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How National Culture and Parental Style Affect the Process of Adolescents’ Ecological Resocialization

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Abstract: The role of adolescents as influencers on their families’ environmental behavior is potentially a catalyst for change towards increasing eco-friendly actions. In this paper, the authors report on a cross-cultural study of ecological resocialization in France and India. Using in-depth dyadic interviews, they investigated parental styles, cultural attributes and extent of adolescents’ influence over parental eco-behavior. The study reveals that ecological resocialization across countries differs substantially, according to a combination of national cultural values, parental style and influence strategy. French teens exhibit a greater impact than Indian teens on their parents’ eco-behavior and use bilateral influence strategies. In India, not all mothers engage in ecological resocialization, but those who do are susceptible to unilateral strategies. The role of environmental knowledge, and the context and effectiveness of each kind of strategy is discussed. The findings have implications for how public policy officials and agencies can encourage adolescents as key resocialization agents to influence their parents’ pro-environmental consumption by using the most adapted influence strategy across cultures.

Keywords: ecological resocialization process; parental styles; influence strategies; cross-national; adolescent consumers
1. Introduction

Educators, marketers, public policy makers, and nongovernmental organizations need to understand the impact of national culture on teenage environmental behavior. Nearly 2.5 billion people, or one third of the world’s population, are expected to be younger than 18 years by 2020 [1]. According to Eurobarometer surveys, European supporters of environmental protection tend to be younger in age [2]—seventy-five percent of European teens claim to adopt pro-environmental habits, and may know more than their parents about the environment [3]. This knowledge may be partly due to environmental education in schools and issues discussed in the media [4]. In a different cultural context, Singh [5] found a similar picture: Asian adolescents initiate environmental changes amongst their communities towards a more sustainable lifestyle. In India, for instance, the government has acknowledged the potential of adolescents as agents of change and made environmental education compulsory in school [6]. Nevertheless, teenage pro-environmental behaviors remain under represented in cross-cultural consumer research.

Prior research on adolescents’ environmental behaviors focused largely on the United States (e.g., [7]), with additional studies beginning to emerge in other cultures, including Australia [8], Europe [9], and Asia [10]. This focus on teenage pro-environmental behaviors within singular nations has left issues regarding the impact of national culture on environmental behaviors largely unaddressed.

To address these gaps, this research examines the effect of national culture in India and France on ecological resocialization processes and adolescents’ use of influence strategies. India and France are different in their environmental preoccupations. Contrary to developed European countries, India has experienced dramatic growth in fossil-fuel CO₂ emissions, averaging 5.7% per year from 1950 to 2008, and has become the world’s third largest fossil-fuel CO₂-emitting country [5]. According to a recent study, India has recently made rapid progress in addressing its environmental issues through environmental education and improving its environmental quality [5]. France currently ranks 4th worldwide by size of the eco-industry sector and faces two major environmental issues: the need to reduce gas emission from households, buildings and transports as well as energy dependency on non-renewable sources. Fifty-one percent of the French know the concept of “sustainable development”, compared to 30% in 2004 [11]. India and France are also different in their cultural dimensions. Hofstede [12] characterizes France as a highly individualistic and feminine national culture, with low power distance. In contrast, the Indian national culture is characterized as collectivist and masculine, with high power distance [12]. How adolescents (un)successfully engage in ecological resocialization in these two distinct cultures is the focus of this paper. To tease out these differences, parental styles (warmer versus cooler parents) are examined. Similarities and differences in parents’ eco-behaviors in two nations and their impact on influence strategies are further assessed.

2. Literature Review

2.1. The Impact of Culture on Ecological Resocialization

Consumer socialization is the process in which consumption-related skills, knowledge, and attitudes are transferred from one generation to another [13]. Socialization in general refers to the introduction of children into an existing social group, enabling them to adopt approved behaviors and values [14]. If we consider environmental values, the social group into which adolescents are socialized may not actually
be competent in this field—adolescents for many reasons (school, media, peers, Internet) may be more knowledgeable than their parents [4]. This adds an extra dimension to the normal flow of information between children and parents. While teenage consumer socialization [13,15] and reverse socialization [16,17] have been extensively addressed in consumer behavior literature, the topic of ecological resocialization has been less frequently considered [7,18]. Ecological resocialization refers to adolescents’ influence over their parents’ behavior with specific reference to environmental actions, e.g., reducing domestic electricity or water consumption, not littering, using modes of transportation other than cars, buying green items, and so on [9].

Increasing environmentally friendly behavior per se is a key concern in many countries [18] and private households in particular account for a large proportion of society’s environmental impact [19]. Thus, efforts to reduce environmental degradation have to bring about environmentally friendly changes in the day-to-day behaviors of individuals [20], as well as make the family a crucial component of any environmental program [21]. As Yang et al. [22] point out, family interactions are culturally specific, indicating a need to address cross-cultural issues inherent in reverse socialization.

National culture pervades all aspects of life, frames cultural perceptions [12], and impacts significantly on consumer behavior [23]. Although some socialization issues may be universal (e.g., parents from all societies must nurture their children and educate them to become skilled consumers), both cultures and parents differ in the way they proceed to promulgate these goals [24,25]. Individualistic countries, such as France, encourage independence, self-reliance and self-expression whereas collectivist countries, such as India, value social relationships, obedience, reasoned control and authority [12]. Despite the important role of culture in consumer socialization [26,27], it is surprising to note the large gap in the literature on the ecological resocialization process in different cultures. Recently, studies on ecological resocialization have been centered on singular nations (e.g., [8,9,28,29]), but such studies offer mixed results. Grønhøj [29] found no evidence that Danish adolescents directly influence their parents to purchase green products or decrease energy consumption. In contrast, research from the US [30,31], Europe [9,32], Australia [8] and Asia [10] have shown some effects of intergenerational learning and influence from children to their parents related to environmental issues. Twenty years ago, a cross-cultural study between Denmark, France, Portugal and the UK found that adolescents have a limited influence on their parents’ pro-environmental behaviors [33]. In a meta-analysis of studies from five countries (England, Costa Rica, Australia, Canada, and the United States), Duvall and Zint [34] found support for ecological resocialization and recommended the involvement of parents and the importance of focusing on local environmental issues to foster engagement. Nevertheless, the strategies and lines of argument employed by adolescents in negotiations with their parents over issues of ecologically oriented consumption are relatively unexplored, as is the key role of parental styles underlying the ecological resocialization process.

