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# Regulatory fit effects for injunctive versus descriptive social norms: Evidence from the promotion of sustainable products

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**Abstract** Consumers face marketing messages using social norms in many situations where different goals are dominant. This research examines moderating effects of regulatory focus for descriptive and injunctive norms in the promotion of sustainable products. More specifically, it shows that descriptive norms have a better fit with a promotion than prevention focus, while this is not the case for injunctive norms. Three experiments examine consequences for perceived message fluency, attitudes, and behavioral intentions. Experiment 1 investigates regulatory focus when induced before a normative message, whereas Experiments 2 and 3 investigate regulatory elements ingrained in the message itself. Results show that messages with descriptive norms are perceived as more fluent and have a stronger impact on attitudes and intentions when promotion goals are salient than when prevention goals are salient. Unlike descriptive norms, injunctive norms are not affected by regulatory focus. Marketers using descriptive norms should develop message wording and context accordingly.

**Keywords** Social norm · Descriptive norm · Injunctive norm · Regulatory focus · Attitude · Intention

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## 1 Introduction

People rarely make their decisions in complete isolation, but instead are influenced by their social environment. They take the expectations and behavior of others into consideration when they decide what is appropriate. Social norms thus profoundly influence preferences and behavior (Schultz et al. 2007; Sherif 1936; White and Simpson 2013). These social norms are “rules and standards that are understood by members of a group, and that guide and/or constrain social behavior without the force of laws” (Cialdini and Trost 1998, p. 152). They are likely to guide relevant decisions in product choice as in any other behavior.

Although research examining the influence of social norms on the purchase of products or services is scarce, several studies show their effectiveness. For instance, social norms have been shown to affect the adoption of new products (Homburg et al. 2010) and customer loyalty to mobile phone service providers (Lee et al. 2009). Social norms are frequently applied to promote behaviors with societal benefits (e.g., recycling behavior), and this is also where they appear most effective (Melnik et al. 2010). This paper will focus on sustainable products (i.e., fair trade and organic products) as a relevant case to study the influence of social norms on product choice.

To make optimal use of social norms, it is crucial to understand when different types of social norms can increase a desired behavior or can backfire. Prior research has emphasized the importance of distinguishing between descriptive and injunctive social norms (Cialdini and Trost 1998; Deutsch and Gerard 1955), arguing that it is “crucial to discriminate between the is (descriptive) and the ought (injunctive) meaning of social norms because each refers to a separate source of human motivation” (Cialdini et al. 1990, p. 1015). Descriptive norms motivate by providing an example of preferred behavior, and suggesting appropriate actions. Injunctive norms focus on rules and beliefs, and people may adhere to these norms to avoid sanctions.

Despite a large body of research showing that both descriptive and injunctive norms are influential (see e.g. reviews by Lapinski and Rimal 2005; Ravis and Sheeran 2003), studies examining moderators of normative influence have only recently emerged (Jacobson et al. 2011; White and Simpson 2013). The current study adds to this line of research. Building on the observation that the extent to which consumers adhere to social norms may depend on the accessibility of goals (Cialdini and Goldstein 2004), it explores the moderating role of regulatory focus (Higgins 1997). Although regulatory focus is a prominent topic in marketing and social psychology literature (Avnet and Higgins 2006; Wänke 2009), no research has addressed the compatibility between social norms and self-regulatory focus.

We propose that descriptive norms have stronger effect on product choice when embedded in a promotion mindset. Descriptive norms obtain their power from social proof (Cialdini 2006; Schultz et al. 2007), and the desire of people to conform to others. Following descriptive norms can lead to desirable outcomes because descriptive norms provide social proof that a specific behavior is successful to achieve a goal in a specific situation (Cialdini and Trost 1998) or by showing behavior relevant to be adopted in a peer group (White and Simpson 2013). Descriptive norms thus relate to the achievement of goals in a specific situation. In contrast, injunctive norms provide a request, and following this request is a way to avoid negative consequences (e.g.,

social disapproval or punishment) (Cialdini et al. 1990). Therefore, injunctive norms may relate more to prevention focus.

