

Children's response to “ecofriendly” labelling: The role of self-concept clarity

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ABSTRACT

Research on adults has examined the effectiveness of social labelling on influencing consumption, especially ecofriendly consumption, and has proposed a self-concept-based mechanism to explain the effectiveness. Surprisingly, however, despite the growth in children's consumption autonomy at an earlier age and their influence on other family members and peers, social labelling effectiveness has scarcely been investigated among children. In addition, discussions of the mechanisms of social labelling have remained at a theorizing level. To address these gaps, this research shows that a nonintrusive ecofriendly social labelling protocol is effective at triggering preadolescents' pro-environmental dispositions and behaviours, thus eliminating the social dilemma that may come into play in this context. It also demonstrates the counterintuitive moderating role of self-concept clarity in this process, with preadolescents who display a clearer self-concept being more likely to act according to the label. These original findings have implications for public policy makers and follow-up research.

1. Introduction

Recent United Nations Climate Change Conferences have stressed that consumers' choices significantly contribute to greenhouse gas emissions and global warming. In turn, governmental policies, using a diverse set of instruments such as regulations, taxes and subsidies, information, and education, increasingly encourage environmentally conscious consumption choices. Yet, the effectiveness of these approaches remains insufficient, as evidenced by the [Intergovernmental Panel on Climate Change's alarming 2014](#) report. Fortunately, non-intrusive psychological approaches could provide worthy additional instruments for consideration ([Shogren, 2012](#)). For example, [Cornelissen, Dewitte, Warlop, and Yzerbyt \(2007\)](#) showed that labelling adults as “ecofriendly” facilitated the reattribution of previous behaviours to pro-environmental dispositions and led to a greater reliance on these particular dispositions in subsequent choices.

In contrast, the level of research on the promotion of children's environmental attitudes and behaviours remains more limited ([Collado & Corraliza, 2015](#)), though substantively important. First, the commitment to engage in pro-environmental activities (e.g., buying green products, recycling, conserving electricity) is lower in younger than in older generations (e.g., [Grønhøj & Thøgersen, 2009](#); [Otto & Kaiser, 2014](#); [Wray-Lake, Flanagan, & Osgood, 2010](#)). Second, childhood attitudes are likely to critically shape lifelong attitudes and behaviours toward the environment ([Chawla, 1999](#)). Third, as change agents,

children can influence their parents, siblings, and peers' attitudes and behaviours ([Ballantyne, Connell, & Fien, 2006](#); [Evans, Gill, & Marchant, 1996](#); [Larsson, Andersson, & Osbeck, 2010](#)). Nevertheless, pressuring children to behave in a specific way frequently backfires ([Goldberg & Gunasti, 2006](#)), which calls for nonpatronizing techniques, such as social labelling. Still, at this stage, children's potential response to “ecofriendly” labelling, and the identification of mechanisms explaining social labelling effectiveness have not attracted much theoretical attention in environmental psychology to date.

To fill these gaps, this research builds on social labelling theory ([Bem, 1972](#); [Kraut, 1973](#)) and proposes two experiments that show that labelling children as “ecofriendly” motivates pro-environmental dispositions and behaviours, especially among children scoring high on self-concept clarity. Though counterintuitive at first, as external means of influence are traditionally considered more effective among children scoring low on self-concept clarity ([Isaksen & Roper, 2008](#)), this finding sheds light on the long-lasting theoretical question of social labelling persuasion mechanisms while also offering noteworthy societal implications.

2. Conceptual framework and hypotheses

2.1. Social labelling

Social labelling is “a persuasion technique that consists OF

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providing a person with a statement about his or her personality or values (i.e., THE social label) in an attempt to provoke behavior that is consistent with the label” (Cornelissen et al., 2007, p. 279). Precisely, the individual integrates the personality traits associated with the label as representative of his or her basic self-concept (Bem, 1972), defined as the “individual’s thoughts and feelings having reference to himself as an object” (Rosenberg, 1979, p. 7). This integration leads to persistent changes in subsequent behaviours (Miller, Brickman, & Bolen, 1975).

