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## Being green: from attitude to actual consumption

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## **Abstract**

Interest in issues associated with environmental sustainability is continuously growing and sustainable consumption is now a mainstream topic at the top of the international public administration agenda. However, the many studies about the general inconsistency between green consumer attitudes and green consumption have not considered two individual differences that seem to be interesting in order to explain the ethical consumer attitude—intention gap: regulatory focus and time horizon. Regulatory focus, being the strategic orientation individuals use to pursue their goals, might enhance consumers' sense of duty towards environmental issues. Time horizon represents the consumers' perceived time lag between their decision and its outcome, and can induce them to immediately engage in a specific behaviour. With this goal in mind, the present work illustrates the results of three experimental studies that focus on individual differences (regulatory focus and time horizon) that might influence consumers to comply with green consumption. Results show that prevention-focused individuals demonstrate a higher compliance with green behaviour, both in the short-term and in the long-term outcome horizons.

## Introduction

Nowadays, increasing attention is devoted to environmental and green issues such as overconsumption of natural resources, global warming, ozone depletion and water and air pollution that seriously threaten human life (Tanner and Kast, 2003). Most marketers agree that green awareness among consumers will grow and that such a profound shift in public perception and attitudes must ultimately affect every aspect of a company (Fitzsimmons, 2008). Green consumption is now a mainstream topic and has been at the top of the international public administration agenda too ever since the United Nations Conference on Environment and Development (UNCED, 1992; Valor, 2008) was held more than 20 years ago. Indeed, policy makers, governments and, lately, firms are all aware of the risks and implications concerning the excessive exploitation of environmental resources and are implementing actions and programmes (Horizon, 2020; United Nations Environment Program) that aim to overcome these problems. However, consumers seem not to be fully conscious of the urgency of adopting a set of different behaviours (Osterhus, 1997; Pieters et al., 1998; Kronrod et al., 2012). The 2013 Flash Eurobarometer (2013) report reveals that even though a very high proportion of citizens buy environmentally friendly products (80%), more than half of the respondents are classified as occasional maintenance - often buying environmentally friendly products (54%) - and only a quarter are regular maintenance - sometimes buying environmentally friendly products (26%).

Many authors (Mainieri et al., 1997; Tanner and Kast, 2003) agree that it is important to draw consumers' attention to these problems and induce them to adapt their behaviours and lifestyles accordingly. Although consumers do value environment-friendly and ethical products (Carrigan and Attala, 2001; Crane and Matten, 2004; Connolly and Shaw, 2006), their daily buying behaviour is often inconsistent with this (Alwitt and Pitts, 1996; Bech-Larsen, 1996; Thøgersen, 1999, 2004; Thøgersen and Ölander, 2003; Moisander, 2007). Even if many authors evidenced this incongruence (Follows and Jobber, 2000; Belk et al., 2005; Auger and Devinney, 2007; Shaw et al., 2007; Carrington et al., 2010), there are few studies about the impact of environmental preferences on product choices, while the most investigated dependent variable is the intention to buy.

Recently, several studies have attempted to identify the characteristics of green consumer behaviour and to point out the related marketing implications (e.g. Schlegelmilch *et al.*, 1996; Lee, 2008; Pickett-Baker and Ozaki, 2008, Paço *et al.*, 2013). On the contrary, literature studying green consumption seems to be mainly focused on the socio-demographic profiling of green consumers (Straughan and Roberts, 1999; Zelezny *et al.*, 2000; Diamantopoulos *et al.*, 2003; D'Souza *et al.*, 2007; Abeliotis *et al.*, 2010; Do Paço and Raposo, 2010). Little is known about the influence of individual differences and personal traits (Schwartz, 1977; Hines *et al.*, 1986/1987; Bamberg and Möser, 2007; Bray *et al.*, 2010; Griskevicius *et al.*, 2010; Haanpää, 2007; Pinto *et al.*, 2011; Carrington *et al.*, 2010, 2014), even if many scholars have shown that socially or ecologically concerned

consumers do possess certain personality traits that consumers who rank low in this aspect do not share (Anderson and Cunningham, 1972; Kinnear *et al.*, 1974; Crosby *et al.*, 1981; Balderjahn, 1988).

On the basis of the idea, widely accepted in marketing literature, that personal values are influential determinants of consumption behaviour (Homer and Kahle, 1988; Schwartz, 1992, 1994; Kahle, 1996), and that pro-environmental behaviour might serve as a signal of personality dimension (Griskevicius *et al.*, 2010), this paper aims to investigate the role that two individual differences – regulatory focus (RF) and time horizon – might have on influencing green consumption.

Regulatory focus, being the strategic orientation individuals use to pursue their goals (Pham and Chang, 2010), might enhance consumers' sense of duty towards environmental issues. The idea that regulatory focus represents a variable influencing green consumption derives from the RF definition in itself. In general, it is argued that promotion goals regulate behavior with respect to positive outcomes, either by maximizing their presence or minimizing their absence. In contrast, prevention goals act either by minimizing the presence of negative outcomes or maximizing their absence (Idson et al., 2000; Freitas and Higgins, 2002). A very recent study by Luchs et al. (2010) presents evidence that products perceived to be 'ethical' are associated in consumers' minds with gentleness-related attributes; those seen as less ethical are associated with strength-related attributes. These categorizations can be linked to consumers' self-regulatory foci on prevention and promotion. Since those whose focus is on prevention are likely to allocate greater weight to safety or vigilance than to power or effectiveness, advertising messages emphasizing green features compatible with their personal consumption goals can be expected to exert an enhanced persuasive effect. In the case of promotion-focused consumers, however - those who tend to place most weight on power and effectiveness - it could be a strategic liability to base a marketing campaign on the claim of greenness, with its appeal to security and vigilance.