2.2. Parental Style and Cross-Cultural Contexts

Of the different socialization agents, parents are the primary and most significant agent of socialization in teenagers’ acquisition of knowledge, attitude and behavior regarding tobacco, alcohol, illegal drugs, sexual matters [35] and environmental issues [29]. Parental style refers to the educational methods parents use to socialize their adolescent, each of which influences the way the adolescent is
perceived in the family and accepted as a skilled consumer [36]. Maccoby and Martin [37] identified two dimensions of parental style: demandingness and responsiveness. Demandingness reflects the extent to which parents demand maturity, supervision, and discipline, while responsiveness reflects the extent to which parents show affective warmth, acceptance, and involvement. The combined dimensions yield a four-fold classification of parental styles: authoritarian, neglectful, authoritative and permissive. Table 1 presents a description of these four parental styles.

Table 1. Parental style definitions.

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<thead>
<tr>
<th>Parental Style Definition</th>
<th>Warmer parents</th>
<th>Cooler parents</th>
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<tbody>
<tr>
<td><strong>Authoritative</strong></td>
<td>Equity between parents and children.</td>
<td><strong>Authoritarian</strong></td>
</tr>
<tr>
<td><strong>Permissive</strong></td>
<td>Equal rights between parents and children. No restraints, freedom</td>
<td><strong>Neglectful</strong></td>
</tr>
</tbody>
</table>

This typology is used extensively to examine the role of parental style in adolescents’ consumption-related behaviors. Researchers have shown that authoritative and permissive parents grant more consumption independence to adolescents and engage in more reciprocal communication about consumption than authoritarian and neglectful parents. Research has shown the universal application of these parental styles across Western and non-Western cultures [38]. Nevertheless, the parental practices and prevalence of a particular parental style may differ depending on the cross-cultural context [39,40]. Parental styles, such as authoritative and permissive, have been found in individualistic countries, where self-expression, egalitarian relationships and independence are valued. In contrast, the remaining two parental styles, authoritarian and neglectful, which foster the highest degree of dependence and obedience, are more consistent with collectivist countries [36,41,42].

2.3. Adolescents’ Use of Influence Strategies

One facet of socialization involves learning how to become a competent agent of influence through the use of sophisticated influence strategies [15]. Palan and Wilkes [43] produced seven influence strategies, which have been used in subsequent research studies [9,22]: bargaining, persuasion, emotional, request, expert, legitimate and directive. Literature suggests that these strategies can be classified into two categories: unilateral and bilateral strategies [44]. The former is one-sided, whereas the latter is bidirectional and dynamic [45]. Typical unilateral strategies refer to direct request, stubborn persuasion, stopping eating, and playing on emotions while typical bilateral strategies include bargaining, reasoning, sweet talk and coalition [44].

The use of influence strategies may differ depending on culture or parental style. Recent studies have shown that bilateral influence strategies are more often used when parents and adolescents develop egalitarian relationships. Compared to Eastern cultures, adolescents from Western cultures use less unilateral but more bilateral strategies [9,22]. It is argued that authoritative and permissive parents provide ample freedom to children to be responsive, autonomy seeking and self-expressive; which in turn leads to higher levels of two-way communication and bilateral influence strategies [22,44,46]. On the other hand, authoritarian parents restrict opportunities for two-way communication and the
emphasis is more on conformity, self-suppression and obedience, which limits the possibility for using bilateral strategies [22]. Such recent studies have examined the effects of parental style and culture separately. Our research investigates the question of how both parental style and culture may combine to understand better adolescents’ use of influence strategies and ecological resocialization processes.

3. Methodology

3.1. Sample

Foxman et al. [47] criticize parent–child interaction studies for focusing only on the parent or only on the adolescent. There have been relatively few studies that have involved both parents and adolescents (e.g., [48–50]). Thus, there is a need for more research that includes responses from both generations. In this study, adolescents and their mothers were interviewed. We focused on mothers rather than fathers for several reasons. First, mothers in general tend to represent the emotional anchor and the parent more involved in parenting [51]. Second, mothers rather than fathers are generally considered the primary source of socialization, specifically for pro-environmental practices [52]. We use the term “adolescents” in our study, which encompasses young people from the age of 13 years to 18 years. We base this age span on two factors. First, cognitive development psychology [53] and corresponding findings [15] indicate that there is an ongoing development of young people in the process of the acquisition of cognitive and social knowledge. Unlike the concrete operational stage (3–7 years) and the analytical stage (7–11 years), the reflective stage (12–18 years) is characterized by further cognitive and social development, as adolescents develop more sophisticated decision-making skills [15]. There is a distinct shift in environmental orientation to a more reflective way of thinking and reasoning, as children move into adolescence and are able to understand the complexities of ecological systems. Unlike children in early grade school who are emotionally concerned with nature, adolescents develop a more factually-based orientation towards the natural environment [7,54].

A convenience sample of 24 dyads of mothers and their adolescents was obtained (12 dyads from urban areas in India and 12 from an urban area in France). The samples showed equivalence, in that age of mothers, age and gender of adolescents, and social class were broadly similar when comparing the French and Indian participants [55]. The average age of the adolescents was 14.8 years and the majority of them came from a middle class background. All lived with their parents, and 20 of the 24 also lived with siblings (see Table A1 for details of participants).