The aim of this study is thus to investigate whether descriptive norms have a higher appeal under promotion focus whereas injunctive norms have a higher appeal under prevention focus. We examine regulatory focus both as a situationally induced focus (cf. Lockwood et al. 2002) and as a regulatory element ingrained in the social norm message itself (cf. Cesario et al. 2004). If both manipulations of regulatory focus lead to consistent results, this would increase the relevance of this research for marketers, policy makers, and other communicators who typically rely on the message content to direct people's behavior.

## 2 Social norms in different mindsets

According to regulatory focus theory (Higgins 1997), two distinct motivational mindsets may be discerned. Consumers with an activated promotion focus regulate their attention, perceptions, and behavior towards approaching gains and improving their current situation, whereas consumers with a prevention focus regulate their attention, perceptions, and behavior towards avoiding losses and keeping their current situation from deteriorating. Regulatory focus can change consumers' preferences and behavior, through the way information is being processed. A promotion focus activates an emphasis on positive outcomes and benefits, in contrast to the emphasis on negative outcomes and losses caused by a prevention focus (Higgins and Tykocinski 1992; Shah et al. 1998).

Information that fits (vs. does not fit) regulatory focus is processed more fluently (Kruglanski 2006; Lee and Aaker 2004), feels more right (Camacho et al. 2003), has a greater influence on actual behavior (Daryanto et al. 2010), and is more persuasive (Cesario et al. 2004). For messages that are positively received, this should increase attitudes towards the product the message promotes as consumers confuse the source of feeling right to the product they are evaluating (Aaker and Lee 2006). In the context of social norms, this implies that a better fit between norm and regulatory focus should increase the attitude towards the promoted product or behavior.

Due to fundamental differences between descriptive and injunctive norms, the regulatory focus that is active at the moment of facing a social norm can have a larger (or smaller) influence on consumer decision making. Prior research examining differences between the two types of norms, using a thought listing task, has shown that descriptive norms can lead people to focus on thoughts in favor of the advocated behavior at the expense of opposing thoughts (Melnyk et al. 2011). Consumers focus on why others perform a behavior, which leads to thoughts regarding personal benefits (if most people buy this product, it must be good) and social benefits (if I buy what others buy, I will fit in). The same study showed that asking people to deliberate on injunctive norms has the opposite effect and reduces these types of thoughts.

Descriptive norms describe the behavior of most relevant others, thus, provide "social proof" of what is likely to be effective behavior (Cialdini et al. 1990; Prislin and Wood 2005). This norm refers to "influence to accept information obtained from

another as evidence about reality” (Deutsch and Gerard 1955, p. 629), and motivates consumers by providing evidence about the benefits that following others are most likely to bring. Observing others’ behavior informs consumers of which action would lead to benefits. A descriptive norm, therefore, is perceived as a way to obtain benefits and accomplish desired ideals, even when such perception is non-conscious (Cialdini 2006). This makes descriptive norms fit with the goals and desires that are salient under promotion focus.

Injunctive norms, in contrast, refer to what people should do in a given situation and thus to “the influence to conform to the positive expectations of others” (Deutsch and Gerard 1955, p. 629). Rather than being grounded in the achievement of personal ambitions, it is based on avoidance of (perceived) sanctions associated with violation of the norm (Cialdini and Trost 1998), and is primarily driven by a desire of consumers to fulfill their obligations, obey authority, or avoid punishment (Hornsey et al. 2003). These characteristics of injunctive norms provide them a fit with the avoidance goals activated by prevention focus.