Time horizon represents the time consumers believe will elapse before they can experience the outcomes caused by their eventual choices (Wright and Weitz, 1977) and can push them to immediately engage in a certain behaviour. The reason why we decided to investigate on the role of time horizon in green consumption is related to the fact that even an increasing sensitivity towards green products consumers tend to postpone adopting green behaviour over time. This is perhaps because they recognize duties to their community and environment, but, at the same time, they realize their obligations to themselves and their families (Gebauer et al., 2008; McDonald and Aalborg, 2009), and some of these duties may conflict (Macnaghten, 2003; Connolly and Prothero, 2008; Prothero et al., 2011). Therefore, people could regard as preferable an action required over the long term instead of one in the short term, since they could have the time to solve, or at least reduce, the perceived conflict. Based upon the rationale that promotion/ prevention state and short/long time horizon conditions may influence green consumption, the present work illustrates the results of three experimental studies that focus on the possible impacts of the two individual differences on consumers' compliance with green consumption. The joint effects of these two variables will also be investigated in Study 3.

#### Literature review

## **Regulatory focus**

Regulatory focus represents the way in which people approach pleasure and avoid pain (Aaker and Lee, 2001). A person's regulatory focus concentrates on the desired end state and on the motivational approach used to move from the actual state to the desired end state. It regulates the influences to which a person would be exposed in the decision-making process, and determines the different ways an individual achieves its goals. The Regulatory Focus Theory (Higgins, 2000, 2002) contemplates two separate and independent self-regulatory orientations for meeting the primary human needs of nurturance and security: prevention and promotion (Higgins, 1997, 1998). These foci fulfil these basic needs by guiding the pursuit of goals using various behavioural means characterized by different emotional experiences and evaluations.

As Pham and Chang (2010) pointed out, a prevention-focused individual is orientated to safety, responsibilities and security needs by following guidelines and rules. Goals are perceived as necessary and there is a strategic concern with approaching non-losses (the absence of negatives) and avoiding losses (the presence of negatives). Individuals who adopt a prevention focus regulate their behaviours, avoid errors of commission and prefer to use vigilance strategies and ensure their stability. They are directed towards fulfilling duties and obligations. As such, this results in sensitivity to negative outcomes and relative pain from losses.

On the contrary, a promotion-focused individual emphasizes hopes, accomplishments and advancement needs. This focus is more concerned with a higher level of gains, such as improvement and realization. Goals are viewed as ideals, and there is a strategic concern with approaching gains (the presence of positives) and avoiding non-gains (the absence of positives). Individuals with a promotion focus regulate their behaviours to attain progress, growth and success. Hence, they form goals to pursue dreams and aspirations, striving to maximize future gains. These individuals are inclined against committing errors of omission (Crowe and Higgins, 1997) and are associated with eagerness strategies (Hong and Lee, 2008) and openness to change (Liberman *et al.*, 1999). As such, this results in sensitivity to positive outcomes and relative pleasure from gains, generally, the presence and absence of positive outcomes (i.e. gains and no gains).

When individuals adopt a prevention rather than a promotion focus, some drawbacks can ensue. Individuals can become more sensitive to distractions (e.g. Freitas and Higgins, 2002). They are also less inclined to change their behaviour in response to criticism (Forster *et al.*, 2001). In contrast, a promotion focus, which can be activated merely by reflecting upon future hopes and aspirations, can afford many benefits. A promotion focus tends to improve the capacity of individuals to negotiate effectively, for example (Galinsky *et al.*, 2005). They also solve problems more creatively (Friedman and Forster, 2001).

Regulatory focus also influences the buying process (Agrawal and Maheswaran, 2005). It affects the search for information on alternatives and the formation of consideration sets (Pham and Chang, 2010), the information processing (Jain and Maheswaran, 2000; Jain, 2003), the evaluation (Aaker and Lee, 2001) and the choice among different alternatives (Kirmani and Zhu, 2007).

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Moreover, regulatory focus impacts the effectiveness of advertising campaigns (Evans and Petty, 2003; Cesario *et al.*, 2004; Pham and Avnet, 2004; Kareklas *et al.*, 2012; Ku *et al.*, 2012). Research has shown that advertising campaigns that emphasize compatibility with the regulatory focus of the recipients are more effective (Higgins, 2000; Higgins *et al.*, 2003).

An individual's regulatory orientation is not necessarily fixed. Regulatory focus can differ both across individuals (chronic regulatory focus) and across situations (momentary regulatory focus). Basically, while individuals have chronic tendencies towards either promotion or prevention, these preferences may not hold for all situations. Furthermore, a specific regulatory focus can be induced. In other words, there are chronic individual differences in the predominance of either promotion or prevention, and situational features are capable of momentarily activating one or the other. On the basis of momentary regulatory focus that is purposely induced, this research aims to investigate whether this variable can motivate consumers to engage in green consumption choices

In particular, one can assume that prevention-type consumers feel a moral duty towards a greener lifestyle, given that they are more anchored to their responsibilities and obligations. Promotion-type individuals are more focused on their aspirations and dreams; therefore, they do not strongly feel the pressure to quickly adjust their behaviour towards adopting a green purchasing process. More precisely, the hypothesis for this study is as follows.

H1: Individuals in a prevention state will show a higher compliance with green behaviour than individuals in a promotion state

The consumer-citizen feeling (Hansen and Schrader, 1997) – which implies that consumers not only have the ability to choose different options of consumption but also a moral obligation to confront the consequences of their choices – should therefore be emphasized by a prevention approach.

The distinction between promotion and prevention orientation also suggests that in a green context, the customer's willingness to delay or expedite receiving gains and losses may influence green consumption. This is why it is important to investigate the impact of time horizon as a crucial variable influencing the adoption of green products.

