Universidad Ramon Llull

DOCTORAL THESIS

Title	**A STUDY OF THE FACTORS THAT INFLUENCE MATERIALISM IN CHILDREN.**
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To my parents

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Chapter 1: Introduction

The growing influence of consumer society on children has been a matter of concern to parents, educators, and government authorities during the first years of the 21st century. Advertising and marketing expenditures targeting children increased in the United States from $100 million a year in 1983 to $15 billion in 2004, a 150-fold rise in only 20 years. Brands are part of the daily lives of children, with a typical first grader being able to remember as many as 200 brands and owning an average of 70 different toys (Schor, 2004). Children associate prestige and popularity to the use of certain brands by the age of 12 (Achenreiner & John, 2003). And no other generation before has had as much disposable income, influence and attention as this one (Lindstrom, 2003).

The emergence of children as avid consumers in the last 20 years has also raised concerns about the increase of materialism in children and

adolescents (Chaplin & John, 2007). Materialism can be defined as the importance given to consumer goods and services as a source of happiness and satisfaction in life. Some of the aspects involved in materialistic traits, like envy or non-generosity, have been linked to unhappiness and dissatisfaction in children (Belk, 1984), and materialism has been related to lower Subjective Well-Being in adults (Belk, 1985; Kasser & Ahuvia, 2002; Richins & Dawson, 1992).

Family is the principal context in which humans develop (Bronfenbrenner, 1986) and may be an important agent in the formation of materialistic attitudes in children. Family environment and parenting style are variables over which parents can have a direct influence, while they have less influence on exposure to media outside home, peer influence and even the contents of advertising that their children watch on TV while at home. Although research on materialism has studied the effects of family structure on negative outcomes such as delinquent behaviour, teenage pregnancy, and academic underachievement (Rindfleisch, Burroughs, & Denton, 1997), not enough research has been found in the literature about the relationship between family structures and children´s consumption behaviour.

1.1 Personal Motivation

The origin of this research was a result of my personal concern in understanding materialism in children. As a marketing student, I had always been concerned about the ubiquity of advertising and the allure it generates to buy and consume. It seemed to me that a Greek philosopher would be horrified by the importance modern society assigns to material possessions, and that a St. Augustine or a Thomas Aquinas would find in modern advertising the undisputable triumph of *concupiscentia oculorum*. Then I came across Juliet Schor's book, *Born to Buy* (Schor, 2004), and I learned how consumption had skyrocketed among children in the last 30 years. I decided that I wanted to dedicate my PhD to investigate how consumer society and its subtle message "*The more you buy, the happier you are",* influences the lives of our children.

During my initial research, I learned that many academics devout their careers to explore the causes of materialistic attitudes in children. I consider that there are at least four reasons for this. First, academics are interested in knowing how children relate to consumer society and how the latter, a result of the incredible increase in wealth during the XX century due to the industrial revolution, shapes the lives and the values of our kids. The subject is fascinating enough to be studied just for the sake of knowledge.

But there is a second reason that motivates many researchers in the field, not only sociologists or educators, but also marketing academics. Materialistic traits, as will be developed in the next chapters, have been associated in several studies with unhappiness and negative effects on

well-being, both in children and adults. There is a concern about the happiness and psychological health of future generations if they take from an early age the road of uncritical consumption and acquisition of goods as a way to happiness, and even if this concern is based on a value judgment, it is legitimate and undeniable.

Third, concerns are not only about the effects of materialism on welfare, but also about the ethics behind the whole story. Ancient philosophers and all major religions have criticized an excessive emphasis in the accumulation of material possessions and exalted personal virtues as the real focus of a well-lived existence. The question of whether we want our children to value themselves in terms of *what they own* instead of *what they are* echoes in the debates about the convenience or inconvenience of a materialistic approach to life.

A fourth reason for the focus on materialism is a methodological one. The materialism construct has been extensively operationalized in measurable ways, via multi-items scales –such as Belk's (1984) 24-item scale based on three personality traits –possessiveness, non-generosity and envy– or Richins & Dawson's (1992) 18-item scale based on three values –success, centrality and happiness–. Specific scales to measure materialism in children and adolescents have also been developed, like Goldberg's ten-item Youth Materialism Scale (Goldberg, Gorn, Peracchio, & Bamossy, 2003), J. A. Roberts, Manolis, & Tanner (2003) simplified version of Richins and Dawson's scale, or Achenreiner's (1997) 5-item scales. The existence of these validated scales provides a good starting point for a quantitative study of materialism in children.

The focus of this thesis on materialism in children under 12 year-old is justified for two reasons. First, and as mentioned before, there is an increasing concern among parents and academics about the increase of materialism in children. A recent poll reported that 'being rich' is now the number one aspiration of American Children and teens, and 63% of parents agreed that "My child defines his self-worth in terms of things he owns and wears more than I did when I was his age" (Schor, 2005).

Second, although many studies have addressed the issue of materialism in adolescents and young adults (Flouri, 2004; Moschis & Moore, 1979; Speck & Peterson, 2010), and others have explored materialism in younger children from 6 to 12 years old, none of them has tested the effect of the different factors that influence children's materialism in an integrated model. In Chapter 3, a list of the most relevant articles on materialism in children below 14 years published in the last 30 years is provided.

Kids segmentation	Ages
Infants and toddlers	0 – 2
Preschoolers	3 – 5
Kids	6 – 8
Tweens	9 – 12
Young teens	13 – 15
Teens	16 – 18

Table 1.1 Kids segmentation by age. (Kurnit, 2004 p.29)

But working with children under 12 years is challenging. A first obstacle is the difficulty of using surveys with young children. Not only must the

language be appropriate to the comprehension level of younger children, it also has to be consistent across ages –a term like “luxury” or “expensive” can have different meanings for an 8 or a 14-year-old–. The length of questionnaires must also be kept at a minimum, and on-line surveys are virtually impossible with younger kids. In addition, studies must have, in many countries, a written parental consent; and due to the large number of surveys used in quantitative research, they are mostly performed in schools, from which permission and collaboration must be granted. Qualitative analyses with children are another option, as challenging as rewarding, and the insights a researcher can get in an interview or an exercise with children are worth every minute invested in them.

But the work is worth the pain. As marketers are already targeting tweens –children from 9 to 12 years, see Table 1.1– and introducing concepts such as KAGOY –Kids Are Getting Older Younger– (Schor, 2004), it is important to understand the impact of materialism on younger children.

1.2 Contribution to the Area of Transformative Consumer Research

The line of research followed is in the frontier of psychology and management, and addresses a particularly sensitive group like children, who are vulnerable and have fewer resources than adolescents and youngsters to protect themselves from the materialistic influences of their environments. A multidisciplinary approach can advance our knowledge

about materialism, consumer society and the implications for socially responsible marketing practices.

Transformative Consumer Research was born in 2005 inside the Association for Consumer Research as a call for researchers to identify problems in consumption activities and improve the lives of consumers. One of the research topics included since its beginnings has been vulnerable consumer groups, specifically children (Mick, 2006). The study of materialism in children is clearly within the scope of TCR, and the insights that can be obtained on the subject can certainly provide a starting point to increase children's welfare in society.

The methodology of the research is mainly based on data collective surveys, and the aim of the thesis is to answer the research question that can be expressed as: what are the factors that influence materialism in children? And, can these factors be classified in a model that indicates which of them have the highest impact on children's materialism? The last question is addressed in a way to propose ideas and suggestions for future research on the field.

As far as is known, this research is the first attempt to identify all the factors that influence materialism in children, and introduce them in a model. The drivers of children's materialism have been explored in several studies (see chapter 3) in the last 35 years, but each study has mostly addressed a specific factors or set of factors. This thesis will attempt to classify the factors in a comprehensive model.

Also, this is the first study to explore the influence of family religiosity on children's materialism. The link between religiosity and materialism has been explored in samples of adults and adolescents, but not in younger

children, and moreover, no study has explored religiosity at home as a possible driver or deterrent of a child's materialism. Also, due to its research design, this thesis allows to explore a new factor, called school type –religious or secular– and its influence in children's materialism.

1.3 Structure of the Thesis

The thesis is structured in the following way. Chapter 2 reviews the exposure of children to consumer society and the different models that explain consumer socialization of children. Chapter 3 explores the concept of materialism. Chapter 4 presents the research design, based in a conceptual framework that classifies the factors that influence materialism in children (Dávila & Casabayó, 2013). Chapter 5 presents the main results and Chapter 6 the contributions and recommendations. Most of the scales mentioned in the thesis are listed in the appendixes.

Chapter 2: Children in Consumer Society

2.1 Consumer Society, Consumerism and Materialism

A distinction needs to be made between the terms consumer society, consumerism and materialism. Consumer society is defined as:

> A society in which the buying and selling of goods and services is the most important social and economic activity. ("Oxford dictionary of English," 2014)

Another definition, coming from the academic world, asserts that:

> A consumer society is defined as one directed largely by the accumulation and consumption of material goods. (O'Shaughnessy & O'Shaughnessy, 2002)

According to the latter authors, the term 'consumer society' is nowadays considered pejoratively, as a hedonistic society where people look mostly after their sensual gratification. They distinguish hedonism, or the view that pleasure is the only good in life, from 'narrow hedonism', a form of egoism where the answer to the question "Does it feel good?" is the main motive for action. Narrow hedonism is, for many critics, the "hallmark of today's consumer society" (O'Shaughnessy & O'Shaughnessy, 2002 p.527)

The term consumerism has at least two different meanings. The first use of the word can be traced back to 1944 and refers to the consumer movement, groups that developed in the XX century and defended the rights of consumers against corporations (Swagler, 1994). This is reflected in the definition of consumerism given by the Webster's Dictionary:

> a modern movement for the protection of the consumer against useless, inferior or dangerous products, misleading advertising, unfair pricing, etc. (*Webster's encyclopedic unabridged dictionary of the English language*, 1994, p.315)

Or, more succinctly, in the first definition of consumerism in the Oxford Dictionary of English:

> the protection or promotion of the interests of consumers ("Oxford dictionary of English," 2014).

But in recent times, consumerism has become a term that expresses excessive materialism. The word was already used in this sense in some writings in the 60s and in 1991 even John Paul II used the term to warn about superficial consumption in his encyclical *Centesimus Annus* (Swagler, 1994). Therefore, the second definition of the word consumerism in the Oxford Dictionary of English is:

> the preoccupation of society with the acquisition of consumer goods ("Oxford dictionary of English," 2014).

And the Collins English Dictionary defines it with a slightly more positive overtone:

> advocacy of a high rate of consumption and spending as a basis for a sound economy (*Collins English Dictionary*, 2007 p.363).

So, in the last decades, consumerism has been used as a synonymous of materialism. Some scholars use both terms interchangeably (Bauer, Wilkie, Kim, & Bodenhausen, 2012; Hirsh & Dolderman, 2007), expressing concerns about consumerism and measuring it with scales developed for materialism.

The definition of materialism will be explained in section 3.1 of this thesis.

2.2 Exposure of Children to Consumer Society

In the first decades of the XXI century, there is a concern among scholars for the increasing involvement of children in consumer society. As quoted in the introduction, advertising and marketing expenditures targeting children increased in the United States from $100 million a year in 1983 to $15 billion in 2004, a 150-fold rise in only 20 years. And parents think that marketing today "puts pressure on children to buy things they do not need, negatively affects their values and worldview, and makes them too materialistic". (Schor, 2005 p.5)

What can explain this impressive upsurge in the exposure of children to consumer society? Several explanations are attempted, such as the discovery of the potential of kids as a market (Cook, 2009), parental substitution due to longer working hours of mothers (Schor, 2005), the expansion of children media –with specific cable networks for children– and a growing permissiveness of parents in the education of their offspring (Schor, 2004).

Discovery of kids as a market. Cook (2009) affirms that, although children were treated as consumers since the first half of the 20th century, only in the middle of the 60s some marketing scholars began to interview children to know their preferences for food, toys and other goods. Children's perspectives –their feelings and preferences– were put for the first time at the center of the studies in the 70s and 80s. But it was only in the 90s that researchers developed an array of techniques to enter the children's world –qualitative, ethnographic studies, picture drawings, observation of children at home and at stores–. The idea behind these studies was that children were active consumers, and not only persons in formation that require their parents' approval to consume. Not surprisingly, the United Nations adopted the Convention on the Rights of the Child in 1989, where most nations agreed to "recognize and treat children as persons with inherent rights" (Cook, 2009, p.273). Getting rid of considerations about the vulnerability of children or the importance of parents' approval, market research companies conducted research for direct application, with the overt goal of increasing sales of goods for children. McNeal (1992) identified the three ways in which children added value to companies: as present consumers making purchases of their own, as influencers in their parents' purchases, and as future, long-term and loyal customers.

The discovery of kids as a market has led to the search of new, non-traditional ways to reach kids, other than media and TV. One way is to look for the popular, opinion-leading kids, and persuade them to sell products to their mates. So companies hire cool kids as 'brand ambassadors' to sell to other kids. For example, the Girls Intelligence Agency, a marketing company in the United States, proposes girls to become 'secret agents' in exchange for some products given in return. The girls not only show off the

products in schools, but they also organize gatherings at home to try and discuss them. Pictures and video recordings of these activities are then sent to the company headquarters as reports of the work performed (Nairn, 2010).

Parental substitution. Regarding parental substitution, mothers' participation in the labor force has increased in the last forty years, as well as their hours at work, without compensation by declines by men. Schor (2005) cites data showing that from 1969 to 1999, single parents' working hours increased by 297 per year, married mothers' working hours by 576, and the time of parental time available for children decreased 22 hours by week.

Longer working hours affect children in at least three ways. First, parents use TV and media as 'babysitters' to release time to perform other activities. According to a 2009 report by the Kaiser Family Foundation, children in America from 8 to 18 years spend 4 hours and 29 minutes watching TV every day –up from 3 hours and 47 minutes in 1999–. 71% of children have a TV set in their bedrooms, while in 1970 only 6% of sixth graders did; 79% live in households with three or more TV sets, and 45% say that a TV is turned on at home most of the time, even if no one is watching. (Rideout, Foehr, & Roberts, 2010; Rideout, Foehr, Roberts, & Brodie, 1999). This exposure to television commercials and programs links children to consumer society from a very early age. Second, parents who spend less time with their children usually spend more money on things such as books, videos or toys for their kids to compensate for lost time, a phenomenon known as 'guilt money'. The effect is even greater in females

and high income households –i.e. mothers and high income parents are prone to buy even more material things to compensate for time not spent with their offspring– (Schor, 2004). And third, increased exposure to advertising and more money in the pockets of parents rise children's requests for consumer goods, which in turn triggers parents' need of working longer hours to provide for their demands, in a vicious circle.

Expansion of children media. A third factor that is exposing children to consumer society is the expansion of children media. The first program for children in the U.S. appeared in 1952, when NBC aired the *Ding Dong School,* a program targeting preschoolers. Shortly after, ABC aired its *Mickey Mouse Show* including ads of Mattel's Barbie (Schor, 2004). In the late 70s, cable stations specifically directed at children appeared. Networks such as Nickelodeon, the Disney Channel and Cartoon Network in the USA and Clan or Boing in Spain are now part of children's lives in addition to classical Saturday morning TV shows. The process has been possible through the expansion of cable TV –84% of children in the USA have cable or satellite TV at home (Rideout et al., 2010)– and the introduction of digital TV platforms that added more channels in open programming –digital TV replaced analogical TV in Spain in 2010–.

In the beginning, some of these networks –as Nickelodeon– did not contain advertising, but that changed over time. In 2000, a corporate Nickelodeon ad boasted that it "owns 50% of the K2-11 Gross Rating Points" (Schor, 2004 p.19). Far behind is the year of 1978, when the Federal Trade Commission in the U.S. asked for a ban on all commercials directed to children under age 7, on the basis that they were too young to understand

their intent and thus advertising was unfair –a request that was overruled by Congress in the 80s–. With purchases of children aged four to twelve in the U.S. increasing from 6 billion in 1989 to 30 billion in 2002, the money at stake now is way too much to give up advertising income.

However, other countries have different approaches. TV ads to children are banned in Sweden and regulated in the UK, where HFSS food advertisements –high fat, sugar and salt food– have been removed in programs of special appeal to children aged 4 to 15 years (Young, 2010).

But in addition to that, advertising has moved from an approach of telling mothers about the benefits of their products, so that they could gleefully buy them for their child, to purposefully bypassing parents and addressing their messages only to children, to make them buy products their parents overtly disapprove. According to Cross (2012), what had been the 'cute' –controlled by parents– became the 'cool', an expression of "freedom from adult's possessive needs" (Cross, 2012 p. 445). Thus, the definition of 'cool' is determined by classmates, not by parents. As Agnes Nairn describes:

> Our study indicates that the more you search for 'cool', the more it dissolves in the air. Like 'taste', the whole point about 'cool' is knowledge about what is (and is not) 'cool' serves to separate a discerning elite from the uninformed masses. (…) The group also acknowledged that 'cool' was to some extent the reflection of the tastes of the 'cool' kids in the class – the dominant elite. (Nairn, 2010 p.103)

This process away from the ‘cute’ was extended in the 60s and 70s with toys such as Barbie dolls and action-figures. Based on a german doll, *Bild Lilli*, Barbie was created by Ruth Handler, wife of Mattel’s founder, and launched in the American International Toy Fair in 1969. The first Barbies looked like an adult girl of the 60s, dressed in white and black swimsuits. At the moment, the doll represented a move away from the ‘cute’ dolls preferred by mothers and into a ‘cool’ icon young girls could identify with. But what is cool today can easily become ‘not cool’ tomorrow. Today, Barbie dolls are targeted at preschool girls, and girls older than seven reject them as symbols of a stage of childhood they have left behind. Agnes Nairn even reports acts of barbarism toward Barbie dolls from angry tween girls, including decapitation, microwaving and dismembering. (Nairn, 2010).

Advertisers soon took profit of this change in paradigm to increase sales. As Schor describes it:

> Today, marketers and children are allied, as the architects of childhood, either in place of, or in some versions, against mothers (and to a certain extent, fathers). In the previous alliance, mothers protected children's interests; now they are excluded as marketers interact directly with children, but in order to sell products, not for the purpose of enhancing children’s well-being (Schor, 2005, p. 8).

Growing permissiveness of parents. The fourth factor in the grip of consumer culture on children is related to a growing permissiveness of parents in the education of their offspring. Attitudes toward children have evolved in the last centuries from a strict parenting style involving corporal punishment both at homes and schools, to a more permissive approach during the second half of the 20th century. Growing permissiveness to children's desires is not a recent phenomenon: it can be traced back to the 60s (Bronfenbrenner, 1961). At the same time, warmer interactions of parents with children, less authoritarian parenting styles and a lower support of corporal punishment as a way of disciplining kids (Straus & Donelly, 2001 p.206) are not necessarily related to higher permissiveness. Permissive parents are less likely to restrict children's access to TV programs, videogames or consumer culture. And as kids today are exposed to heavy advertising, product placements in movies and videogames, and peer pressure to use brands, the effects of a parent giving up his or her responsibility to set limits or say 'no' are more critical on the consumer involvement of children than they were four decades ago.

Altogether, there has been an evident move from a parenting style in which parents knew what was best for their children and made most buying decisions, to an scenario where children's desires are more taken into account, children are given a voice and they become influencers in family purchases (Schor, 2004). Rapid technological changes have contributed to this shift in attitudes: kids are sometimes the house experts on how to use a computer, an iPad, a Smartphone or a Smart TV, and their parents rely on their knowledge for help and advice.

Changes in family structure. Another factor that has increased involvement of children in consumer society is the social changes that took place since the late 60s in western countries, specifically the higher rates of divorce and the increase of single-parent households. As reported by McNeal (1992), children who live alone with a single or divorced mother take on more responsibilities at home. They become responsible for daily errands and small purchases at local stores. They sometimes become the only 'significant other' with whom mother can discuss purchases of household appliances, furniture or even home improvements. As a result, children are exposed from a very early age to the management of money and develop skills as customers.

So far we have explored the reasons why children get involved in consumer society, but are these reasons the same for children regardless of age? How do children evolve in their knowledge of consumer society and their relationship with purchases and consumerism? The answer to these questions is given by theories of Consumer Socialization of Children. These theories set out to understand the way children relate to brands, the inferences they make about other people´s consumption of brands, and how they evolve over time.

Understanding the Consumer Socialization of Children is also necessary to understand how materialist traits develop across ages.

2.3 Consumer Socialization of Children

To define Consumer Socialization of children, a definition of 'socialization' in general must be provided. Brim (1966) defines socialization as:

> the process by which persons acquire the knowledge, skills, and dispositions that make them more or less able members of their society (Brim & Wheeler p.3).

When socialization is related to the markets and economic exchanges, one enters the domains of consumer socialization. A classical definition was provided by Ward, who considers consumer socialization as the

> processes by which young people acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace (Ward, 1974, p. 2).

In her comprehensive review of research on consumer socialization of children during the period from 1974 to 1999, Deborah Roedder John raises concerns about a heightened level of materialism among children, as a result of a culture that "encourages children to focus on material goods as a means of achieving personal happiness, success, and self-fulfillment" (John, 1999).