Nevertheless, for the self-concept to be altered among adults, the label has to be perceived as plausible. A label is not effective if it is perceived as contradictory to what people think about themselves (Tybout & Yalch, 1980). To avoid such perceptions, experimenters rely on people’s actual behaviours or statements about behaviours to build a plausible label. As an illustration, Van der Werff, Steg, and Keizer (2014) justified an eco-friendly (resp. eco-unfriendly) label by using statements related to the 8 most- (resp. 8 least) performed environmental behaviours identified in a pre-test. Interestingly, behaviours or statements about previous behaviours that help justify the label plausibility do not need to be motivated by the trait stressed in the label. In Cornelissen et al. (2007) study, although participants may have selected the most ecological television set for its quality and price, stressing the prosocial dimension of this choice seemed to be sufficient for them to reconsider their original motivations due, at least in part, to pro-environmental dispositions. In addition, and in line with previous research conducted in a more general persuasion context (Baron, Baron, & Miller, 1973; Kumkale & Albarracín, 2004), Cornelissen et al. (2007) showed that social labelling needs a distraction task to be effective. When their protocol did not include any cognitive load, social labelling activated persuasion knowledge (Friestad & Wright, 1994), which led the individuals to reject the label (Burger, 1999).

2.2. Social labelling and children

Building on this literature, we argue that the effectiveness of social labelling techniques relies on two essential conditions. First, considering that changes in self-concept mediate such effectiveness implicitly assumes that the target has already developed his or her self-concept (Miller et al., 1975). Although this assumption seems reasonable with adults, it becomes an issue with children as self-concept tends to develop around the age of seven or eight (Leflot, Onghena, & Colpin, 2010) before increasing with age (Campbell et al., 1996). Children younger than seven could therefore experience difficulties behaving in a way that is consistent with a disposition that has been identified in them (Grusec & Redler, 1980), but preadolescents (7- to 12-year-olds) most likely have a developed self-concept. The second condition refers to the lack of persuasion knowledge, which is likely to limit reactions to the persuasion attempt behind the label. Preadolescents’ limited cognitive resources (John, 1999; Valkenburg & Cantor, 2001) could actually hinder the careful processing of persuasive message characteristics that trigger persuasion knowledge (Rozendaal, Buijzen, & Valkenburg, 2010; van Reijmersdal, Rozendaal, & Buijzen, 2012) and reactance (Grandpre, Alvaro, Burgoon, Miller, & Hall, 2003). As such, they also meet the second condition. Moreover, the reattribution to the self of the positive dispositions stressed by the label (Allen, 1982; Kraut, 1973) may be especially true among children, who aspire to see themselves as “good” to a greater extent than adults (Tasimi & Young, 2016).

Research conducted in the 1970s provides suggestive evidence that social labelling influences preadolescents’ behaviours. In Miller, Brickman, and Bolen’s (1975) pioneering study, the researchers successfully encouraged 10-year-olds to be tidier by repeatedly telling them that they were tidy over an eight-day period. Miller et al. (1975) also showed that exposing seven-year-olds to three different verbal comments related to their ability in math on different days encouraged them to persevere at school. A few years later, Grusec and Redler (1980) enhanced altruism in eight- and ten-year-olds after asking them to participate in an activity that later enabled them to stress altruism in

the preadolescents’ behaviours. In line with previous theoretical explanations, those two studies suggest that social labelling modifies children’s self-concept and leads to persistent behavioural changes. Those studies, however, used particularly extensive protocols, requiring a first behaviour or repeating the label a significant number of times over a certain number of days before measuring its effectiveness. This has limited large-scale application of the technique, though the theory enables us to postulate that the process does not require such a burdensome *modus operandi*. We therefore propose to replicate the previous results using a simpler “ecofriendly” label on preadolescents (7–12) and propose the following hypothesis:

H1. Children labelled “ecofriendly” will adopt more pro-environmental behaviours than those not labelled “ecofriendly.”

2.3. Social labelling and self-concept clarity

As mentioned previously, social labelling effectiveness relies on the reattribution of the dispositions stressed by the label to the self. As such, it would depend on individuals’ self-concept clarity, defined as “the extent to which self-beliefs are clearly and confidently defined, internally consistent and stable” (Campbell et al., 1996, p. 141). In this research, we argue that the higher the self-concept clarity is, the more effective the social label.

