), or pick the doubled object twice (twice mindful). Afterwards, we asked questions about the participants’ impression of Chris on five domains, answered on a 5-point scale: 6 Desire to meet in real life (how much would you like to meet Chris; 3 items, $\alpha = .83$), Liking (how much do you like Chris; 3 items, $\alpha = .84$), Relationship-Specific Trust (how much do you trust Chris; 3 items, $\alpha = .87$), Perceived Self-Interestedness (how self-interested do you think Chris is; 3 items, $\alpha = .81$), and Inclusion of Other in Self (how close do you feel to Chris; IOS; Aron et al., 1992).

Results. Multivariate analysis in a general linear model showed that our manipulation had a significant effect on the assembled dependent variables: $F(10, 266) = 5.63, p < .001, \eta^2_p = .18$ (Pillai’s Trace). The same pattern as in Study 2.2a emerged. An increasing degree of other’s mindfulness suggested that participants liked the other person better, $F(2, 136) = 14.00, p < .001, \eta^2_p = .17$, trusted him more, $F(2, 136) = 7.37, p = .001, \eta^2_p = .10$, and thought him to be less self-interested, $F(2, 136) = 23.75, p < .001, \eta^2_p = .26$. Like in the previous study, parameter estimates showed that

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5 Eleven additional people opened but did not complete the study, and thus could not be included in the analyses.

6 As opposed to a 7-point scale in Study 2a; in the context of this internet study, a 5-point scale was more clear and straightforward, which we thought preferable. We felt comfortable doing so because when rescaled, 5-point and 7-point scales tend to produce the same mean scores (Dawes, 2008).
one mindful choice was enough to drive these effects, in the sense that the differences between never mindful and once or twice mindful proved significant, whereas the mean scores for once and twice mindful did not significantly differ (except for perceived self-interestedness). However, in this sample more mindfulness did not lead to feelings of increased closeness (IOS), $F(2, 136) = 0.45, p = .640, \eta^2_p = .01$. Again in line with Study 2.2a, meeting mindfulness did not strengthen the wish to actually meet Chris in person, $F(2, 136) = 1.06, p = .351, \eta^2_p = .02$. These results are summarized in Table 2.2.

<table>
<thead>
<tr>
<th>Table 2.2</th>
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<tbody>
<tr>
<td>Simple effects and mean scores for perceived mindfulness (never, once, or twice mindful treatment) in Study 2.2b</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>$F(2, 136)$</th>
<th>$p$</th>
<th>$\eta^2_p$</th>
<th>$M_{never}$ (SD)</th>
<th>$M_{once}$ (SD)</th>
<th>$M_{twice}$ (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liking</td>
<td>14.00</td>
<td>&lt; .001</td>
<td>.17</td>
<td>2.93 (0.59)$^a$</td>
<td>3.40 (0.53)$^b$</td>
<td>3.52 (0.57)$^b$</td>
</tr>
<tr>
<td>Trust</td>
<td>7.37</td>
<td>.001</td>
<td>.10</td>
<td>2.83 (0.62)$^a$</td>
<td>3.22 (0.59)$^b$</td>
<td>3.26 (0.56)$^b$</td>
</tr>
<tr>
<td>IOS</td>
<td>0.45</td>
<td>.640</td>
<td>.01</td>
<td>1.82 (1.53)$^a$</td>
<td>2.11 (1.40)$^a$</td>
<td>2.00 (1.46)$^a$</td>
</tr>
<tr>
<td>Self-interest (perc.)</td>
<td>23.75</td>
<td>&lt; .001</td>
<td>.26</td>
<td>3.50 (0.63)$^a$</td>
<td>3.07 (0.68)$^b$</td>
<td>2.56 (0.68)$^b$</td>
</tr>
<tr>
<td>Meeting</td>
<td>1.06</td>
<td>.351</td>
<td>.02</td>
<td>3.04 (0.87)$^a$</td>
<td>3.13 (0.70)$^a$</td>
<td>3.25 (0.58)$^a$</td>
</tr>
</tbody>
</table>

*Note.* Significant differences per row are indicated by dissimilar superscripts. Mean scores on a 5-point Likert scale.

**Discussion**

Results from Studies 2.2a and 2.2b revealed that meeting mindfulness does enhance the chance that people like the mindful actor better, trust him more, are more willing to collaborate, and feel somewhat closer to him than being confronted with a total absence of mindfulness (perceived mindfulness hypothesis). Moreover, it seems that people grace the other with the benefit of the doubt by being somewhat forgiving if one out of two choices is not socially mindful. But although level of trust and liking decrease but do not significantly alter before social mindfulness is no longer present, the danger of being seen as self-interested rises with declining perceived social mindfulness. Combined with the results of Studies 2.1a through 2.1c, it seems plausible to reason that the mindful choice in the SoMi paradigm comes from the interest people take in others, which in turn is noticed and appreciated by those others. This makes social mindfulness a useful and viable strategy in social interaction.
STUDY 2.3: SOCIAL MINDFULNESS AT FACE VALUE

Even a good social strategy may not always work the same way when facing different people. Social mindfulness might be more strongly activated with some partners than with others. But how do people decide when to engage in social mindfulness, and how much information about the other person is needed for such a decision? It might not be very much. In Study 2.3 we showed people a headshot of their (supposed) partner in the SoMi paradigm (see general method section). These photos were carefully selected to portray either trustworthiness or untrustworthiness (Lundqvist, Flykt, & Ohman, 1998; Oosterhof & Todorov, 2008).