John cites research that indicates that children value possession of material goods from a very early age. Goldberg and Gorn (1978) performed an experiment in which 231 4-5 year-old boys were exposed to advertisements for a new fictitious toy, 'Ruckus Raisers Barn'. Three groups were gathered: one saw the ad twice in one showing, the other saw the ad once during two days and the third did not see the ad. After that, children were given a choice to play with two different playmates: one described as

'very nice', but who did not own the toy, and the other described as 'not so nice' but who owned the toy. Only a third of the children who did not see the ad chose the kid with the toy, while 43 to 65% of the children who saw the ad chose him. When asked if they would prefer to play alone with the toy or with a group of friends without the toy, the majority of children in the groups that saw the ads preferred the toy, while only a third selected it in the group that did not see the ad.

According to John (1999), as children grow older and go through elementary school, material goods are associated with social status, happiness and personal fulfillment. Materialistic values "crystallize by the time children reach fifth or sixth grade" (John, 1999 p.202). In a study of kids as collectors, first graders (6 year olds) who collected items as a hobby compared their possessions in terms of quantity, while fifth graders (10 year olds) evaluated the social connotations of collecting –"You have stuff that maybe nobody has"– or aspects related to personal achievement –"I got some baseball cards that some other people don´t have"– (Baker & Gentry, 1996; John, 1999).

2.3.1 John's Model of Consumer Socialization

To understand this evolution, we must consider the model presented by John. Her model is linked with Piaget´s theory of cognitive development and Selman´s theory of development of Social Perspective (Shaffer & Kipp, 2007).

Piaget explains cognitive development of children as evolving through four different stages: sensorimotor (up to two years), preoperational (two to

seven years), concrete operational (seven to eleven years) and formal operational (more than eleven years). Perhaps the difference between preoperational and concrete operational children is the most important. Preoperational children think in terms of perceptual features –symbolic thought is still developing– and have a tendency to consider only a single dimension, while children older than seven are capable of abstract thinking and can take several dimensions into consideration. The ability to differentiate advertising from programming is a well-known example of the practical implications of this distinction: younger children can identify an ad based on length (ads last less time) while older children can understand the intent behind ads (ads are intended to sell) (John, 1999).

Selman's theory, by contrast, focuses on social development of children. His theory of development of Social Perspective proposes that children evolve through five different stages in their ability to understand different perspectives: In the egocentric stage (3-6 years) children are only aware of their own perspective. In the social informational role taking stage (6-8 years) children become aware of other people's perspectives, but consider this difference as a result of having different information. In the self-reflective role taking stage (8-10 years) children realize that other people may have different perspectives as a result of different opinions or points of view. In the mutual role taking stage (10-12 years) children make an additional step and are able to understand, at the same time, their own perspective and the perspectives of others. Finally, in the last, social and conventional system role taking stage (older than 12 years) children understand other people's perspectives in relation to the social group they belong to (John, 1999).

Based on the above mentioned models, John conceives consumer socialization of children as a "developmental process that proceeds through a series of stages as children mature into adult consumers" (John, 1999 p.186) In this process, children evolve through three different phases of consumer socialization: the perceptual stage, the analytical stage and the reflective stage.

The first phase is the *Perceptual stage*, from 3 to 7 years, in which children are oriented to observable perceptual features, make decisions based on one single element and are egocentric, unable to take into account other people´s perspectives. Children in this stage are able to understand brands, but only on a superficial level, and choices are usually made on the basis of one single attribute (i.e. I prefer this pack of Cheerios because it is bigger).

The second stage is the *Analytical stage*, from 7 to 11 years, when children move from perceptual to symbolic thought, are able to analyse based on multiple dimensions and can understand both their own perspective and the perspective of others. At this age, children think more before making a choice. The decision process behind a purchase request integrates the point of view of parents –the ones who provide money– with their own point of view. Complex strategies start being developed by children at this stage in order to obtain what they desire.

Finally, in the *Reflective stage*, from 11 to 16 years all the dimensions are further developed, with children being able to manage complex information and paying "more attention to the social aspects of being a consumer" (John, 1999 p.187). Adolescents have now a complex knowledge of concepts such as brands and prices, and are especially sensitive to the social meanings of consumption.

In this sense, the fact that fifth graders in the Baker & Gentry (1996) experiment assign more value to quality than quantity is a result of their moving through the analytical stage, that allows them to assess material possessions based on the symbolic value given to those possession, and not only on their perceptual attributes such as quantity, size, shape or colour. Table 2.1 presents the three theories explained:

Ages	Piaget's cognitive development	Selman's social perspective development	John's consumer socialization stages
0-2 years	Sensorimotor		
2-3 years	Preoperational		
3-6 years		Egocentric stage	Perceptual stage
6-7 years		Social informational role taking stage	
7-8 years	Concrete operational		Analytical stage
8-9 years		Self reflective role taking stage	
8-10 years			
10-11 years		Mutual role taking stage	
11-12	Formal operational		Reflective stage
12 and older		Social and conventional system role taking stage	

Table 2.1 Age span of stages in Piaget, Selman and John's models

An experiment explained by Selman (2003) is helpful to clarify the links between John's model and the previously cited theories of cognitive and social development. Children were told a fictitious story about a girl called Holly who has fallen after climbing to a tree. Her father, who has seen the fall, makes her promise she won't do it again. After a while Holly finds a kitten hanging terrified from a high branch of a tree. She knows the kitten belongs to one of her best friends. What should she do? Keep the promise made to her father or save the kitten?

This moral dilemma was proposed to children ranging from six to twelve years. And more interesting than the answers are the reasons behind the answers given by kids of different ages. Among children who believed Holly should help the kitten, some kids justified their choices with arguments such as "because she is a good climber" or "because she likes kittens", reflecting an egocentric approach –based only on the abilities or likes of the character– and a decision making process based on one single element, characteristic of the *perceptual stage* in John's model. A reason such as "because she does not want his friend to be sad" is indicative of a child who not only takes his own perspective into consideration, but the perspectives of others as well, characteristic of the *analytical stage*. And the most elaborate reason, "because she thinks her father will understand that breaking the promise is worth helping a friend" indicates the ability to manage complex information and put different perspectives in a hierarchy, characteristics of a kid in the *reflective stage*. In this way, we see how the thinking processes of children of different ages relate to the stages of consumer socialization in John's model.

And in what way does John's model –and all the cognitive and social development theories behind it– relate to materialism in children?

The answer lies in the fact that materialistic values do not originate in a vacuum, but in the social context children live in. Conspicuous consumption –the consumption of expensive goods to bolster one's self-fulfillment or status– is only possible when someone understands the perspectives of others. Materialistic traits such as non-generosity or envy exist only in relation to other people's desires and points of view. As children evolve from the perceptual to the analytical stage, they move away from egocentrism to the consideration of multiple perspectives, and as a result, they develop social comparison skills. So, by the time kids reach the ages of 10 or 11, they are capable of appraising material possessions as a way to increase their sense of belonging to a group or their social status.

Table 2.2 summarizes the main characteristics of each stage of children's consumer socialization.

Characteristics	Perceptual stage 3-7 years	Analytical stage 7-11 years	Reflective stage 11-16 years
Knowledge structures			
Orientation	Concrete	Abstract	Abstract
Focus	Perceptual features	Functional / underlying features	Functional / underlying features
Complexity	Unidimensional simple	Two or more dimensions Contingent (if-then)	Multidimensional Contingent (if-then)
Perspective	Egocentric	Dual perspectives (own + others)	Dual perspectives in social context
Decision making and influence strategies			
Orientation	Expedient	Thoughtful	Strategic
Focus	Perceptual features Salient features	Functional / underlying features Relevant features	Functional / underlying features Relevant features
Complexity	Single attribute Limited repertoire of strategies	Two or more attributes Expanded repertoire of strategies	Multiple attributes Complete repertoire of strategies
Adaptivity	Emerging	Moderate	Fully developed
Perspective	Egocentric	Dual perspectives	Dual perspectives in social context

Table 2.2 Stages in children's consumer socialization

Reproduced from de la Ville & Tartas (2010). Original source: John (1999)

To end this section, there is an experiment in the field of branding that illustrates the differences in thinking of children and adults. Adults evaluate

brand extensions more favourably when the parent brand category is similar to the extension category, i.e. an extension of Nike to sports clothing is judged better than an extension of Nike to bottled water. Zhang & Sood (2002) compared brand extension evaluations between two samples: one of undergraduate students at UCLA and one of sixth graders from two elementary schools in Houston. They discovered that adults rated near extensions (extensions across similar categories) better than far extensions (extensions across dissimilar categories), whereas children gave similar ratings to both near and far extensions. They also discovered that children provided more favourable evaluations for extensions with a rhyming name (Coca-Cola Gola or Wrigley´s Highley). These results suggest that children base extension evaluations more on surface cues (perceptual) like name characteristics, and less on deep cues (conceptual) like category similarity. The fact that children in this experiment had already reached the end of the *analytical stage* (11 years) suggests that perceptual thinking remains an important part of children's worldview, and maybe only in late adolescence –by the end of the *reflective stage*– they become capable of making inferences based on fully conceptual thinking.

2.3.2 Differences in Brand Symbolism for Children across Ages, Gender and Social Class

Another element of children development which relates to materialism is the ability to make inferences about status based on consumption of certain products of brands (Achenreiner & John, 2003; Belk, Bahn, & Mayer, 1982; Belk, Mayer, & Driscoll, 1984). In this section, a review is

presented of when these inferences appear, and how children of different ages are capable of interpreting symbolism of brands.

Belk, Bahn and Mayer (1982) investigated children´s ability to recognize consumption symbolism and make social attributions to owners of adult products, specifically houses and automobiles. Colour photographs were presented to 724 children, which depicted four types of Chevrolet cars (Chevette, Caprice and Camaro –1981 and 1971– models) and three types of houses (large Bauhaus style, large Colonial style, small Colonial style), presented in pairs. The researchers compared across samples of different ages: preschoolers, second graders, sixth graders and eighth graders. They concluded that the ability to recognize social implications of consumption was almost non-existent among preschoolers (4 or 5 years), significant by second grade (7 years) and almost fully developed by sixth grade (11 years).

Two years later, Belk**,** Mayer and Driscoll (1984) decided to further explore these relationships, this time focusing on children´s recognitions of consumption symbolism not in adults' products, but in children's products such as clothing, toys and bicycles. They hypothesized that older children made stronger consumption-based inferences than younger children, because they had had more opportunities to experience consumption stimuli and translate this experience into images of the owners of these products. They also hypothesized that girls would tend to make more inferences based on clothing cues, while boys would be more sensitive to other status-related signals; and that children belonging to higher social classes would make stronger consumption-based inferences than children of lower social classes. The reason for the latter is that higher income children are more exposed to a variety of consumption situations and

therefore can observe more relationships between product owners and their consumption choices.

The experiment was performed with 384 fourth and sixth graders from four schools in Salt Lake City. Four categories were analysed: jeans, bicycles, shoes and video games. The researchers discovered that older children and children of a higher socio-economic level made indeed higher inferences upon consumption, and girls held stronger stereotypes than boys based on product consumption –defining stereotype as «a set of characteristics attributed to a human group» (p. 386). The influence of older siblings in the formation of stereotypes –i.e. the idea that older brothers will influence the level of symbolic understanding of brands, both verbally and non-verbally– did not find support. They also found that individuals more likely to own a product held stronger stereotypes of that product´s owners, suggesting that personal brand experience was more important than advertising in the acquisition of consumption-based symbolism.

Consumption Symbolism in Children. A Result of Experience or Cognitive Abilities?

The above mentioned study suggested that it was experience, and not cognitive abilities, which accounted for the differences found between ages. But for Achenreiner and John (2003), cognitive abilities are responsible for much of the differences observed. They make the distinction between *perceptual level* (in which children associate brands with shape, size or colours) and *conceptual level* (in which children associate brands with status, prestige and 'coolness'). But thinking in a

conceptual level requires three abilities: First, children must recognize a brand name as a way to identify a product; second, the brand must be conceived as a separate element of the product, and third, children must be able to think the brand in an abstract level. Following Piaget´s theory of cognitive level, only children in the formal operational level (11 years and older) are expected to possess these three abilities.

Achenreiner and John (2003) performed an experiment in which pictures of jeans and athletic shoes were shown to children aged 8, 12 and 16 years old. The jeans and athletic shoes in the pictures were actually the same, with no other difference than the brand name (Levi's vs. Kmart and Nike vs. Kmart) written even in the same font type. Children of 8 years showed no difference in their preference between the two brands, while children of 12 years clearly preferred the Levi´s and Nike brands. This suggests that product preferences and owner's evaluations based on brand are fully developed by the age of 12.

Achenreiner links his study to the former of Belk *et al*. (1984), and proposes a scenario in which children are able to recognize consumption symbols around 7 to 8 years. However, at this age children are more attracted by perceptual features, and only by the time they reach 11 or 12 years they can make inferences about product quality and owners of products based on the conceptual features of brand names. Finally, the authors controlled for different levels of product experience across ages, and found that experience was not a relevant factor, reinforcing their hypothesis that the differences depend on cognitive abilities.

Consumption Symbolism and Self-Brand Connections in Children

The different abilities of younger and older children to understand consumption symbolism were confirmed in a seminal paper by Chaplin and John (2005). Self-brand connections are defined as the connection between brands and the self-concepts of children, and in order to form, they require three elements: first, children must "possess brand associations that can be related to the self" (p. 120). Second, children must have a clear idea of their self-concept, so that they can associate their characteristics to the perceived characteristics of brands. And third, children must engage in comparison processes to determine if the brand images are congruent with their own self-concept. Due to the differences in information processing and the use of perceptual cues in younger children, it was expected that the number of self-brand connections would increase from middle childhood to adolescence, and that younger children would form concrete and surface level associations, while early adolescents would form abstract and symbolic associations, using elements such as personality traits, user stereotypes and reference groups.

This hypothesis was tested in a sample of third graders (8-9 year-olds), eighth graders (12-13 year-olds) and eleventh and twelfth graders (16-18 year-olds), using collage techniques and questionnaires. Chaplin and John found that 12-13 year-olds include more brands than 8-9 year-olds when answering the question *Who am I?*; that they connect to brands based on their personalities, user stereotypes and reference group usage, while 8-9 year-olds connect more on a concrete level based on familiarity of the brand; and that 12-13 year-olds provide a well-integrated image and personality of the brand when asked *What the brand would be like as a person?*, while 8-9 year-olds have difficulties to answer the question. The

findings, thus, provide further evidence that self-brand connections are not developed in younger children but well developed by the age of 12.

Chapter 3: Literature Review

In this chapter, an overview of the different meanings of materialism is provided. Moreover, the main measures of materialism in adults and children are presented. Then, the sources and effects (especially negative) of materialism are described. And finally, although traditionally most of the literature has been developed considering adults as the subject of research, a conceptual framework of the variables that influence materialism in children is designed and explained.

3.1 Materialism

The term *materialism* can be interpreted from different viewpoints. To understand its origins in modern times it is necessary, from a microeconomic approach, to go back to the industrial revolution.

The industrial revolution that began in the XVIII century represented an enormous increase in the capacity of mankind to fabricate goods. The famous example cited by Adam Smith, of the production of pins, where a single worker performing all the tasks required for production could manufacture not more than twenty pins a day, while a factory where every worker specialized in a specific part of the manufacturing process –division of labour– was able to produce 4800 pins per worker, is just a glimpse of the revolution that took place in many other areas of economic activity. As Adam Smith wrote, "a workman not educated to this business (…) could scarce, perhaps, with his utmost industry, make one pin in a day, and certainly could not make twenty. But in the way in which this business is now carried on, not only the whole work is a peculiar trade, but it is divided into a number of branches (…). One man draws out the wire; another straights it; a third cuts it; a fourth points it; a fifth grinds it at the top for receiving the head (…) I have seen a small manufactory of this kind, where ten men only were employed, (…) Those ten persons therefore, could make among them upwards of forty-eight thousand pins in a day" (Smith, 1776/ 2005 Ch.1)

This increase in the production of material goods, never seen before in human history, continued throughout the XIX century and consolidated in the XX with new fields such as electronics, robotic and computers. The

industrial revolution in the XIX century and the increase of productivity in agricultural tasks led to a decline in the number of workers in agriculture, who were outnumbered by industrial workers. A few land workers, with the aid of machines and new techniques, could now provide food for the whole population. In the same manner, during the last half of the XX century, industrial workers have been declining in favour of new jobs in the services sector, which is now the biggest employer in industrialized and even some developing countries, a process that was defined by Toffler as the 'Third Wave' (Toffler, 1980).

In the beginning of the XXI century, people in Europe, the U.S. and even some developing nations live in affluent societies, with highly automated factories where a few workers can manufacture so many products, that outputs need to be placed not only in the country of origin but across borders, a process which is doubtless encouraging globalization and free trade areas. As a result, today's society has been defined as a consumer society. Consumption transcends its utilitarian purpose and creates new habits –like shopping–, rituals –Christmas purchases, Black Friday in the U.S.–, lifestyles –techies, trendies– and even addictions –support groups for compulsive shoppers or profligate users of credit cards–.

From a social point of view, materialism is another effect of the affluent society. More than a habit or a lifestyle, it is a conception of life, a world view in which possession of material things becomes a central aspect of life, the main source of happiness and the measure of personal success (Richins & Dawson, 1992).

Needless to say, materialism exists since the dawn of civilization. One can imagine the first men on earth during the Paleolithic, collecting crafted

stone tools, spears or necklaces. One can visualize a hunter boasting about owning the best, sharpest flint stone; or tribe members gathering around a mate to admire the beads in her new necklace. With the settlement of humans and the beginning of agriculture in the Neolithic, the opportunities for gathering objects increased, as well as the variety and quality of the possessions accumulated. All major religions which originated between the 1700 BC (Hinduism) and the 7th century (Islam) criticized an excessive focus on material goods (Belk, 1983). Wealth and luxury are well present in the stories and traditions of ancient civilizations. At the beginning of the Middle Ages, Pope Gregory the Great included greed, "a socially unacceptable degree of concentration on acquiring and possessing things and as being selfishly individualistic" (Belk, 1983 p.514) as one of the seven capital sins, and Thomas Aquinas did the same in the XIII century. At least three other deadly sins relate to materialism: envy, gluttony and pride (Belk, 1983; Larsen, Sirgy, & Wright, 1999). Envy leads to desire other people's possessions, and is related to unhappiness and life dissatisfaction (Belk, 1984). Gluttony, or an excessive focus on the pleasures of food, is linked to consumption of HFSS food and obesity problems in developed nations, but also to consumption of delicatessen of astronomical prices, such as a £19,000 bottle of whisky available at Harrods in London. And pride is related to conspicuous consumption –showing off with expensive clothes, watches, cars or mobile phones–.

During the fifteenth and the twentieth centuries, patterns of seeking happiness through consumption arouse in Western countries, and consumption attained an important place in industrial and post-industrial societies (Belk, 1985).

Nowadays, in everyday language, materialism is defined as an "attention to or emphasis on material objects, needs, and considerations, with a disinterest in or rejection of spiritual values", and a materialist is "one who is markedly more concerned with material things than with spiritual values" (*Webster's encyclopedic unabridged dictionary of the English language*, 1994). It is important to distinguish this definition of materialism, the one considered in this thesis, from the "philosophical theory that regards matter and its motions as constituting the universe, and all phenomena, including those of mind, as due to material agencies", a philosophical world view that goes back to Democritus in ancient Greece.

In the academic literature, several definitions of materialism appear. Belk (1984) defined materialism as "the importance a consumer attaches to worldly possessions. At the highest levels of materialism, such possessions assume a central role in a person's life and are believed to provide the greatest sources of satisfaction and dissatisfaction in life either directly (as ends) or indirectly (as means to end)" (Belk, 1984 p.291).

For Richins & Dawson (1992), materialism revolves around three themes or values: *centrality*, or a tendency to place possessions and their acquisition at the center of one's life; the *pursuit of happiness*, or the view that possessions are essential to one's satisfaction and well-being; and *possession defined success*, or the tendency to judge one person's success by the number and quality of his possessions. The three values (centrality, happiness, success) are related to each other. Actually, in order to place possessions at the center of one's life, one has to believe that material objects are the main source of either happiness or success.

Richins and Dawson also refer to the distinction made by Csikszentmihalyi and Rochberg Halton between *instrumental materialism* –using objects as a means for achieving personal goals in life– and *terminal materialism* –using objects by the sake of possession itself–. However, terminal materialism has also been reported as a means to generate the envy of others, or obtain social status, and one may wonder whether these outcomes, rather than the acquisition itself, constitute the final goal of terminal materialism. The distinction between instrumental and terminal materialism could therefore depend on a value judgment of the goals for each category. *Instrumental materialism* goals such as self-actualization or friendship ties would be considered acceptable or 'good', whereas *terminal materialism* goals, such as boasting or impressing others, would be considered 'bad'.

Other scholars define materialism as the pursuit of one's own material well-being (Easterlin & Crimmins, 1991), as the degree to which individuals or groups value material possessions (Larsen et al., 1999), and as "the value a consumer places on the acquisition and possession of material objects" (Burroughs & Rindfleisch, 2002 p.349).