3.2. Interview Process

In-depth dyadic interviews with French and Indian participants took place at the family home. Interviews were conducted in the local language by the first and second authors in France and India, respectively. Interviews of mothers and adolescents were undertaken separately to avoid any potential bias induced by the presence of the other dyad member. The interviews were conducted until theoretical saturation was reached [56], which provided a thorough understanding of ecological resocialization processes in India and France. The interview guides used in France and India covered similar topics: (1) the adolescent–mother relationship, including parental style; (2) environmental knowledge; (3) adopted environmentally friendly behaviors and impact of these behaviors on mothers; (4) influence
strategies used by adolescents; and (5) effectiveness of these influence strategies. At the end of each interview, Carlson and Grossbart’s [41] parental style scale was administered to the 24 French and Indian mothers. A back-translation method was used to translate the interview guide from French to English, to Hindi and back to English, then French, in order to ensure the idiomatic equivalence of the two versions [57]. Interviews ranged from 60 to 90 min in length, all were audiotaped and transcribed by native French and Indian researchers who possess a good knowledge of the English language, producing 600 typed pages of data.

3.3. Coding and Theme Development

Qualitative data from the interviews were analyzed using a grounded theory approach [58], an inductive analytical process. Researchers carried out several readings of all the interviews in order to proceed on codification together. Researchers fluent in English independently read each verbatim transcript to identify a list of codes and interpreted the textual data. Codes were then combined according to theoretical links to obtain themes. These themes were then applied to the data during the process of open coding. To assess the validity and reliability of the coding, six independent coders (three native French speakers and three native Hindi speakers), unfamiliar with the purpose of the study, independently coded the interview transcripts in their original language, using the coding guide prepared by the researchers. The proportional reduction in loss (PRL) measure [59] was used to calculate the overall intercoder reliability. The PRL values of 0.94 (for interviews with French participants) and 0.96 (for interviews with Indian participants) were well above the 0.70 threshold required for exploratory work.

4. Findings

The analysis of the dyad interviews highlights that differences in both cultural values, between India and France, and parental styles (warmer versus cooler parents) combine to shape the way adolescents influence their parents’ pro-environmental behaviors through the use of specific influence strategies. Excerpts are denoted with “F” or “I” to indicate the informants as French or Indian, respectively.

4.1. Impact of National Culture on Parents’ Ecological Resocialization

As the following quotations illustrate, French adolescents (9 of 12) have greater relative influence on their parents’ environmental behaviors than their Indian counterparts (3 of 12), suggesting ecological resocialization may be more common in individualistic countries than in collectivist countries. This result coincides with prior cross-cultural socialization research, which shows that parents from individualistic cultures, such as France, pride assertiveness, encourage their adolescents to be self-expressive and acknowledge their influence [9,42]. In contrast, parents from collectivist cultures, such as India, consider adolescents as too immature to make their own decisions [60] and exert control over their adolescents’ attempts at influence [61–63].

“I think my participation in environmental protection influences my mother to participate too. I give advice to my mom, for example, wearing extra clothing instead of turning up the heating, turning off the light, or selecting products with green labels.” (F, Maho, 18)
“Well no I don’t think she influences my behavior. She does tell me things and I listen to them but I don’t follow as she still has to learn a lot to be able to teach me and above all it’s a job of the mother to teach and that’s what I do.” (I, Sai’s mother)

Similarities and differences in influencing mothers’ pro-environmental behavior have been observed in both countries. Indian and French adolescents report that they influence their mothers regarding a range of environmental behaviors including reducing water and energy consumption, recycling, and not littering. Data further reveal that, in contrast to Indian adolescents, French adolescents have been found to have a key role in purchasing green products. This difference in purchase behavior between France and India may be due to adolescents from individualistic countries acquiring more competence in the market compared with adolescents from collectivist countries [42].

“I give some environmental advice to my mother, she listens to me for many aspects such as saving water, not consuming too much water, not dropping litter… When I go into a grocery store, I convince her to buy some environmentally friendly products even if they are expensive. I try to bring some arguments and my mom bought these products. I have an influence on the green products.” (F, Julie, 16)

“I don’t know anything about environmental friendly products, I have never thought about such products, and I have never bought such products.” (I, Panna, 15)

These results indicate a key research question: Which factors lead to ecological resocialization in different cultures? Our findings highlight how both parental styles and culture combine significantly to impact adolescents’ ecological resocialization process and the use of specific influence strategies.

4.2. Cross National Differences in Parental Style and Ecological Resocialization

The parental style results derive from the interviews and from the parental style scale [41]. Consistent with most prior studies which have shown the universal application of parental styles in Western and non-Western cultures [22,42], we found existence of similar parental styles in France and India with different parental practices. Nevertheless, India and France may differ in the prevalence of a particular parental style and associated parental practices (see Table A2 for the illustration of parental styles).

Typically, French parents report to be dominantly authoritative and permissive in their parental style (warm, 7 of 12) with their adolescents, as described by Carlson and Grossbart [41]; e.g., accepting orientation, child centeredness, use of explanation and reasoning. Findings reveal that French mothers are receptive to their adolescents’ endorsement of environmentally friendly habits, regardless of who is more knowledgeable. In our sample of mothers from India, 5 of 12 mothers exhibit a traditionally Western warm parental style. As collectivist cultures value hierarchy and obedience, Indian warm mothers mention that they are reluctant to submit to their adolescent’s influence, unless they consider their adolescent as more environmentally knowledgeable than themselves. Nevertheless, most of the Indian mothers (7 of 12) exhibit coolness in their relationships (i.e., authoritarian) and report less willingness to learn from their adolescents, preferring to maintain a level of control over them, even if their adolescent is more knowledgeable about environmental issues than themselves.

An evaluation of consumer socialization by John [15] suggests that focusing on parental style alone is not sufficient to understand in depth teen consumer effectiveness as agents of (re)socialization. Our
findings highlight the key role of specific influence strategies in order to understand the effectiveness of resocialization processes across cultures.