Research has shown that people are very quick in deriving certain trait inferences from facial appearance (Todorov, Said, Engel, & Oosterhof, 2008), with trustworthiness being one of two dimensions that those trait inferences can be represented in (the other axis is dominance). Also, inferences along the trustworthiness dimension are anchored in similarities to expressions that signal approach or avoidance behavior (high trust is approach, low trust is avoidance; Todorov et al., 2008). Although not necessarily accurate, there is strong consensus on what constitutes a trustworthy face and what does not. At the neural level, this is reflected in an amygdala that is responsive to the perception of trustworthiness (Rule, Krendl, Ivcevic, & Ambady, 2013).

Because in Studies 2.2a and 2.2b we saw that perceived mindfulness is related to greater trust, and based on the notion that trust plays a defining role in social mindfulness between friends (Van Lange, Van Doesum, Vuolevi, & Finkenauer, 2013), we hypothesized that people with faces that score high on trustworthiness would elicit greater levels of social mindfulness than people who score low on this feature (trustworthiness hypothesis).

Method

Participants and design. A total of 85 students at VU Amsterdam (40 men and 45 women) volunteered to participate in this study in exchange for €3.50 or course credits. Recruitment was done by distributing flyers on campus in the morning and occurred spontaneously by walk-ins to the laboratory. Participants would perform the SoMi paradigm with a partner who had either a trustworthy (Condition 1) or an untrustworthy face (Condition 2). This experiment was embedded in a larger study in which exposure to these faces was used as an independent variable to test various and otherwise unrelated hypotheses. Here we only report on this context-relevant dependent measure of social mindfulness.

Procedure and materials. Coming into the laboratory, participants first had their picture taken with a digital camera by one of the experimenters. This was to make it plausible that in the ensuing task they would be presented with the headshot of another person supposedly present in the laboratory. Participants then were placed in separate cubicles that were equipped with a computer holding the software for the experiment. They were asked to wait a moment for their headshot to be uploaded to the system, and supposedly for their partner to get ready in another cubicle. Next, the experimenter would come back to start the computer program; further instructions were given on-screen. Participants then were introduced to their task partners by a headshot that appeared on the computer monitor. To minimize the chance of romantic attraction, partners were always of the same sex as the participant. The partner either had a trustworthy or an untrustworthy face; conditions were randomly assigned. The headshots were derived from the Karolinska dataset of standardized...
facial images (Lundqvist et al., 1998; Oosterhof & Todorov, 2008). The task was identical to the one we used in Studies 2.1a through 2.1c, which had people choose one among three objects in five different categories, once repeated in reversed quantities, for a total of ten choices.

Results
A one-way ANOVA provided support for the trustworthiness hypothesis by showing that the level of trustworthiness of the task partner’s face had a small but significant effect, $F(1, 83) = 3.96, p = .050$, $\eta_p^2 = .05$; participants had indeed been more socially mindful toward partners with a trustworthy face ($M_{\text{trustworthy}} = .69, SD = .19$) than toward those with an untrustworthy face ($M_{\text{untrustworthy}} = .60, SD = .22$).

Discussion
Our findings revealed that meeting someone new with a trustworthy face may indeed lead to enhanced levels of social mindfulness. Of course further and more extensive research is necessary, but in the meanwhile we tentatively conclude that when a quick visual assessment tells that an interaction partner may be trustworthy, this might be rewarded with a more mindful treatment. A possible explanation is that perceived trustworthiness enhances the chance that the actor’s own social mindfulness – a sign of prosocial intentions – will be reciprocated at a later point in time, ultimately leading to mutual positive regard and a more cooperative social environment. Untrustworthiness on the other hand might increase the fear that one will be taken advantage of – in social dilemma terms, to get stuck with the sucker’s pay-off.

In Studies 2.2a and 2.2b we showed that perceived mindfulness had a beneficial effect on people’s evaluation of others – “I like you when I see you being mindful of me or others” – to which Study 2.3 added that the mere expectation of trustworthiness may already motivate people to be more mindful of others – “I trust you, therefore I will be mindful of you.” In both cases trait inferences mattered, be they derived from facial cues or perceived behavior. But what about the mindful choosers themselves?

STUDY 2.4: THE SOCIALLY MINDFUL PERSON

Although influenced by social context and perceived qualities of another person, it is to be expected that social mindfulness can be traced in underlying personality structures of the actor. In Study 2.4 we therefore sought to provide further validation of our paradigm to support this argument. Other-oriented in nature, we expected social mindfulness to be associated with traits that communicate other-regard and lead people to not put one’s own best interest before the others’ (personality hypothesis). A commonly used measure in personality research is the Big Five, or Five Factor Model (FFM; e.g., Costa & McCrae, 1992; Goldberg, 1990). However, recent research has shown that personality might be more accurately described in six rather than five factors. The additional sixth factor in this HEXACO model (Ashton & Lee, 2007, 2008, 2010; Ashton et al., 2004; Lee & Ashton, 2008), called Honesty-Humility, seemed promising as a predictor for social mindfulness, because it is built up from the smaller personality facets of Sincerity, Fairness, Greed Avoidance, and Modesty, all of which could be expected to be connected to social mindfulness. Agreeableness as a trait (fac-
tor) is another good candidate for running along the lines of social mindfulness, as it seeks to bring the self into agreement with others.