It may seem counterintuitive to assume that individuals scoring high on self-concept clarity will change their self-concept in consonance with social labelling because they are expected to be confident and to have clear and stable ideas about who they are. Yet, this is not as counterintuitive as it seems considering the following theoretical rationales.

Social labels do not act as external influencers but as an external recognition of internal dispositions reflected in previous behaviours (Summers, Smith, & Walker Reczek, 2016). As such, they also entail reattribution to self-concept and activate supposedly owned dispositions in children with a clear self-concept. This is consistent with Cornelissen et al. (2017), who explained that social labelling modifies the self-concept of adults who supposedly score higher on self-concept clarity than children.

The modified self-concept then results in stronger attitudinal and behavioural changes when individuals are able to think of themselves in terms of enduring personality traits (Grusec & Redler, 1980), i.e., when they score high on self-concept clarity. Individuals demonstrating a clear self-concept actually tend to display more awareness of their internal state (Campbell et al., 1996) and certainty about owning specific personality traits (Hogan, 1986). Their personality traits are also more consistent (Gersen & Morse, 1967) and stable over time (Rosenberg, 1965). Their beliefs about their self-concept are stored in a more articulated manner, making them more accessible and easier to process (Guadagno & Burger, 2007). They should therefore be more diagnostic of future behaviours. Just as the accessibility of attitude strengthens the link between attitude and behaviour (Morwitz & Fitzsimons, 2004), self-concept clarity should enhance “the use of a decision-making strategy that involves using the self to guide choice behavior” (Setterlund & Niedenthal, 1993, p. 769).

Consequently, individuals scoring high on self-concept clarity should rely more on their internal dispositions, notably those activated by social labelling, to decide on their behaviours. In contrast, individuals scoring low on self-concept clarity limit the use of their identity in decision-making because of self-confusion, anxiety, and indecisiveness (Brunot, Valéau, & Juhel, 2015; Setterlund & Niedenthal, 1993). They are more susceptible to others’ influence, such as branding and advertising (Isaksen & Roper, 2008), online recommendations (Lee, Lee, & Sanford, 2010), and celebrity influence (Reeves, Baker, & Truluek, 2012) and hence are less likely to use the internal dispositions activated by social labelling to guide their behaviours and should respond less accordingly.

Then, as self-concept clarity moderates the influence of these

dispositions on subsequent behaviours, we argue that a label applied to children displaying a clearer self-concept will be more effective than a label applied to children displaying lower self-concept clarity. Thus, we propose the following hypothesis:

H2. The effectiveness of an “ecofriendly” label increases with children's self-concept clarity.

We conducted two studies to test our conceptual framework. In a pre-study, we searched for confirmation for the effectiveness of an “ecofriendly” label at activating pro-environmental dispositions. Our main study extended this pre-study by investigating its effectiveness on actual pro-environmental behaviours in a real product choice setting to test *Hypothesis 1*. *Hypothesis 2* was tested by examining the moderating effect of self-concept clarity on the effectiveness of an “ecofriendly” label. Of note, the entire experimental protocol was approved by the authors' IRBs.

3. Pre-study

As a first exploration, we conducted a 2×1 (“ecofriendly label” vs. “no label”) between-subjects experiment in a Belgian primary school, as being surveyed in a familiar environment makes children more relaxed, open, and less self-conscious (Rust & Hyatt, 1990). Of note, 115 children attending different levels of primary classes were initially supposed to participate in the study. However, due to experimental mortality over the two weeks required to conduct the whole study, data collection eventually involved 108 children (54% girls) aged between 7.5 and 12.5 years ($\mu = 10$, $\sigma = 1.15$).

3.1. Procedure

A few weeks prior to the study, parents were informed that the school board had authorized scholars' gathering of information on subjects of interest to the children and that children would be invited to participate. All children involved had parental permission to participate and gave their own verbal assent. The environmental topic of the study was revealed only after the study to avoid parent-child discussions that could have artificially influenced our data collection.