## **Time horizon**

Time is a central aspect of consumer behaviour (Graham, 1981) and decision making (Meyers-Levy and Maheswaran, 1992). Many scholars have examined its impacts on influencing consumers' judgements and attitudes (Jacoby *et al.*, 1976; Hoch and Loewenstein, 1991). In particular, Wright and Weitz (1977) outlined the effect of time horizon variations on product evaluation. The study supported the idea that variations in time horizons produce changes in the linearity and complexity of the evaluation strategies used and in the emphasis given to specific factors. Thus, when women's time horizons in evaluating product concepts were found to be varied, loss-averse and fairly complex evaluation strategies were used by women who made leisurely judgements on purchase intent when consumption seemed imminent. Women who thought consumption was a distant event used simple evaluation strategies that were not loss-averse. As a result, the time

horizons a consumer has in mind when evaluating a risky alternative can bias its evaluation strategy. Due to the manipulations of the processing horizon, the strength of the effects and the outcomes suggest that these variables may be important moderators of product evaluation and choice strategies.

Based on the rationale that a consumer's purchase decision results in both losses and gains that can occur at different times, the time and outcome valuation (TOV) model developed by Mowen and Mowen (1991) provides a theoretical explanation for the effects of advancing and delaying outcomes. Extending the model of Kahneman and Tversky (1979), TOV makes predictions for both single outcomes and outcomes occurring in sequence over time, positing that gains and losses are discounted over time and that negative outcomes are discounted more quickly than positive ones. Therefore, when both gains and losses occur in the present, the TOV model predicts that consumers will show risk avoidance. However, when outcomes occur in the future, the differential discounting of loss and gains results in a 'future optimism' effect, where prospective gains are weighed more heavily than losses (Mowen and Mowen, 1991). Other research studies (Loewenstein, 1988; Meyers-Levy and Maheswaran, 1992; Simonson, 1992) support the TOV model, positing that the timing relationship between when outcomes occur and when consumer decisions are made influences consumer decision making. This may have important implications for green consumption too, if it is true that consumers tend to make ethical purchases that do not require them to pay more, suffer loss of quality or make a special effort (Carrigan and Attala, 2001). Indeed, in focusing on emotional aspects of ethical decision making, some authors (Steenhaut and Van Kenhove, 2006) found that thinking about the negative consequences that could result from a decision may trigger negative anticipated emotions, in turn, deterring the consumer from a perceived unethical course of action. Alternatively making choices that are likely to have more positive implications can arouse positive emotions making such decisions more likely.

Loewenstein (1988) investigated how time impacts consumer perception of losses and gains, and, consequently, consumer choices. The work aimed to demonstrate the applicability of the reference point concept to intertemporal choices; the findings revealed that when a temporal shift of consumption is framed as a delay, it has greater significance than when it is framed in terms of speed-up, and that the significance of the delay is minimized when the consumer is simply asked to state the present value of consumption at the two points in time.

Meyers-Levy and Maheswaran (1992) searched for a support to the mechanism underlying temporal distance effects by examining people's cognitive responses to temporal distance manipulations. The findings suggested that variations in temporal distance may differentially affect consumers' responses only when consumers are not motivated by other factors such as high involvement. Similar to involvement manipulations, this implies that temporal distance manipulations may influence consumers' motivation to process and scrutinize a message elaborately. These findings have significant implications for consumer research, suggesting that temporal distance manipulations might be added to the list of factors that can effectively influence consumers' motivation to extensively examine a message's claim and, consequently, compliance with the behaviour.

Therefore, the revised literature about time horizon supports the idea that when gains and losses occur in the future, this results in a general optimism (Mowen and Mowen, 1991). This may be consistent with the prevention state, its direction towards meeting duties and obligations, its sensitivity to negative outcomes and relative pain from losses and, consequently, correlated with green consumption (Bertoli *et al.*, 2013) .

This paper also aims to investigate the effect of time horizon manipulations on green consumption. In particular, this is an attempt to understand if promoting green consumption, and emphasizing the immediate availability of the green product/ service and its related benefits, may positively affect green consumption rather than delaying it. Subsequently, the present study proposes the following this hypothesis.

H2: Individuals in a long-term perspective will show a higher compliance with green behaviour than individuals in a shortterm perspective.

The rationale is that, even if a general sensitivity to green consumption is currently increasing, consumers tend to postpone adopting green behaviour over time, possibly because other obligations delay people's actions when dealing with their sustainable attitudes. As they recognize duties to their community and environment, they also realize their obligations to themselves and their families (Gebauer *et al.*, 2008; McDonald and Aalborg, 2009), and some of these duties may conflict (Macnaghten, 2003; Connolly and Prothero, 2008; Prothero *et al.*, 2011). Therefore, people could regard as preferable an action required over the long term instead of one in the short term, since they could have the time to solve, or at least reduce, the perceived conflict. The research suggests that a message proposing a green service as a delayed option, rather than an immediate one, and claiming its future benefits, may positively influence green consumer behaviour.

So, when evaluating a green product and forming their opinions, consumers are guided by their sense of responsibility and obligation towards the issue. Therefore, as stated in H1, they commit more promptly to engaging in the behaviour. In order to increase individuals' attention to the environmental issue, it is necessary not only to push them to act and modify their behaviour but also to induce them not to procrastinate. As specified, compliance towards green behaviour might also be influenced by individuals' willingness to delay or expedite receiving gains and losses, namely time horizon. As such, time horizon might moderate the relationship between regulatory focus and compliance. The study shows that individuals in the prevention condition (promotion condition) will comply more with green behaviour if they perceive a short-time horizon. Therefore, the final hypothesis is as follows.

H3: Time horizon moderates the relationship between regulatory focus and compliance with green behaviour.