One of the other pillars of social mindfulness is the level of empathy that one person may have for the other. According to Davis (1983), the broad concept of empathy can be divided into four domains: Empathic Concern (EC), Perspective Taking (PT), Fantasy Scale (FS), and Personal Distress (PD). We theorized earlier that an underlying motivation for social mindfulness might come from empathy, and wanted to test this assumption as well. We were especially interested in the domains of Perspective Taking and Empathic Concern, because these relate adequately to skill (PT) and will (EC) to adjust one’s behavior for the sake of others. We therefore hypothesized that both of these domains would be associated with social mindfulness. Personal Distress, however, would not, because of its inherent self-orientedness.

Another way to assess people's level of perspective taking is to evaluate how good they are at reading other people's emotional states. For this purpose, Baron-Cohen, Wheelwright, Hill, Raste, and Plumb (2001) developed the Reading the Mind in the Eyes Test (Revised Version) in which participants see photos of only eyes, and have to indicate which of four given emotions they think is being expressed. Because of a shared higher level of attentiveness to others and affective perspective taking, we expected that participants who were better at reading the emotional states of other people would also show higher levels of social mindfulness.

In order to find further support for the SVO hypothesis, we once again administered measures of social value orientation (see Study 2.1a), this time both in the well-validated 9-item triple dominance measure (e.g., Van Lange, 1999; Van Lange et al., 1997) and in a new approach that assesses social value orientations on a continuous scale (Murphy, Ackermann, & Landgraaf, 2011). And finally, we included a few scales that plausibly could provide alternative explanations, like the need to belong, dispositional trust, or general mindfulness (i.e., participants’ general level of attention and awareness). This helped us explore whether social mindfulness might have roots in any of these broad constructs.

**Method**

**Participants.** Analyses in Study 2.4 were based on the participation of 186 people recruited at VU Amsterdam (68 men and 118 women), $M_{\text{age}} = 20.44, SD = 3.16$ (one female non-student of 52 years old did also participate, but was excluded from analyses to keep the sample coherent; the only structural difference was that keeping this participant made the age effect significant). As in the previous studies that we ran in the laboratory, this study was advertised by means of flyers distributed on campus in two major cafeterias. Participants were compensated with €3,50 or study credits.

**Procedure and materials.** First, participants completed the Dutch version of the HEXA-CO-PI-R (100 items; De Vries, Ashton, & Lee, 2009; De Vries, Lee, & Ashton, 2008). This resulted in scores on the broad personality factors of Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience, including all of their constituting smaller spectrum facets. For scale reliabilities, see Tables 2.3 and 2.4.

Next, the SoMi paradigm was played with the participant making all the choices, without specific instruction and with an anonymous other in mind. This would provide us with a predominantly personality-oriented general score on social mindfulness. After that, a measure of the participants’ Need to Belong was taken (NTB; 10 items, $\alpha = .80$; Baumeister & Leary, 1995; Leary, Kelly,
Cottrell, & Schreindorfer, 2007), followed by their social value orientation (9-item triple measure of dominance; SVO; Van Lange, 1999; Van Lange et al., 1997). Preliminary analysis showed that five participants were unclassifiable for making less than six consistent choices. Following standard procedure, these participants were excluded from all analyses involving SVO (n = 163). Using the same classification criteria as in Study 2.1a, we observed a similar distribution of SVO: 102 prosocials (63%), 52 individualists (32%), and nine competitors (5%).

Table 2.3
Correlations and omnibus relative weight analysis for social mindfulness and HEXACO-PI-R, SvoSlider, Interpersonal Reactivity Index (IRI), Mindfulness Attention Awareness Scale (MAAS), Need to Belong, Reading the Mind in the Eye, and Dispositional Trust in Study 2.4

<table>
<thead>
<tr>
<th>HEXACO</th>
<th>r</th>
<th>p</th>
<th>α</th>
<th>rw</th>
</tr>
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<tbody>
<tr>
<td>Honesty-Humility</td>
<td>.32</td>
<td>&lt;.001</td>
<td>.80</td>
<td>20.5%</td>
</tr>
<tr>
<td>Emotionality</td>
<td>.13</td>
<td>.083</td>
<td>.86</td>
<td>1.6%</td>
</tr>
<tr>
<td>eXtraversion</td>
<td>-.05</td>
<td>.495</td>
<td>.81</td>
<td>1.1%</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>.24</td>
<td>.001</td>
<td>.84</td>
<td>12.5%</td>
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<tr>
<td>Conscientiousness</td>
<td>.05</td>
<td>.496</td>
<td>.80</td>
<td>0.4%</td>
</tr>
<tr>
<td>Openness to Experience</td>
<td>.05</td>
<td>.534</td>
<td>.76</td>
<td>0.8%</td>
</tr>
<tr>
<td>SvoSlider</td>
<td>.40</td>
<td>&lt;.001</td>
<td>-</td>
<td>36.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interpersonal Reactivity Index</th>
<th>r</th>
<th>p</th>
<th>α</th>
<th>rw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathic Concern</td>
<td>.28</td>
<td>&lt;.001</td>
<td>.79</td>
<td>7.1%</td>
</tr>
<tr>
<td>Perspective Taking</td>
<td>.21</td>
<td>.005</td>
<td>.64</td>
<td>3.2%</td>
</tr>
<tr>
<td>Fantasy Scale</td>
<td>.17</td>
<td>.019</td>
<td>.87</td>
<td>7.6%</td>
</tr>
<tr>
<td>Personal Distress</td>
<td>.07</td>
<td>.356</td>
<td>.82</td>
<td>0.5%</td>
</tr>
<tr>
<td>MAAS</td>
<td>-.07</td>
<td>.336</td>
<td>.80</td>
<td>1.0%</td>
</tr>
<tr>
<td>Need to Belong</td>
<td>.13</td>
<td>.068</td>
<td>.80</td>
<td>5.2%</td>
</tr>
<tr>
<td>Reading The Mind In The Eye</td>
<td>.03</td>
<td>.731</td>
<td>.87</td>
<td>0.6%</td>
</tr>
<tr>
<td>Dispositional Trust</td>
<td>.11</td>
<td>.121</td>
<td>.78</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Note. HEXACO-PI-R = HEXACO Personality Index Revised; MAAS = Mindfulness Awareness and Attention Scale; rw = relative weight (J. W. Johnson, 2000); svo = social value orientation. Total $R^2 = .25$. Dash indicates not applicable.