Finally, an additional insight on materialism can be achieved by reflecting on what materialism is not. Lastovicka *et al* (1999) defined frugality as a lifestyle that restrains acquisition and uses goods resourcefully to achieve longer-term goals. Frugality is intuitively opposed to materialism, although some behaviours of frugal people, like accumulating things for some unknown future use, may be linked to the materialistic trait of possessiveness. If materialism consists in placing material things at the centre of one's life as a path to success and happiness, a non-materialist should be someone for whom spiritual or intellectual goals are central, who obtains success from self-actualization and personal achievements,

and who gets happiness not from possessions but from marriage, children, leisure or personal relations.

3.1.1 Measuring Materialism

The Handbook of Marketing Scales (Bearden & Netemeyer, 1999) contains measures of materialism developed, in chronological order, by Moschis & Churchill (1978), Inglehart (1981), Belk (1984, 1985), Richins (1987) and Richins & Dawson (1992). Some of these scales are explained in this section.

The scale used by Richins (1987) consisted of seven items, rated on a Likert scale. These items measured two different aspects of materialism: personal materialism, or the idea that possessions would increase one's own happiness, and general materialism, or the general idea that money brings happiness. The seven initial items in the study are shown in appendix 1. This scale, although preliminary, is important because the same author, five years later, developed the now widely used scale of Richins & Dawson.

Of all existing scales in the literature, however, Belk's (1984) scale and Richins and Dawson's (1992) scale are the most widely used to measure materialism among adults.

Belk (1984) proposes a measure of materialism based on three personality traits: possessiveness, non-generosity and envy. Possessiveness is defined as "the inclination and tendency to retain control of one´s possessions" (Belk, 1983 p.514), including among possessions tangible assets, experiences (i.e. vacations), owned symbols (a name, title) and other persons (friends, children, etc.). Non-generosity refers to an "unwillingness

to give possessions or to share possessions with others" (Belk, 1984 p.291). Finally, envy is defined as "displeasure and ill-will at the superiority of another person in happiness, success, reputation, or the possession of anything desirable" (Shoeck, 1987 p.18). Belk's scale consists of 24 Likert-type items: 9 for possessiveness, 7 for non-generosity and 8 for envy (see appendix 2). It is important to notice that envy, in Belk's definition, applies non only to material objects (or greed) but also to nonmaterial attributes such as happiness or personal attributes of other people; and that a feeling of *displeasure* is needed in order to differentiate envy from a healthy desire of becoming a better person by acquiring desirable virtues observed in others.

Richins and Dawson (1992) developed a scale with three dimensions for materialism: success, centrality and happiness. Success measures whether someone judges success "by the number and quality of possessions accumulated" (Richins & Dawson, 1992 p.304). Centrality is the extent to which people "place possessions and their acquisitions at the centre of their lives" and happiness is the "notion that possessions and their acquisition are essential for well-being and satisfaction in life" (J. Roberts, Manolis, & Tanner, 2003 p.304). The antecedents of this scale are probably in Richins' above mentioned scale of 1987, which was developed precisely because the author wanted to measure material values, and not personality traits like Belk. Richins and Dawson consider materialism as a value that guides people's choices and behaviours. Their original scale consisted on 18 Likert-type items: 6 for success, 7 for centrality and 5 for happiness (see Appendix 3).

In 2004, Richins developed shorter versions of her Materialism Scale. The reason was that using all the 18 questions to measure materialism made

questionnaires long, especially when materialism was only one of several constructs under evaluation, or not even the main construct under assessment (Richins, 2004). She examined the properties of shorter forms composed by 15, 9, 6 and 3 items and concluded with a recommendation that, in all future studies, the 18-items scale be replaced by the shorter 15-items version. This version had the additional advantage that the three materialism dimensions weighted equally, with 5 questions for success, 5 for centrality and 5 for happiness. The short form is reproduced in Appendix 4.

The above mentioned scales were designed for use with adults, but their appropriateness for use with children is highly debatable. First, personality traits and values are not fully-formed in children. Second, the length of questionnaires, comprising up to 24 items, render them hard to use with children. (Bottomley, Nairn, Kasser, Ferguson, & Ormrod, 2010). Third, some items included in the questionnaires (such as Richins & Dawson questions about luxury items "I like a lot of luxury in my life") may be far from the experience of children and become problematic when asked to a sample of teens (Chan, Zhang, & Wang, 2006). For these reasons, specific measures of materialism were developed for use with children.

Goldberg *et al* (2003) built on the adult scales by Belk (1984) and Richins and Dawson (1992) to draw up a scale that could be applied easily to children from 9 to 14 years old. Their Youth Materialism Scale (YMS) consists of 10 questions, measured on a 4-point Likert scale (see Appendix 5). Principal factor analysis revealed a single factor with an eigenvalue above 1, which was a good indicator that all questions were measuring the same construct.

Other scales developed to be used specifically with children include a 5 items scale developed by Achenreiner (1997) to be used with children aged 8, 12 and 16 years (see Appendix 6) and Roberts, Manolis and Tanner (2003) simplified version of Richins and Dawson´s scale (see Appendix 7).

Other researchers have experimented with more creative ways to measure materialism in children. Chaplin & John (2007) gave the children a board and several pictures of five categories: hobbies (camping, playing games); people (mom, dad, friends); sports (football, ski, swimming); material things (cell phone, money, brand clothes) and achievements (getting good grades, being good at sports). Children answered the question 'What makes me happy?' by choosing pictures for the collage. Materialism was measured as: (a) The total number of material things included (objects and brands) and (b) The ratio of material objects to total objects. This technique offers deeper insights about materialism while having fun, especially with younger children, and avoids social desirability biases in survey questions.

The following table (Table 3.1) displays the above mentioned measures, indicating the studies in which they were tested and the Cronbach alpha (α) of the measure. As shown, internal consistency is higher in adult samples (except for the Belk materialism scale, which shows lower levels of α) and at least two children samples show Cronbach alpha levels above .70, over the threshold of acceptable values (Tavakol & Dennick, 2011).

Author and year	Constructs measured	Measurement	Test	Reliability
Measurement in adults				
Belk (1984)	Materialism as personality traits: -Possessiveness -Non generosity -Envy	24 items (9 for possessiveness, 7 for nongenerosity, 8 for envy) measured in a 5-point Likert (agree/disagree) scale	Sample of 338 subjects composed of Business Students, Secretaries, Students at a religious institute, fraternity members, machine shop workers	α = .57, .58 and .64 for each trait.
Richins & Dawson (1992)	Materialism as three dimensions: -Success -Centrality -Happiness	18 items (6 for success, 7 for centrality and 5 for happiness) measured in a 5-point Likert (agree/disagree) scale	Five samples, n=144, n=250, n=235, n=86 and n=119	.80 < α < .88
Richins (2004)	Materialism as three dimensions: -Success -Centrality -Happiness	15 items (5 for success, 5 for centrality and 5 for happiness) measured in a 5-point Likert (agree/disagree) scale		.79 < α < .91
Measurement in children				
Goldberg et *al* (2003)	Youth Materialism Scale	10 items, 4-point Likert scale	540 parents and 996 9-14 year old children	α = .75
Robert, Manolis and Tanner (2003)	Simplified version of Richins and Dawson	11 items (3 for happiness, 4 for centrality and 4 for success)	669 students, 11-15 years old	α = .76
Achenreiner (1997)	Materialism, adapted from Richins (1987)	5 items, 4-point Likert scale	300 children form 8, 12 and 16 years	α = .66

Table 3.1 Measures of materialism in adults and children

Measuring the level of materialism in children is very important. Nevertheless, understanding the sources which lead to materialistic attitudes and identifying the effects of materialism in children's lives is also crucial. A description of the main triggers and common effects of materialism is explained in the next sections.

3.1.2 Sources of Materialism

According to Kasser *et al* (2004), materialistic attitudes arise from two main sources: (1) from experiences that provoke feelings of insecurity, and (2) from exposure to materialistic models. These will be explained in the following sections.

Insecurity

Feelings of insecurity lead people to compensate by engaging in consumption or accumulating material objects. People who fear not meeting their needs of basic food and maintenance may accumulate wealth in their bank accounts, in an attempt to cope with future uncertainty. People who lack self-esteem may resort to owning expensive cars, clothes and homes as a way to impress others and cope with internalized insecurity. As the author puts it: "Having a steady job and money in a savings account makes people feel more secure and thus fulfill the same needs that drove our ancestors to store dried meat for another long winter. (…) a number of psychologists and social scientists suggest that people who highly value materialistic aims are driven by unmet needs of security and safety. From this perspective, materialistic values are both a symptom of underlying insecurity and a coping strategy (albeit a relatively ineffective one) some people use in an attempt to alleviate their anxieties" (Kasser, 2002 p.29).

Kasser explored how family factors influence security feelings. He discovered that non-nurturing mothers (i.e. mothers who did not support their child security) had teenagers that valued financial security over self-

acceptance. Divorce is another family situation that diminishes resources the child needs, such as love and affection, and therefore leads to increased materialism (Rindfleisch, Burroughs, & Denton, 1997). Poverty is another driver of economic insecurity, for people who worry about the satisfaction of their material needs may develop materialistic traits, as Kasser found in a sample of teenagers of low socio-economic level (Kasser, Ryan, Zax, & Sameroff, 1995).

According to terror management theory, humans develop mechanisms through culture and beliefs to avoid insecurity caused by the fright of death. In our consumer societies, fear of death makes people look for security in the socially sanctioned norms of purchasing and indulging in consumption to overcome existential insecurity (Arndt, Solomon, Kasser, & Sheldon, 2004) and forming strong connections to brands (Rindfleisch, Burroughs, & Wong, 2009). Kasser confirmed this by experimentally increasing mortality salience in groups of students. Those students who wrote essays about their own death were more likely to spend more, have higher expectations of their future financial worth and be motivated by greed than students in the control condition (Kasser, 2002).

Exposure to Materialistic Models

Exposure to materialistic models is a second way through which people become materialistic. Materialistic values can be learned from people in the same family, especially parents (Chaplin & Lowrey, 2010; Goldberg et al., 2003), or from peers at school or the neighbourhood (Achenreiner, 1997; Flouri, 1999). But values can also be learned from media, from advertisements that depict an idyllic lifestyle of happy people owning the

latest car or enjoying the ultimate holiday experience, and TV shows that specifically address materialistic issues, from Spanish TV contest *Atrapa un millón* (Catch a million) to MTV show *Lifestyle of the Rich and Famous* (aired from 1984 to 1995). Even inspiring, family-audience Hollywood movies like *The Pursuit of Happiness* seem to indicate that, in the end, happiness consists in founding your own brokerage firm and selling it later in a multimillion deal. It is not surprising that TV exposure is associated to higher levels of materialism, even in children (Buijzen & Valkenburg, 2005; Churchill & Moschis, 1979) as media shape or cultivate people's perception of social reality (Richins, 1987). As Kasser affirms: "Advertisers have at their disposal many techniques designed to convince people to purchase their products. (…) The ads also display products amidst a level of wealth that is unattainable by the average consumer and often show idealized versions of life within the context of the advertisement. Such tactics create associations between the product and desirable outcomes and also teach consumptive behavior through modeling" (Kasser et al., 2004 p.16).

3.1.3 Effects of Materialism

One of the reasons materialism has received so much attention in the academic literature is its relationship with a series of negative outcomes in people who display materialistic attitudes. This section describes the most common ones.

Unhappiness

Some of the aspects involved in materialism, like envy or non-generosity, have been identified with unhappiness and dissatisfaction in adults (Belk, 1984). Belk considers *non-generosity* and *envy* as an important source of human dissatisfaction (envy is even mentioned as 'a destructive trait') On the other hand, *possessiveness* is less clearly related to unhappiness, as some adults are happy even as they remain strongly attached to certain possessions. In this line, Rindfleisch & Burroughs (2004) propose that materialism may not be harmful to everybody. They examined data from 373 American adults in a 2002 study and found that 73 people (20% of the sample) exhibited high levels of materialism and, at the same time, high levels of happiness. These 'happy materialists' usually had higher income, education and focused more on values like power, achievement and hedonism, and less in values like universalism.

One may question whether the happiness of these happy materialists is sustainable in the long term. If happiness is the result of fulfilling authentic human needs (Kasser, 2002), the well-being of happy materialists seems more contingent on external things, and it could become distress in the event of a loss of cherished possessions in the future. As Rindfleisch and Burroughs put it: "Is this illusory, or are there deeper psychological, sociological, or cultural mechanisms that allow these individuals to have their proverbial cake and eat it too? The secret behind this apparently successful balancing act is an intriguing issue for future research" (Rindfleisch & Burroughs, 2004 p.212).

More recent studies found happiness to be negatively related to overall materialism (Swinyard, Kau, & Phua, 2001). Goldberg et *al* (2003) found no

relation between youth´s level of materialism and their parent´s report of the child´s level of happiness. These results may have been affected by Social Desirable Responding –it is hard for a father to admit that his own child is not really happy–.

Subjective Well-Being

Subjective Well-Being (SWB) is defined as individuals' cognitive and affective evaluations of their lives (Diener, 2000). Diener (1984) mentions three definitions of well-being: as a life well-lived (external criterion), as the evaluation of one's life in positive terms (subjective criterion) and as the preponderance of positive affect over negative affect (happiness), noting that SWB follows the second one. The term 'Life satisfaction' is usually used as a synonym of SWB, and SWB is sometimes measured (Burroughs & Rindfleisch, 2002) using Diener, Emmons, Larsen, & Griffin (1985) *Satisfaction with Life Scale*. At least three theories explain the level of SWB: *Endpoint theories* affirm that well-being is obtained when a goal is achieved or a need satisfied. *Judgment theories* affirm that SWB results from a comparison between current conditions and a standard, such as actual or other´s people conditions. And finally, *Adaptation theories* predict that only recent changes produce happiness or unhappiness because people usually adapt to their normal levels of satisfaction (La Barbera & Gürhan, 1997).

Several studies have shown a negative relation between materialism and SWB (Belk, 1984, 1985; Burroughs & Rindfleisch, 2002; Richins & Dawson, 1992; Richins, 1987; Ryan & Dziurawiec, 2001) or envy –a materialist trait– and SWB (La Barbera & Gürhan, 1997). People who value extrinsic goals

such as financial success, social recognition or an appealing aspect also report lower well-being and greater distress. (Kasser & Ryan, 1996). Larsen et al. (1999) even affirm that, in materialism research, “no relationship among variables has been more widely supported than the negative correlation between materialism and life satisfaction” (p.97).

In a study performed among business students in Singapore, Kasser and Ahuvia (2002) explored the relation between materialistic values and well-being. They measured materialism using the Aspiration Index of Kasser and Ryan (2001), which measures intrinsic values such as self-acceptance, affiliation, community feeling, physical fitness, security-safety, spirituality, as well as three extrinsic values: financial success, popularity and image. They also measured materialism using the scales developed by Richins and Dawson (1992) and Ger and Belk (1996), and computed a summary Materialism score by standardizing and averaging scores of the three scales (Kasser & Ahuvia, 2002). The authors found that “students who believed that money, possessions, image and popularity are of large importance also reported lessened self-actualization, vitality and happiness, and more anxiety, physical symptoms, and unhappiness” (Kasser & Ahuvia, 2002 p.142).

The fact that the survey was taken among business students in Singapore is no coincidence: business schools usually attract students high in materialistic values, and Singapore has been identified as a society that emphasizes material success.

One aim of the Kasser & Ahuvia experiment was to rule out an alternative hypothesis, mentioned by Sagiv and Schwartz (2000), that the relationship of values to well-being depends on the match between personal values and

the values of the environment. Sagiv and Schwartz found that, in a sample of business students with a materialistic orientation, self-enhancement values such as power or achievement correlated positively with well-being, and transcendent values such as benevolence or universalism correlated negatively, whereas in a sample of psychology students, who do not adhere to materialistic values, the correlations were reversed (although significance was lower). They suggest that there are no 'healthy' or 'unhealthy' values per se. Three mechanisms through which value congruence between personal and environmental values affect well-being were proposed: congruent environments give people the opportunity to live their values, to avoid social sanctions and to avoid internal conflict. But Kasser and Ahuvia (2002) found a negative effect of materialism on SWB even in the high materialistic environment of business students in Singapore. A possible explanation for the different findings, the authors say, is that materialism is more clearly measured in their study, while Sagiv and Schwartz measure mostly power and achievement values.

Some years later, a study by Vansteenkiste et al (2006) provided further evidence that the detrimental effects of materialism are independent of the values supported by the environment. In a survey of 248 Belgian students, both of business and education, they found that business students are highly oriented toward wealth and rank high on extrinsic values such as financial success, fame or physical appearance; while education students give more importance to contributing to the community and rank higher in intrinsic values such as growth, community contribution and affiliation. The authors found that education students reported higher well-being and less use of substances –alcohol, cigarettes and drugs– than business students, and that the effect of value orientation

on well-being seems to be independent of the type of values emphasized within the environment (Vansteenkiste, Duriez, Simons, & Soenens, 2006).

However, the theory that the negative effect of materialism on well-being is contingent on people's values has its supporters. La Barbera & Gürhan (1997) found a negative association between the non-generosity and envy dimensions of materialism and SWB for born-again Christians, but a positive association for non-born-again Christians, suggesting that materialistic values diminish well-being only in people who hold non-materialistic values. Burroughs & Rindfleisch (2002) found that materialism increases stress in people who hold strong religious values or family values, but not if their religiosity or family values are low. They posit that the conflict between material values and collective values causes psychological tension, which in turns reduces SWB.

Depression

Depression is "an affective disorder characterized by despair, loneliness and low self-esteem" (Burroughs & Rindfleisch, 2002 p.356). Materialism (Burroughs & Rindfleisch, 2002) and placing money high in the rank of values (Kasser & Ryan, 1993) have been found to correlate with higher depression. In their study with 101 low and medium income undergraduate students, Wachtel and Blatt (1990) found that materialism correlated specifically with the depressive affect associated with self-criticism and inferiority .

Other Negative Effects

Materialism has also shown a slight negative relationship with liking of school and school performance (Goldberg, Gorn, Peracchio, & Bamossy, 2003). Most of the former studies, as already mentioned, have been conducted among adults and young adults; but their conclusions raise alerts about the negative effects that materialism can have on adolescents and children too.

Positive Effects of Materialism

Although research has focused more on the negative aspects of materialism, some scholars have also drawn attention to its positive aspects. Csiksentmihaly and Rochberg Halton identified *instrumental materialism* as a way to obtain material means to achieve positive goals of self-actualization or friendship with others (Richins & Dawson, 1992).

Burroughs and Rindfleisch (1997) propose that materialism can also play a functional role as a coping mechanism during difficult life transitions. Specifically, they suggest that material objects may help children in reducing the stress associated with their parents' separation and divorce. In a sample of 200 young adults they found that, while materialism and family stress were positively related among children from intact couples, they were negatively related among children whose parents had separated or divorced. Further qualitative research performed by the authors suggested that material objects provide to children a substitute for three elements commonly lost in the process of a parent´s divorce: *permanence* (a needed element of stability amidst undesired changes in their lives), *control* (which they have lost over their lives, but can exert over their

material possessions) and *identity* (as collection of material objects can help children with lost self-esteem achieve a sense of self-identity) (Burroughs & Rindfleisch, 1997).

3.1.3.1 Why does Materialism Have Negative Effects?

Several explanations have been proposed by psychologists and social scientists about the mechanisms through which materialism results in lower Subjective Well-being and happiness. Three of these theories will be reviewed here.

Sirgy Theory of Satisfaction with Standard of Living

The first theory (Sirgy, 1998) affirms that life satisfaction is determined by satisfaction with standard of living (wealth, earnings, material possessions). And satisfaction with standard of living, in turn, depends on comparisons of one's standard of living with set goals.

Materialists tend to evaluate their standard of living using affectively-based standards. Three are the main standards used: *ideal,* or what the person considers would be his ideal life (for example, owning a big house in the best neighbourhood of the city); *deserved*, or what the person considers to have right to (for example, an MBA from a top Business School that believes he deserves a well-paid job); and *minimum-needs* or what the person considers to be the minimum acceptable earning to cover his financial needs (for example, a woman from a wealthy family that marries a not so wealthy man and has expectations about the minimum money she requires to carry on her usual standard of living).

The problem with these three *affective-based expectations* is that they are closely linked to emotions, unlike *cognitive-based expectations* which are standards of comparisons with one's income or wealth. Cognitive-based expectations are of three types: past standard of living, predicted standard of living (for example, a graduate student that has expectations of raising his salary after graduation) and perceived ability to achieve in life.

According to Sirgy, materialists judge their standard of living based on emotional, affective-based expectations because they are more emotionally involved in the material domain than the average people. As a result, their expectations are unrealistic and, even worse, having them fulfilled does not guarantee satisfaction. Materialists tend to engage in upward social comparisons (compare themselves with better-off people) and compare to remote referents, or people beyond their circle of family or friends. They also have a tendency to overconsume (for they want to achieve an unrealistically high standard of living) and underproduce. All of these elements are, according to Sirgy, the explanation of the observed negative relationship between materialism and life satisfaction.