In three experiments, the effect of regulatory focus on the impact of descriptive and injunctive social norms in the context of sustainable food choice is tested. Experiment 1 induces regulatory focus prior to the normative message and examines effects on attitudes and buying intentions. Subsequently, experiment 2 investigates the perceived fluency of normative messages containing regulatory elements to assess regulatory fit, and experiment 3 examines the effects of these messages on attitudes and buying intentions.

### 3 Experiment 1

#### 3.1 Method

One hundred and ten undergraduate students from Wageningen University who buy coffee took part in the experiment, which had a 2 (social norm: descriptive vs. injunctive) × 2 (regulatory focus: prevention vs. promotion) between subject design. Ten participants were excluded from the sample: one participant indicated that he did not read the information on screen; one participant did not complete the regulatory focus inducing task; two participants discussed their answers with each other; three participants indicated that they did not give serious answers; three participants spent too little time reading the norm inducing text to assume the text was attentively read (3 SD below log transformed mean of time). Thus, the resulting sample consisted of 100 participants (53 females and 47 males), ranging in age from 17 to 28 years ( $M=20.2$ ,  $SD=2.1$ ).

To induce regulatory focus, the procedure used by Lockwood et al. (2002) was adopted. Participants were asked to write down one or several positive situations they would like to achieve within the next few week (promotion focus condition) or one or several negative situations they would like to avoid (prevention focus condition), and to describe strategies to, respectively, accomplish or prevent this situation. Social norm was manipulated by showing participants a fictitious webpage with information about Fair Trade Coffee, entitled “*Wageningen students buy Fair Trade coffee*” (descriptive norm condition) or

*“Wageningen students should buy Fair Trade coffee”* (injunctive norm condition). The text in the descriptive norm condition further read:

The average Dutch student drinks 7 kilos of coffee (about 200 liters) a year. With such amounts of coffee, it is good to know whether the coffee is produced in a responsible way or not. Recently, ‘Milieu Centraal’ conducted a study about coffee purchases among Dutch students. The researchers were interested in the purchase of Fair Trade coffee. The results show that the interest of Wageningen University students in Fair Trade coffee is larger than that of students of other Universities. *“It was remarkable to see how unified the answers were”*, says a spokesperson of ‘Milieu Centraal’, *“A great number of Wageningen students purchase Fair Trade coffee on a regular base”*.

In the injunctive norm condition, the last two lines read: *“It was remarkable to see how unified the answers were,”* says a spokesperson of ‘Milieu Centraal’, *“Everybody should buy Fair trade coffee” replied a great number of Wageningen students.”*

Participants were invited via e-mail and flyers to take part in a series of studies about student grocery preferences. They were first instructed to fill in a short form with the stated purpose of investigating student academic strategies. In this part regulatory focus was induced. Upon completing this form, participants were asked to evaluate a new design of the “All About Food” website, which was introduced as belonging to a non-commercial, non-governmental organization “Milieu Centraal,” known for its reliable and impartial studies in the food domain. Participants were randomly assigned to the norm conditions. Next, participants answered questions on attitudes, purchase intentions, and past purchase behavior. Upon completing the study, participants were asked to give their comments, were debriefed, thanked, and rewarded with 3 Euros for their participation. The procedure lasted about 12 min.

Attitudes were measured with four items ( $\alpha=.79$ ), based on Rhodes and Courneya (2003), and rated on a scale ranging from 1 (completely disagree) to 7 (completely agree): “Fair trade coffee is something for me,” “Buying fair trade coffee is pleasurable,” “Buying fair trade coffee gives me good feeling,” “Buying fair trade coffee is inspiring.” Behavioral intentions were measured with three items ( $\alpha=.91$ ), adopted from Ajzen (2001), and rated a scale ranging from 1 (completely disagree) to 7 (completely agree): “I plan to buy fair trade coffee,” “I am going to choose fair trade coffee,” “In the future I am going to buy fair trade coffee.” Past behavior was assessed by asking participants to indicate their frequency of buying fair trade coffee on a scale ranging from 1 (never) to 7 (always). Past behavior is an indicator of habit strength and can thus influence consumers’ attitudes, intentions, and future behavior (Ouellette and Wood 1998).