During the introductory phase, one week before the manipulation took place, teachers collected an initial set of data, including children's environmental perceptions, using four items from Larson, Green, and Castleberry's (2011) ecoawareness scale (i.e., “Plants and animals are important to people,” “People need plants to live,” “Nature is easily harmed or hurt by people,” and “Plants and animals are easily harmed or hurt by people,” $\alpha = 0.74$). This scale was chosen because it has been proven to be a reliable and valid survey instrument to measure children's awareness of nature across a demographic range. Collecting children's environmental perceptions granted plausibility to the label applied during the manipulation phase. The questionnaire also included several filler unrelated preferences (e.g., “I like mathematics,” “I like to play sports,” and “I enjoy reading”).

During the manipulation phase, the experiment took place in a specific room assigned by the school. Children were randomly assigned to the social labelling or the control condition and welcomed in small groups by two researchers. One researcher then thanked the children for their answers to the questionnaire they filled in a week before and presented them a cover story about what the research team was interested in by collecting their answers to this first questionnaire, namely, to learn about children's current interests and opinions on a variety of topics, such as preferences for school subjects or hobbies. The same researcher finally added one single sentence to this general introduction to apply the label to the children in the social label condition. Using the exact same wording across classes, this researcher stated that from the first questionnaire, the research team identified “how respectful of nature and how attentive to protect the environment they were”. After the manipulation, children were asked to report “the extent to which

the following listed things counted for them” to be used as a measure of pro-environmental dispositions. The list included six pro-environmental behaviours inspired by Collado and Corraliza's (2015) scale specifically developed for children (i.e., “Turn off the light when leaving a room,” “Close the tap while soaping my hands,” “Throw cans in the ‘good’ trash can,” “Walk rather than go by car when possible,” “Not waste natural resources,” and “Save water by taking a shower rather than a bath,” $\alpha = .70$). The two researchers ensured that the children fully understood all items and provide personal answers to individual questions.

All constructs were measured using four-point Likert scales (i.e., YES, yes, no, and NO), as recommended (Peracchio & Mita, 1991) and successfully done with children in previous research (e.g., Achenreiner & John, 2003; Collado, Evans, & Sorrel, 2017; Goldberg, Gorn, Peracchio, & Bamossy, 2003; John, Sternthal, & Calder, 1983; Rossiter, 1977). Checks revealed that the constructs displayed unidimensionality and satisfactory reliability. The data collected in the introductory phase showed no significant differences across the participants randomly assigned to one or the other condition during the manipulation phase in terms of age ($F_{(1,106)} = 0.06$, $p = .81$), gender ($\chi^2_{(1)} = 0.68$, $p = .70$), and environmental perceptions ($F_{(1,106)} = 0.43$, $p = .51$).

3.2. Results

A one-way analysis of variance of children's pro-environmental dispositions measured during the manipulation phase revealed that the manipulation had a significant effect ($F_{(1,103)} = 4.92$, $p < .05$, $\eta^2 = 0.046$). This analysis controlled for children's environmental perceptions (as measured in the introductory phase), gender, and age, as these variables are likely to influence children's pro-environmental dispositions (Collado, Evans, Corraliza, & Sorrel, 2015). As expected, participants in the label condition displayed greater pro-environmental dispositions ($M = 3.40$ out of 4) than those in the control condition ($M = 3.22$, Cohen's $d = 0.35$). Thus, corroborating our rationale for *Hypothesis 1*, labelling children as “ecofriendly” increased children's pro-environmental dispositions.

4. Main study

To extend the pre-study results and test our conceptual framework, we conducted a new 2×1 (“ecofriendly label” vs. “no label”) between-subjects experiment in a different Belgian primary school to ensure that the samples used in the two studies were independent. Of note, 82 children were involved in the manipulation phase. However, due to experimental mortality over the three weeks required to conduct the entire study, data collection eventually involved 74 children (46% girls) aged between 7.5 and 12.5 years ($\mu = 10$, $\sigma = 1.17$).

4.1. Procedure

Our procedure to inform parents and gather their approval, as well as their children's approval, was identical to that used in the pre-study.