The 'Crowding out' Theory of Kasser

Kasser (2002) starts by affirming that all people have psychological needs. These needs exist in humans, as an addition to physical needs (food, water, shelter) that we share with animals. A need is something that a person requires for "his or her survival, growth and optimal functioning" (Kasser, 2002 p.24). These needs are like the nutriments of a well-adjusted character. Some of these needs refer to security and safety, but many of them are linked to our relationship with people. Having good interpersonal

relationships (being able to give and receive love) and getting involved in one's community are two cornerstones of psychological well-being.

Materialistic people focus their energies and interest in getting material objects, and they do it at the expense of their relationship to others. Materialistic pursuits 'crowd out' the satisfaction of healthy needs, such as being related to a family, friends or a community. People who rank high in materialism are more likely to treat other people as objects, being unable to treat others with empathy or generosity. They may also have a tendency to use or manipulate others, to attain their goals of increased social status or wealth (Kasser, 2002).

To sum up, the inability of materialists to fulfill basic human needs of affiliation and self-actualization (because most of their energies are devoted to the accumulation of wealth) creates in the long term a situation where happiness is contingent on owning things or having an impressive bank account. But material things *per se* are unable to bring about happiness. As long as the pursuit of wealth allows little time to fulfill authentic needs of love and integration in a community, a vicious cycle appears and SWB diminishes.

Adaptation Theory

Chapter 5 of Kasser's book *The high price of materialism* opens with a quotation of Jim Clark, founder of Netscape. At the beginning of his career, he had said that a fortune of $10 million would make him happy. Before founding Netscape, his expectations had increased to $100 million. Before founding Healthon, he talked of $1 billion. By the time of the quotation (1999) he affirmed that he would be satisfied once he had as much money

as Larry Ellison, founder of Oracle, whose fortune was estimated at $13 billion.

Why is it that materialists always need more and more money to be satisfied? *Adaptation theory* affirms that individuals adapt to a level of satisfaction or comfort. When a desired, long-time-wished status is obtained, people are happy but after a short time they adapt to their new situation and expectations rise again, creating a gap between the actual state and the expectations (Richins, 1987). As a result the individual sets on in search of a higher level of wealth or status, and larger 'doses' of wealth and possessions are required each time to attain basically the same levels of happiness.

So far we have examined the mechanisms through which materialism develops as well as its consequences. In the next section, the specific factors that are related to children's materialism, and a conceptual framework that classifies them into three groups, will be presented.

3.2 Factors that Influence Materialism in Children

3.2.1 An Overview

Several factors have been identified in the literature as fostering materialism in children. In the 70s, a stream of research found materialism to be correlated with "ineffective family communication patterns, greater peer communication and higher levels of television viewing" (Chaplin & John, 2007 p.480). In recent years, some articles have found links between

materialism and the presence of materialistic parents (Goldberg et al., 2003) or specifically mothers in adolescents (Flouri, 1999), family disruption (Rindfleisch, Burroughs, & Denton, 1997; Roberts et al., 2003), marketing promotions (Goldberg et al., 2003), and fluctuating levels of self-esteem (Chaplin & John, 2007). Peer influence was studied by Churchill and Moschis in the 70s (Churchill & Moschis, 1979; Moschis & Churchill, 1978). Demographic variables, such as gender, age, and birth order have also been explored (Churchill & Moschis, 1979).

To identify the factors that influence materialism in children, a preliminary literature review was conducted to identify the most relevant articles in the field. This search was done in 2011 as part of the Master Thesis of the Master of Research Program. Following some steps of systematic research (Centre for Reviews and Dissemination, 2008), this review was complemented in 2013 by a search of published journal articles using four electronic databases: Science Direct, Springer, Business Source Premier and Proquest. The search terms were Materialism and (Children or Adolescent) in the abstract. The result led to a number of articles, dating from 1978 to 2012, a period of 34 years. To include an article in the final list, it had to meet two criteria: (1) Study the influence of a factor or set of factors on materialism in children, and (2) Include children under 14 years in at least part of the sample.

In addition, three journals were selected, to review all experiments on materialism in children published in the last ten years (from 2002 to 2011). Two of the journals were selected because they showed the highest incidence of articles related to materialism in our preliminary search (The *Journal of Consumer Research* and *Advances in Consumer Research)*. The third journal, *Young Consumers*, previously entitled *Advertising &*

Marketing to Children, was included as it is specifically oriented to children and teens, and reports experiments performed in non-western countries. The results are illustrated in Table 3.2.

Author and year	Journal[1]	Independent variables	Materialism…	Sample[2]
Adib & El-Bassiouny (2012)	JIM	Parents' materialism Peer influence	(+) related (+) related	104 children in Egypt 11-14 and 70 parents
Chaplin & John (2010)	JCP	Parents' materialism Peers' materialism Parents' support Peers' support Self-esteem	(+) related (+) related (-) related (-) related (-) related, mediates the other variables	100 adolescents, 12-18 years old
Chia (2010)	CR	Advertising exposure Perceptions of parents' and friends' materialism	(+) related (+) related	695 students in Singapore, 12-23 years old
Speck & Peterson (2010)	RCB	TV exposure Religiousness	Non-significant (-) related to religiousness	153 adolescents and their parents in Peru
Chaplin & John (2010)	JCP	Parents' materialism Peers' materialism Parents' support Peers' support Self-esteem	(+) related (+) related (-) related (-) related (-) related, mediates the other variables	100 adolescents, 12-18 years old
Chan and Cai (2009)	YC	TV ad exposure Living in rural area Single child	(+) related (+) related (possibly due to lower income) (+) related	646 adolescents in China, 11-17 years (379 urban, 267 rural)
Banerjee & Dittmar (2008)	PSSB	Perceived peer pressure	(+) related, mediated by Social motives for materialism	181 children in the UK, 8-11 years old
La Ferle & Chan (2008)	YC	Age TV ads exposure Marketing promotions Peer influence Media Celebrities	Lower in older adolescents Non-significant Non-significant (+) related to peer influence (+) related to imitation of celebrities	189 adolescents in Singapore 65 13-14 years 103 15-16 years 7 17-18 years
Chan and Prendergast (2007)	SBP	Peer communication Motivation to see ads Social comparison-friends	(+) related to peer communication and normative peer influence (+) related (+) related	281 adolescents in Hong Kong, ages 11-20 years
Chaplin and John (2007)	JCR	Age, Self-esteem	… increased from 8 to 12 years, decreased by 16 years. Self esteem mediated changes	50 8-9 year olds 50 12-13 year olds 50 16-18 year olds

Chan, Zhang & Wang (2006)	YC	Age Parents communication Peer communication TV viewing Social motives to see ads	Higher in older adolescents (17-19) (-) related (+) related Non-significant (+) related	730 adolescents in Beijing, China 211 11-13 years 337 14-16 years 162 17-19 years
Buijzen and Valkenburg (2005)	JBEM	Family communication TV ad exposure	(-) related to concept-orient communication (+) related to TV ad exposure	360 children 8-12 years in the Netherlands
Flouri (2004)	JEP	Age Gender Father´s involvement Mother´s involvement Inter-parental conflict	(+) related to age Higher in males Non-significant (-) related (+) related	2218 secondary school children in the UK, 11 to 19 years old.
Chan (2003)	YC	Age Gender Family size TV viewing TV viewing with parents Allowance	Higher in 6-7 year-olds Non-significant Non-significant (+) related to TV viewing (but NS when "perceived manipulation intent of ads" question included in model) Non-significant (+) related to higher allowance	246 children in Hong Kong 6-13 years
Goldberg et *al* (2003)	JCP	Age Gender Family income Frequency of shopping Interest in new products Interest in TV ads Parent´s materialism Liking for school School performance Happiness Celebrities endorsement	No difference bw. 9-10 and 12-14 year olds Higher in males (-) related to family income (+) related (+) related (+) related to interest in TV ads (+)related to parent´s materialism (-) related to liking for school (-) related to school performance Non-significant (+) related to purchase intention	540 parents, 996 9-14 year old children
Roberts, Manolis & Tanner (2003)	JAMS	Family disruption	(+) related to disrupted families (especially "happiness" dimension)	669 children 11-15 years old
Flouri (2001)	JSE	Age Family togetherness	(-) related to age (-) related to materialism	124 British boys aged 13-19 years
Achenreiner (1997)	ACR	Age Susceptibility to influence Gender	Higher in 12 year-olds (+) related Higher in males	76 8 year olds 118 12 year olds 106 16 year olds
Moschis & Moore (1982)	JCR	TV ad exposure	(+) related, and long term effects in individuals with low materialism	211 adolescents, 12-18 years old

Churchill & Moschis (1979)	JCR	Age Gender TV viewing Peer communication[3]	Non-significant Higher in males (+) related to TV viewing (+) related to peer communication	806 adolescents
Moschis & Moore (1979)	ACR	Family communication	(+) related to Socio-oriented communication	301 adolescents of junior and high-schools.

Table 3.2 Studies of factors that influence children's materialism

1 ACR: Advances in Consumer Research; CR: Communication Research; JAMS: Journal of the Academy of Marketing Science; JBEM: Journal of Broadcasting and Electronic Media; JCP: Journal of Consumer Psychology; JCR: Journal of Consumer Research; JEP: Journal of Economic Psychology; JIM: Journal of Islamic Marketing; JSE: Journal of Socio-Economics; PSSB: Personality and Social Psychology Bulletin; RCB: Research in Consumer Behavior (book); SBP: Social Behavior and Personality; YC: Young Consumers;

2 Samples belong to the U.S. unless otherwise indicated

3 Peer communication about consumption issues.

As can be seen from the table, most studies have been conducted in the last 15 years, which confirms that academics have become interested in the subject after the upsurge in marketing to children towards the end of the 20th Century. *Age* is the variable that appears in most studies, because along with gender, it is easier and cheaper to collect (Kotler & Keller, 2009). In addition to the variables considered in our conceptual framework, which is described in the next section, some other variables have been investigated, such as perception of parents' and friends' materialism, social motives to see ads, father's or mother's involvement with the child and whether the child is a single child.

3.2.2 Conceptual Framework

A conceptual framework is a device that organizes empirical observations in a meaningful structure (Shapira, 2011). The proposed framework shown

in Figure 3.1 considers three groups of factors, briefly summarized in Individual Factors, Semi-Contextual Factors and Contextual Factors. The distinction between individual and contextual stems from characteristics inherent to the child as opposed to the setting in which a child is born and brought up. The additional distinction between Semi-contextual–Family influences and Contextual–External influences is justified on at least two counts. First and foremost, the family is the principal context for human development (Bronfenbrenner, 1986), and the interaction with parents and siblings is so important that family deserves a special place. Second, the literature has identified many family characteristics influencing materialism in children. In Figure 3.1, the factors are shown in layers. Individual factors are closer to the child, followed by Semi-contextual–Family influences and Contextual–External influences.

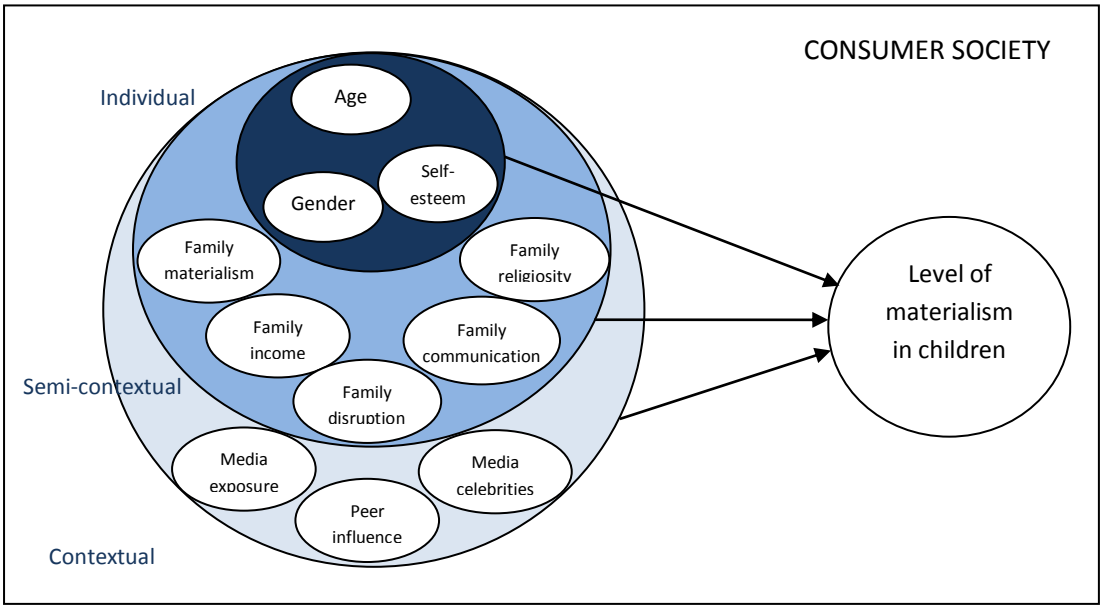


Figure 3.1 Conceptual framework of the forerunners of materialism in children

3.2.2.1 Individual Factors

Age and Self-Esteem

Chaplin and John (2007) undertook a study with three groups of children – 8-9 year-olds, 12-13 year-olds and 16-18 year-olds– and measured materialism using a collage technique, in which participants had to construct a collage answering 'What makes me happy?'. Materialism was measured by the incidence of elements such as 'brand names' or 'money' included in the collage. This method allowed for a better measurement of younger children and avoided socially desirable responding among older adolescents.

Results found that the level of materialism increased highly from 8 to 12 years, and decreased again by 16 years. Moreover, they found self-esteem to be a partial mediator for the increase of materialism from 8 to 12 years, and a perfect mediator for the decrease of materialism from 12 to 16 years. The explanation may be that, in early adolescence, self-esteem declines as a result of changes in body and self-image, and at the same time, children become fully capable of understanding the symbolic and conceptual aspects of brands (Achenreiner & John, 2003). Both effects lead them to focus on material goods as a way of self-enhancement (Chaplin & John, 2007).

It is important to notice that Achenreiner (1997) had also measured materialism in samples of children aged 8, 12 and 16 years, and had also found that the materialism scale –a five items scale on a 4 point Likert scale– was higher for the 12-year-olds (mean: 13.59 for 8 years, 14.07 for 12 years, 13.44 for 16 years). But the differences across age groups were

not significant at the .05 level, and therefore she concluded that materialism was a relatively stable trait during childhood (Achenreiner, 1997) (See Appendix 6).

A more recent study (Chaplin & John, 2010) found a negative relationship between self-esteem and materialism in a sample of 12 to 18-year-olds, and posits that self-esteem could be a significant mediator between parent and peer factors and children's materialism.

Belk (1984) reflects that, since only people who accept themselves as worthy to receive and give are indeed capable of giving, people with low self-esteem will be more likely to be non-generous. Moreover, this non generosity may lead to alienation from society –as western and other societies sanction behaviours that do not help to the cohesion of the social group– and, in the end, be harmful to the individual. A vicious circle of low self-esteem, non-generosity, peer rejection and reinforcement of low self-esteem may be at work, fostering materialistic attitudes in children and teenagers.

But not all studies have found a consistent pattern in the relationship between age and materialism. Goldberg et *al* (2003) found no significant difference in materialism between a sample of 9- to 10-year-olds and 12- to 14-year-olds. Flouri (2004) found a positive relationship between age and materialism in a sample of adolescents ranging from 11 to 19 years, which seems to contradict the idea that materialism decreases as adolescents become more mature. And experiments in China have obtained similar outcomes. One experiment found older adolescents (17-19 years) to be more materialistic than 11-13 or 14- to 16-year-olds (Chan et al., 2006), and another experiment found that older adolescents (16-20)

were more materialistic than younger adolescents (12-15), and this group, in time, more materialistic than children aged 8 to 11 (Chan, 2013). But also in China, children of 6 to 7 years have been reported as more materialistic that children from 8 to 12 (Chan, 2003).

So, results on the correlation between age and materialism are inconsistent. The hypothesis of materialism increasing in early adolescence due to declines in self-esteem, and increasing again in later years with higher self-confidence seems plausible; but evidence about it is not conclusive. Moreover, age influence on materialism seems to vary across cultures and according to the specific age range used for comparison.

Gender

Boys have consistently shown greater materialism than girls in Western societies (Achenreiner, 1997; Churchill & Moschis, 1979; Goldberg *et al*., 2003; Moschis & Churchill, 1978). In a sample of 2218 British secondary school pupils, boys scored significantly higher than girls in materialism, with a *p* value below .001 (Flouri, 2004). The same results were found by Goldberg *et al* (2003) in a national sample of 996 parent-child dyads.

An explanation could lie in the identification of boys with their fathers. In samples of children's parents, men have also scored higher than women in materialism (Flouri, 2007). This could be an effect of the traditional role of men as providers of goods for the family, and men's greater tendency to use possessions to bolster their status.

However, experiments performed in China did not obtain a significant difference in the materialism levels of boys and girls (Chan *et al*., 2006;

Chan, 2003). This could indicate that at least some differences between boys and girls in the development of materialistic traits stem from cultural differences and not only from nature.

3.2.2.2 Semi-Contextual Factors – Family Influences

Family Materialism

Materialistic parents tend to have materialistic children, supporting the idea that parents transmit their values to their offspring and act as role models for their children. Adib & El-Bassiouny (2012) found a positive correlation between parents' and children's materialism in a sample of 104 parents and 70 children aged 11 to 14 in Egypt. Chaplin & John (2010) also found a positive relationship in a sample of 100 adolescents aged 12 to 18 years, as did Goldberg *et al*. (2003) in a sample of 540 parents and 996 children in the U.S.

Although her experiment was performed in a sample not of children but of older adolescents aged 16 to 23 years in the U.K., Flouri (1999) found that adolescents' materialism was correctly predicted from their mother's materialism scores –i.e., materialistic mothers had materialistic kids– supporting the idea that materialism is transmitted via the identification with the caregiver.

Family Income

Children brought up in low-income households are significantly more materialistic than those from higher income ones. Chan & Cai (2009) found that rural adolescents in a sample of 11- to 17-year-olds in China endorsed more materialistic values than urban ones, possibly due to lower income in rural areas, which makes kids experience more economic insecurity and develop higher materialistic aspirations. Goldberg (2003) found that youths from lower income households were significantly more materialistic than those from higher income ones. Kasser et al (1995) found that teenagers who grew up in less advantageous economic circumstances valued financial success over self-acceptance, affiliation, or community feeling.

This counter-intuitive finding suggests that the popular idea of the typical materialist child as a *Richie Rich* kid surrounded with a plethora of toys may be wrong, and that most materialist children grow up in lower income households, where possessions were not always at hand, and were therefore more cherished or longed for.

The findings that lower income children have more materialistic traits than higher income ones is also consistent with Belk´s findings. Belk (1985) reported that a group of machine shop workers showed the highest level of materialism among a sample of groups made of business students, secretaries and students at a religious institute. An explanation may be the fact that lower income classes tend to engage in compensatory consumption, i.e. a tendency to substitute possessions for job success when status mobility is blocked by prejudice or lack of skills. (Belk, 1985).

According to Larsen *et al* (1999), economic analysis may be applied to understand why low income people assign more importance to material wealth:

> An economic analysis suggests that poor people will be more materialistic than rich people since material goods they acquire will have more marginal utility. Consistent with this idea, Inglehart (1990) argued that the poor place a higher subjective value on material security because they face greater economic insecurity than the rich (Larsen *et al*., 1999 p. 91-92).

Another explanation, related specifically to children, is the suggestion that upper and middle class families are more conscious of the normative standards of their class and more likely to supervise their children consumption (Churchill & Moschis, 1979). This parental involvement could result in more frequent discussion of consumption issues with the child, giving them rational elements to prevent materialistic attitudes.

Finally, it is important to mention that Kilbourne and Laforge (2010) report mixed findings in samples of adults, with some studies reporting a negative relation and others showing no relation between materialism and income.

Family Disruption

Dramatic changes in the structure of the American family have taken place over the past thirty years. Already in 1991, married couples with children

accounted for only 37% of all families (Rindfleisch *et al*., 1997) and 50% of all American children are expected to be members of a single-parent family at one point in their lives (J. A. Roberts *et al*., 2003).

Over the last 15 years, a series of studies have examined the relationship between family structure and materialism. Rindfleisch, Burroughs and Denton (1997) studied the relationship between family structure and two different outcomes: materialistic attitudes and compulsive consumption behaviour. They posited three different hypotheses. First, young adults in disrupted families exhibit more materialistic attitudes than young adults in intact families –families formed by a father and a mother who never broke up–. Second, *decrease in family resources* and *increase in family stressors* are mediators between family structure and materialism; and third, *socioeconomic status* is a moderator of both family resources and stressors. Surprisingly, they found a direct link between family disruption and materialism, with *decrease in family resources* – according to the research, when parents broke up, the mother gets custody of children in 90% of the cases, and has less income and time available for children – or *increase in stressors* – when parents broke up, associated instability and change are harmful, especially to young children– not being a significant mediator. They also found that socio-economic status moderated indeed the relationship between family disruption and family resources, i.e. lack of resources after a divorce was stronger in lower socioeconomic families.