4.3. Combination of Parental Styles and Cultures on Influence Strategies

Five strategies identified by Palan and Wilkes [43], namely, bargaining, expert, persuasion, emotion and request, provide a theoretical framework for understanding the different strategies adolescents use to influence their parents across cultures. Findings highlight that both culture and parental styles affect influence strategies used by adolescents to sway their parents’ environmental behaviors. Table A3 and Table 2 illustrate and synthesize the main influence strategies and ecological resocialization effects depending on culture (France/India) and parental style (warmer/cooler).


Our findings reveal that three bargaining strategies emerge among French adolescents with authoritative and permissive mothers (7/12), who score higher in warmth: money deals, other deals and reasoning.

With money deals, such as “if you do this, you will be paid for that”, parents reward their adolescents if they adopt pro-environmental behaviors at home. Consistent with research showing that individualistic countries favor the power granting benefit of money [64], and French parents encourage their adolescents to earn their money [65], French participants indicate using money deals, which is rare for Indian adolescents.

“When I work for the house, I mow the lawn, take the garbage out, my parents give me some pocket money because I work for the house and the wellbeing of the environment.” (F, Alice, 14)

Both French and Indian adolescents with warm parents refer to other deals (e.g., trade-offs), but Indian teens are less likely to use such strategies to influence their parents. In contrast, French teens think that their parents would probably never engage in pro-environmental behavior without such deals.

“Sometimes I say ‘if you do not take the car when you shop downtown, I will pay more attention on the consumption of water at home. For instance, I will take a shower instead a bath’. I know that it is blackmail, but it works.” (F, Antony, 13)

“I try to get my mom involved in environmental projects, I tell her that teachers will be unimpressed if she doesn’t participate. I say that I will work harder on my studies if she agrees, but it is hard to convince her.” (I, Sai, 16)
<table>
<thead>
<tr>
<th>Culture</th>
<th>Parental Style</th>
<th>Presence or Absence of Ecological Resocialization</th>
<th>Most Frequent Ecological Behaviors if Presence of Ecological Resocialization</th>
<th>Influence Strategies</th>
<th>Effectiveness of Influence Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>Mostly warmer parents (7/12)</td>
<td>Authoritative (4/12)</td>
<td>Ecological resocialization, regardless of who is more knowledgeable</td>
<td>- Buying environmentally friendly products</td>
<td>Bilateral strategies:</td>
</tr>
<tr>
<td></td>
<td>Permissive (3/12)</td>
<td></td>
<td></td>
<td>- Not taking the car, public transportation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Neglectful (4/12)</td>
<td>Some cooler parents (5/12)</td>
<td>Ecological resocialization only if adolescents’ environmental knowledge equals or exceeds mothers’ environmental knowledge.</td>
<td>- Recycling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Authoritarian (1/12)</td>
<td></td>
<td>- Otherwise, no ecological resocialization</td>
<td>- Reducing electricity/water consumption at home</td>
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<td></td>
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<td>- Not littering</td>
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<td>- Dividing garbage into different categories</td>
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<tr>
<td>India</td>
<td>Some warmer parents (5/12)</td>
<td>Authoritative (5/12)</td>
<td>Ecological resocialization only if adolescents’ environmental knowledge equals or exceeds mothers’ environmental knowledge.</td>
<td>Reducing electricity/water consumption at home</td>
<td>Unilateral strategies:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Otherwise, no ecological resocialization</td>
<td>Not littering</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Avoiding or stopping usage of plastic bags</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mostly cooler parents (7/12)</td>
<td>Authoritarian (7/12)</td>
<td>No systematic ecological resocialization, even if adolescents’ environmental knowledge equals or exceeds mothers’ environmental knowledge</td>
<td>- Persuasion: persistence</td>
<td>Bilateral strategies:</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>and reasoning</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>- Expert power</td>
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Table 2. Synthesis of findings—effects of culture and parental style on ecological resocialization process.
Another dominant bargaining strategy used by French adolescents is reasoning. Reasoning involves discussion with a use of logical arguments intended to reach an agreement with parents [43]. French adolescents with warm mothers discuss environmental issues, use logical arguments and construct a detailed argumentation, which is less the case among Indian informants who express willingness to use bargaining but lack competence to use it efficiently.

“When I talk with my parents about their ecological behavior, I try to think of and use logic argumentations, I explain with a plan: I do a thesis, examples, and an anti-thesis. In fact, I do a synthesis of my ideas. It is important to construct a strong argumentation so that they understand and transform the ideas into pro-environmental behaviors.” (F, Julie, 16)

“I explained to my mother that she uses too much water. I gave several reasons, such as water is a limited natural resource, it costs a lot of money… You need to find the best way if you want to be listened. You need to explain, show, prove what you say. I am proud of me because thanks to me, my mom succeeded in decreasing the use of water.” (F, Maho, 18)

“When I see these kids talking about the environmental issue, I can see the concern...there is a lack of direction. They don’t know how to argument their ideas.” (I, Rajata’s mother)

This aspect seems to coincide with prior cross-cultural socialization research, which shows that parents from individualistic countries [42] or warm parents [63] encourage their adolescents to make confident and independent decisions. In contrast, parents from collectivist countries [66] or cooler parents [63] are less open to their adolescents using logical arguments to influence them.

According to Palan and Wilkes [43], expert strategy, defined as “teaching skills”, emerges as another dominant strategy for French adolescents and warm parents. Several hallmarks of knowledge—environmentally friendly products versus generic products, product quality on packaging or money-saving skills—emerge in the environmental context. French warm parents encourage their adolescents to progress to more adult-like thought patterns, capable of even more complex thoughts about concrete and hypothetical objects and situations [65].