During the introductory (i.e., one week before the manipulation took place) and the final phases (i.e., one week after), teachers collected sets of data, including a measure of children's self-concept using one item of each of the five dimensions of van den Bergh and van Ranst's (1998) self-concept scale (e.g., “I do well at sports” and “I act as is expected”). Following Campbell's recommendation (1990), we measured self-concept clarity as the stability in children's self-descriptions considering the difference in self-concept between the items collected in the introductory and the final phases. We coded 0 for a child who scored exactly the same on the five items measured in the introductory and the final phases. As the scales were four-point scales (with no neutral point), we considered the change in valence between the two phases (e.g., changes between 2 and 2, or 1 and 4). We added a point for every step of change in valence (e.g., +1 for a change from 2 to 3, +2 for a change from 1 to 3, +3 for a change from 1 to 4) to the result



Fig. 1. Alternatives offered to the children.

of the subtraction between the two phases. We then averaged these five scores for each child to obtain a score of self-concept clarity (from 0 to 2.6, mean = 0.54, $\sigma = 0.51$, see the distribution on Fig. 1). Considering that this score is computed as the difference between the two phases, the lower the score is, the clearer the self-concept. During the introductory phase, the teachers also collected children's environmental perceptions, as measured in the pre-study ($\alpha = 0.62$).

In the manipulation phase, children were welcomed into a dedicated room by two researchers who randomly applied the same manipulation as that used in the pre-study. They answered filler non-related questions and chose between a blue “recycled notebook” displaying an unknown brand and a blue notebook displaying the popular brand “Clairefontaine” (see Fig. 1) in return for their participation. Notebooks appeared side by side, randomly presented on the right or the left of the questionnaire. In the manipulation phase, children also answered nonrelated questions about several general preferences.

As in the pre-study, all constructs were measured using four-point Likert scales. The data collected during the introductory phase showed no significant differences across participants randomly assigned to one or the other condition during the manipulation phase in terms of age ($F_{(1,72)} = 0.30$, $p = .59$), gender ($\chi^2_{(1)} = 0.18$, $p = .67$), environmental perceptions ($F_{(1,72)} = 0.51$, $p = .48$), or self-concept clarity ($F_{(1,72)} = 0.33$, $p = .57$).

4.2. Results

The following analyses controlled for children's environmental perceptions (as measured in the introductory phase), gender, and age, as these variables are likely to influence self-rated pro-environmental behaviours (Collado et al., 2015).

To test Hypothesis 1, first, a binary logistic regression revealed that the “ecofriendly” label had a significant effect on the choice of recycled notebook (Wald's $\chi^2 = 6.05$, $p < .05$, OR = 3.35; Nagelkerke $R^2 = 0.11$). Two-thirds of the labelled children (i.e., 21 of 34) chose the recycled notebook, whereas only one-third of the non-labelled children did so (i.e., 13 of 40), corroborating Hypothesis 1 on actual pro-environmental behaviours and thus extending the pre-study results.

To test Hypothesis 2, we ran a new binary logistic regression, including an interaction between the manipulation and children's self-concept clarity considered as a continuous variable. The regression revealed that the choice of the recycled notebook was significantly influenced by the “ecofriendly” label (Wald's $\chi^2 = 7.98$, $p < .05$) and

marginally by its interaction with self-concept clarity ($\beta = 1.93$; Wald's $\chi^2 = 3.00$, $p < .09$; Nagelkerke $R^2 = 0.17$). A floodlight analysis was then conducted using Johnson and Neyman's (1936) technique to identify the self-concept clarity region in which the “ecofriendly” label significantly increases the choice of the recycled notebook. Among children displaying the clearer self-concept (mean difference between items measuring self-concept in the introductory and the final phases below .66, $\beta_{JN} = 1.01$, $t = 1.96$, $p = .05$), the “ecofriendly” label significantly and greatly increased the choice of the recycled notebook (Wald's $\chi^2 = 4.35$, $p < .05$, OR = 9.69; Nagelkerke $R^2 = 0.17$). More precisely, among the children displaying the clearer self-concept, 69% of the labelled children (i.e., 18 of 26) chose the recycled notebook, whereas 37% of the non-labelled children did so (i.e., 10 of 27). Such an effect did not appear among children displaying lower self-concept clarity, corroborating Hypothesis 2. Fig. 2 displays this interaction (note that it distinguishes two levels of self-concept clarity for the sake of a better communication of our results, but the floodlight analysis considered it as a continuous variable).