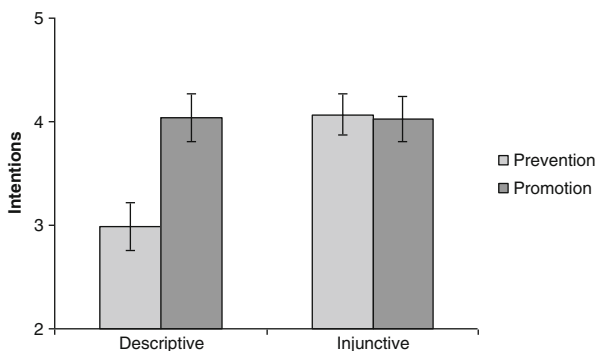
### 3.2 Results and discussion

The effects of the two experimental factors (regulatory focus and social norm) as well as their interaction on attitude and intention to buy fair trade coffee were analyzed using ANOVAs. The frequency of buying fair trade coffee (past behavior) was entered as a covariate into the analyses.

As expected, results showed that the more frequently participants bought fair trade coffee, the more positive their attitudes towards this product,  $F(1, 95)=22.06$ ,  $p<.001$ ,  $b=0.25$ ,  $\eta^2=.19$ . Results also showed a main effect of regulatory focus,  $F(1, 95)=4.43$ ,  $p=.038$ ,  $\eta^2=.05$ , whereby participants who were induced with promotion focus had more positive attitudes towards fair trade coffee ( $M=4.49$ ) than participants who were induced with prevention focus ( $M=4.05$ ). Additionally, there was a significant main effect of social norm,  $F(1, 95)=8.04$ ,  $p=.006$ ,  $\eta^2=.08$ , showing more positive attitudes in the injunctive norm condition ( $M=4.58$ ) than in the descriptive norm condition ( $M=3.96$ ). Importantly, results also showed a significant interaction between regulatory focus and social norm,  $F(1, 95)=3.96$ ,  $p=.049$ ,  $\eta^2=.04$ . As expected, the influence of descriptive norms on attitudes was higher under promotion focus ( $M=4.40$ ) than under prevention focus ( $M=3.52$ ;  $F(1, 48)=8.22$ ,  $p=.006$ ,  $\eta^2=.02$ ). In contrast, the effect of injunctive norms did not depend on regulatory focus,  $F(1, 46)=0.02$ ,  $p=.96$ ,  $\eta^2<.01$ .

Results for intentions to buy fair trade coffee resembled those for attitudes. The more frequently participants bought fair trade coffee, the more willing they were to buy fair trade coffee in the future,  $F(1, 95)=57.75$ ,  $p<.001$ ,  $b=0.43$ ,  $\eta^2=.38$ . There was a significant main effect of regulatory focus,  $F(1, 95)=6.53$ ,  $p=.01$ ,  $\eta^2=.06$ , showing higher intentions for promotion focus ( $M=3.99$ ) than prevention focus ( $M=3.40$ ). The main effect of social norm did not reach significance,  $F(1, 95)=2.63$ ,  $p=.10$ ,  $\eta^2<.01$ , indicating that for intentions the difference between the influence of the two types of norms was not as pronounced as it was for attitudes. Finally, results showed the expected significant interaction between social norm and regulatory focus,  $F(1, 95)=3.86$ ,  $p=.05$ ,  $\eta^2=.04$ . In line with expectations, the influence of descriptive norms on intentions was greater under promotion focus ( $M=4.04$ ) than under prevention focus ( $M=2.98$ ;  $F(1, 48)=11.12$ ,  $p=.002$ ,  $\eta^2=.02$ ). Following the results for attitudes, the effect of injunctive norm did not significantly differ under promotion versus prevention focus,  $F(1, 46)=0.12$ ,  $p=.729$ ,  $\eta^2<.01$ . The interaction is shown in Fig. 1.