Subsequently, we assessed Empathy, subdivided in the four factors of the Interpersonal Reactivity Index, being Empathic Concern, $\alpha = .79$, Perspective Taking, $\alpha = .64$, Fantasy Scale, $\alpha = .87$, and Personal Distress, $\alpha = .82$ (Davis, 1983). The procedure continued with the Reading the Mind in the Eye Test (Revised Version; Baron-Cohen et al., 2001) and a scale measuring Dispositional Trust (9 items, e.g., “I fully trust most other people”; $\alpha = .78$). After that, we administered a second measure of social value orientation, this time conceptualized as a continuous variable with scores (degrees) that rise from competitor through individualist and prosocial to altruist (Murphy et al., 2011). This was followed by the Mindfulness Attention Awareness Scale (MAAS; $\alpha = .80$; Brown & Ryan, 2003), a scale that assesses self-directed general awareness and attention without taking other people’s perspective into account, after which the study concluded with various demographic questions and a full debriefing.
Results

An overview of the results of the main analyses is provided in Table 2.3. As hypothesized, social mindfulness ($M = .60$, $SD = .26$) significantly correlated with the broad personality factors of Honesty-Humility ($r = .32$) and Agreeableness ($r = .24$), indicating that higher scores were associated with higher levels of social mindfulness. Zooming in on the smaller spectrum facets, significant correlations with social mindfulness were found with Fairness ($r = .19$), Greed Avoidance ($r = .25$), Modesty ($r = .30$), Sentimentality ($r = .23$), Social Boldness ($r = -.19$; a negative correlation implying that less bold is more mindful), Forgiveness ($r = .15$), Gentleness ($r = .20$), Flexibility ($r = .21$), and Patience ($r = .16$). Altruism was positively correlated as well ($r = .17$), but this should be treated with caution because of a low $\alpha$ of .53.

In line with the empathy hypothesis, Empathy could also be associated with social mindfulness, in particular the domains of Empathic Concern ($r = .28$) and Perspective Taking ($r = .21$). The Fantasy Scale proved to be positively correlated as well ($r = .17$). As expected, Personal Distress did not seem to play a role in social mindfulness ($r = .07$, $ns$).

Participants completed various other measures. The correlations between Social Mindfulness and Reading the Mind in the Eye Test ($r = .03$), Dispositional Trust ($r = .11$), and MAAS ($r = -.07$) were not significant, and Need to Belong only marginally ($r = .13$, $p = .068$). We did find a gender effect, however, telling that women ($M_{women} = .65$, $SD = .23$) tended to be more socially mindful than men ($M_{men} = .51$, $SD = .29$), $F(1, 184) = 12.46$, $p = .001$, $\eta^2_p = .06$. Also, regression analysis turned up a marginally significant age effect, in the sense that the level of social mindfulness slightly decreased with age, $B = -.01$, $t(184) = -1.95$, $p = .053$, $\eta^2_p = .02$.

An omnibus test of relative weight (J. W. Johnson, 2000) showed that the SvoSlider stood for 36.4% of the total explained variance ($R^2 = .25$), Honesty-Humility for 20.5%, and Agreeableness for 12.5%. Empathic Concern showed a relative weight of 7.1%, Perspective Taking 3.2%, and the Fantasy Scale 7.6% (see Table 2.3). To avoid collinearity, the facets of the HEXACO-PI-R (sublevels constituting the bigger factors) were analyzed separately ($R^2 = .27$). Modesty seemed to be the main driving force in this analysis (19.7%), followed by Sentimentality (11.1%), Social Boldness (10.2%), Greed Avoidance (8.6%), Flexibility (8.1%), Fairness (5.3%), Forgiveness (3.0%), Gentleness (2.3%), and Patience (2.3%). An overview of the HEXACO facets is provided in Table 2.4.

SVO. ANOVA with SVO against Social Mindfulness revealed a main effect for SVO, $F(2, 160) = 5.11$, $p = .007$, $\eta^2_p = .06$. Subsequent planned comparisons revealed that prosocials ($M_{prosocial} = .65$, $SD = .25$) exhibited greater social mindfulness than individualists ($M_{individualist} = .52$, $SD = .27$) and competitors ($M_{competitor} = .52$, $SD = .31$), $F(1, 160) = 6.22$, $p = .014$. Not surprisingly, given the nearly identical means, the contrast between individualists and competitors was not significant, $F(1, 160) < 1$, $p = .975$. These findings reveal that people with a prosocial orientation tended to be more socially mindful than those with a proself orientation (cf. De Cremer & Van Lange, 2001; Klapwijk & Van Lange, 2009; Van Kleef & Van Lange, 2008).