According to Rindfleisch, two hypothesis to explain the direct link between family disruption and materialism are proposed: First, parental divorce is indeed one of the most stressful events measured on psychological scales for children. Divorce is usually associated with parental conflict, movement to a new place of residence, loss of relatives and friends as well as changes

in the caregivers of children, and it takes place at a time when children's self-concept is still formative and vulnerable (Burroughs & Rindfleisch, 1997). These traumatic effects may exert a direct influence on material values of young adults. Indeed, material values do vary across the life span in relation to other stressful events such as marriage, parenthood, etc. (Rindfleisch et al., 1997). His second explanation is that divorce leads to a lack of self-esteem in children, which acts as a mediator between family disruption and materialism. Feelings of self-doubt and insecurity about the self in turn increase materialism (Chang & Arkin, 2002). Finally, other explanations come to mind, such as resorting to material objects as a way to cope with stress, or the premature increase in children´s role and responsibilities in a single parent household.

But the former study had two limitations. First, the measurement of materialism was taken in a sample of young adults –20 to 32 years old– who filled out a survey, basing their answers on remembrances of their childhood. Materialism therefore was measured several years after the divorce, and not during childhood. And second, the measurement of self-esteem assumed that parent's divorce would have a long-lasting effect on self-esteem, an effect that persisted into adult life.

To address the limitations in the Rindfleisch *et al* study, Roberts, Manolis and Tanner (2003) performed a reinquiry using a sample of 669 children from 11 to 15 years. They broke up the construct of materialism in the three elements of *happiness*, *centrality* and *success* (Richins & Dawson, 1992). Again, they found that family structure was related to materialism, but especially to its *happiness* dimension. But contrary to Rindfleisch et al, they found that family stressors do play a mediating role between family disruption and the happiness dimension of materialism. In other words,

divorce is highly stressful for children, as it is often associated with events such as “moving, changing schools, and loss of contact with parents, grandparents and other family members” (p. 307). The difference in both studies may be a result of the difference in age: adults have a retrospective view, and as time goes by they may downplay the impact of stress in favour of other elements such as lack of parental support, etc., whereas children are fully aware of the stress they experience and report it in the surveys.

In 2006, Roberts et al repeated their experiment in a sample of 187 high-school adolescents aged 16 to 19. This time, they found that divorce was associated not only with the *happiness* dimension of materialism, but also with the *centrality* and *success* dimensions. They concluded that “older adolescents from divorced homes were more likely than those from intact homes to associate success with material possessions, and to place these possessions at the center of their lives. No such relationship was found among younger adolescents” (Roberts, Manolis, & Tanner, 2006 p.310).

For the authors, this suggests that materialistic values in children of divorced families crystallize as they become older and autonomous.

Finally, a reflection should be made about the fact that Roberts et al (2003) found the *happiness* dimension to be the only dimension of significance in children of divorced families. It is possible that this be related to the scale’s origin as a measurement scale for materialism in adults (see Appendix 5). Asking someone if he “likes luxury in his life” (*centrality*) or “believes that having things is one of the most important achievements in life” (*success*) seems more applicable to people in their mid-20s or 30s than to 12 year-old kids. However, any child can answer whether “my life will be better if I had certain things I do not have” and other *happiness* related questions.

Only older adolescents, as those surveyed in the 2006 study, are capable of understanding well all questions of the survey –happiness, centrality and success ones–.

Family Communication Patterns

Relations between family communication patterns and children socialization were explored by Moschis and Moore (1979). Socio oriented communication "is typified by encouraging the youngster to maintain harmonious interpersonal relations, avoid controversy, and repress his inner feelings on extra personal topics" (Chaffee & Mc Leod, 1972 p.153) and concept oriented communication is characterized as the emphasis given to a child to "express his own ideas, become exposed to controversy and challenge the views of others" (Chaffee & Mc Leod, 1972 p.153).

These two orientations produce a fourfold typology of Family Communications Patterns (FCP): laissez-faire, protective, pluralistic and consensual (Mc Leod & Chaffee, 1972). Laissez-faire families "lack emphasis on either kind of communication; there is little parent child communication" (Moschis & Moore, 1979 p.359). Protective families stress obedience and harmony, but place little emphasis on conceptual matters. Pluralistic families encourage open communication of ideas, and place little emphasis on authority. Finally, consensual families stress both the development of the child´s ideas and the obedience and social harmony. These four categories are summarized in Figure 3.2.

		Socio-oriented communication	
		Weak	Strong
Concept-oriented communication	Weak	Laissez-faire	Protective
	Strong	Pluralistic	Consensual

Figure 3.2 Family communications patterns

(own elaboration, from Moschis and Moore 1979)

In their sample of adolescents attending junior and senior high school, Moschis and Moore found that socio-oriented family communication is positively related to the adolescent's materialistic attitudes. Moreover, students from pluralistic homes had developed three consumer competencies: more accurate knowledge of the terms used in the marketplace; better ability to sift out puffery in advertising and greater skill in differentiating among products.

Buijzen and Valkenburg (2005) surveyed 360 parent-child dyads in the Netherlands with children aged 8-12 years. They found that concept-oriented communication is more effective in reducing the link between advertising exposure and materialism in children than socio-oriented communication. They point out that concept-oriented communication involves active discussions with children about consumption issues, and socio-oriented communication involves encouraging harmony and obedience.

Family Religiosity

Religiosity can be considered a family influence because religious attitudes and practices in children are to a great extent determined by the family, or socialization agents chosen by the parents, such as church or school. But no article so far has explored the relation between religiosity of the parents and children's materialism. Instead, they have focused on religiosity of the child, most times a teenager. Speck and Peterson (2010) administered a survey to 153 boys at a Catholic high-school in Peru and to their parents. Age mean for the boys was 14.4 years, for the fathers 48 years and for the mothers 43.9 years. The importance of the role that the Church played in respondents' lives was evaluated with three questions: (1) "Rate the importance of your personal faith to you"; (2) "How frequently do you attend religious services?" and (3) "How attached are you to your place of worship?" Materialism was measured using a reduced version of the Richins and Dawson materialism scale that only used 10 items –3 for the success dimension, 4 for the happiness dimension and 3 for the centrality dimension–. They found a negative relationship between religiosity of the teenager and materialism.

Although her sample did not include children under 14 years, Flouri (1999) also found a negative relationship between church attendance and materialism in a sample of 246 adolescents aged 16-23 in the UK.

3.2.2.3 Contextual Factors – External Influences

As Figure 3.1 showed, media exposure, peer influence and media celebrities are the factors that classify into external influences. They are described in the next sections.

Media Exposure

Media exposure has traditionally exerted a huge power to influence children's behaviour from a very early age. Goldberg et al. (1978) exposed a sample of 5 and 6 year old children to sugared snacks and breakfast foods TV ads under a variety of conditions. In all cases, children in the experiment significantly increased in their choice of sugared snacks and breakfast cereals when compared with control groups or with groups that had been exposed to ads of more wholesome foods. This happened in spite of most children knowing that sugared foods were unhealthy. The findings are even more relevant for our time, when ads of foods with high contents of sugar represent a large share of food ads directed to children (M. Roberts & Pettigrew, 2007).

Regarding materialism, media exposure is linked to higher levels of materialism in teenagers (Churchill & Moschis, 1979). But more recent studies did not find a significant relationship in a sample of Latin American adolescents (Speck & Peterson, 2010), Chinese teens (Chan et al., 2006) or in samples of undergraduate students across cultures (Speck & Roy, 2008). A reason for these divergent findings may lie in the fact that new generations are more skeptic towards advertising and media contents, and

can only be reached using non-traditional marketing strategies such as social networks, guerrilla marketing or word of mouth.

Other studies have specifically focused on exposure to TV ads, finding again mixed results. Most studies reported a positive relation between materialism and TV ad exposure (Buijzen & Valkenburg, 2003, 2005; Chan & Cai, 2009; Moschis & Moore, 1982), overall ad exposure (Chia, 2010) or interest in TV ads (Goldberg et al., 2003), but others found no significant relation (La Ferle & Chan, 2008).

Parental mediation of advertising can play a role in changing the incidence of TV advertising on materialism. In a study performed with 360 parent-child dyads, with children in the 8 to 12 years range, two styles of parental mediation were analysed: *advertising mediation* (active vs. restrictive) and *family consumer communication* (concept oriented vs. socio oriented), as well as their effects on materialism, purchase requests and parent-child conflict. (Buijzen & Valkenburg, 2005). Active advertising mediation includes making comments about commercials or explaining the selling purpose of ads, while restrictive mediation implies limiting children's access to advertising. The relations between advertising exposure and both materialism and purchase requests were significantly lower for parents who often use active mediation. On the other hand, restrictive mediation did not lead to a decrease in purchase requests. A possible explanation is its ineffectiveness: parental restriction can hardly be effective against the overwhelming exposure of children to TV ads.

Regarding *family consumer communication*, concept-oriented families –which focus on negotiation, ideas and opinions–, were more effective in reducing the relation between advertising and materialism than socio-

oriented families –who focus on obedience and harmony–. Devoting time to explain children the reasons to buy or not to buy a product seems more effective than merely setting limits or prohibitions.

Social utility reasons for the viewing of TV programs and TV ads, –i.e. motivation to watch TV in order to obtain information about lifestyles and behaviours associated with consumption– are also positively correlated with materialism (Moschis & Churchill, 1978).

Finally, John (1999) raises a concern about the causal direction: it remains unclear whether exposure to TV causes materialism or whether materialism provokes a search of information about goods and consumption styles that leads to increased TV watching.

Peer Pressure

Consumer susceptibility to influence has been defined as a tendency of the person to change as a function of social pressures, or as the need to enhance one's image in the opinion of others through the purchase and use of certain brands (Achenreiner, 1997). Consumer susceptibility is linked to three elements: self-confidence and self-esteem, inner-other orientation and self-monitoring. Self-confidence predicts that people low in self-esteem are predisposed to comply with other people´s suggestions; inner-other orientation refers to whether a person relies more on internal or external values, and predicts that externally-oriented people are more susceptible to influence. Self-monitoring refers to how effective people is at social integration and adjusting to what is appropriate in each situation, and a positive relationship exists between self-monitoring and susceptibility to influence (Achenreiner, 1997).

Regarding peer pressure, materialism is higher in children who are susceptible to interpersonal influence (Achenreiner, 1997; Flouri, 1999), and in young people who communicate with their peers on a frequent basis (Chan & Prendergast, 2007; Churchill & Moschis, 1979; Moschis & Churchill, 1978), especially if this communication is about consumption issues. Normative peer influence, or the wish to comply with peers' desires, is positively linked to materialism (Chan & Prendergast, 2007), and a perceived greater peer pressure to conform to the use of clothes or to certain behaviours is also associated with greater materialism (Banerjee & Dittmar, 2008). Peer support is also strongly linked to children's materialism when father's and mother's involvement with the child is low (Flouri, 2004).

Kids rely on friends when peer acceptance is important to use a product –for example, trainers–, while parents are "a favored source for products with a higher perceived risk in terms of price and performance (e.g. hair dryer)" (John, 1999 p.197).

Most of the studies about peer influence focus on teenagers, not children. For example, Flouri´s (1999) study is based on a sample of 246 college students, aged 16 to 23 years old, with a mean of 17.5 years old. The reason may be that peer influence has traditionally affected teenagers more than younger children. As new categories such as tweens –kids from 9 to 12 years old– emerge, and as phenomena like KAGOY –Kids are getting older younger– are capitalized by the marketers targeting children (Schor, 2004), more research on peer influence in children from 8 to 12 years is a must.

Media Celebrities

A recent line of research explores the relation between imitation of media celebrities and materialism. In samples of adolescents in Asia, those who expressed high admiration for icons or celebrities reported higher levels of materialism (La Ferle & Chan, 2008) and older adolescents in the U.S. who expressed admiration for athletes were also more materialistic (Clark, Martin, & Bush, 2001). In a U.S. sample, Goldberg also found that celebrities' endorsers were more likely to purchase a product if it was recommended by a famous person.

The explanation for this positive relationship between admiration for icons and materialism may lie in the fact that celebrities become role models for children and teenagers. A role model is anyone who can possibly influence the decisions and behaviours of an adolescent, and include either people with whom the adolescent has direct relations, like parents, siblings, peers and teachers, and people with whom there is no direct relation, like athletes or entertainers, also called *vicarious role models* (Clark et al., 2001). Children that admire vicarious role models want to imitate their icons, but usually these icons are associated with a life of success, luxury and wealth, which in turn encourages the development of material traits in children.

To summarize, the following table joins the eleven factors of materialism considered in our proposed framework, and the effect of each factor as identified in the literature reviewed.

Group	Factor	Effect
Internal factors	Age	Mixed results, increases at 12, or no difference between 8-9 and 12.
	Gender	Higher in males in western societies, NS in Chinese samples.
	Self-esteem	(-) related
Semi-contextual factors (Family related)	Family materialism	(+) related
	Family income	(+) related, but mixed findings in adult samples.
	Family disruption	(+) related
	Family communication	(+) in families with socio-oriented communication patterns
	Family religiosity	No studies in children. (-) related in adolescents
Contextual factors (External influences)	Media exposure	TV viewing: mixed results, (+) or NS
		TV ad viewing: mixed results, (+) or NS
	Peer influence	(+) related to peer communication
		(+) related to susceptibility to peer influence
	Media celebrities	(+) related to admiration for media icons

Table 3.3 Overview of effects of factors on children's materialism

3.2.3 Connection to Previous Models

The conceptual framework presented in this chapter is connected with at least two previous extant models. First, our framework relates to Belk's concept of multiple levels of self. According to Belk (1988), some possessions may be considered as an extension of self, and that a hierarchy of these possessions exists, in which "possessions central to self may be visualized in concentric layers around the core self" (Belk, 1988 p.152). As we exist not only as individuals, but also as a collective, our idea of self can transfer to other entities such as family, group, subculture or nation, and the possessions associated to each one of these entities symbolize a part of our own personality. Belk proposes four layers: individual, family, community and group. Although we do not consider the influences in our

framework as extensions of self, the concentric layers proposed by Belk are closely linked to our division of factors in Individual, Semi-contextual, and Contextual.

Second, another model which relates to our proposed theory is the consumer socialization of children model proposed by John (1999), in which children evolve through three different phases of consumer socialization: Perceptual stage, from 3 to 7 years, in which children are oriented to observable perceptual features; Analytical stage, from 7 to 11 years, when children move from perceptual to symbolic thought; and Reflective stage, from 11 to 16 years, with children being able to manage complex information and paying "more attention to the social aspects of being a consumer" (John, 1999 p.187). Some differences in materialism may be clarified using this distinction. For example, the fact that peer influence plays a role in teenagers' materialism may be linked to their developed ability to understand the social aspects of consumption, and the need to use friends as a source of role models.

In contrast, our framework differs from the model of materialistic value orientation proposed by Kasser et al (2004). For Kasser, materialism develops as a result of feelings of insecurity and exposure to materialistic models. Indeed, it is true that both insecurity and modeling are plausible mechanisms through which many of the factors of our model operate to heighten levels of materialism; but for classification purposes we focus on the initial factors and not on their mediators.

So far the conceptual framework has been presented, arranging the most studied drivers of materialism in three groups. But, once these factors have been identified, is it possible to establish a ranking of factors, and

determine which ones have the highest impact on children's materialism? What happens when all these factors are explored together in a single study? Chapters 4 and 5 describe the resulting study, performed in secular and religious schools in the Barcelona province, Spain. Chapter 4 explains the research design and states the hypothesis tested, while Chapter 5 presents the results of the correlational and SEM techniques, along with interaction effects and a segmentation of children by materialism.

Chapter 4: Research Design

4.1 Research Problem and Hypotheses

The main purpose of this chapter is to present the research problem and describe the research method. The framework proposed in Chapter 3 will be used as the basis for the empirical research.

As stated in Chapter 1, this thesis aims to answer two questions: what are the factors that influence materialism in children? and, which of them have the highest impact on children's materialism? The conceptual framework which classifies the factors in three groups: individual factors, semi-

contextual factors (family related) and contextual factors (external influences) is the source from which hypotheses are posited and presented.

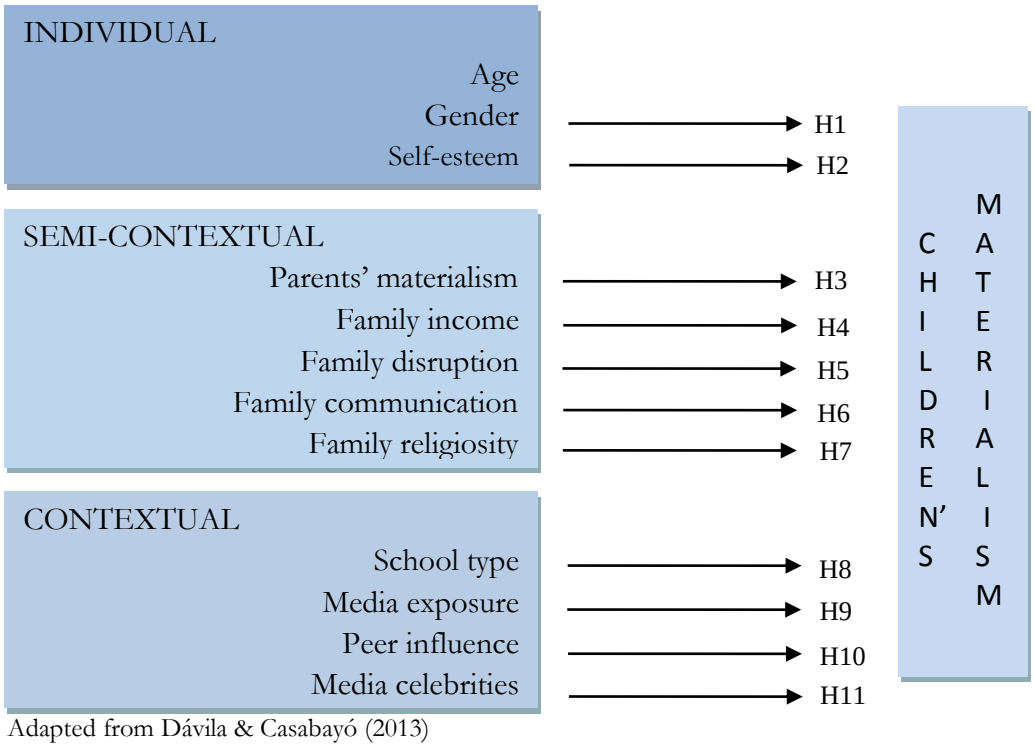


Figure 4.1 Conceptual framework and hypotheses

Figure 4.1 illustrates the main factors corresponding to the three groups and presents the direct link between each factor and materialism. In order to define the hypotheses, the main studies presented in Chapter 3 were considered.

A review of each factor and the corresponding hypothesis is explained as follows:

Individual factors

Reports on the effect of *age* on children's materialism are inconclusive. Chaplin & John (2007) reported that materialism rises greatly from 8 to 12 years. On the other hand, Achenreiner (1997) also measured materialism in samples of 8-, 12- and 16-year-olds, and found materialism to be slightly higher for 12-year-olds but that the difference was not statistically significant. Goldberg et al. (2003) found no significant difference in materialism between a sample of 9- to 10-year-olds and 12- to 14-year-olds. Experiments in China have found, on the contrary, that children aged 6 to 7 are more materialistic than children aged 8 to 12 (Chan, 2003). Results on the relation between age and materialism in children are inconclusive and seem to vary among cultures.

Moreover, our sample differs from the above mentioned studies both in its age span (8- to 12-year-old children) and in its cultural setting (Spain and United States or China). Therefore, it was decided not to specify a hypothesis for the relation between age and materialism in our sample, although the relationship will be tested along with the other variables.

Regarding *gender*, boys have shown greater materialism than girls in western samples (Achenreiner, 1997; Goldberg et al., 2003; Moschis & Churchill, 1978). By contrast, experiments in China did not found a significant difference in materialism between boys and girls (Chan et al., 2006; Chan, 2003). Children in western societies may identify with their fathers, who score higher than women in materialism (Flouri, 2007) and who tend to focus more on material objects as indicators of success in life.

If differences in materialism between boys and girls are a result of cultural differences, it is hypothesized that children in Spain will follow a pattern more similar to western societies. Hypothesis 1 was defined thus:

H1: Boys aged 8 to 12 years old will be more materialistic than girls.

Finally, low *self-esteem* is related to higher materialism. The Chaplin and John (2007) findings of increased materialism in 12-year-olds are explained by declining self-esteem as a result of the physical and psychological changes that take place at that age. In Kasser's model of materialism, feelings of insecurity are one of the two main sources of materialistic attitudes (Kasser et al., 2004). Hypothesis 2 was defined thus:

H2: Self-esteem is negatively related to children's materialism

Semi-Contextual Factors – Family Influences

It is important to highlight the hypotheses considering Family influences as relevant factors. Materialistic parents have materialistic children (Adib & El-Bassiouny, 2012; Chaplin & John, 2010; Goldberg et al., 2003). Parents influence their children through the transmission of values and modelling. Hypothesis 3 was defined thus:

H3: Parents' materialism is positively related to children's materialism

Furthermore, children in low-income households are reported to be more materialistic than those in higher income families (Chan & Cai, 2009;

Goldberg et al., 2003). This counter-intuitive finding is explained because children who lack material resources value material possessions and wealth more than children who already have them. Hypothesis 4 was defined thus:

H4: Family income is negatively related to children's materialism

Moreover, *family disruption* positively influences materialism in children, as reported by Rindfleisch, Burroughs and Denton (1997) and Roberts, Manolis and Tanner (2003), although in this latter experiment family disruption related only to the happiness dimension of materialism. This could be explained by the stress that divorce imposes on children, as well as the arousal of feelings of self-doubt and insecurity which in turn foster materialism (Chang & Arkin, 2002). Hypothesis 5 was defined thus:

H5: Children of disrupted families are more materialistic than children of intact families.