In summary, induced regulatory focus influences consumers' attitudes and intentions towards sustainable products positioned with different normative messages. As expected, promotion focus increases the effect of descriptive norms on consumers' attitudes and intentions. However, contrary to expectations, it does not change the influence of injunctive norms. It is not clear why, and experiment 2 was



**Fig. 1** Experiment 1. Intentions to buy fair trade coffee (+SE, -SE)

designed to directly examine perceived fluency of messages combining social norms and regulatory elements in the message itself. This is particularly important in order to investigate whether the lack of effect of regulatory focus combined with injunctive norms is the consequence of a lack of regulatory fit or results from methodological issues. Experiment 2 is therefore set up to also investigate potential alternative explanations.

## 4 Experiment 2

The second experiment investigates a well-established indicator of regulatory fit: perceived fluency (e.g., Lee and Aaker 2004). To rule out potential confounds of the norm manipulation, we examine whether the two types of norms differ with respect to the involvement or affect they incur (Lee and Aaker 2004; Pham and Avnet 2004). In addition, to extend the findings towards marketing applications, a manipulation of regulatory focus is used in which either the presence of positive outcomes or the absence of negative outcomes is manipulated in the message itself.

### 4.1 Method

Sixty undergraduate students (76.3 % female; average age, 21.8 years) from Wageningen University took part in the experiment, which had a two group (social norm: descriptive vs. injunctive) design, where participants were asked to compare two messages. Message order was counterbalanced. One participant was excluded due to not completing the task.

Social norm was manipulated by showing participants a fictitious webpage with information about organic milk. The title of the text depended on the norm condition, namely, "*Wageningen students buy organic milk...*" for the condition with descriptive norms and "*Wageningen students should buy organic milk...*" for the condition with injunctive norms<sup>1</sup>. Each participant saw two messages in which regulatory focus was varied. The titles started with the same text depending on assigned condition, but ended with either a preventive statement "*...to prevent harm to the environment*" or with a promotion statement "*...for a better environment.*" This related to a fictitious survey result which was communicated also in the text itself. Messages were identified as A and B to participants.

After reading both messages, participants answered four questions on message fluency (which version was easier to understand, more appealing, clearer, and more attractive; based on Lee and Aaker 2004;  $\alpha=.81$ ) on a scale from 1 (definitely version A) to 9 (definitely version B). Answers were recoded to obtain a scale in which higher scores indicate higher fluency for the promotion focus message, irrespective of message order. As an alternative measure for perceived fluency, participants indicated which

<sup>1</sup> To ensure that the source of the norm could be equally identified in both norm conditions, a pretest ( $n=80$ , two missing responses) was conducted. Participants were shown one of the messages. The title of the message was repeated, and they were asked which group maintains this norm with regard to organic milk (answer options: university board, members of "All About Food," Wageningen students, and general Dutch population). In total, 73.8 % of participants gave the correct answer, and this did not differ significantly between the two types of norms ( $\chi^2(1)=2.10, p=.15$ ).



message was most clear and which they would recommend to be used (A or B). They also answered four questions on involvement with the messages (based on Lee and Aaker 2004: 1=not at all involved, not at all interested, skimmed it quickly, paid little attention; 7=very involved, very interested, read it carefully, paid a lot of attention;  $\alpha=.79$ ). While answering these questions, participants were allowed to examine the messages.

Participants subsequently answered additional questions during which they could not examine the messages again. True/false statements were used as manipulation checks for the norm manipulation (two items indicative of a descriptive norm: “The websites gave information about whether a group of people often buys organic milk” and “The research that is discussed on the websites concerns the actual buying behavior of people,” and two items indicative of an injunctive norm: “The websites gave information about whether a group of people thinks one should buy organic milk” and “The research that is discussed on the websites concerns the thoughts of people about what should be bought”). Finally, affective state (20-item PANAS; Watson et al. 1988) and demographics (age and gender) were asked.