“I advise my parents not to buy environmentally friendly products with superficial packaging. I tell them that it is important to read packaging and compare prices before making their decisions.” (F, Elise, 13)

“When my daughter enters into a store and I found powder for the washing machine, my daughter tries to compare prices and quality of products in order to know if there is not a powder which is good for the environment. She looks at the packaging and reads it in order to identify the proof “100% bio”. She tries to convince me by saying that we should live better and longer if sales of environmentally friendly products increase.” (F, Julie’s mother)

In contrast, Indian adolescents tend to use environment-related knowledge less than French adolescents to influence their parents.

“My mom and dad never make mistakes… so I never get a chance to teach them anyways...they know everything because they are my parents... They tell and teach me.” (I, Panya, 15)
4.3.2. Persuasion Strategies among Individualistic Countries and Cooler Parental Styles

Not all parents within individualistic countries can be classified as authoritative or permissive with use of bilateral strategies. Interviews reveal that some French adolescents use more unilateral strategies such as persuasion (persistence and nagging) when their mothers exhibit neglectful or authoritarian styles (5/12), and score lower in warmth. Findings highlight the power of parental styles over the culture to explain the use of persuasion strategies in individualistic cultures. In contrast to bargaining, persuasion strategies focus on unilateral gain for the persuader rather than mutual gain for both the opposer and the persuader [43].

“My mom always turns on the heating in my bedroom whereas I don’t need it. I always insist and repeat that I don’t want her to turn on the heating because it is not good for the environment, she was fed up I always repeat the same but she continues to turn it on behind me and does not listen to me.” (F, Cassandre, 15) (nagging)

“The last time my son visited a sorting office with school, he learnt many things and became convinced that sorting is really important and now he tries to convince me, he succeeded because he is very strong in persuasion.” (F, Clément’s mother) (persistence)

4.3.3. Persuasion, Emotional and Direct Request Strategies among Collectivist Countries and Warmer/Cooler Parental Styles

The lack of ability to make informed and confident purchases, which characterizes adolescents from collectivist countries [42], may be related to the fact that the majority of the Indian adolescents use mostly unilateral strategies when seeking to influence their parents— persuasion, direct request, and emotional strategies. In contrast to cooler mothers in India who seldom engage in ecological resocialization, warmer mothers are more open to their adolescents using unilateral strategies. Our findings reveal that three persuasion strategies emerge amongst Indian adolescents— persistence, manipulation and begging. Indian adolescents mention that they either ask repetitively (persistence), use context or person (manipulation) or plead (begging) to influence their parents’ environmental behaviors.

“I continuously remind my mother to get the pollution control check for the car.” (I, Rajata, 15) (persistence)

“I use the language what they understand. Like my parents are very cautious about the rising price of the electricity etc. so I always relate the environmental practices with saving on bills. I always tell them that if they won’t save electricity, our energy bill will be high and they will lose money on it. And whenever my father and brother have to go somewhere which is nearby, I use the rising price strategy again, I tell them petrol is so expensive why don’t they just walk to the destination.” (I, Panya, 15) (manipulation)

“I just plead...like please mummy please...if you will do this for me I will also do something in return for you...please mummy please...” (I, Kabir, 13) (begging)

A direct request strategy is also typically used by Indian adolescents who simply ask their parents to adopt more environmental behaviors, as in the following quotation:
“For environmental friendly behavior, it is straight. No other strategy needed, I just tell my mother to close the tap in the kitchen, it is direct, and she understands what I mean.” (I, Bankim, 17)

“When I am working in the kitchen and turn on the gas and if I have not kept something on it, she will come and tell me to turn it off, it is direct.” (I, Daha’s mother)

Finally, use of emotional tactics, including anger, screaming, guilt trip and crying, occurs often among Indian adolescents. Adolescents from collectivist countries are emotionally dependent on their parents, express their emotions openly and are not punished for crying [67], suggesting most of our Indian adolescents use emotional strategies.

“Yes she never lets us throw anything like wrappers etc. on the road. If we go out and eat anything and if she sees us throwing the wrapper or any waste on the road she literally shouts at us. She becomes very angry by this behavior.” (I, Panya’s mother) (anger)

“I listen to her...just want to add that I teach her don’t get too emotional about the environment. As she starts crying when she talks about environmental issues, and she shows a weakness you know… that will not help you, it is good to feel connected but then you need to do something about it rather than just let it come out and cry and look weaker. I try to tell her, but it is not easy.” (crying) (I, Kabir’s mother)

4.4. Effectiveness of Influence Strategies Depending on Parental Style and Culture

A key outcome of our analysis is not only to highlight the differences in ecological resocialization across cultures and parental styles, but to ask which strategies used by adolescents are successful/unsuccessful in influencing their parents’ behavior. Table 2 (above) lists the most and least effective influence strategies, as perceived by adolescents and their mothers.

Interpretation of data reveals that the most effective adolescent strategy is closely related to a relationship between the cultural values, the type of parental style and the adolescent influence strategy. For example, in individualistic countries where parents value egalitarian relationships and self-expression (i.e., exhibiting the traditionally Western warm parental style), adolescents know that it is effective to use bilateral strategies, which promote mutual discussion and agreement, such as bargaining and expert power. In contrast, in collectivist countries where parents encourage obedience, authority and dependence (i.e., exhibiting the traditionally Asiatic cooler parental style), adolescents know that it is more effective to use unilateral strategies, which promote a battle of wiles (persuasion) or emotional dependence on parents (emotional strategies).

5. Conclusions

5.1. Theoretical Contributions

The topic of parental style and culture on consumer resocialization is of interest to consumer researchers, but few studies address the conjunction of culture together with parental style, to understand the use of adolescents’ strategic influence and ecological resocialization. Most prior studies examine parental style and culture effects separately [22,35,41,42,44,68] and thus expect no interaction between
culture and parental style. Such studies mainly associate parental styles with socialization outcomes, including children’s consumption independence, communication about consumption, media exposure or substance use, but not pro-environmental behaviors.