## **Empirical analysis**

Across three experimental studies between subjects, preventiontype individuals showed a higher compliance towards green behaviour (Study 1). Moreover, to increase the power of this effect, the research investigated the impact of time horizon on compliance with green behaviour (Study 2). Further, in Study 3, the study combined the two variables and tested the moderation effect of time horizon on the relationship between regulatory focus and compliance.

## Study 1

Study 1 aimed to test H1, specifically that prevention-focus individuals show a higher compliance with green behaviour than individuals in a promotion state. The study used a one-factor (regulatory focus: prevention vs. promotion), between-subject design and employed 41 participants (27 female, age = 24.27, SD = 1.42) from an international business school who participated in return for course credits.

#### **Procedure**

In order to manipulate regulatory focus, the procedure designed by Pham and Chang (2010) was used, in which participants read a scenario based upon the situation of choosing a restaurant to celebrate a job offer. Participants were randomly assigned to one of the two conditions. After reading the scenario, they answered two manipulation check questions based upon Pham and Chang (2010), in which they had to rate whether in the situation they 'would pick a dish that would delight them' (1 = promotion) or 'would pick a dish that would not disappoint them' (7 = prevention). As expected, preferences were more skewed towards the promotion options in the promotion-focused condition [M = 1.25, SD = 0.55); F(1,40) = 5.55, P < 0.05] than in the prevention-focused condition (M = 2.21, SD = 1.25).

Afterwards, participants in both conditions were presented with the news that in their city, the government had launched the carsharing service. The short paragraph reporting the news illustrated how important this service is for the environment and highlighted its contribution in reducing pollution. Right after, participants answered the four items measuring 'compliance with the behaviour' (Kronrod *et al.*, 2012). The scale, consisting of four items, asked: *How plausible is it that you will adopt the behaviour/how certain is it/how sure are you/what are the chances that you will adopt the car sharing (where I = not likely; 7 = very likely)?* 

#### Results

Reliability for the compliance measure was  $\alpha = 0.951$ ; therefore, based upon Kronrod *et al.* (2012), the four items were averaged, forming one index measuring compliance with green behaviour.

A one-way analysis of variance (ANOVA) of regulatory focus on compliance with green behaviour yielded the expected results. Participants who read the prevention-focus scenario showed a higher compliance value (M = 3.66, SD = 1.63) than those who were in the promotion-focus condition [M = 2.59, SD = 1.4; F(1,40) = 5.08, P < 0.05].

#### Discussion

In accordance with the hypothesis, it was found that the prevention-focus-induced consumers comply more with the suggested green behaviour. Promotion-focused individuals tend not to perceive the suggested green behaviour as urgent and as their responsibility; therefore, they show less compliance with the behaviour. It is not clear whether consumers are willing to engage in this behaviour immediately. Study 2 would investigate this aspect. Specifically, it would test whether the time horizon of the choice influences the intention to comply with green behaviour.

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## Study 2

In this study, 53 students (23 female, age = 22.58, SD = 2.135) from an international business school participated in return for course credits. The study used a one-factor (time horizon: short vs. long), between-subject design.

#### **Procedure**

In order to manipulate the time horizon, the procedure that was used by Wright and Weitz (1977) was used. Leaflets to advertise the new car-sharing service that was about to start in the city were prepared. According to the condition, the leaflet emphasized that the service was already available (short time) or would be ready in 6 months (long time). Moreover, both leaflets presented the same information on how green the service was and how good it would be for the environment. Right after the time horizon manipulation, participants rated the time horizon of the leaflet by answering the item: When does the leaflet invite you to start using the carsharing service? (1 = now; 7 = in 6 months). Participants in the short-term perspective correctly reported that the leaflet invited them to start using the service soon (M = 2.77, SD = 2.52) than those in the long-term perspective [M = 6.48, SD = 1.27;F(1.52) = 50.33, P < 0.000]. Afterwards, participants answered the four items measuring compliance with green behaviour, as in Study 1.

## Results

The reliability for the compliance measure was  $\alpha = 0.907$ ; therefore, the compliance index was created by averaging the four items. A one-way ANOVA of time horizon on the compliance index was performed. As expected, participants in the long-term perspective showed a higher compliance (M = 3.74, SD = 1.23) than those in the short-term perspective [M = 2.76, SD = 1.25; F(1,52) = 8.104, P < 0.001].

#### Discussion

Study 2 confirms that time is important and might bring important benefits for everyone in the realm of green behaviour as well. Indeed, only consumers in the long-term perspective show a higher compliance towards the green behaviour. Consumers in the short-term perspective report a lower intention to engage in the car-sharing service. These findings confirm that consumers do not perceive an urgent need to modify their actual behaviour towards a green one; they are only willing to do so in the long run. This may be because most people would require some months to adjust their habits and lifestyles, no matter how urgent they perceived the environmental problem. These findings might constitute a further exemplification of the well-known consumers' trade-off between attitude and actual behaviour: even if here the latter is measured only as intention to adopt the green behaviour. Study 3 would try to turn over these results by combining the effects of both regulatory focus and time horizon. In order to persuade individuals to engage in green behaviour in the short time, it is necessary to make them perceive the issue as important and urgent. Therefore, as stated in H3, one expects individuals in the prevention condition who read the short-time scenario to report the highest level of compliance with the behaviour.

## Study 3

Study 3 used a 2 (regulatory focus: prevention vs. promotion)  $\times$  2 (time horizon: short vs. long) factor, between-subject design and involved 99 students (49 men, age = 23, SD = 1.5).

#### **Procedure**

The procedure used for Study 3 was based upon Studies 1 and 2. Participants were randomly assigned to the conditions. They first read the scenario for the regulatory focus activation, answered the manipulation check questions and then were presented with the leaflets describing the car-sharing service, differentiated according to short-term and long-term conditions. Afterwards, they completed the four items measuring the compliance with the behaviour, and then reported their age and gender.