The second, continuous, measure of social value orientation (SvoSlider; Murphy et al., 2011) confirmed this notion by showing a significant correlation of $r = .40$, $p < .001$, suggesting that the closer that people scored to a prosocial orientation (i.e., a higher score on the scale), the higher they tended to score on the measure of social mindfulness.
Table 2.4
Correlations and relative weight analysis for social mindfulness and the facets of the HEXACO-PI-R in Study 2.4

<table>
<thead>
<tr>
<th></th>
<th>r</th>
<th>p</th>
<th>α</th>
<th>rw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sincerity</td>
<td>.12</td>
<td>.106</td>
<td>.66</td>
<td>1.5%</td>
</tr>
<tr>
<td>Fairness</td>
<td>.19</td>
<td>.009</td>
<td>.78</td>
<td>5.3%</td>
</tr>
<tr>
<td>Greed Avoidance</td>
<td>.25</td>
<td>.001</td>
<td>.82</td>
<td>8.6%</td>
</tr>
<tr>
<td>Modesty</td>
<td>.30</td>
<td>&lt; .001</td>
<td>.65</td>
<td>19.7%</td>
</tr>
<tr>
<td>Fearfulness</td>
<td>-.01</td>
<td>.940</td>
<td>.65</td>
<td>1.4%</td>
</tr>
<tr>
<td>Anxiety</td>
<td>.09</td>
<td>.227</td>
<td>.74</td>
<td>1.6%</td>
</tr>
<tr>
<td>Dependence</td>
<td>.07</td>
<td>.373</td>
<td>.80</td>
<td>1.0%</td>
</tr>
<tr>
<td>Sentimentality</td>
<td>.23</td>
<td>.001</td>
<td>.76</td>
<td>11.1%</td>
</tr>
<tr>
<td>Social Self-Esteem</td>
<td>-.06</td>
<td>.387</td>
<td>.62</td>
<td>1.4%</td>
</tr>
<tr>
<td>Social Boldness</td>
<td>-.19</td>
<td>.012</td>
<td>.68</td>
<td>10.2%</td>
</tr>
<tr>
<td>Sociability</td>
<td>.08</td>
<td>.263</td>
<td>.61</td>
<td>2.5%</td>
</tr>
<tr>
<td>Livelihood</td>
<td>.04</td>
<td>.556</td>
<td>.71</td>
<td>1.0%</td>
</tr>
<tr>
<td>Forgiveness</td>
<td>.15</td>
<td>.036</td>
<td>.76</td>
<td>3.0%</td>
</tr>
<tr>
<td>Gentleness</td>
<td>.20</td>
<td>.007</td>
<td>.65</td>
<td>2.3%</td>
</tr>
<tr>
<td>Flexibility</td>
<td>.21</td>
<td>.004</td>
<td>.63</td>
<td>8.1%</td>
</tr>
<tr>
<td>Patience</td>
<td>.16</td>
<td>.027</td>
<td>.73</td>
<td>2.3%</td>
</tr>
<tr>
<td>Organization</td>
<td>-.05</td>
<td>.546</td>
<td>.71</td>
<td>2.9%</td>
</tr>
<tr>
<td>Diligence</td>
<td>.12</td>
<td>.117</td>
<td>.64</td>
<td>2.7%</td>
</tr>
<tr>
<td>Perfectionism</td>
<td>.07</td>
<td>.325</td>
<td>.69</td>
<td>0.8%</td>
</tr>
<tr>
<td>Prudence</td>
<td>.02</td>
<td>.761</td>
<td>.57</td>
<td>0.5%</td>
</tr>
<tr>
<td>Aesthetic Appreciation</td>
<td>.10</td>
<td>.181</td>
<td>.66</td>
<td>0.7%</td>
</tr>
<tr>
<td>Inquisitiveness</td>
<td>-.09</td>
<td>.227</td>
<td>.66</td>
<td>3.3%</td>
</tr>
<tr>
<td>Creativity</td>
<td>.05</td>
<td>.491</td>
<td>.60</td>
<td>0.5%</td>
</tr>
<tr>
<td>Unconventionality</td>
<td>.08</td>
<td>.263</td>
<td>.47</td>
<td>6.3%</td>
</tr>
<tr>
<td>Altruism</td>
<td>.17</td>
<td>.019</td>
<td>.53</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

Note. HEXACO-PI-R = HEXACO Personality Index Revised; rw = Relative Weight (J. W. Johnson, 2000); total $R^2 = .27$.

Discussion

Social mindfulness has a definite shape in personality. Results of this study showed that the socially mindful person also scored high on the broad personality factors of Honesty-Humility and Agreeableness, but not on Emotionality, Extraversion, Conscientiousness, or Openness to Experience. At the smaller spectrum facet level, Modesty, Greed Avoidance, Fairness, Sentimentality, Social Boldness (-), Forgiveness, Gentleness, Flexibility, and Patience were associated with social mindfulness (HEXACO-PI-R). All of these factors and facets are in some way related to respect for others and their perspectives on the world, and to ways and means to not put oneself before the other. These findings support the idea that social mindfulness revolves around a benevolent take on the needs and interests of others, and is rooted in prosocial motivations.
We could further corroborate this claim by reconfirming the positive connection between prosocial value orientations (SVO) and social mindfulness. Also, Empathic Concern showed to be positively related to Social Mindfulness, followed by Perspective Taking. The other-orientedness of social mindfulness further became visible in the absence of significant correlations with Personal Distress; the socially mindful person is likely to be concerned with the other, rather than with him/herself.