The present study complements such research in several ways. First, the findings of this study indicate that ecological resocialization processes and adolescents’ use of influence strategies differ according to the juxtaposition of cultural and parental contexts. In the French sample, warmer mothers readily agree to change their environmental habits and adolescents use more bilateral strategies (bargaining and expert power) than unilateral strategies. Thus warmer parenting style (permissive and authoritative) emerged to be optimum for ecological resocialization of French mothers. In contrast, in the Indian sample, cooler mothers are reluctant to learn from their adolescents. In the situations of cooler mothers from the French sample and warmer mothers from the Indian sample, ecological resocialization is not systematic, and occurs only if the mother believes that her adolescent’s environmental knowledge equals or exceeds her own. In these two specific situations (cooler French mothers/warmer Indian mothers), adolescents’ unilateral strategies (persuasion, direct request and emotional) are more frequent than bilateral strategies (reasoning). These finding are important, as when studying adolescents’ ecological resocialization and use of influence strategies, we must consider adolescents’ environmental knowledge.

Second, this study is the first to show that adolescents learn which strategies “work” for them depending on cultural and familial contexts. The finding that emotion and persuasion, typically unilateral strategies, are the two most effective strategies among Indian adolescents raised by authoritative mothers is opposite to the conventional wisdom that bilateral strategies “should” be more effective than unilateral strategies. These findings reveal that the most effective adolescent strategy is closely related to the relationship between the cultural and family contexts. For instance, in collectivist contexts where parents are authoritative, adolescents know that it is more effective to use strategies that enable the expression of emotions and crying. Thus, the conclusions drawn from recent research on the association between parental style and adolescent use of influence strategies [22,44] may be insufficient, due to a focus on the type of influence strategies used, without considering their effectiveness.

Third, although adolescents are considered as potential catalysts of their parents’ environmental behaviors [33], little research has examined how adolescents may exert actual influences on pro-environmental parental consumption. Such issues are central to an understanding of potential effects of adolescents’ environmentalism [18]. More specifically, according to Yang et al. [22], additional research should examine how product categories may be subject to adolescents’ use of influence strategies across cultures. Our research contributes to show that in contrast to Indian adolescents, French adolescents, whatever their family style, can have an influence on their parents concerning purchase of environmentally friendly products. These results highlight the important role of culture over parental style on environmentally friendly purchasing behaviors.

From a methodological perspective, our research includes both the adolescent and the mother. The use of multiple-informant family data enables a better understanding of reciprocal mother-adolescent interactions and thus the way the household unit actually functions. This is key to domestic environmental policies, which aim to increase household engagement with green issues [21].
5.2. Public Policy Contributions

The findings of this study suggest that there is a need to consider adolescents as initiators of pro-environmental changes in consumption patterns, and appropriate messages should be developed and adapted to effectively reach and meet the needs of “pro-environmental influential” adolescent profiles. Such segmentation will require parental style and culture variables. For example, in France, although unilateral strategies are more often used by adolescents from neglectful and authoritarian families, bilateral strategies appear to be the most effective ones in warmer families (bargaining and power expert). This insight suggests that social marketing programs and public policy should target warmer parents indirectly, through the adolescent, with logical and practical arguments, rather than emotional reasons. Thus, communication and educational programs should be more instructional and demonstrative to persuade warmer mothers to engage in environmentally friendly behavior. This confirms the argument that within each culture, parental style can be a meaningful segmentation variable to help marketers and public policy to determine the effectiveness of strategies and likely reactions of parents to environmentally friendly products. In contrast, in India, between the four influence strategies (persuasion, direct request, emotional, and bargaining), emotional strategies appear to be the most effective. Thus, future environmental communication and education campaigns should entail more emotional appeals when targeting authoritative Indian parents through their adolescents. Social policy makers should also be aware of the low level of Indian adolescents’ influence on parents’ pro-environmental behaviors. Here is potential conflict between family norms and the need to move towards a more sustainable way of life—what may be a fruitful policy to pursue in some countries (encouraging reverse socialization) may not be welcomed in others. In such cases, communication and educational programs should be predominantly developed for parents and directly targeted at them. Authoritarian Indian parents should be educated first about the actual consequences of their actions toward the environment and second about methods to facilitate effective communication with their adolescent. Besides having relevance for any change agent who wants to promote environmentally friendly purchasing behaviors, the findings of this study are important for anyone interested in the influence of interaction processes in families and in particular in the influential role of adolescents on their parents in relation to this specific domain. This study suggests that the younger generation is not automatically the most likely initiators of pro-environmental changes in consumption patterns across cultures. Environmental concern and commitment is likely not to be transferred from adolescents to parents in the case of authoritarian parents from collectivist cultures. Nevertheless, any pro-environmental parents can influence the future societal development not only directly through their own acts, but also indirectly through their children.

In addition, the issue of where environmental knowledge originates is pertinent—some adolescents as identified above might usefully be targeted by explicit marketing communications but they also gain their knowledge from green programs in school, for example. Whilst it might be unethical to advocate marketers’ involvement in such programs, there are clear opportunities for non-profit organizations to link up with environmental education lessons [34], thus providing the raw material for the potential transfer of knowledge from adolescent to parent. We echo the point of Prothero et al. [69] who question how such educational initiatives impact on how children think and act from a consumer perspective, calling for more research in this field.
Policymakers and social marketers should regard adolescents as active and effective parties but also as governed subjects interpreting the discourse of environment in relation to their own and their family’s consumption. In contrast to prior research in consumer behavior which focused on attitudes rather than actual practices of consumption and pro-environmental behavior, which contributes to conceptualizing adolescents as passive receivers of information from their families [18], this study views the adolescent as an active, responsible consumer actor in decisions on household consumption in relation to pro-environmental issues.