It is important to mention that Socio-oriented communication "is typified by encouraging the youngster to maintain harmonious interpersonal relations, avoid controversy, and repress his inner feelings on extra-personal topics" (Chaffee & Mc Leod, 1972 p.153) and Concept oriented communication is the emphasis given to a child to "express his own ideas, become exposed to controversy and challenge the views of others" (Chaffee & Mc Leod, 1972 p.153). In a sample of teenagers, Moschis and Moore (1979) found that socio-oriented family communication relates positively to materialism. Children forced to conform to norms and repress

their feelings are more likely to indulge in consumption than children who can discuss their points of view, possibly because advertising and consumption are so ubiquitous in our societies that it is impossible to forbid children's access to them, and only parents' discussions and explanations can lower their materialistic influence. Hypothesis 6 was defined thus:

H6: Socio-oriented communication is positively related to children's materialism.

Regarding *family religiosity*, the few studies that have explored the link between religiosity and materialism in youngsters have found a negative link between religiosity of teenagers (Speck & Peterson, 2010) or their church attendance (Flouri, 1999) and materialism. As far as is known, no study has explored this subject in children. Religiosity in children is difficult to measure, and it is plausible that it is transmitted to children at home, along with other values. Based on the negative link between religiosity and materialism in previous studies with samples of adults and teenagers, a negative relationship between family religiosity and children's materialism was expected. Hypothesis 7 was defined thus:

H7: Family religiosity is negatively linked to children's materialism

Contextual Factors – External Influences

When analysing the potential impact of contextual factors, four hypotheses arise. Firstly, parents who want to stress the religious education of their offspring can send them to religious schools. In Spain, these private schools are mostly Catholic and State-aided whereas State Schools are wholly funded from the public purse. In Catalonia, pupils in Catholic schools represent 58% of concerted-private schools and 21% of all schools (State, State-aided, and Private). Catholic schools may create an environment that discourages the development of materialism in children, given the reported emphasis of religious teachings on spiritual rather than material aims. Hypothesis 8 was defined thus:

H8: Children in religious schools are less materialistic than children in non-religious schools.

Secondly, evidence on the link between media exposure and children's materialism is inconclusive. Some studies performed in teenagers find a positive relationship (Churchill & Moschis, 1979) or no significant relations (Chan et al., 2006). Greater exposure to TV ads is usually linked to more materialism (Buijzen & Valkenburg, 2003, 2005; Chan & Cai, 2009; Moschis & Moore, 1982), although La Ferle & Chan (2008) found no link.

An important aspect of media exposure is the attitude toward ads. Chan & Zhang (2007) found a positive correlation between this factor and materialism. They also discovered that, when introducing these variables in their model, TV watching became non-significant. This suggests the possibility that watching TV is only a proxy for another construct, such as

attitudes toward ads. Children who hold positive attitudes toward ads tend to believe advertising more and use ads as a normative influence. This higher influence of ads will in turn develop materialistic traits. Hypothesis 9 was defined thus:

H9: Media exposure and positive attitudes toward ads are positively linked to children's materialism

Thirdly, materialism is higher in children susceptible to interpersonal influence (Achenreiner, 1997; Flouri, 1999) or who are willing to conform with peers' wishes (Chan & Prendergast, 2007). Children susceptible to interpersonal influence are eager to engage in consumption as a way to be accepted by the group. Hypothesis 10 was defined thus:

H10: Susceptibility to peer influence is positively linked to children's materialism

Finally, media celebrities act as role models for children, who strive to imitate them. When these icons are associated with fame and money, they can contribute to the development of materialistic attitudes. Some studies have found higher materialism in teenagers who admired celebrities (La Ferle & Chan, 2008) or athletes (Clark et al., 2001). Hypothesis 11 was defined thus:

H11: Admiration of celebrities is positively linked to children's materialism.

After formulating the hypothesis, in the next section the data collection process will be explained.

4.2 Data Collection

The data collection phase consisted of two parts: the first included a survey to children, and the second, a survey to each child's mother or father. In both surveys, quantitative methods were used to gather information about factors and analyse their relationships. The specific scales used to measure each factor are described later in this section.

The use of two surveys was decided as there were some measures (i.e. family income, parents' materialism, family communication patterns) which could not be answered in the classroom and required asking directly to parents. Including a survey to parents increased the risk of non-response and, at the same time, it introduced the possibility of common method variance, as the dependent variable along with the variables in the children survey were answered by children, and the other variables were answered by parents (this issue will be discussed in Section 6.2, Limitations and further research).

The reasons to choose quantitative analysis were three. First, quantitative techniques seemed more appropriate to address our own research questions (impact of factors on a dependent variable). Second, most of the factors of children's materialism in the literature were evaluated using surveys, statistical correlations and regression analysis. Only few articles used a qualitative approach. In order to get accepted by the scientific community, it seemed plausible to approach the relationship between

materialism and its factors with the same quantitative methods used in previous research. And third, given the restrictions in access to schools and children in Spain, surveys seemed the best option. A survey takes only a few minutes to complete, and can be filled out by all children in a classroom at the same time. Qualitative studies, on the contrary, require personal interviews with each child, task completing and sometimes the involvement of more than one researcher.

As said, two separate surveys were prepared, for children and parents. The next two sections will explain both in detail.

4.2.1 Survey to Children

The survey for children contained forty seven questions. Most questions were measured on a 4-point Likert scale (YES=3, yes=2, no=1, NO=0). This scale is easier to understand for children, who may have trouble interpreting Likert scales with more options (Rossiter, 1977; Teixeira, 2011). When possible, smileys were introduced along with the answer options. Smiley faces (☺😐☹) are commonly used instead of text in surveys with children (Reynolds-Keefer, Johnson, Dickenson, & McFadden, 2009). They are useful in situations where respondents may have difficulties understanding verbal statements, and are neutral in gender and race (Reynolds-Keefer, Johnson, & Carolina, 2011). In addition, smiley faces have been used along with verbal statements in previous studies with children as young as 6 years old (J. J. Zhang, Smith, Lam, Brimer, & Rodriquez, 2009). This second form was chosen (verbal statement plus smiley faces) in questions where the introduction of smileys helped clarify

the answer options. Two sample questions are displayed in Figure 4.2. The complete survey is available in Appendix 10.

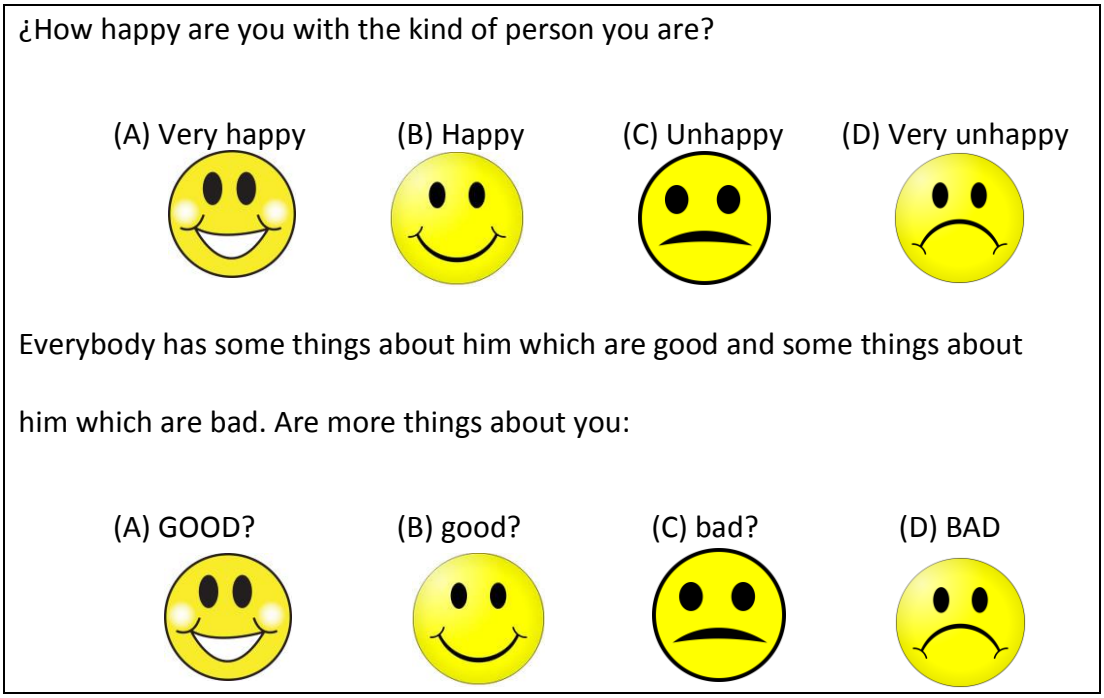


Figure 4.2. Example of use of smiley faces in children's survey

A pilot test was conducted with five children aged 8 to 11 years, to ascertain that all questions in the children survey were well understood. As a result of the pilot, some questions had to be rephrased. Also, the susceptibility to influence scale, which originally required children to choose between 'trainers' (sneakers) and 'jeans' and answer questions bearing the chosen product in mind, was simplified by requesting children to answer questions only about trainers, as most kids had trouble making choices between two products and formulating the questions accordingly.

The parent survey was pilot tested as well, to ascertain that the language was in accordance to the terms and expressions used in Spain.

As mentioned in section 3.1.1, specific measures of materialism have been developed for use with children. Three of them were examined in our literature review: (1) Goldberg *et al* (2003) Youth Materialism Scale (YMS) applied to children 9-14 years old, which consists of 10 questions, measured on a 4-point Likert scale. (2) Achenreiner´s (1997) 5 items scale used with children aged 8, 12 and 16, and (3) Roberts, Manolis and Tanner´s (2003) simplified version of Richins and Dawson's scale, which consists of 11 questions using a 7-point Likert scale.

Another interesting approach to measuring materialism in children is a collage technique used by Chaplin & John (2007). As the authors describe it:

> Materialism was measured by asking participants to construct a collage to answer the question, 'What makes me happy?' Choosing more material goods, such as 'money' and 'brand names', over nonmaterialistic sentiments, such as 'being with friends' or 'no homework', indicated higher levels of materialism. Although rating scales are often used to measure materialism in adults, we selected a collage format to accommodate the wide age range (8–18 years) in our sample, which is broader than age ranges included in prior work using rating scales. (Chaplin and John, 2007 p. 483)

The use of Goldberg (2003) YMS over collage techniques was proposed for three reasons: First, our sample comprises children from 8 to 12 years, and age range is not so wide as in Chaplin and John´s (8-18 years), so our experiment does not need to avoid different interpretations of verbal statements between younger children and young adults –which was one of the main reasons for the use of collage techniques in Chaplin and John experiments–. Second, using a survey instead of a collage technique allows to spare time and resources, and makes it easier to engage schools in our research. Third, results used with collage techniques have shown a high correlation with measures of materialism using the YMS ($r=.88$, $p<.01$ in Chaplin & John 2007 study)

Apart from Goldberg (2003), YMS has more recently been used in Banerjee & Dittmar (2008) and Chia (2010).

Instead of using the measures provided by Goldberg (*disagree a lot, disagree a little, agree a little, agree a lot*), we used the measures provided by Chaplin & John (2007) (*YES, yes, no, NO),* easier to understand by younger children (See Figure 4.3).

Measure used: Goldberg´s (2003) Youth Materialism Scale

4 point scale. YES, yes, no, NO.

1. I´d rather spend time buying things, than doing almost anything else.
2. I would be happier if I had more money to buy more things for myself
3. I have fun just thinking of all the things I own
4. I really enjoy going shopping
5. I like to buy things my friends have
6. When you grow up, the more money you have, the happier you are
7. I´d rather not share my snacks with others if it means I´ll have less for myself
8. I would love to be able to buy things that cost a lot of money
9. I really like the kids that have very special games or clothes
10. The only kind of job I want when I grow up is one that gets me a lot of money

Figure 4.3. Goldberg's (2003) Youth Materialism Scale (YMS)

Age was measured with two questions: (1) When is your birthday? and (2) In your last birthday you turned ___ years-old (see Figure 4.4). These two questions allowed to calculate the age of children in years and months. This measure is more accurate than only considering the age in years. However, as some children may find it difficult to calculate their age in months, we preferred to ask for the age in years and the birthday date

(two questions easy to answer by children). With this information, and knowing the date in which the survey was taken, the age in years and months was figured out.

Months were transformed to express age in years with decimals. For example, a boy reporting 9 years and 6 months will have an age of 9,5 years. The following table gives the correspondence of months and decimals.

Years	Months	Years with decimals
9	0	9.00
9	1	9.08
9	2	9.17
9	3	9.25
9	4	9.33
9	5	9.42
9	6	9.50
9	7	9.58
9	8	9.67
9	9	9.75
9	10	9.83
9	11	9.92

Table 4.1 Age expressed in years with decimals

Measure used: continuous variable

1. When is your birthday? Day ___ Month _____

2. In your last birthday you turned ____ years old

Figure 4.4 Age measure

Gender was measured with a dichotomous variable, Boy (M) or Girl (F) (see Figure 4.5).

Measure used: dichotomous variable

1. I am a Boy ( ) Girl ( )

Figure 4.5 Gender measure

To measure *self-esteem*, two measures were considered.

The first was the Rosenberg Self-Esteem Scale (RSE) which comprises ten items and has been widely used with populations of high schools students. Chaplin and John (2007) used items adapted from this scale in their study with children 8-18 years old.

The second measure was the Rosenberg & Simmons (1972) Self-Esteem scale (RSSE) designed for use with children younger than high schoolers. It comprises 6 items, intended to be assessed in an interview.

Both scales are reproduced below:

4-point Likert scale, 1=*strongly agree*, 2=*agree*, 3=*disagree*, 4=*strongly disagree*. (R) indicates a reverse-worded item.

1. I feel that I am a person of worth, at least on an equal basis with others.
2. I feel that I have a number of good qualities.
3. All in all, I am inclined to feel that I am a failure. (R)
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of. (R)
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself. (R)
9. I certainly feel useless at times. (R)
10. At times I think I am not good at all. (R)

Figure 4.6 RSE Rosenberg (1965) Self-Esteem scale, obtained from Blascovich & Tomaka (1991)

1. A kid told me: "There's a lot wrong with me." Do you ever feel like this?

(A) No (B) Yes If yes, do you feel like this (1) a lot, or (2) a little.

2. Another kid said: "I'm not much good at anything." Do you ever feel like this?

(A) No (B) Yes If yes, do you feel like this (1) a lot, or (2) a little.

3. Another kid said: "I'm no good." Do you ever feel like this?

(A) No (B) Yes If yes, do you feel like this (1) a lot, or (2) a little.

4. Another kid said: "I think I'm no good at all." Do you ever feel like this?

(A) No (B) Yes If yes, do you feel like this (1) a lot, or (2) a little.

5. How happy are you with the kind of person you are?

(A) Very happy; (B) Pretty happy; (C) A little happy; (D) Not at all happy.

6. Everybody has some things about him which are good and some things about him which are bad. Are more things about you:

(A) Good? (B) Bad? (C) Both about the same?

Figure 4.7 Rosenberg and Simmons (1972) Self-Esteem scale.

For the survey, the Rosenberg and Simmons (1972) self-esteem scale was selected for two reasons. First, it is intended for children, while the other scale has been mostly used with high school students and, as a result, some items are difficult to understand by children. In addition, in the RSE scale, 5 of the 10 items are reverse-worded, which several scholars report as

troublesome for children (J. A. Roberts et al., 2003). And second, the Rosenberg and Simmons scale is shorter than the RSE.

However, as the original Rosenberg and Simmons scale was developed for use in interviews, the answer options were modified to fit in a survey. Answers in questions 1 to 4 were changed to four options: *YES, yes, no NO*. Answer in question 5 was slightly modified to be more balanced (*Very happy, happy, unhappy, very unhappy*), and question 6 was modified to fit the 4 options format of the other questions (*GOOD, good, bad, BAD*). In addition, answer options in questions 5 are 6 were complemented with smiley faces ranging from a very happy to a very sad face. Smiley faces are often used in surveys with children (Reynolds-Keefer et al., 2011, 2009) and surveys that include smileys and pictures are more fun to complete for children.

The final questions of the survey are presented in Appendix 10.

Exposure to media was measured by direct questions asking children to mention how many hours they watch TV, in a weekday, in a Saturday and in a Sunday (see Figure 4.8). The amount of TV watching per week was then obtained.

This measure has been previously used by Chan (2003) and Chan et al. (2006). Churchill & Moschis (1979) used a different measure, asking kids how frequently they watched different types of programs.

Two questions were included regarding hours of internet surfing per week, participation in social networks, owning of mobile phones and access to internet from the mobile phone. Internet is becoming an important source of ads and consumption models, apart from TV. It was not considered in previous studies either because Internet did not exist (Churchill & Moschis,

1979) or because the sample included Chinese children with little access to internet (Chan, 2003). Social networks are a way of interacting with peers and exchanging information about consumption issues.

1. How many hours of TV do you watch <u>every day</u>, when you go to school? (circle the appropriate)

   0 ½ 1 1½ 2 2½ 3 3½ 4 Other___

2. How many hours of TV do you watch on Saturdays?

   0 ½ 1 1½ 2 2½ 3 3½ 4 Other___

3. How many hours of TV do you watch on Sundays?

   0 ½ 1 1½ 2 2½ 3 3½ 4 Other___

4. How many hours do you surf the internet <u>every day</u>, when you go to school?

   0 ½ 1 1½ 2 2½ 3 3½ 4 Other___

5. How many hours do you surf the internet on Saturdays?

   0 ½ 1 1½ 2 2½ 3 3½ 4 Other___

6. How many hours do you surf the internet on Sundays?

   0 ½ 1 1½ 2 2½ 3 3½ 4 Other___

7. Do you participate in a social network in the internet?

   YES NO

   If yes, circle your social network

   Twitter Tuenti Facebook Hi5 Other _____

8. Do you have your own mobile phone?

   YES NO

9. Do you surf the internet from your mobile phone?

   YES NO

Figure 4.8 Measures of media exposure

Finally, three questions are proposed, extracted from Chan (2003): (1) 'Ads make me want to have more toys' (2) 'Ads always tell the truth' and (3) 'Ads tell me about what things I should have'. These questions measure attitudes toward ads (trust in ads and normative influence of ads), and correspond to three statements with the highest correlation to materialism in Chan study. Chan discovered that, when introducing these variables in the model, TV watching became non-significant. This indicates there is a possibility that TV watching be only a proxy for another construct, such as attitudes toward ads. For that reason, we included these 3 questions in our survey. They are presented in Figure 4.9.

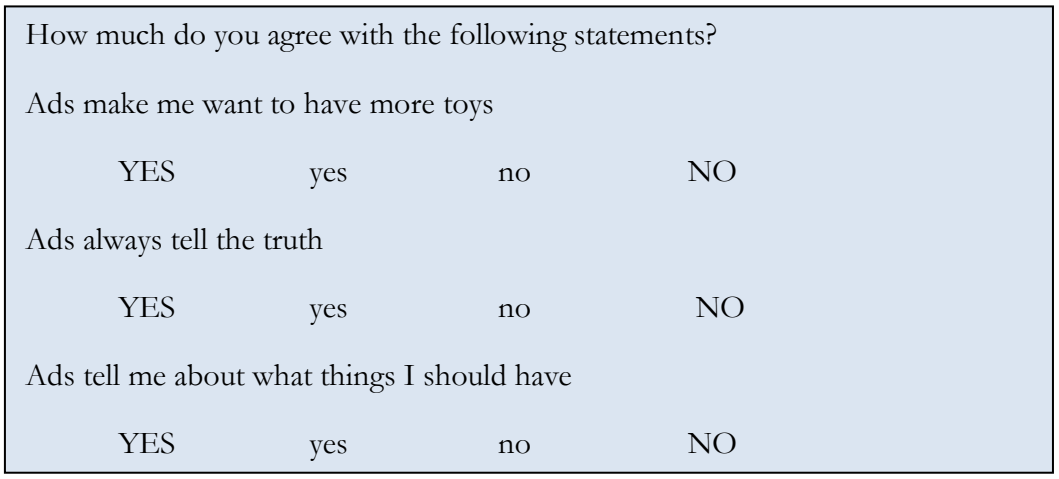


Figure 4.9 Attitudes towards ads & perceived intention of ads

Consumer susceptibility to influence can be defined as "the need to identify or enhance one's image with significant others through the acquisition and use of products and brands (…) or the tendency to learn about products and services by observing others" (Bearden, Netemeyer, & Teel, 1989 p.474). Bearden et al developed a 12-item scale, which identified normative influence –tendency to conform to the behaviours or

expectations of peers– and informational influence –tendency to use others as sources of information for consumption purposes–.