#### Results

Reliability for the compliance measure was  $\alpha = 0.915$ . A two-way ANOVA was performed for regulatory focus and time horizon on the compliance index. The study shows a significant interaction for the effect of regulatory focus and time horizon on compliance [F(1,95) = 7.151, P < 0.05), with the main effect of regulatory focus [F(1.95) = 24.734, P < 0.000] as significant and the main effect of time horizon [F(1,95) = 2.367, P: not significant (ns)] as insignificant. In the short-term perspective, prevention-focused participants showed a higher level of compliance ( $M_{\text{short time}} = 3.57$ , SD = 0.96) than promotion-focused participants [ $M_{\text{short time}} = 3.04$ , SD = 1.38; F(1,47) = 2.351, P: ns], although this difference is not significant. In the long-term perspective, participants in the prevention condition reported higher compliance values  $(M_{\text{long time}} = 3.78, SD = 0.93)$  than promotion-focused participants  $[M_{long time} = 2.17, SD = 0.91; F(1,53) = 45.441, P < 0.000]$  (see Fig. 1). To further investigate the pattern of results, a subsequent contrast analysis was performed. This revealed an insignificant difference in compliance by the prevention-focused participants between the short- and the long-term perspective [F(1,47) = 0.573,P: ns].

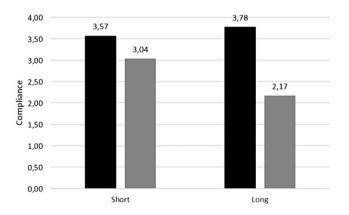


Figure 1 Study 3 results.

#### Discussion

The results of Study 3 partially confirm H3. Individuals in the prevention condition show a higher compliance than individuals in the promotion condition. Within the prevention condition, individuals in the long-term orientation reveal a higher compliance than individuals in the short-term orientation, but this difference is not statistically significant. These findings indicate that to achieve increased compliance with green behaviour, a prevention-focused strategy should be pursued. Thus, time horizon plays a minor role in compelling individuals to engage in the desired behaviour. These results can be further explained in the light of the Regulatory Fit Theory (Higgins, 2000); when the match between the goal pursuit strategy and the individuals' orientation takes place, the perceived importance of the issue is enhanced, resulting in higher compliance values. This theoretical explanation will be the object of future empirical investigations.

## General discussion and conclusion

Even if the contemporary marketplace is characterized by an increasing level of environmental concern, consumers' purchasing behaviour is not necessarily greener than before (Pickett-Baker and Ozaki, 2008). Observing green consumer behaviour, it is possible to notice that often, strongly expressed concerns for the environment are not reflected in consumption practices (Alwitt and Pitts, 1996; Bech-Larsen, 1996; Thøgersen, 1999, 2004; Thøgersen and Ölander, 2003; Moisander, 2007; Essoussi and Jonathan, 2010; Chang, 2011). This may be because the green marketing studies mainly focused on the intention to buy rather than on effective consumer choice, and many studies investigated the role of socio-demographic variables rather than personal values in influencing green consumer behaviour.

As a result, even considering that this study refers to a limited sample of students, the present study contributes to the debate about how to convince consumers to engage in green consumption. The general approach of governments, policy makers and firms is to increase attention and compliance with behaviours that respect and take care of environmental resources. However, at a more micro level, persuading consumers about the importance of adapting their everyday actions to the green issue seems a priority (Assadourian, 2010). Through the three experimental studies, the research shows that by leveraging individuals' regulatory focus and time horizon, it is possible to modify their behaviour.

The manipulation of regulatory focus can be a useful way to enhance consumers' intention to comply with green behaviour. By highlighting the role of the (momentary) prevention-focused condition, it is possible to increase individuals' intention to engage in the selected green behaviour. The study shows the role of time horizon in decision making towards influencing the results pattern. Although the long-term horizon seems to enhance compliance more than the short term, this effect becomes insignificant when tested jointly with regulatory focus.

The findings of this paper present an opportunity for moving towards a more effective green consumption. Thus, managers and advertisers that want to persuade consumers to engage in green consumption should ensure that their advertisements contain cues that might trigger a prevention-focus orientation rather than a promotion one. In this way, companies' marketing communication

could be effectively used to change consumers' attitudes and buying intentions towards environmentally friendly products (Jackson, 2005).

However, there are important areas not addressed here, which are equally valid for further research. For example, future studies might also examine the role of the regulatory fit in enhancing compliance with the behaviour. By creating ad hoc advertising messages that manipulate the regulatory focus conditions and by measuring the individual strategy for goal pursuit, it is possible to verify whether the 'fit' might be another source of enhancing the importance of environmental issues, and thus push consumers to comply with green behaviour. Additionally, to overcome potential limitations of the present study, it is necessary to conduct a series of within-subject experiments, in which consumers are faced with both green and non-green products. In this way, it is possible to compare the effects of regulatory focus and time horizon on compliance across product categories. Also, the studies here illustrated were based upon a student's sample and this might reduce the generalizability of the results given that they can misrepresent the real customer. Further research will try to overcome this limit using actual and random consumers so to have a clearer and more realistic picture of the phenomenon. Lastly, the study might increase its external validity by replicating the experiments here presented adopting different products so to see whether the results are consistent across different product categories.