5.3. Limitations and Future Research

The limitations of this research are fourfold. First, the present study examines adolescent ecological resocialization from the perspective of mothers. Although mothers often play the most significant role in parental relationships with adolescents, especially in the field of consumption, additional research should include other members of the family (father, siblings, grandparents) to determine if they contribute any enhancing or contrasting role. Further, it would be interesting to explore if adolescents change/adapt their influence strategies according to the situation and actor (parents, grandparents, peers, etc.) involved. Second, our study focuses on adolescent consumers and pro-environmental behaviors. Although the environment is a particularly relevant field to the study of adolescents because of how much they are aware of environmental issues [18], younger children should also be studied as potential agents of ecological resocialization, given their exposure to environmental knowledge in the classroom and through the media [4]. Third, future research should assess a range of product/service categories by making a distinction between publicly-consumed products which may apply to the whole household (e.g., domestic energy), and privately-consumed products, which are less subject to family involvement but still lend themselves to reverse socialization (e.g., personal toiletries). Fourth, our cross-cultural research focuses on parental styles and use of influence strategies. Other factors may determine effective strategies and influence on family decisions: for instance, age, family structure, time, income, but also variation in families’ lifestyles in a wider sense, such as exposure to nature or family residential location, might prove to have an impact. Additionally, this research has studied the effect of national culture on the parental styles, whereas several empirical researches have demonstrated that cultural and ethnic differences systematically challenge the optimum parenting style [40,70]; therefore, a future study on how ethnic differences in parenting styles influence ecological resocialization will provide more insight on the issue.

Author Contributions

Elodie Gentina developed the concept, collected data in France and analyzed the French data. Pallavi Singh, collected data in India and analyzed the Indian data. Both the authors have equal contribution in writing the paper.

Conflicts of Interest

The authors declare no conflict of interest.
## Table A1. Details of Indian and French participants.

<table>
<thead>
<tr>
<th>Indian Adolescent, Name, Age and Gender</th>
<th>Mother’s Parental Style</th>
<th>General Family Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rajata, 15, G</td>
<td>Cooler (authoritarian)</td>
<td>Married parents, F-marketing manager of a firm; M-school teacher single child</td>
</tr>
<tr>
<td>Mayama, 13, G</td>
<td>Cooler (authoritarian)</td>
<td>Married parents, F-construction contractor; M-housewife 2 children: 15,13</td>
</tr>
<tr>
<td>Sai, 16, G</td>
<td>Cooler (authoritarian)</td>
<td>Married parents, F-shop owner; M-housewife 2 children:16, 13</td>
</tr>
<tr>
<td>Salima, 16, G</td>
<td>Cooler (authoritarian)</td>
<td>Married parents, F-shop owner; M-housewife 2 children: 20,16</td>
</tr>
<tr>
<td>Aarti, 12, G</td>
<td>Cooler (authoritarian)</td>
<td>Married parents, F-engineer; M-engineer 2 children: 17, 12</td>
</tr>
<tr>
<td>Deeba, 14, G</td>
<td>Cooler (authoritarian)</td>
<td>Married parents, F-lawyer; M-housewife 2 children: 14, 11</td>
</tr>
<tr>
<td>Panna, 15, G</td>
<td>Cooler (authoritarian)</td>
<td>Married parents, F-hotel manager; M-shop owner 2 children: 15, 11</td>
</tr>
<tr>
<td>Kamal, 16, B</td>
<td>Warmer (authoritative)</td>
<td>Married parents, F-services; M-housewife single child</td>
</tr>
<tr>
<td>Daha, 16, B</td>
<td>Warmer (authoritative)</td>
<td>Married parents, F-banker; M-housewife single child</td>
</tr>
<tr>
<td>Kabir, 13, G</td>
<td>Warmer (authoritative)</td>
<td>Married parents, F-air force; M-housewife 2 children: 13, 11</td>
</tr>
<tr>
<td>Panya, 15, G</td>
<td>Warmer (authoritative)</td>
<td>Married parents, F-works in a company; M-housewife 2 children: 20, 15</td>
</tr>
<tr>
<td>Bankim, 17, B</td>
<td>Warmer (authoritative)</td>
<td>Married parents, F-senior cashier; M-administrative assistant 2 children: 17, 13</td>
</tr>
<tr>
<td>Arthur, 16, B</td>
<td>Cooler (neglectful)</td>
<td>Married parents, F-farmer; M-farmer 3 children: 19, 16, 14</td>
</tr>
<tr>
<td>Clément, 17, B</td>
<td>Cooler (neglectful)</td>
<td>Married parents, F-farmer; M-farmer 3 children: 20, 17, 15</td>
</tr>
<tr>
<td>Jasmine, 15, G</td>
<td>Cooler (neglectful)</td>
<td>Married parents, F-artisan; M-cleaner 2 children: 17, 15</td>
</tr>
</tbody>
</table>
Table A1. Cont.

<table>
<thead>
<tr>
<th>French Adolescent, Name, Age and Gender</th>
<th>Mother’s Parental Style</th>
<th>General Family Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guillaume, 14, B</td>
<td>Cooler (neglectful)</td>
<td>Married parents, F- project leader; M- maternal worker 3 children: 18, 14, 12</td>
</tr>
<tr>
<td>Cassandre, 15, G</td>
<td>Cooler (authoritarian)</td>
<td>Married parents, F-artisan; M-secretary 2 children: 15, 13</td>
</tr>
<tr>
<td>Justine, 14, G</td>
<td>Warmer (authoritative)</td>
<td>Married parents, F-office worker; M-sales manager 3 children: 20, 17, 14</td>
</tr>
<tr>
<td>Elise, 13, G</td>
<td>Warmer (authoritative)</td>
<td>Married parents, F-special education teacher; M-medical secretary 3 children: 13, 10, 8</td>
</tr>
<tr>
<td>Julie, 16, G</td>
<td>Warmer (authoritative)</td>
<td>Married parents, F-archaeologist; M-teacher 2 children: 16, 12</td>
</tr>
<tr>
<td>Maho, 18, G</td>
<td>Warmer (authoritative)</td>
<td>Married parents, F-rental business; M-housewife 2 children: 22, 18</td>
</tr>
<tr>
<td>Alice, 14, G</td>
<td>Warmer (permissive)</td>
<td>Married parents, F-physiotherapist; M-physiotherapist 3 children: 18, 14, 10</td>
</tr>
<tr>
<td>Morgane, 15, G</td>
<td>Warmer (permissive)</td>
<td>Married parents, F-consultant; M-banker 3 children: 18, 15, 13</td>
</tr>
<tr>
<td>Antony, 13, B</td>
<td>Warmer (permissive)</td>
<td>Married parents, F-account manager; M-training officer single child</td>
</tr>
</tbody>
</table>