From the former scale, a shorter 7-item scale was adapted to be used with children. This shorter scale was used by Achenreiner (1997) and Achenreiner, John, & Rao (1993). It refers to the normative aspects of a specific product and is measured on a YES, yes, no, NO scale.

Trainers (sneakers) were considered as the product under evaluation. The original scale used by Achenreiner gave children the option to select 'trainers' or 'jeans' and answer the questions bearing that product in mind. However, the pilot test in our study revealed that most children had trouble making the choice, so we decided to use only one product. Trainers were chosen because they were the most preferred product in the pilot test (see Figure 4.10).

Answers in a YES, yes, no NO scale

1. I would want to get the  that my friends think were neat.
2. It's important that my friends like my new  .
3. To make sure I get the best  , I look at the  my friends have.
4. I like to know what type of  would make other people think I'm cool.
5. I feel more like my friends if I have a  , like they do.
6. I would ask my friends to help me choose the best  .
7. If I think someone's pretty cool, I'll try to get a  like they have.

Figure 4.10 Consumer Susceptibility to Influence Scale adapted from Bearden, Netemeyer and Teel (1989).

Provided on request by Prof. Gwen Achenreiner

Imitation of celebrity models has been found to correlate positively with materialism (Chan & Zhang, 2007). The reason may lie in the fact that media celebrities are associated to wealth, fame, and the use of expensive brands. So, we expect that as long as young children want to imitate celebrities, they will tend to develop more materialistic traits.

Chan and Zhang (2007) evaluated imitation of celebrity models using four different questions measured in a 5 point scale (1 = *disagree very much*, 5 = *agree very much*). They measured 'imitation of celebrity models' by asking kids to rate four statements: "I want to be as smart as movie idols", "I want to be as stylist as people appearing in ads", "I want to be as trendy as models in magazines" and "I do not aspire to the lifestyle of celebrities" (reverse coded). They developed these statements based on the concept of *exposure to materialistic models* in Kasser *et al*'s (2004) framework (Chan & Zhang 2007).

Martin & Bush (2000) examined the influence on adolescents of vicarious role models, i.e. role models with whom the adolescents have little or no contact, like entertainers and sport athletes. A role model is defined as someone who has the potential to influence the adolescent's decisions or behaviours. Although the experiment performed by Martin and Bush attempted to establish whether 'assigned' role models (i.e. parents) had more influence than vicarious role models (i.e. athletes, entertainers), their scale can be used to evaluate the relative importance of media celebrities (TV, movies, sports) for an adolescent.

A limitation of both scales is their previous use only with adolescents (13-18 year-olds in Martin & Bush, 15-24 year-olds in Chan & Zhang). We

expect media celebrities to be more relevant for 12-year-olds, who are approaching puberty, and less relevant for 8-year-old children.

For our survey, we included the Chan and Zhang (2007) questions on imitation of media celebrities. The last question was reformulated to avoid reverse code (see Figure 4.11).

Answers in a YES, yes, no NO scale

1. I want to be as smart as movie idols
2. I want to be as stylish as people appearing in ads
3. I want to be as trendy as models in magazines
4. I do not aspire to the lifestyle of celebrities (reverse coded)

Figure 4.11 Imitation of media celebrities (Chan and Zhang 2007)

In addition, the Role model influence scale from Martin & Bush (2000) was included (see Figure 4.12). Children were asked to write down the name of an artist or sportsman they admired but did not know personally. Options were limited to artists or sportsmen, two icons usually associated with wealth and high expenditures, based on the following insight:

> More recent research by Martin and Bush (2000) has established that there are at least two specific categories of vicarious role models that exhibit significant influence on the consumption-related behaviors and attitudes of adolescents. These two categories include the adolescent's favorite

entertainer and the adolescent's favorite athlete (Clark et al., 2001 p.29).

Answer options were changed to *YES, yes, no, NO*. Some questions were reformulated after our pilot test –for example 'work ethic' was eliminated–, to make statements easier to understand for children.

Measure: 7 point Likert scale, from "*strongly agree*" to "*strongly disagree*"

My (insert role model)

1. Provides a good model for me to follow
2. Leads by example
3. Sets a positive example for others to follow
4. Exhibits the kind of work ethic and behavior that I try to imitate; or
5. Acts as a role model for me

Figure 4.12 Role model influence (from Martin & Bush 2000)

4.2.2 Survey to Parents

The survey to parents contained a cover page in Catalan and Spanish, presenting the survey and asking parents to take ten minutes of their time to answer it. It contained 52 questions, which measured variables such as income, family structure and number of family members, parents' materialism, family communication patterns and finally, religious attitudes and behaviours. Most constructs were measured using a 5-point Likert

scale (*strongly agree*, *agree*, *neither agree nor disagree*, *disagree* and *strongly disagree*). Questions about frequency of communication patterns used *never*, *a few times*, *sometimes*, *often* and *always* as options. Finally, questions about religious behaviours used a 7-point Likert scale, ranging from *never* to *daily*. The complete survey is provided in appendix 11.

The variables in the survey to parents are described in this section:

Regarding *family income*, previous research had identified that children from lower income households tend to be more materialistic (Goldberg et al, 2003). Family income was asked in a closed question with seven options (shown in Figure 4.13).

Your family income in a year is around:

a. Under € 20,000
b. € 20,001 to € 30,000
c. € 30,001 to € 40,000
d. € 40,001 to € 50,000
e. € 50,001 to € 60,000
f. € 60,001 to € 70,000
g. Over € 70,000

Figure 4.13 Family income question

Regarding *family structure*, research has also found a positive relationship between children raised in disrupted families and materialism, both in samples of adults remembering their childhood (Rindfleisch, Burroughs and Denton 1997) and children (Roberts, Manolis and Tanner 2003). Family structure was asked in a single question with five options (see Figure 4.14).

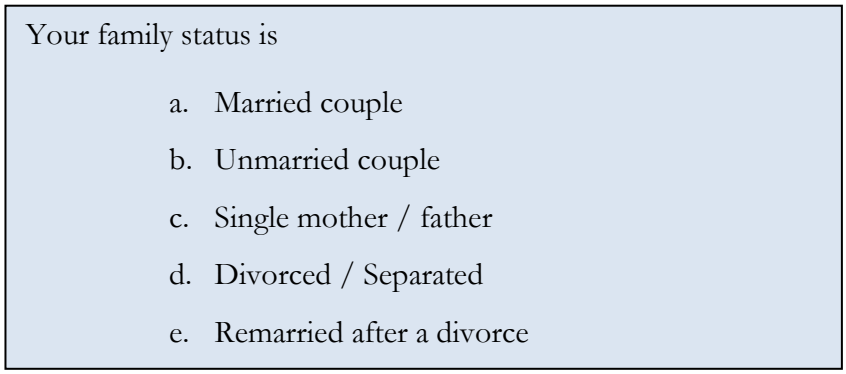


Figure 4.14 Family structure question

Parents' materialism is considered a good predictor of children's materialism. Some scholars even affirm that "the influence of parents' materialistic values is significantly greater than the influence of friends' materialistic values" (Chia, 2010 p.414).

Materialism in parents was measured using the adapted 15-item version (Richins 2004) of the Richins & Dawson (1992) materialism values scale (MVS) (see Figure 4.15). This adapted version sets an equal number of items (5) for each of the values of the scale (happiness, centrality and success). In the selection of this short form over the original 18-item one, we followed the recommendations of Richins (2004): "it is recommended that the 18-item version of the MVS be replaced in future research with the 15-item version. The 15-item scale has better psychometric properties than the longer version, particularly with respect to dimensional characteristics, with no reduction in explanatory power. The 15-item version also has the advantage of weighting each of the materialism

domains equally, as there are five items in each subscale". (Richins, 2004 p.214)

Measure: 5-point Likert scale, from *Strongly agree* to *strongly disagree*.

Success

1. I admire people who own expensive homes, cars, and clothes.
2. Some of the most important achievements in life include acquiring material possessions.
3. I don't place much emphasis on the amount of material objects people own as a sign of success. (R)
4. The things I own say a lot about how well I'm doing in life.
5. I like to own things that impress people.

Centrality

6. I try to keep my life simple, as far as possessions are concerned. (R)
7. The things I own aren't all that important to me. (R)
8. Buying things gives me a lot of pleasure.
9. I like a lot of luxury in my life.
10. I put less emphasis on material things than most people I know. (R)

Happiness

11. I have all the things I really need to enjoy life. (15) (R)
12. My life would be better if I owned certain things I don't have.
13. I wouldn't be any happier if I owned nicer things. (R)
14. I'd be happier if I could afford to buy more things.
15. It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.

Figure 4.15 Material Values Scale with 15 items (Richins, 2004).
(R) indicates a reversed coded item.

In addition, a question asked parents' self-perception of material values: "I consider myself a materialist person – material goods play a central role in my life"

Children raised in families with socio-oriented communication patterns (fostering harmony and conformity) are more materialistic than children in families with concept-oriented communication patterns (fostering individual ideas and opinions). (Buijzen & Valkenburg 2005; Moschis & Moore 1979)

Family communications patterns were measured using Buijzen & Valkenburg (2005) scale, adapted from Chaffee, McLeod, & Atkin (1971). This scale (see Figure 4.16) was previously used in a sample of 427 children in the Netherlands, and measures concept oriented (7 questions) and socio oriented (7 questions) communications patterns. Answer options were changed to *never*, *a few times*, *sometimes*, *often* and *always*.

Answers options are *often, sometimes, rarely* and *never*.

HOW OFTEN DO YOU TELL YOUR CHILD…

(Concept oriented communication)

1. That every member of your family should have some say in family purchase decisions?
2. To give his/her opinion when discussing family purchases?
3. To give his/her opinion about products and brands?
4. That you respect his/her expertise on certain products and brands?
5. That you consider his/her preferences when making a purchase?
6. To consider the advantages and disadvantages of products and brands?
7. That (s)he can codecide when you make purchases for him/her?

(Socio oriented communication):

8. That you know which products are best for him/her?
9. Not to argue with you when you say no to their product requests?
10. That you expect him/her to accept your decisions about product purchases?
11. Which products are or are not purchased for the family?
12. Which products (s)he should or should not buy?
13. That you have strict and clear rules when it comes to product purchases?
14. That (s)he is not allowed to ask for products?

Figure 4.16 Family communications pattern (Buijzen & Valkenburg, 2005)

Regarding *family religiosity*, as far as is known, this is the first study to explore the relationship between family religiosity and children's materialism. Exploring the link between religiosity and children's materialism is important for several reasons. 95% of Americans declare to believe in a God or a higher power (Miller & Thoresen, 2003). Basic

religious values are shared by a large amount of the population in Western countries, even if practice has declined, and religion is a strong socialization agent in many developing countries. And some individuals regain a sense of religiosity after they marriage or if they have children at an early age (Wilson & Sherkat, 1994), for they want to transmit to their offspring the values they were taught in their own childhood.

There are several measures of religiosity in the literature. A first distinction is made between attitudes and behaviours (Fishbein, 2005). Some people may have strong positive attitudes towards religion but low levels of prayer, spiritual reading or church attendance. Ellison, Gay, and Glass (1989) mentioned three distinct dimensions: participation, affiliation, and devotional. *Religious participation* comprehends taking part in religious activities, *religious affiliation* measures the degree of identification with a religious community, and the *devotional* dimension explores the individual's beliefs or religious experience (Swinyard et al., 2001).

Among the widely used measures of religiosity (for an overview see King & Crowther, (2004)) we can mention the Practice and Belief Scale (PBS) used by Holder, Coleman, & Wallace (2008) (see appendix 8) and the Religious Orientation Scale developed by Allport & Ross (see appendix 9) and used to measure Intrinsic-Extrinsic religiosity. Intrinsic religious orientation is defined as a religiosity deeply ingrained in the individual, a person living his or her religion, while Extrinsic religious orientation refers to people practicing religion to obtain consolation, protection or social status (Maltby & Lewis, 1996). Or, more succinctly, intrinsic motivated people live their religiosity, while extrinsic motivated people use it (Allport & Ross, 1967).

Religious homogamy, or the degree of association between the religious practice of husband and wife, has also been considered in studies exploring the influence of parents' religiosity on children (Bartkowski, Xu, & Levin, 2008)

In our study, two questions measured religious attitudes and seven questions measured religious behaviours. Of the latter, three questions inquired on parent's religiosity, three on transmission of religious values to children and one on religious homogamy.

Three additional questions evaluated the presence of a grandparent that gave religious education to the child. This questions were justified as many grandmothers who hold religious values influence to a certain extent religiosity in their grandchildren –praying with them, taking them to church on weekends when they stay at their homes, etc. –. Finally, two questions asked whether the child was preparing for Communion or had a brother that had done Communion. In Spain, programs for the preparation of the sacrament of Communion often request parents to accompany their children to mass or to attend gatherings on weekends. In words of a priest whom we talked to, preparation for Communion is considered as an opportunity to revive religiosity in parents who have been estranged from the Church. As a result, a child preparing for Communion may temporarily increase the level of religiosity of his family, an effect that must be taken into account.

Figure 4.17 presents the questions used to measure family religiosity in the parents' survey.

Attitudes

Scale from 1= *Not at all important* to 5=*Extremely important*

1. Rate the importance of your personal religious faith for you
2. Rate the importance for you of giving a religious education to your child

Behaviours

Scale from 1=*never* to 7=*daily* unless otherwise indicated

Individual religiosity of parents

3. How frequently do you attend religious services?
4. How frequently do you pray?
5. How frequently do you read the Bible or spiritual/religious books?

Transmission of religiosity to children

6. How frequently do you talk to your child about religious issues?
7. How frequently do you pray together with your child?
8. How frequently do you take your child to church or worship place?

Religious homogamy

9. Would you say your husband / wife attends religious services…?

Grandparent's influence

10. Is there a grandmother/grandfather who takes an interest in the religious education of the child (i.e. takes him/her to mass, prays with him/her, etc.)? (YES or NO)
11. How frequently does grandmother/grandfather pray together with your child?
12. How frequently does grandmother/grandfather take your child to the church or worship place?

Preparation for Communion

13. Is your child preparing this year for Communion? (YES or NO)
14. Does your child have an older brother that has taken the Communion? (YES or NO)

Figure 4.17 Questions on family's religiosity

4.3 The Sample

There are roughly 365,000 pupils aged 8-12 years in Catalonia, of which 65% study in state schools and 35% in State-aided or other private schools. Religious schools represent 58% of State-aided/other private schools and 21% of all schools (State and State-aided/Private schools).

The figures of pupils in Catalonia are presented in Tables 4.2 and 4.3 for the academic year 2010-2011.

CATALONIA – ACADEMIC YEAR 2010-2011

	ELEMENTARY		ESO		TOTAL	
	Pupils	%	Pupils	%	Pupils	%
Public Schools	294.463	65,9%	170.857	61,2%	465.320	64,1%
Private Catholic Schools [1]	87.320	19,5%	63.607	22,8%	150.927	20,8%
Private secular schools	64.992	14,5%	44.661	16,0%	109.653	15,1%
	446.775		279.125		725.900	

Table 4.2 Pupils in catalan schools, 2010-2011

POPULATION FOR EXPERIMENT (ages 8 to 12 years)

	ELEMENTARY				ESO		
	3º	4º	5º	6º	1º	TOTAL	%
Public School	48.773	47.834	47.855	45.979	44.339	234.781	65,0%
Catholic Private School	14.463	14.185	14.191	13.635	16.507	72.980	20,2%
Secular Private School	10.765	10.558	10.562	10.148	11.590	53.623	14,8%
TOTAL	74.001	72.577	72.609	69.762	72.436	361.385	

Figures are based on information of INE and IDESCAT for the academic year 2010-2011.
The number of pupils in Catholic schools corresponds to the academic year 2011-2012

Table 4.3 Population of pupils from 3rd grade of elementary to 1st grade of ESO.

For our research, we focused on children aged 8 to 12 years, the 'kids' and 'tweens' category. We avoided older children as they are entering adolescence and their attitudes differ from those of kids. We also avoided children younger than 8 years as they may have trouble interpreting a written survey (although four third graders in our sample were younger than 8 years). Kids of 8 to 12 years are an ideal group to explore materialism. They are still 'children' but are literate enough to understand advertisements, have experience as consumers and, for older kids, they can understand the symbolic aspects of consumption (Chaplin & John, 2007).

According to Rodhain, the age of 10- and 11-year-olds –the average in our sample– is an age when "the child is still interested in the media (while during adolescence, he/she is less attracted by them), he/she begins to act like other children who seem more influent (sisters and brothers and other peers), and at the same time, have not yet established a break-up with their parents and their teacher (what they are about to do during adolescence)" (Rodhain, 2006 p.550).

Surveys were conducted in four State-aided schools, secular and religious, in the province of Barcelona. Access was provided by the school authorities. Children were given a brief presentation in their classroom, asking them if they had participated in a survey before, and giving them information about what a survey is, and instructions on how to answer the questions. Then they completed the survey. The interviewer remained in the classroom to answer specific questions and clarify doubts directly to each child (children were instructed to raise their hand if they needed help). As surveys were completed, they were collected by the interviewer

or by the classroom teacher. The whole procedure took between 15 to 25 minutes to complete, with longer time required by younger children.

In addition, a separate survey was sent to parents informing of the research and asking them to take part. Children's and parents' surveys were strictly anonymous and confidential and they were only identified with a number to match them up. Parents were asked to answer the survey and return it to the classroom teacher in two or three days. After one week, the interviewer visited the school to collect all the interviews delivered by parents. The answer rate of parents was 78%, ranging from 46% in school 1 to 90% in school 3 (see Table 4.4).

	Children's surveys	Parents' survey	Answer rate (parents)
School 1	93	44	47%
School 2	143	114	80%
School 3	133	120	90%
School 4	123	107	87%
Total	492	385	78%

Table 4.4 Surveys by school and answer rates

The survey was answered by 492 children and 385 parents (see Table 4.5). The final sample consisted of 243 girls (49.4%) and 249 boys (50.6%) aged 7 to 13 years (M=10.40, SD=1.48). The parent sample consisted of 289 mothers, 80 fathers, 3 grandparents and 13 unidentified respondents.

For the empirical research, children's materialism was measured using the Youth materialism scale (YMS) designed by Goldberg et al (2003). Goldberg *et al* built on the adult scales by Belk (1984) and Richins and Dawson (1992)

to develop their own scale and applied it to a sample of children aged 9 to 14 years.

Sample characteristic	N	%
Gender (N=492)		
Boys	249	50,6
Girls	243	49,4
Age (N=490)		
6-7	13	2,6
8	91	18,5
9	94	19,1
10	106	21,5
11	98	19,9
12	84	17,1
13-14	6	1,2
Yearly family income (N=339)		
Under € 20,000	86	25,4
€20,000 to €30,000	84	24,8
€30,000 to €40,000	51	15,0
€40,000 to €50,000	32	9,4
€50,000 to €60,000	22	6,5
€60,000 to €70,000	19	5,6
Over €70,000	45	13,3
School type (N=492)		
Secular	369	75,0
Religious	123	25,0

Table 4.5 Respondents summary

It is important to notice that the sample was restricted by the access to schools, and as a result it may not be totally representative of the population. However, the percentage of children in religious and secular

schools in our sample was very close to that of the overall Catalan schools, as public schools are secular. In addition, based on the fees paid by parents and its location, we identified the religious school in our sample as belonging to a high socio-economic level, which is the case indeed with most Catholic schools in Barcelona. This sample will allow our study, analysis and interpretation of results, which will be presented in the next chapter.

Chapter 5: Analysis and Results

Once the necessary data was collected, two techniques were used for our analysis: a correlation matrix and structural equation model (SEM) The correlation analysis allowed to identify the factors linked to children's materialism, while SEM allowed to identify the factors with the highest impact. In addition, interaction effects between factors were identified, and a cluster analysis was applied to better understand the different types of children according to their materialism.

5.1 Analysis and Interpretation of Results

In this section, the analysis of the data obtained in the surveys is presented. First, a table displays the correlation matrix of all the variables of the study and their level of significance. Then, the level of significance of each factor is analysed. Moreover, results coming up from a structural equation model allows identifying those factors with the highest impact and their path to children's materialism.

5.1.1 Identifying the Factors Related with Materialism

The following table presents the correlation matrix of all the variables in the study, as well as the correlations of children's materialism with every factor.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Children's materialism															
Internal factors															
2. Age	-.22***														
3. Sex	.01	.04													
4. Self-esteem	-.10*	.03	.01												
Semi-contextual factors – Family influences															
5. Parent's materialism	-.06	-.12*	.00	.03											
6. Family income	-.22***	-.08	-.13*	-.01	-.15**										
8. Family disruption	.08	.06	-.03	.05	.03	-.20***									
7. Socially oriented communication	-.08	.09	-.04	-.08	.04	-.03	.02								
9. Family religiosity	-.07	-.01	-.12*	-.00	.02	.10	-.02	.05							
Contextual factors – External influences															
10. School type	-.14**	.06	.02	-.07	-.11*	.55***	-.07	-.01	.24***						
11. TV hours	.14**	.03	.01	.04	-.06	-.24***	.08	-.03	-.10	-.17**					
12. Internet hours	.12**	.12*	.05	-.03	.02	-.18***	.01	.03	-.05	-.07	.26***				
13. Attitude to ads	.44***	-.31***	.03	-.13**	.10	-.13*	-.00	.03	.04	-.05	.03	.01			
14. Susceptibility to peer influence	.53***	-.22***	.11*	-.15**	.09	-.09	.13*	-.03	-.04	-.03	.09*	.07	.44***		
15. Imitation of celebrities	.48***	-.12**	.02	-.13**	.08	-.14**	.01	.10	-.05	-.08	.13**	.07	.25***	.46***	
16. Admiration of mediatic icon	.10*	.06	.01	.05	-.01	-.08	-.03	.10	.03	-.06	.04	.04	.06	.13**	.27***

* $p<.05$, ** $p<.01$, *** $p<.001$

Table 5.1 Correlation matrix

From the matrix, materialism has a statistically significant correlation with ten variables. Susceptibility to peer influence, imitation of celebrities and attitude to ads are the three variables with the highest correlation coefficients.