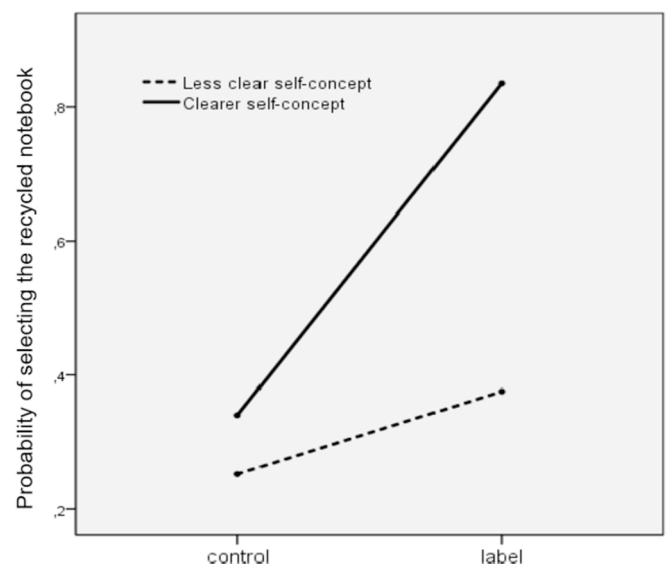


Fig. 2. Interaction between label and self-concept clarity.

5. Discussion

This research aimed to corroborate the proposition that labelling children as “ecofriendly” using a very light protocol enhances their pro-environmental behaviours, thus demonstrating the self-concept-mechanism of social labelling.

Two experiments showed that pro-environmental behaviours counted more for labelled children than for non-labelled children (see pre-study) and were actually more adopted by the labelled children than by the non-labelled children (see main study). Labelled children indeed selected the notebook displaying the ecofriendly unknown brand significantly more often than an attractive control option, i.e., a heavily TV advertised brand children are likely to prefer (Brucks, Armstrong, & Goldberg, 1988; Roberts & Pettigrew, 2013). As such, we first extended to a pro-environmental setting the research conducted in the 1970s (i.e., Grusec & Redler, 1980; Miller et al., 1975) that provided seminal evidence that social labelling influences preadolescents' behaviours. In addition, we extended Cornelissen et al.'s (2007) preliminary evidence that social labelling effectively promotes pro-environmental behaviours in a target group of children, a relevant but challenging target group. Indeed, achieving behavioural changes in children in a domain like the protection of the environment is considered particularly demanding. If pro-environmental behaviours benefit society in the long run, they often imply sacrificing personal resources such as money, time, or effort in the short run. This social dilemma (Pieters, Bijmolt, van Raaij, & de Kruijk, 1998; Rothschild, 1979) appears hardly motivating for young targets. Children indeed experience difficulties in waiting an additional time to eat a biscuit, even though it means enjoying more biscuits (Mischel, Shoda, & Rodriguez, 1989), and adolescents find long-term benefits hardly motivating (Pechmann, Zhao, Goldberg, & Reibling, 2003). It nevertheless seemed important to demonstrate the potential of social labelling among this age group, as preadolescents display autonomy in their choices (Palan, Gentina, & Muratore, 2010) and prefer goods they have selected themselves (Freeman & Brucks, 2002). When advertising and social pressure fail to persuade children, who display higher self-concept clarity (Isaksen & Roper, 2008; Lee et al., 2010; Reeves et al., 2012), our research shows that social labelling might work. Furthermore, no negative spillover effect, which is the tendency to behave poorly after accumulating some “moral credits” from previous good actions (Tasimi & Young, 2016), was observed here.

Interestingly, this research also showed that the clearer the self-concept is, the more susceptible children are to comply with the label. Beyond mere common sense arguing that a non-malleable substance will not produce reliable changes (Isaksen & Roper, 2008), our result is appealing and sound and supports Summers et al.'s (2016) conceptualization of the label as an external recognition of the individuals' internal dispositions and not as an external influence. This result provides the first empirical evidence to Grusec and Redler's (1980) suggestion that social labelling reattribution-based mechanisms result in behavioural changes only when individuals are able to think of themselves in terms of enduring personality traits. Although it could have come as counterintuitive in the first place, social labelling effectiveness requires self-concept clarity. This result sheds light on the long-lasting theoretical question of social labelling persuasion mechanisms.