## 4.2 Results and discussion

For all dependent variables, the effect of message order was not significant ( $p>.05$ ). Manipulation checks using the four true/false statements showed that participants distinguished the two types of norms. The descriptive norm was indeed seen as referring to descriptive statements of a group of people often buying organic milk (79.3 % true vs. 23.3 % in the injunctive norm condition;  $\chi^2(1)=18.49, p<.001$ ) and to actual buying behavior (62.1 % true vs. 33.3 % in the injunctive norm condition;  $\chi^2(1)=4.88, p=.027$ ). Conversely, and as expected, the injunctive norm was seen as referring to thoughts that one should buy organic milk (83.3 % true vs. 17.2 % in the descriptive norm condition;  $\chi^2(1)=25.77, p<.001$ ) and to thoughts of people (86.7 % true vs. 44.8 % in the descriptive norm condition;  $\chi^2(1)=11.52, p<.001$ ).

An ANOVA on perceived fluency of the promotion message (as compared to the prevention message) showed the expected effect of norm type ( $F(1, 56)=5.62, p=.021$ ), with the promotion message seen as relatively more fluent compared to the prevention message in the descriptive norm ( $M=5.70$ ) than in the injunctive norm condition ( $M=4.93$ ). Subsequently, for each of the norm conditions, the difference between the mean score and the midpoint of the scale were considered. As this scale compared perceived fluency of promotion message to prevention message, the midpoint of the scale was meaningful and indicated indifference. As expected, there was a significant difference from the midpoint, indicating that the promotion message was considered as more fluent than the prevention message, for the descriptive norm condition ( $t(28)=3.76, p=.001$ ). For the injunctive norm condition, however, there was no significant difference from the midpoint, indicating indifference ( $t(29)=-0.25, p=.801$ ). This is in line with results of our first experiment: whereas a descriptive norm has a better fit with promotion than prevention focus, no relation with regulatory focus is apparent for an injunctive norm.

Effects on the dichotomous variables (which message is most clear and which would you recommend to use) confirmed this. For the descriptive norm, the

promotion message was chosen more often over the prevention message as being clearer (75.0 vs. 42.9 % for injunctive norm;  $\chi^2(1)=5.76, p=.014$ ). It was also recommended more often (82.8 % for descriptive norm vs. 40.0 % for injunctive norm;  $\chi^2(1)=11.33, p=.001$ ). Furthermore, a comparison with a random 50/50 split showed that the results in the descriptive norm condition significantly differed from chance ( $\chi^2$  tests;  $p=.008$  for clear and  $p<.001$  for recommendation), whereas the results in the injunctive norm condition did not ( $p=.450$  for clear and  $p=.273$  for recommendation). Thus, in line with the results on perceived fluency, participants in the descriptive norm condition were more positive about the message with a promotion focus than the message with a prevention focus, whereas participants in the injunctive norm condition appeared indifferent.

Type of norm did not significantly influence involvement with the message ( $F(1, 56)=1.18, p=.281$ ), nor any of the PANAS items (all  $p>.05$ ). The two types of norms thus did not elicit involvement or affective feelings to a different extent, ruling this out as potential alternative explanations for our findings.

In summary, results indicate a lack of fit between injunctive norm and prevention focus. Involvement and emotions did not differ between conditions, ruling these out as alternative explanations for the lack of effect of regulatory focus for injunctive norms in experiment 1. In addition, results show that the norm manipulation successfully induced the targeted norm, ruling out a failed manipulation as an explanation for this lack of effect. Fluency is apparent for descriptive norms combined with promotion focus, but not for injunctive norms combined with prevention focus. Our next experiment is set up to verify effects on attitudes and intentions.