Against expectations, however, the Reading the Mind in the Eye Test did not significantly relate to Social Mindfulness. One possible explanation is that, as we wrote before, skill may be involved to set the perimeters or provide affordances, but the motivational context ultimately determines whether this skill is going to be used or not. In this study, participants had no specific other-regarding motive to base their decisions on. Future experimental studies will have to decide whether greater skill in reading emotional states enhances context-dependent social mindfulness. An indication that social mindfulness is truly involved with the needs and interests of others rather than with oneself is that a measure of general mindfulness (MAAS; general level of attention and awareness, Brown & Ryan, 2003) did not correlate significantly with social mindfulness. Once again, it is not the capacity or tendency for heightened awareness in and of itself that is the driving force behind social mindfulness, but the combination of that skill with a motivated interest to honor the perspective of another person in social interaction. As such, social mindfulness is a concept that cannot be viewed apart from one’s involvement with others. To be generally attentive and/or mindful does not automatically imply that one is also attentive to others.

GENERAL DISCUSSION

Social mindfulness could be enhanced by mere other-orientedness (Studies 2.1a through 2.1c), and proved to be associated with prosocial value orientations, empathy, and the personality factors of Honesty-Humility and Agreeableness (Study 2.4). Furthermore, perceived social mindfulness was rewarded with trust and liking, whereas meeting unmindful behavior resulted in a higher degree of perceived self-interestedness (Studies 2.2a and 2.2b). And, trustworthy faces elicited more social mindfulness from others than untrustworthy faces (Study 2.3). In other words, our studies show that people tend to be socially mindful in situations where the perspective of others is both seen and appreciated; and when they are, they can count on it being acknowledged as a sign of appreciation for the other. This supports the claim that social mindfulness may be employed in situations where prosocial behavior is applicable and beneficial.

Process and outcome interdependence

People making other-regarding choices are likely to adhere to a broader package of other-oriented beliefs, expectations, construals, affect, and emotions in situations where self-interest collides with other-interest. The SoMi paradigm exactly banks on such interaction goals because, in a clear case of social interdependence, choices made by the one determine the range of possible outcomes for the other. In this context, social mindfulness will be one among all available strategies in the “prosocial package” that people may have developed to deal with such dilemmas (see also Van Lange & Van Doesum, 2012).
Not taking away outcome options for someone else is beneficial in building and maintaining interpersonal relationships. The mindful person might expect that incidental sacrifices to his/her own choice options will be compensated by increased appreciation by the other, and possibly by greater interpersonal closeness and/or reciprocated mindfulness. In the social interactions of everyday life, it is not unthinkable for social mindfulness to contain some purely altruistic motives, but not without a concurrent motivation of improving relationships with the person(s) one is being mindful of. It is therefore not likely to be entirely void of self-interest, even if it is only about wanting to be liked.

Social mindfulness, as we define it, forms an innovative addition to the traditional prosocial package because it extends the directly value-oriented nature of measures like SVO and cooperation games like Prisoner’s Dilemmas or Dictator Games in a very specific way. In what are generally understood as social dilemma situations, socially mindful behavior does not immediately determine what the other person will get. Rather, the prosociality of social mindfulness lies in granting other people the same level of control over their options as the first chooser – the actor himself or herself; that is, it can be found in not limiting the other person’s options. In that sense, social mindfulness is not directly outcome driven, but rather oriented at control-over-outcomes (Kelley et al., 2003) or autonomy (cf. Deci & Ryan, 2000, 2012).

From the perspective of interdependence theory, the concept of social mindfulness may help provide an empirical basis for interdependence that is broader than outcome interdependence alone. Just as Thibaut and Walker (1975) have emphasized the importance of outcomes and process in justice evaluations (distributive and procedural justice; see also Tyler & Degoey, 1995), so has Kelley (1984) emphasized the importance of transitions from one decision situation to another, thereby emphasizing outcomes and the ways in which people may (or may not) attain outcomes (i.e., transition control). This transition list approach is important not only because it provides a broader conceptualization of interdependence – one that goes beyond outcomes in a narrow sense – but also because it captures a domain of everyday-life behaviors that are not fully captured by measurements only focusing on allocation of outcomes. Indeed, it strengthens the ecological validity in that it connects well with behaviors that focus on process, which makes issues such as respecting others’ autonomy, thoughtfulness, and politeness become part of the empirical agenda of interdependence theory. The present research provides early validation of social mindfulness, but it is important to note that the theoretical logic and methodology can easily be extended to other domains of social psychology, including close relationships, small group behavior, and even intergroup processes.

Mindful
What makes social mindfulness rightfully mindful, is that it includes a definite instance of awareness: The moment of simply “seeing it” without (and before) any evaluation or judgment of the situation. This requires a certain observational distance that is the same distancing process that is used as a springboard for psychotherapeutic improvements in mindfulness-based therapies. In this moment of awareness, the self is perceived from an observational distance in conjunction with the other. To illustrate, Ellen Langer (1989) writes that the awareness of more than one perspective of a situation is key to a state of mindful being; this quality is also paramount to social mindfulness. A socially mindful actor will pair a certain level of awareness of options and con-
sequences to a specific other-regarding motivation. But awareness and motivation alone are not enough; in order to make mindful awareness truly social, it needs to be followed by actions that allow the targeted person to make autonomous choices. In other words, one needs to see and do it.

One indication that social mindfulness definitely requires an extra (mindful) step, is our finding that people did not (Studies 2.1a and 2.1b) or only slightly (Study 2.1c) differed in social mindfulness between the instruction of self-orientatedness and the control condition with no prior instruction. This suggests that the modus operandi by default veered towards self-orientatedness, or reversely that self-orientatedness did not specifically influence participants’ choosing behavior. Although it is at this point impossible to tease those two apart, it may be clear that specifically, the step to acknowledge the needs and interests of others in a shared social situation (i.e., other-orientatedness) steers people’s strategies in the SoMi paradigm towards greater social mindfulness. This once again indicates that people need to be motivated to be mindful of others before they actually are willing to portray socially mindful behavior; skill alone is not enough.