Going further, the protocol used to manipulate social labelling was very light, as it involved only a short questionnaire including children's environmental perceptions to grant plausibility to the label supposed to be applied one week after. As such, we demonstrated that heavy labelling protocols, as implemented by Miller et al. (1975) or Grusec and Redler (1980), are not necessary for the label to be effective among children. Additionally, we demonstrated that distraction tasks (Cornelissen et al., 2007) are not necessary. Clearly, social labelling seems a very relevant technique to be used among a target group of children, as their limited cognitive resources (John, 1999; Valkenburg & Cantor, 2001) are likely to hinder the careful processing of persuasive

message characteristics that trigger persuasion knowledge (Rozendaal et al., 2010; van Reijmersdal et al., 2012). Still, later cognitive developments may raise persuasion knowledge (van Reijmersdal et al., 2012) and reactance (Grandpre et al., 2003). More research is therefore needed to identify the age at which social labelling effectiveness decreases and test solutions to limit the perception of any persuasive attempt.

Our findings are not based on a large-scale, multi-country data collection. Even if the children we surveyed are representative of Belgium pupils, replication studies could examine the moderating influence of alternative school contexts (e.g., private vs. public and privileged or not) and other cultural settings. Campbell et al. (1996) showed that different cultural backgrounds can influence the level of self-concept-clarity. Furthermore, it might be interesting to compare the effectiveness of social labelling versus self-labelling, as implemented by Van der Werff et al. (2014). Instead of being labelled by a third party, children could fill out a questionnaire precisely built for them to express and visualize their own pro-environmental dispositions, which could further lead them to label themselves as “ecofriendly”. We could then test whether self-labelling could be more effective than social labelling. On the one hand, it could be perceived as more plausible and hence more effective, but on the other hand, we do not know whether children are able to label themselves. Last, studying the relative effectiveness of social labelling in comparison or in conjunction with more classical means of influence could provide relevant insight for public policy makers involved in the issue. As such, while offering interesting theoretical and noteworthy societal implications, this paper also stimulates follow-up research on the effectiveness of social labelling among children.

It is worth noting that we took several steps to avoid demand effects (Sawyer, 1975) or reduce their potential to influence our results. First, we used a between-subjects design, included filler questions between labelling of the children and product choice and doubled the measure of children's pro-environmental responses, using pro-environmental dispositions in the pre-study and an actual product choice in the main study. Second, we justified product choice as a legitimate and non-questionable return for children's participation, which had been pre-announced by teachers. Third, children were under 12 years of age, and a clear understanding of persuasive attempt does not fully mature before that age (Rozendaal et al., 2010; van Reijmersdal et al., 2012). Finally, had children recognized our manipulative intent, they would have reacted to disconfirm the label, especially children scoring high on self-concept clarity, who are less susceptible to others' influence (Isaksen & Roper, 2008; Lee et al., 2010; Reeves et al., 2012). Showing the exact opposite, our experimental findings ruled out the likelihood of a demand effect driving our results. In the same perspective, we rejected the alternative explanation that priming may explain our findings. Priming directly enhances the salience and accessibility of the concept of environmental protection in subjects' mind, where individuals' self-concept does not play a role (Tate, Stewart, & Daly, 2014). Demonstrating the moderating influence of self-concept clarity in the process ruled out the priming explanation.

Finally, ethical concerns often arise when children are the target of persuasion. As do many stakeholders when prosocial objectives are at stake, we adopted a teleological perspective that considered the consequences of each and every step of the studies we conduct (Charry, Pelsmacker, & Pecheux, 2014). In this perspective, although the question of the effectiveness of negative labels appeared theoretically relevant and interesting as literature suggests that negative labels may have positive impact under certain circumstances (e.g., DeJong, 1979; Gueguen, 2001; Kraut, 1973), we did not manipulate negative labels. Negatively labelling children in an experimental setting does not appear ethically desirable as preadolescents are still constructing their identity. Consequently, research revolving around their self-concept should be particularly cautious to avoid any negative drawbacks. Furthermore, praising techniques, such as social labelling (Grusec & Redler, 1980),

help developing skills (Schunk, 1994), intrinsic motivation and self-esteem (Koestner, Zuckerman, & Koestner, 1987). This advocates for the use of social labelling as an additional support to education and more traditional communication tools. Still, we suggest to always explicitly question the ethical aspects of children labelling in future research.

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