### 5 Experiment 3

The third experiment examines whether messages in which regulatory focus is induced (as used in experiment 2) have similar effects on attitudes and intentions as found in experiment 1, to support the generalizability of our results.

#### 5.1 Method

One hundred and twenty undergraduate students from Wageningen University who regularly buy milk or buttermilk took part in the experiment, which had a 2 (social norm: descriptive vs. injunctive)  $\times$  2 (ingrained regulatory focus: prevention vs. promotion) between subject design. Participants who indicated that they had taken part in the experiment about fair trade coffee were not included in this experiment. Eleven participants were excluded from the sample: eight participants guessed the purpose of the experiment and three participants indicated they did not give serious answers (inclusion of these participants does not affect the pattern of results as reported). The resulting sample consisted of 109 participants (66 females and 43 males), ranging in age from 17 to 28 years ( $M=21.5, SD=2.6$ ).

To extend the findings from experiment 1, the within-message regulatory focus framing of experiment 2 was used. The remainder of the procedure was identical to that of experiment 1. The experiment took about 8 min, and participants were rewarded with 2 Euros. To measure attitudes ( $\alpha=.76$ ), behavioral intentions ( $\alpha=.92$ ),

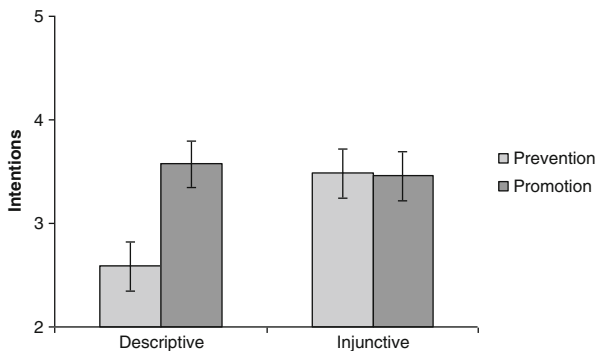
and past behavior, the same scales were used as in experiment 1, adjusted for milk instead of coffee.

## 5.2 Results and discussion

The effects of regulatory focus and social norm, as well as their interaction, on attitude and intention to buy organic milk were analyzed using ANOVA. As in the first experiment, past behavior, namely, the frequency of buying organic milk was included as a covariate.

Results for attitudes showed a positive effect of past behavior,  $F(1, 104)=54.09$ ,  $p<.001$ ,  $b=0.36$ ,  $\eta^2=.34$ , and no significant main effects of social norm,  $F(1, 104)=1.23$ ,  $p=.22$ ,  $\eta^2=.02$ , nor regulatory focus,  $F(1, 104)=.54$ ,  $p=.463$ ,  $\eta^2=.01$ . There was a significant interaction between regulatory focus and social norm,  $F(1, 104)=3.187$ ,  $p=.050$ ,  $\eta^2=.04$ . The influence of descriptive norms on attitudes was indeed greater under promotion focus ( $M=3.89$ ) than under prevention focus ( $M=3.42$ ),  $F(1, 50)=4.99$ ,  $p=.030$ ,  $\eta^2=.09$ . In contrast, the effect of injunctive norm did not significantly differ under promotion versus prevention focus,  $F(1, 50)=0.56$ ,  $p=.456$ ,  $\eta^2=.01$ , replicating the results of the first experiment.