On the other hand, it still seems that people seek a certain level of social mindfulness from other individuals in their social environment. In Study 2.2 we saw that showing a little mindfulness is enough to keep interpersonal evaluations at a moderately positive level. Fully unmindful behavior immediately leads to less positive social judgments, however, and thus may be a signal of self-orientatedness that gets picked up rather easily. A certain base rate of social mindfulness could therefore be important to show other people that they matter. On the other hand, signaling unmindfulness could also be put to strategic use in situations where setting oneself apart from others would be beneficial. Results of a pilot study suggest that when ingroup versus outgroup emotions run high, as is the case in the competition between soccer teams, the choice to be socially unmindful towards a competitor may be the product of a very deliberate and functional decision that strengthens ingroup ties (Van Doesum, 2011).

Alternative explanations
In addition to maximizing other people’s control over their outcomes, there might be other ways to explain the choice for the doubled object in the SoMi paradigm, or the majority choice. For instance, it could also be motivated by a desire to obtain information about the other person in the task. Surely, if one leaves the other something to choose from, the observation of what is subsequently chosen by the other might provide some information about this person’s preferences and likings. Choosing the single object eliminates that opportunity. Other than socially mindful motivations, the wish to learn about a partner’s preferences could spring from either egoistic or other-serving roots. But although such a wish for information could always play a role in the decisions of everyday life, when this option was explicitly blocked (Study 2.1b), decision patterns in the SoMi paradigm turned out to be similar to when this was not the case (Study 2.1a). We therefore do not think that a desire for information will be a major confounding factor in the SoMi paradigm.

Studies 2.2a and 2.2b showed that being socially mindful indeed reflects positively on the actor. Of course it is not unthinkable that people will only portray similar behavior in order to make a good impression on someone else, without really minding the best interest or even considering the perspective of that other. Egoistic utility would then be disguised as ostensibly prosocial actions. Although one can never fully rule this out, Study 2.1c showed that when the possibility of
making an impression was explicitly absent, be it negative or positive, the majority of participants still honored the other person’s best interest when asked to do so – in the full knowledge that the other would never know about it. This strengthens the claim that social mindfulness holds prosocial intentions close at heart.

Another possible explanation for our findings would be that rather than being mindful, people mindlessly follow social or cultural norms. The general norm would be to not take away the unique item, without further explanation or motivation. However, when participants in our experiments did not receive specific instructions, they predominantly chose in the same way as when they were actually told to tend to their own best interest (Studies 2.1a through 2.1c). The norm to leave choice to others was primarily activated when the presence of these others was made salient and their best interest important. At the very least, this corroborates what Yamagishi et al. (2008) already brought up by saying that rather than following internalized cultural norms (e.g., Kim & Markus, 1999), people act like cultural game players by adjusting their strategies to the situation at hand (Hashimoto et al., 2011; Yamagishi et al., 2012). Socially mindful behavior requires that an interaction partner is actively acknowledged (“see it”) and deemed worthy of positive regard (“do it”).

We have mentioned earlier that our research is indebted to the work of Yamagishi et al. (2008). The defining feature of their paradigm was always majority versus minority choices, where the unique versus majority ratio of the available pens randomly varied between 1:4 and 2:3. Also, they exclusively used differently colored pens as objects. Majority choices were explained by a strategy to not stand out and accrue negative reputation, differing by culture and depending on the presence of others. But by always using a dyadic setting (i.e., there was always someone else involved in the task), making the choices always socially consequential (i.e., the first choice determined the outcome options for the other), and extending the range of choices to various and qualitatively different objects, we were able to further qualify majority choices as the result of people actively leaving outcome options to others. This makes the SoMi paradigm specifically applicable to situations of social interdependence. Beyond looking at how people regulate and protect their social reputation in general (Yamagishi et al., 2008), social mindfulness therefore takes a closer look at how people build and maintain interpersonal relationships within the broader context of their social and cultural environment.

Implications and future directions
There is a specific aspect of the SoMi paradigm that we did not explore here, but that might have implications for the theoretical explanation of the results. Out of three objects, the first chooser in the task always has two real choices (one object is always doubled). By choosing the doubled object, the first person leaves the second person two real choices as well. A socially mindful choice thus results in equal initial outcome options (the starting point for the chooser’s decision). We also found that a prosocial value orientation was associated with a bigger proportion of socially mindful choices. Recent theorizing suggests that a prosocial value orientation is probably more about egalitarianism, that is, a desire for equality in outcomes, than benevolence toward others (e.g., Eek & Garling, 2006; Fehr, Naef, & Schmidt, 2005; Messick & Sentis, 1985; Stouten, De Cremer, & Van Dijk, 2005; Van Lange & Van Doesum, 2012). This inequality aversion is even visible at the neurobiological level (Haruno & Frith, 2010). Future research will have to answer whether the other-regard in social mindfulness could similarly be qualified by an underlying goal of egalitarianism.
Regarding the skill part of our argument, a major building block in the cognitive construction of social mindfulness is one aspect of what is often called executive functioning (e.g., Borkowski & Burke, 1996; Denckla, 1996; Payne, 2005; Pronk, Karremans, Overbeek, Vermulst, & Wigboldus, 2010). Of the three key executive functions of updating, task switching, and inhibition, it is perhaps inhibition that will matter most in social mindfulness. Inhibition is a faculty that helps people to suppress automatic, dominant responses in order to focus their attention on other processes that also might be of interest (cf. Smith & Jonides, 1999). In several situations, this kind of inhibition forms a prerequisite to social mindfulness. In the SoMi paradigm, people for example tend to choose the unique, unmindful option more often when they have no further instructions (Studies 2.1a through 2.1c). Choosing the doubled, mindful object more frequently thus will require them to deviate from this default pattern, and hence to inhibit some of their primary impulses. Future research should explore if and to what extent inhibition and other cognitive skills matter in social mindfulness.