### References

- Aaker, J.L. & Lee, A.Y. (2001) 'I' seek pleasures and 'we' avoid pains: the role of self-regulatory goals in information processing and persuasion. *The Journal of Consumer Research*, 28, 33–49.
- Abeliotis, K., Koniari, C. & Sardianou, E. (2010) The profile of the green consumer in Greece. *International Journal of Consumer* Studies, 34, 153–160.
- Agrawal, N. & Maheswaran, D. (2005) The effects of self-construal and commitment on persuasion. *The Journal of Consumer Research*, 31, 841–849.
- Alwitt, L.F. & Pitts, R.E. (1996) Predicting purchase intentions for an environmentally sensitive product. *Journal of Consumer Psychology*, 5, 49–64.
- Anderson, W.T. Jr. & Cunningham, W.H. (1972) The socially conscious consumer. *Journal of Marketing*, **36**, 23–31.
- Assadourian, E. (2010) Transforming cultures: from consumerism to sustainability. *Journal of Macromarketing*, **30**, 186–191.
- Auger, P. & Devinney, T.M. (2007) Do what consumers say matter? The misalignment of preferences with unconstrained ethical intentions. *Journal of Business Ethics*, 76, 361–383.
- Balderjahn, I. (1988) Personality variables and environmental attitudes as predictors of ecologically responsible consumption patterns. *Journal of Business Research*, **17**, 51–56.
- Bamberg, S. & Möser, G. (2007) Twenty years after Hines, Hungerford, and Tomera: a new meta-analysis of psycho-social determinants of pro-environmental behavior. *Journal of Environmental Psychology*, 27, 14–25.
- Bech-Larsen, T. (1996) Danish consumers' attitudes to the functional and environmental characteristics of food packaging. *Journal of Consumer Policy*, **19**, 339–363.
- Belk, R., Devinney, T.M. & Eckhardt, G. (2005) Consumer ethics across cultures. Consumption Markets and Culture, 8, 275–289.
- Bertoli, G., Bonera, M., Codini, A., Corvi, E. & Miniero, G. (2013). *Green behavior: how to encourage it.* Proceedings of the 42nd

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Annual European Marketing Academy Conference (EMAC), 4–7 June 2013, Istanbul. ISBN: 9789944380102.

- Bray, J., Johns, N. & Kilburn, D. (2010) An exploratory study into the factors impeding ethical consumption. *Journal of Business Ethics*, 98, 597–608
- Carrigan, M. & Attala, A. (2001) The myth of the ethical consumer do ethics matter in purchase behaviour? *Journal of Consumer Marketing*, **18** 560–577
- Carrington, M.J., Neville, B.A. & Whitwell, G.J. (2010) Why ethical consumers don't walk their talk: towards a framework for understanding the gap between the ethical purchase intentions and actual buying behavior of ethically minded consumers. *Journal of Business Ethics*, 97, 139–158.
- Carrington, M.J., Neville, B.J. & Whitwell, G.J. (2014) Lost in translation: exploring the ethical consumer intention-behaviour gap. *Journal of Business Research*, 67, 2759–2767.
- Cesario, J., Grant, H. & Higgins, E.T. (2004) Regulatory fit and persuasion: transfer from feeling right. *Journal of Personality and Social Psychology*, 86, 388–404.
- Chang, C. (2011) Feeling ambivalent about going green. *Journal of Advertising*, 40, 19–32.
- Connolly, J. & Prothero, A. (2008) Green consumption: life-politics, risk and contradictions. *Journal of Consumer Culture*, **8**, 117–145.
- Connolly, J. & Shaw, D. (2006) Identifying fair trade in consumption choice. *Journal of Strategic Marketing*, 14, 353–368.
- Crane, A. & Matten, D. (2004) Business Ethics: A European Perspective. Oxford University Press, Oxford.
- Crosby, L.A., Gill, J.D. & Taylor, J.R. (1981) Consumer/voter behavior in the passage of the Michigan container law. *Journal of Marketing*, 45, 19–32
- Crowe, E. & Higgins, E.T. (1997) Regulatory focus and strategic inclinations: locomotion and assessment in decision making.
  Organizational Behavior and Human Decision Processes, 69, 117–132.
- Diamantopoulos, A., Schlegelmilch, B.B., Sinkovics, R.R. & Bohlen, G.M. (2003) Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *Journal of Business Research*, **56**, 465–480.
- Do Paço, A. & Raposo, M.L.B. (2010) Green consumer market segmentation: empirical findings from Portugal. *International Journal of Consumer Studies*, 34, 429–436.
- D'Souza, C., Taghian, M., Lamb, P. & Peretiatko, R. (2007) Green decisions: demographics and consumer understanding of environmental labels. *International Journal of Consumer Studies*, 31, 371–376.
- Essoussi, L.H. & Jonathan, D.L. (2010) New or recycled products: how much are consumers willing to pay? *Journal of Consumer Marketing*, 27, 458–468
- Evans, L.M. & Petty, R.E. (2003) Self-guide framing and persuasion: responsibly increasing message processing to ideal levels. *Personality and Social Psychology Bulletin*, 29, 313–324.
- Fitzsimmons, C. (2008) Make it green and keep them keen. *The Guardian* URL: http://www.guardian.co.uk/media/2008/jan/21/marketingandpr (accessed on 21 January 2008).
- Flash Eurobarometer 367 (2013). Attitudes of Europeans towards building the single market for green products. European Commission, Directorate-General for Environment.
- Follows, S.B. & Jobber, D. (2000) Environmentally responsible purchase behavior: a test of a consumer model. *European Journal of Marketing*, **34**, 723–746.
- Forster, J., Grant, H., Idson, C. & Higgins, E.T. (2001) Success/failure feedback, expectancies, and approach/avoidance motivation: how regulatory focus moderates classic relations. *Journal of Experimental Social Psychology*, 37, 253–260.

Freitas, A.L. & Higgins, E.T. (2002) Enjoying goal-directed action: the role of regulatory fit. *Psychological Science*, **13**, 1–6.