Results for intentions to buy organic milk also show a positive effect of past behavior,  $F(1, 104)=53.31$ ,  $p<.001$ ,  $b=0.48$ ,  $\eta^2=.34$ . Additionally, there was a significant main effect of regulatory focus,  $F(1, 104)=4.28$ ,  $p=.041$ ,  $\eta^2=.04$ : participants who saw a text with a promotion statement had a higher intention to buy organic milk ( $M=3.52$ ) than those who saw a prevention statement ( $M=3.03$ ). The main effect of social norm was not significant,  $F(1, 104)=2.78$ ,  $p=.098$ ,  $\eta^2=.03$ . Additionally, results showed a significant interaction between social norm and regulatory focus,  $F(1, 104)=4.64$ ,  $p=.034$ ,  $\eta^2=.04$ . Again, the influence of descriptive norms was greater under promotion focus ( $M=3.57$ ) than under prevention focus ( $M=2.58$ ;  $F(1, 50)=7.39$ ,  $p=.009$ ;  $\eta^2=.13$ ), while the effect of injunctive norm did not significantly differ under promotion versus prevention focus,  $F(1, 53)=0.12$ ,  $p=.730$ ,  $\eta^2<.01$ , as Fig. 2 shows. Thus, the interaction between social norm and regulatory focus is replicated.



**Fig. 2** Experiment 3. Intentions to buy organic milk (+SE, -SE)

## 6 General discussion

In three experiments, this study has shown that descriptive norms for sustainable products have a better fit with promotion than prevention focus, and are perceived as more fluent when messages contain promotion (vs. prevention) elements. Therefore, the combination of descriptive norms and promotion focus is more likely to influence attitudes and buying intentions than the combination of descriptive norms and prevention focus. This is not the case for injunctive norms, which are not influenced by regulatory focus. These results extend recent research which has investigated the different processes underlying the two types of norms, as well as moderators of these processes (Jacobson et al. 2011; Melnyk et al. 2011; White and Simpson 2013).

The current paper makes an important contribution to the literature showing that descriptive and injunctive norms are affected differently by a range of moderators (e.g., which level of the self is activated; Jacobson et al. 2011; White and Simpson 2013). More specifically, the current study shows that there is regulatory fit between promotion focus and descriptive norms, across different operationalizations of regulatory focus and different products, indicating the robustness of the effect. Although organic and fair trade products may differ in their responsiveness to other marketing instruments (Van Herpen et al. 2012), the effects of social norms generalize across both types of sustainable products.

A remaining question concerns injunctive norms, where we expected that these would be more fluent and would affect attitudes and intentions more when prevention is relevant rather than promotion. This was not supported by our results, which consistently showed no effect of regulatory focus for injunctive norms. This result is in line with research on the types of thoughts that consumers have when thinking about descriptive and injunctive norms, where descriptive norms lead consumers to focus on positive thoughts about the benefits of the advocated behavior, whereas both positive and negative thoughts are present for injunctive norms (Melnyk et al. 2011). Future research is warranted to examine this further.

The current study thus indicates that descriptive norm formulation should be carefully chosen depending on the context in which the information is provided to consumers. Some caution is in place as although attitudes and behavioral intentions are generally proximal causes to behavior, this link can be rather weak, especially for sustainable behavior (Young et al. 2010). Therefore, further research is needed to investigate the influence of the interaction between social norms and regulatory focus on behavior.

There are important managerial implications to the current research. Descriptive norms are often used in social campaigns (e.g., [www.mostofus.org](http://www.mostofus.org)), and communication managers can use the current research to enhance the efficacy of these campaigns by ensuring that the norm is used in a promotion context. Messages which are focused on problem avoidance (e.g., [www.obesityinamerica.org](http://www.obesityinamerica.org)) may not be very well suited for descriptive norms. Furthermore, messages based on communicating a favorable statistic of the majority of others that perform a behavior should be conveyed in the context of a promotion focus. The current research shows that the wording of a normative message can activate such as promotion focus. For example, the Israeli phone company Talk'n'Save uses the slogan "*More than 70 % of*

*American students coming to Israel to study will be using Talk'n'Save phones.*” Conveying such a slogan in the context of achieving benefits (e.g., “to get an excellent connection”) compared to the avoidance of losses (e.g., “to avoid being disconnected”) may increase its effectiveness. After all, this study has demonstrated that descriptive norms have a stronger influence on consumers’ attitudes and intentions under promotion focus than under prevention focus.

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