Using a paradigm with a cultural studies background, it is also necessary to investigate how and under which circumstances social mindfulness will be utilized in different cultural settings with different interaction styles and different reasons to be mindful of one another. The current studies were run in The Netherlands and the USA, both examples of a Western and predominantly individualized culture. In this setting, social mindfulness will arguably be geared towards pleasing other individuals to gain positive personal approval or self-reward. We therefore speculate that it will be driven by a promotion focus (e.g., Higgins, 1998; Lockwood, Jordan, & Kunda, 2002). But in more collectivistic cultures, like, for example, Japan, the reason to be socially mindful might rather be rooted in a prevention focus. In that case, social mindfulness might have the function of preventing the accrual of negative reputation (cf. Hashimoto et al., 2011; Yamagishi et al., 2008). Cultural comparisons will have to find an answer to these speculations.

Mindful caution

The current study can provide but the seeds to a forest of research yet to come. The goal has been to (re)introduce the construct of social mindfulness, establish its validity, advance a new paradigm, and offer a platform for further development of theory and research. But of course this endeavor had its limitations. Studies 2.1a through 2.1c found results thanks to a manipulation that left nothing to the imagination; our participants were explicitly told whom to mind, themselves or the other. Follow-up research will benefit from more subtle approaches to see under which circumstances social mindfulness will emerge. However, at least we established that outright other-orientedness is likely to lead to socially mindful choices. In Studies 2.2a and 2.2b, participants based their ratings on an imaginary person. Field or live interaction studies would be beneficial to corroborate our findings. While empirically clean and straightforward, Study 2.3 stands in need of replication under more complex conditions. Study 2.4 was fully correlational. Further replication and experimental studies are called for to investigate and more closely understand the precise nature of the associations of social mindfulness and other-oriented tendencies.

Although we are convinced that social mindfulness is a useful tool in navigating the social world, its prosociality does have its boundaries. Indeed, a socially mindful choice in our paradigm may not turn out to yield positive consequences for the other at all. Specifically, one might imagine specific circumstances in which providing others with control over their own outcomes may
not be the best expression of care for their well-being, and social mindfulness not really helpful. For example, other-regarding motives might be better served by restricting choice when the other is suffering from a dangerous addiction (see, e.g., Köpetz, Lejuez, Wiers, & Kruglanski, 2013). At the beginning of a recovery process, other-regard will be translated in keeping away any and all temptations – less choice is better. But eventually, the other will need to regain the strength to make independent choices in order to make full recovery (i.e., to keep making intrinsically motivated choices to not use the substance), and meeting that person with social mindfulness again would be a sign of renewed trust and respect for the other as an autonomous actor within the larger context of society. A less dramatic example can be found in parenting and educating young children. Some rules just have to be learned and established in order to function successfully in the larger social context, and it is only later that people will really get to choose whether they agree and keep complying or not. In short, social mindfulness can only be an effective expression of other-regarding motives when offering control over outcomes is truly beneficial to the other.

Another issue we wish to address might be the erroneous assumption that mindful people are always correct in their assessment of other people's perspectives; social mindfulness does not equal omniscience. But what matters is that people become aware of the mere fact that other people do have a perspective that is different from their own, and subsequently adjust their behavior in a way they think will accommodate the other. However, prosocial motives in general may fall short of accomplishing their goal when what the one assumes the other wants is not what the other wants at all. Especially in socially “noisy” situations (e.g., Klapwijk & Van Lange, 2009), intended helpfulness may easily turn into the opposite. Social mindfulness does provide a certain fail-safe, however, by aiming at providing the other person with options to choose from, and thus to grant control over the situational outcome. Only when the other does not want to choose but prefers a single option, the socially mindful person suffers from misplaced other-regarding decisions. Nevertheless, providing choice in moderation usually seems to be a safe bet for pleasing others (cf. Deci & Ryan, 2000, 2012; Deci, Spiegel, Ryan, Koestner, & Kaufman, 1982; Iyengar & DeVoe, 2003).

CONCLUDING REMARKS

Our venture into social mindfulness has proven fruitful. While introducing and validating a new paradigm, we were able to extend existing conceptualizations from game and interdependence theory, which center on outcomes. Specifically, we provide evidence that a mindful focus on the needs and interests of others may lead to a specific kind of behavior that instead of locking down a situation, aims to leave others control over their own choices. Social mindfulness thus seeks to maximize other people's outcome control, and is intimately related to a prosocial value orientation. It combines the mindfulness-as-enhanced-awareness that opens up the by now almost traditional road to personal well-being with other-regarding actions that arise from other-regarding motives; personal well-being gets tied in with mutual well-being. Indeed, social mindfulness is inherently prosocial. In the end, it may well be one of the primary tools that people have developed in the broader prosocial package that helps them navigate the social world. Further explorations of this novel concept will contribute to our knowledge of how people balance the needs of self and
other in their daily environment. Much of human behavior is intrinsically social, but past theorizing and research has tended to focus on either the skill or the will to behave in a prosocial manner or not. Our integrative thesis, however, implies that for prosocial navigation to be truly effective, social mindfulness is crucial; which means applying both skill and will.