- Freitas, A.L., Liberman, N. & Higgins, E.T. (2002) Regulatory fit and resisting temptation during goal pursuit. *Journal of Experimental Social Psychology*, 38, 291–298.
- Friedman, R.S. & Forster, J. (2001) The effects of promotion and prevention cues on creativity. *Journal of Personality and Social Psychology*, 81, 1001–1013.
- Galinsky, A.D., Leonardelli, G.J., Okhuysen, G.A. & Mussweiler, T. (2005) Regulatory focus at the bargaining table: promoting distributive and integrative success. *Personality and Social Psychology Bulletin*, 31, 1087–1098.
- Gebauer, J.E., Riketta, M., Broemer, P. & Maio, G.R. (2008) Pleasure and pressure based prosocial motivation: divergent relations to subjective well-being. *Journal of Research in Personality*, 42, 399–420.
- Graham, R.J. (1981) The role of perception of time in consumer research. The Journal of Consumer Research, 7, 335–342.
- Griskevicius, V., Tybur, J.M. & Van, D.B. (2010) Going green to be seen: status, reputation, and conspicuous conservation. *Journal of Personality and Social Psychology*, 98, 392–404.
- Haanpää, L. (2007) Consumers' green commitment: indication of a postmodern lifestyle? *International Journal of Consumer Studies*, 31, 478–486.
- Hansen, U. & Schrader, U. (1997) A modern model of consumption for a sustainable society. *Journal of Consumer Policy*, 20, 443–468
- Higgins, E.T. (1997) Beyond pleasure and pain. The American Psychologist. 52, 1280–1300.
- Higgins, E.T. (1998) Promotion and prevention: Regulatory focus as a motivational principle. In *Advances in Experimental Social Psychol*ogy, Vol. 30 (ed. by M.P. Zanna), pp. 1–46. Academic Press, San Diego, CA.
- Higgins, E.T. (2000) Making a good decision: value from fit. The American Psychologist, 55, 1217–1230.
- Higgins, E.T. (2002) How self-regulation creates distinct values: the case of promotion and prevention decision making. *Journal of Consumer Psychology*, 12, 177–191.
- Higgins, E.T., Idson, L.C., Freitas, A.L., Spiegel, S. & Molden, D.C. (2003) Transfer of value from fit. *Journal of Personality and Social Psychology*, 84, 1140–1153.
- Hines, J.M., Hungerford, H.R. & Tomera, A.N. (1986/1987) Analysis and synthesis of research on responsible environmental behaviour: a meta-analysis. *The Journal of Environmental Education*, 18, 1–8.
- Hoch, S.J. & Loewenstein, G.F. (1991) Time-inconsistent preferences and consumer self-control. *The Journal of Consumer Research*, 17, 492–507
- Homer, P. & Kahle, L.R. (1988) A structural equation test of the valueattitude-behavior hierarchy. *Journal of Personality and Social Psychology*, 54, 638–646.
- Hong, J. & Lee, A.Y. (2008) Be fit and be strong: mastering self-regulation through regulatory fit. *The Journal of Consumer Research*, 34, 682–695. Horizon 2020, http://ec.europa.eu/programmes/horizon2020/, consulted on July 23rd 2014.
- Idson, L.C., Liberman, N. & Higgins, E.T. (2000) Distinguishing gains from nonlosses and losses from nongains: a regulatory focus perspective on hedonic intensity. *Journal of Experimental Social Psychology*, 36, 252–274.
- Jackson, T. (2005) Motivating Sustainable Consumption: A Review of Evidence on Consumer Behavior and Behavior Change. A Report to the Sustainable Development Research Network. Policy Studies Institute, London. http://hiveideas.com/attachments/044\_ motivatingscfinal\_000.pdf (accessed on July 23rd 2014).

- Jacoby, J., Szybillo, G.J. & Berning, C.K. (1976) Time and consumer behavior: an interdisciplinary overview. *The Journal of Consumer Research*, 2, 320–339.
- Jain, S.P. (2003) Preference consistency and preference strength: processing and judgmental issues. *Journal of Applied Social Psychology*, 33, 1088–1109.
- Jain, S.P. & Maheswaran, D. (2000) Motivated reasoning: a depth of processing perspective. *The Journal of Consumer Research*, 26, 358– 371.
- Kahle, L.R. (1996) Social values and consumer behavior: research from the list of values. In *The Psychology of Values: The Ontario Symposium* (ed. by C. Seligman, J.M. Olson & M.P. Zanna), pp. 135–150. Lawrence Erlbaum Associates Publishers, Hillsdale, NJ.
- Kahneman, D. & Tversky, A. (1979) Prospect theory: an analysis of decision under risk. *Econometrica: Journal of the Econometric* Society, 47, 263–291.
- Kareklas, I., Carlson, J.R. & Muehling, D.D. (2012) The role of regulatory focus and self-view in 'green' advertising message framing. *Journal of Advertising*, 41, 25–39.
- Kinnear, T.C., Taylor, J.R. & Ahmed, S.A. (1974) Ecologically concerned consumers: who are they? *Journal of Marketing*, 38, 20–24.
- Kirmani, A. & Zhu, J. (2007) Vigilant against manipulation: the effects of regulatory focus on the use of persuasion knowledge. *Journal of Marketing Research*, 44, 688–701.
- Kronrod, A., Grinstein, A. & Wathieu, L. (2012) Go green! Should environmental messages be so assertive? *Journal of Marketing*, 76, 95–102
- Ku, H., Kuo, C., Wu, C. & Wu, C. (2012) Communicating green marketing appeals effectively. *Journal of Advertising*, 41, 41–50.
- Lee, K. (2008) Opportunities for green marketing: young consumers. *Marketing Intelligence & Planning*, **26**, 573–586.
- Liberman, N., Idson, L.C., Camacho, C.J. & Higgins, E.T. (1999) Promotion and prevention choices between stability and change. *Journal of Personality and Social Psychology*, 77, 1135–1145.
- Loewenstein, G.F. (1988) Frames of mind in intertemporal choice. Management Science, 34, 200–214.
- Luchs, M.G., Walker Naylor, R., Irwin, J.R. & Raghunathan, R. (2010) The sustainability liability: potential negative effects of ethicality on product preference. *Journal of Marketing*, 74, 18–31.
- McDonald, N.C. & Aalborg, A.E. (2009) Why parents drive children to school: implications for safe routes to school programs. *Journal of the American Planning Association*, 75, 331–342.
- Macnaghten, P. (2003) Embodying the environment in every day life practices. The Sociological Review, 51, 63–84.
- Mainieri, T., Barnett, E.G., Valdero, T.R., Unipan, J.B. & Oskamp, S. (1997) Green buying: the influence of environmental concern on consumer behavior. *The Journal of Social Psychology*, **137**, 189–204.
- Meyers-Levy, J. & Maheswaran, D. (1992) When timing matters: the influence of temporal distance on consumers' affective and persuasive responses. *The Journal of Consumer Research*, 19, 424–433.
- Moisander, J. (2007) Motivational complexity of green consumerism. *International Journal of Consumer Studies*, **31**, 404–409.
- Mowen, J.C. & Mowen, M.M. (1991) Time and outcome valuation: implications for marketing decision making. *Journal of Marketing*, 55, 54–62.
- Osterhus, T. (1997) Pro-social consumer influence strategies: when and how do they work. *Journal of Marketing*, **61**, 16–29.
- Paço, A., Alves, H. & Shiel, C. (2013) Development of a green consumer behaviour model. *International Journal of Consumer Studies*, 37, 414–421.
- Pham, M.T. & Avnet, T. (2004) Ideals and oughts and the reliance on affect versus substance in persuasion. *The Journal of Consumer Research*, 30, 503–518.