Note: F = father; M = mother; B = boy; G = girl. For reason of confidentiality, all these names have been changed.
Table A2. Illustration of parental styles.

<table>
<thead>
<tr>
<th>Two forms of parental styles across cultures</th>
<th>The dominant parental style in France: warmer parents</th>
<th>The dominant parental style in India: cooler parents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authoritative (France)</td>
<td>“I have a really good relationship with my mother. We get along very well, and we talk a lot together about many subjects, including the environment. I think that we have a privileged relationship. My mother is empathic but also authoritative; there are rules at home.” (F, Maho, 18).</td>
<td></td>
</tr>
<tr>
<td>Permissive (France)</td>
<td>“I talk about many things to my mother, I trust her, we never disagree, she encourages me to express my own ideas at home, and we discuss a lot together.” (F, Justine, 14)</td>
<td></td>
</tr>
<tr>
<td>Authoritarian (India)</td>
<td>“I am not a mother who imposes household rules; I am rather permissive. I consider my daughter as nearly an adult, and I don’t need to impose strict rules on her. But my permissiveness does not prevent me having a good relationship with her. I think she confides in me.” (F, Morgane’s mother).</td>
<td></td>
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<tr>
<td></td>
<td>“I am not a directive mother and my daughter knows it. On the contrary, I try to consider her much more as an adult who can make her own decisions.” (F, Alice’s mother).</td>
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<tr>
<td></td>
<td>“She is a little scared of me as I am strict, so sometimes she doesn’t share everything…but I try that she feels more comfortable in talking to me, sharing with me everything and I can suggest her what is right or wrong then, what she should do in some situations etc., so that she can learn.” (I, Sai’s mother)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>“My mom never makes mistakes… I never get a chance here anyways, she knows everything, and she is the mom, she controls our behaviors.” (I, Mayama, 13)</td>
<td></td>
</tr>
</tbody>
</table>
### Table A3. Illustration of ecological resocialization processes depending on culture and parental style.

<table>
<thead>
<tr>
<th>Two forms of parental styles across cultures</th>
<th>France</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mostly warm parents</td>
<td>Ecological resocialization, regardless of who is more knowledgeable</td>
<td>- “I am more competent about the environment than my daughter. But when my daughter gives me advice, I listen to her. In fact, I want her to feel that we can learn from each other.” (F, Maho’s mother).</td>
</tr>
<tr>
<td></td>
<td>- “My daughter knows more than me about the environment. And sometimes she teaches me new things she learns at school such as recycled batteries’ collectors.” (F, Elise’s mother).</td>
<td></td>
</tr>
<tr>
<td>Some cooler parents</td>
<td>Ecological resocialization only if adolescents’ environmental knowledge equals or exceeds mothers’ environmental knowledge.</td>
<td>- “I am less competent about the environment than my son. He knows many environmental things, so when he gives me advice, I listen to him. I want him to feel that we can learn from each other.” (F, Arthur’s mother).</td>
</tr>
<tr>
<td></td>
<td>- “My role is to make Guillaume aware of environmental dangers. Parents have to raise their teenager’s awareness of environmental issues; this is the basis of education and the contrary must not occur. Mothers know more than teenagers, Guillaume did not manage to influence me.” (F, Guillaume’s mother).</td>
<td></td>
</tr>
<tr>
<td>Mostly cooler parents</td>
<td>No ecological resocialization</td>
<td>- “My son has a lot of knowledge about environmental issues, because I am too much constrained and locked up in my routine, between office and home. He participates in lots of activities as well… I don’t remember he taught me new things related to environment.” (I, Salima’s mother).</td>
</tr>
<tr>
<td></td>
<td>- “My mom knows more about everything, she is a mother. She does a lot of things for the environment, she takes care of all the plants in the house, when I come back from school, I find my mother always working on the plants. She teaches me a lot of things, but I don’t teach her new things because there is no need to teach her anything, she doesn’t need me.” (I, Mayama, 13).</td>
<td></td>
</tr>
<tr>
<td>Some warm parents</td>
<td>Ecological resocialization only if adolescents’ environmental knowledge equals or exceeds mothers’ environmental knowledge.</td>
<td>- “Kabir has become more active and aware since she has joined that Green School Program in her school... She has a lot more exposure than I had, and many opportunities to learn, she is learning a lot in school. I can’t recall anything that Kabir taught me about the environment.” (I, Kabir’s mother).</td>
</tr>
<tr>
<td></td>
<td>- “My parents are more concerned about environment, they actually ask more questions about it, they are not asking because there is a quiz completion going on… They actually want to know about it. They always ask me more about the environmental activities I am part of, they want to know, and I teach them a lot of new things as well which I learn during my activities, I know more things than my parents concerning environmental issues.” (I, Panya, 15).</td>
<td></td>
</tr>
<tr>
<td>Otherwise, no ecological resocialization</td>
<td>- “Otherwise, no ecological resocialization”</td>
<td></td>
</tr>
</tbody>
</table>
References


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