Pham, M.T. & Chang, H.H. (2010) Regulatory focus, regulatory fit, and the search and consideration of choice alternatives. *The Journal of Consumer Research*, 37, 626–640.

- Pickett-Baker, J. & Ozaki, R. (2008) Pro-environmental products: marketing influence on consumer purchase decision. *Journal of Consumer Marketing*, 25, 281–293.
- Pieters, R., Bijmolt, T., van Raaij, F. & de Kruijk, M. (1998) Consumers' attributions of proenvironmental behavior, motivation, and ability to self and others. *Journal of Public Policy & Marketing*, **17**, 215–225
- Pinto, D.C., Nique, W.M., da Silva Añaña, E. & Herter, M.M. (2011) Green consumer values: how do personal values influence environmentally responsible water consumption? *International Journal of Consumer Studies*, 35, 122–131.
- Prothero, A., Dobscha, S., Freund, J., Kilbourne, W.E., Luchs, M.G., Ozanne, L.K. & Thøgersen, J. (2011) Sustainable consumption: opportunities for consumer research and public policy. *Journal of Public Policy & Marketing*, 30, 31–38.
- Schlegelmilch, B.B., Bohlen, G.M. & Diamantopoulos, A. (1996) The link between green purchasing decisions and measures of environmental consciousness. *European Journal of Marketing*, 30, 35–55.
- Schwartz, S.H. (1977) Normative influence on altruism. In Advances in Experimental Social Psychology, Vol. 10 (ed. by L. Berkowitz), pp. 221–279. Academic Press, New York.
- Schwartz, S.H. (1992) Universals in the content and structure of values: theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology*, **25**, 1–65.
- Schwartz, S.H. (1994) Are there universal aspects in the structure and contents of human values? *The Journal of Social Issues*, **50**, 19–45.
- Shaw, D., Shiu, E., Hassan, L., Bekin, C. & Hogg, G. (2007) Intending to be ethical: an examination of consumer choice in sweatshop avoidance. Advances in Consumer Research, 34, 31–38.
- Simonson, I. (1992) The influence of anticipating regret and responsibility on purchase decisions. *The Journal of Consumer Research*, 19, 105–118.
- Steenhaut, S. & Van Kenhove, P. (2006) The mediating role of anticipating guilt in consumers' ethical decision-making. *Journal of Business Ethics*, 69, 269–288.
- Straughan, R.D. & Roberts, J.A. (1999) Environmental segmentation alternatives: a look at green consumer behavior in the new millennium. *Journal of Consumer Marketing*, 16, 558–575. [Online].
- Tanner, C. & Kast, S.W. (2003) Promoting sustainable consumption: determinants of green purchases by Swiss consumers. *Psychology and Marketing*, 20, 883–902.
- Thøgersen, J. (1999) The ethical consumer. Moral norms and packaging choice. *Journal of Consumer Policy*, **22**, 439–460.
- Thøgersen, J. (2004) A cognitive dissonance interpretation of consistencies and inconsistencies in environmentally responsible behavior. Journal of Environmental Psychology, 24, 93–103.
- Thøgersen, J. & Ölander, F. (2003) Spillover of environment-friendly consumer behavior. *Journal of Environmental Psychology*, 23, 225– 236.
- UNCED (1992) Agenda 21 and the UNCED Proceedings. Oceana Publications, Dobbs Ferry. United Nationa Environment Programme, http://www.unep.org/, consulted on July 23rd 2014.
- Valor, C. (2008) Can consumers buy responsibly? Analysis and solutions for market failures. *Journal of Consumer Policy*, 31, 315–326.
- Wright, P. & Weitz, B. (1977) Time horizon effects on product evaluation strategies. *Journal of Marketing Research*, 14, 429–443.
- Zelezny, L.C., Chua, P. & Aldrich, C. (2000) New ways of thinking about environmentalism: elaborating on gender differences in environmentalism. *The Journal of Social Issues*, 56, 443–457.