Correlations of children materialism with:

Factor	N	relation	ρ	*p* value	
INTERNAL					
Age	490	negative	-.223	.000	$p<.001$
Sex (girls=0, boys=1)	492	positive	.008	.858	NS
Self-esteem	472	negative	-.097	.036	$p<.05$
FAMILY INFLUENCES					
Parents' materialism	366	positive	.061	.242	NS
Family income	339	negative	-.222	.000	$p<.001$
Family disruption (Disrupted/single=1, both parents=0)	381	positive	.077	.131	NS
Family communication patterns					
Socially oriented communication	366	positive	.079	.134	NS
Concept oriented communication	375	positive	.049	.340	NS
Family religiosity	368	negative	-.074	.154	NS
EXTERNAL INFLUENCES					
School type (secular=0, religious=1)	492	negative	-.143	.001	$p<.01$
Hours of TV watching	489	positive	.139	.002	$p<.01$
Hours of Internet	486	positive	.118	.009	$p<.01$
Attitude to ads	482	positive	.435	.000	$p<.001$
Susceptibility to peer influence	484	positive	.527	.000	$p<.001$
Imitation of media celebrities	483	positive	.478	.000	$p<.001$
Admiration of (chosen) icon	486	positive	.097	.032	$p<.05$

Table 5.2 Correlations and *p* values of each factor with children's materialism.

As illustrated in Table 5.2, the factors most clearly related to children's materialism are external factors, specifically susceptibility to peer influence, imitation of media celebrities and attitude to ads. Of the internal factors, age and self-esteem are significantly related to children's materialism. And of the semi-contextual factors or family influences, only family income is significantly related to children's materialism. The results for each factor and its corresponding hypothesis are presented now.

Individual Factors

Younger children were more materialistic than older ones (ρ=-.22, p<.001). Age mean for the upper quartile in materialism was 9.82 and in the lowest quartile 10.84, t(188)=-4.87, p<.001. At the same time, materialism levels of boys and girls were virtually identical. The mean for boys was 1.335 and for girls 1.326, t(490)=.18 p>.10. Boys in Spain are not more materialistic than girls, so H1 is not supported.

Self-esteem was measured using an adapted version of Rosenberg & Simmons' (1972) scale. The scale consists of six items, such as "There's a lot wrong with me. Do you ever feel like this?" or "How happy are you with the kind of person you are". Cronbach's alpha of this scale was .72 (M=2.47, SD=0.48). Self-esteem was negatively related to children's materialism (ρ=-.097, p<.05). So, H2 was supported.

Semi-Contextual factors – Family Influences

Parents' materialism was measured using the 15-items shortened form of the Richins & Dawson (1992) Materialism Values Scale MVS (available in Richins, 2004). This shortened version measures the three subscales of materialism (success, centrality and happiness) equally and has the same explanatory power of the original 18-items one. Cronbach's alpha of the scale was .79 (M=2.40, SD=0.46). Correlation between parents' and children's materialism was not significant (ρ=.061, p>.10). So, H3 was not supported.

In turn, family income was measured with a single question on a Likert scale ranging from 1 (Under € 20,000 a year) to 7 (More than € 70,000 a year). Family income was negatively related with children's materialism (ρ=-.222, p<.001). Children in the upper quartile of materialism had lower family income (2.51) than children in the lower quartile (3.73), t(168)=-4.51, p<.001. So H4 was supported.

Family disruption was not measured directly but using information about family type. Children of intact families were classified into one group, and children of divorced, remarried and single parent households into another group. The mean of materialism for children in disrupted and single parent households was higher (1.42) than materialism of children in intact families (1.31) but the difference did not reach significance (t(379)=1.512, p=.131). Children of disrupted families in Spain are not significantly more materialistic than children in intact families. So, H5 was not supported.

Regarding family communication patterns, Socio-oriented communication was measured using the Buijzen & Valkenburg (2005) adapted version of the scale used by Chaffee et al (1971). This scale comprised seven items

measured in a 1-5 points Likert scale. Sample items include “How often do you tell your child not to argue with you when you say no to their product requests” and “How often do you tell your child what products (s)he should or should not buy”. Cronbach’s alpha of the scale was .80 (M=3.05, SD=0.75). Correlation between socio-oriented communication and children’s materialism was not significant (ρ=.079, *p*>.10). So, H6 was not supported.

As explained in Figure 4.17, eleven questions addressed family religiosity. Two questions measured religious attitudes (“Rate the importance of your personal religious faith for you” and “rate the importance for you of giving a religious education to your child”), and eight questions measured religious behaviour patterns, focused on four areas: individual religiosity of mother/father, transmission of religiosity to children, religiosity of husband/wife and grandparent’s influence. Sample questions included “How frequently do you attend religious services?”, “How frequently do you talk to your child about religious issues?” and “How frequently do you pray together with your child?” An estimate of overall religiosity was obtained with the standardized values of the eleven measures. Cronbach’s alpha for the standardized measures was .93. Correlation between family religiosity and children’s materialism was not significant (ρ=-.074, *p*>.10). Children in the higher quartile of family religiosity were less materialistic (M=1.26) than children in the lower quartile (M=1.40) but this difference did not reach significance at the usual *p*<.05 level (*t*(173)=-1.79, *p*=.076). So, although there is a hint that more religious families have less materialistic children, the evidence is not conclusive. H7 was not supported.

Contextual Factors – External Influences

Children in religious schools (School 4 in our sample) were less materialistic (M=1.20) than children in secular schools (M=1.38), $t(490)=-3.201$, $p<.01$. As income in the religious school of our sample was higher than in the secular schools, we ran a partial correlation to check that the difference was not an effect of income. Partial correlation between children's materialism and school type was still significant when controlling for income ($\rho=-.121$, $p<.05$). So, H8 was supported.

Media exposure was measured as weekly hours spent watching TV and weekly hours spent surfing the internet outside of the school. In addition, attitudes toward ads were measured using three questions extracted from Chan (2003), «Ads make me want to have more toys», «Ads always tell the truth» and «Ads tell me about what things I should have». Respondents who strongly agree with these questions are more likely to believe TV commercials and use them as a normative influence. Cronbach's alpha of the three questions was only .40 (M=0.70, SD=0.60), which may be explained by the fact that these questions are not an established scale but instead reflect attitudes to ads such as normative influence and trust. All questions loaded into one single factor with an eigenvalue above 1. TV watching ($\rho=.139$, $p<.01$), hours of internet ($\rho=.118$, $p<.01$) and attitudes toward ads ($\rho=.435$ $p<.001$) were all positively linked to children's materialism. H9 was supported.

Susceptibility to peer influence was measured on a 7-item scale used by Achenreiner (1997) and Achenreiner, John, & Rao (1993), adapted from the scale by Bearden *et al*. (Bearden et al., 1989). In the initial survey, children

were given the option to choose either 'trainers' or 'jeans' and answer the questions with their preferred product in mind. However, in the pilot test, children had trouble making choices and understanding the resulting questions, so only "trainers" was included in all questions. Sample questions include «I want to get the sneakers [trainers] that my friends think are neat» *(sic)* or «If I think someone's pretty cool, I'll try to get sneakers [trainers] like they have». Cronbach's alpha for the scale was .77 (M=0.66, SD=0.61). Susceptibility to peer influence was highly correlated to children's materialism (ρ=.527 p<.001). So H10 was supported.

Finally, imitation of celebrities was evaluated using four questions adapted from Chan & Zhang (2007). This included "I want to be as smart as movie idols", "I want to be as stylish as people appearing in ads", "I want to be as trendy as models in magazines" and "I'd like to carry out the lifestyle of celebrities". Cronbach's alpha for the questions was .74 (M=1.27, SD=0.84). Children in the higher quartile of imitation of celebrities were more materialistic (M=1.70) than children in the lower quartile (M=1.02) t(231)=10.62, p<.001 and the correlation between imitation of celebrities and children's materialism was high and significant (ρ=.478 p<.001).

In addition, we included the Role model influence scale from Martin & Bush (2000). Children were asked to write down the name of an artist or sportsman they admired but did not know personally. Then they answered 5 questions about the chosen icon. Questions were rephrased to be easily understood by children. Sample questions included "(This person) acts as a role model for me" or "sets a good example for others to follow". Cronbach's alpha for the scale was .79 (M=2.13, SD=0.73). Children in the upper quartile of icon influence were more materialistic (M=1.44) than children in the lower quartile (M=1.25) t(243)=2.59, p<.05 and icon

admiration was positively related to children's materialism (ρ=.097 p<.05). So, H11 was supported.

To sum up, all external influences have a positive and statistically significant correlation with materialism, whereas only one semi-contextual factor, family income, has a negative and statistically significant correlation with children's materialism. Two individual factors have negative and statistically significant relations: age and self-esteem. Table 5.3 summarizes these findings.

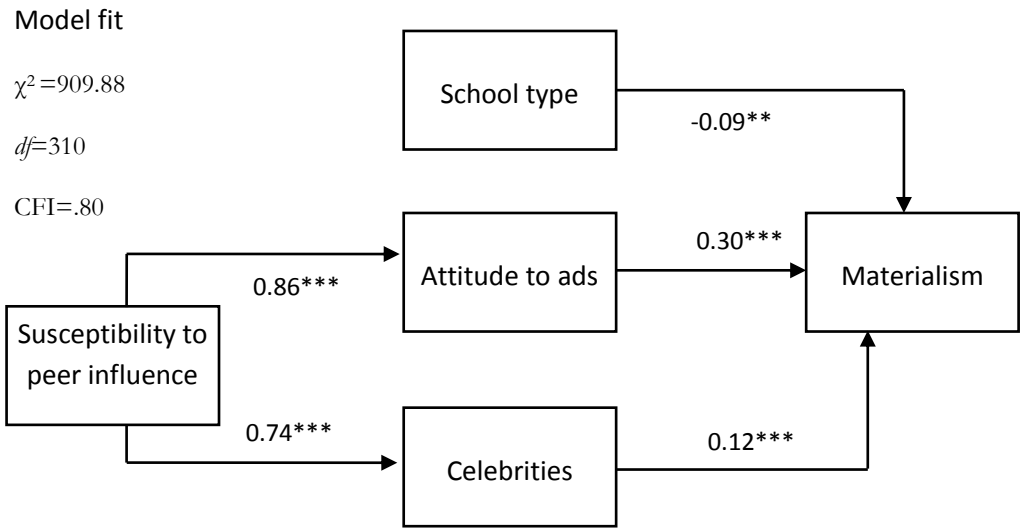
Factor	Relation to materialism
Individual Factors	
+ Age	–
+ Self-esteem	–
Family influences	
+ Family income	–
School type (religious school)	–
External influences	
+ Susceptibility to peer influence	+
+ Hours of TV watching	+
+ Hours of internet	+
+ (Positive) Attitude to ads	+
+ Imitation of celebrities	+
+ Admiration of icon	+

Table 5.3 Summary of significant factors of children materialism

5.1.2 Identifying the Factors with the Highest Impact.

Identifying the factors that influence children's materialism is a first step. However, identifying the factors with the highest impact is the aim of this section.

All the factors correlated with children's materialism were tested in a structural equation model using SPSS AMOS. Several factors showed no significant path to materialism. The final model with only the significant paths was obtained after considering two changes. First, gender and income were used as control variables. Second, we discovered that the effect of susceptibility to influence was mediated by two other factors, namely attitude to ads and admiration of celebrities. The resulting model has a $\chi 2$ of 909.88, CFI=.80, NFI=.73, RMSEA=.063, which indicates an overall good fit. The ratio $\chi 2$ /degrees of freedom is 2.935 ($\chi 2$ =909.88, df=310), which is "indicative of an acceptable fit" (Arbuckle 2005, p. 493). The three variables with a direct effect on materialism are school type, attitude to ads, and imitation of celebrities. The fourth variable, susceptibility to peer influence, had no direct effect on materialism in the model. Nevertheless, peer influence had a significant effect on attitude to ads (β=0.864, p<.001) and imitation of celebrities (β=0.736, p<.001), suggesting that its effects on children's materialism are mediated by these two variables. The model is presented in Figure 5.1.



** path significant at *p*<.01, *** at p<.001

Figure 5.1 Structural Equation Model of Children's Materialism controlling for Gender and Income

5.1.3 Identifying Interaction Effects

Once the regression model was established, interaction effects between the main significant variables were examined using Andrew F. Hayes PROCESS software (Field, 2012). For the main external factors (peer influence, imitation of celebrities and attitude to ads) no significant interactions were found for moderators such as age, income, sex or self-esteem. However, interaction effects were found between media exposure (hours of TV and hours of Internet) and other factors. These interactions are explained below.

A significant interaction effect was found between Hours of TV watching and two variables: Attitudes to ads and School type.

The interaction term between Hours of TV watching and attitudes to ads is significant ($p<.01$). At low levels of advertising credibility (when ads are considered untruthful or do not influence the child) the interaction is not significant, and watching TV for many hours does not necessarily increase materialism; but at medium and (especially) high levels of advertising credibility and influence, watching TV for more hours increases materialism significantly. This suggests that the attitude of a child regarding ads (that in our survey was measured by three questions: “ads make me want to have more toys”, “ads always tell the truth” and “ads tell me about what things I should have”) moderates the impact of TV watching on materialism. Increased TV watching will lead to increased materialism only in children who believe in ads or take them as a normative influence.

Table 5.4 shows the interaction effects, and the conditional effect of TV watching on materialism at three values of the moderator (attitude to ads): one standard deviation below the mean, the mean, and one standard deviation above the mean. Figure 5.2 shows the latter graphically.

	β	SE β	*t*	*p*
Constant	1.32 [1.28,1.37]	0.022	59.32	*p*<.001
Attitude to ads (centred)	0.40 [0.32,0.48]	0.040	10.25	*p*<.001
TV hours (centred)	0.007 [0.003, 0.011]	0.002	3.52	*p*<.01
Attitude to ads X TV hours	0.009 [0.003, 0.015]	0.003	2.82	*p*<.01

Attitude to ads	Effect	SE	*t*	*p*
-0.5867	0.002	0.003	0.78	*NS*
0.0000	0.007	0.002	3.52	*p*<.001
+0.5867	0.012	0.003	4.72	*p*<.001

Values for quantitative moderators are the mean plus/minus one SD

Table 5.4 Attitude to ads as moderator of TV hours

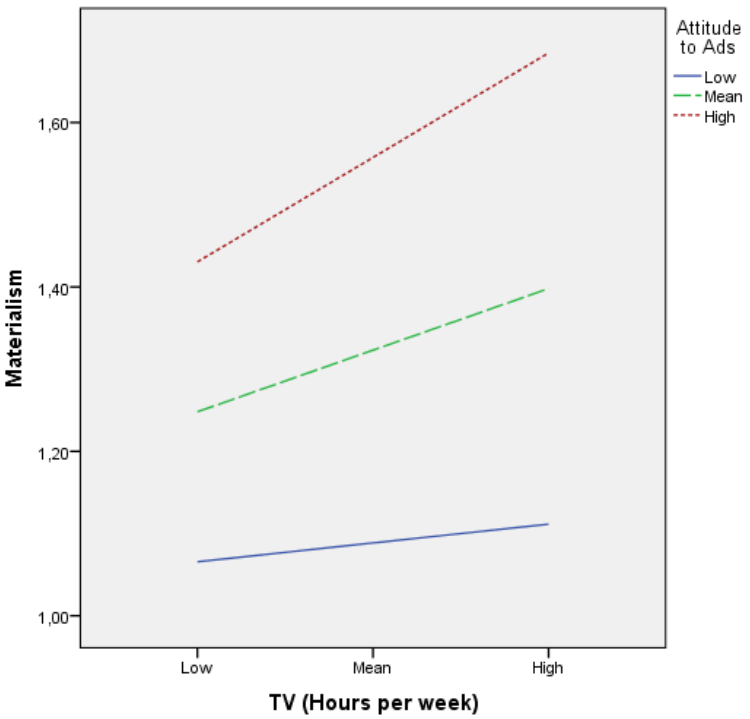


Figure 5.2 Slopes of the regression of materialism on TV hours at three levels of Attitudes to Ads

Regarding *school type*, a significant interaction was found between Hours of TV and school type (p<.01) (see Table 5.5 and Figure 5.3). Specifically, for children of secular schools, the effect of more hours of TV on materialism was not significant, but for children in religious schools the effect of watching more hours of TV significantly increased their levels of materialism. This finding is not easy to explain conceptually. A proposed explanation is that children in religious schools are not only less materialistic, but they are exposed to a set of values that does not support or even contradicts materialism. When these children spend several hours in front of a TV set, they are exposed to selling intents, brands, consumption stereotypes and lifestyles whose impact is greater because it is not congruent with the values received at school or (in the case of religious families) even at home. The allure of the materialistic way of life depicted in TV is greater for these children, who probably consider materialism as something they should avoid. This is not the case in children of secular schools, which in our sample were more materialistic and may be more exposed to materialism in their daily life.

	β	SE β	*T*	*p*
Constant	1.34 [1.29,1.39]	0.025	54.66	*p*<.001
School type (centred)	-0.12 [-0.22,-0.01]	0.054	-2.14	*p*<.05
TV hours (centred)	0.007 [0.002, 0.012]	0.003	2.69	*p*<.01
School type X TV hours	0.017 [0.006, 0.028]	0.006	3.06	*p*<.01

School type	Effect	SE	*T*	*P*
0 (secular)	0.003	0.003	0.88	*NS*
1 (religious)	0.020	0.005	4.32	*p*<.001

Values for quantitative moderators are the mean plus/minus one SD

Table 5.5 **School type as moderator of TV hours**

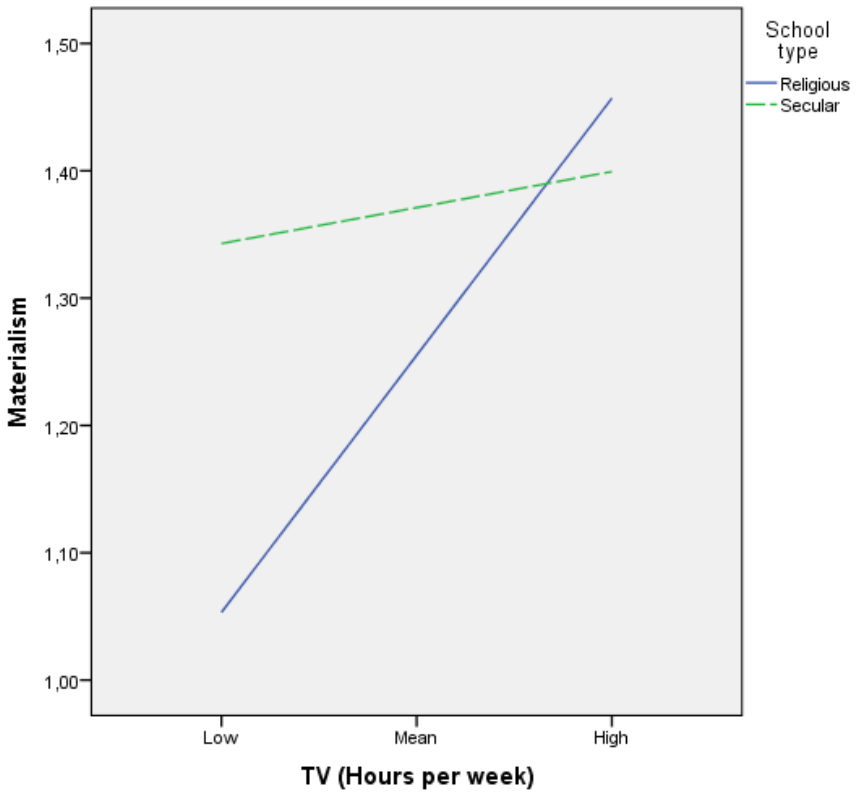


Figure 5.3 Slopes of the regression of materialism on TV hours by school type

Internet exposure (weekly hours surfing the web outside school) has interaction effects with two variables: age ($p<.01$) and school type ($p<.01$).

Regarding the interaction of Internet exposure and age, the interaction is not significant for younger children, but it becomes significant for older kids. An explanation for this may be the different use of internet made at different ages. Older kids are more capable of interacting in a 2.0 environment and have a higher participation in social networks (67% in children aged 12, versus 30% in children aged 8, see table 5.6). This may

increase their propensity to conform to peer influence and norms, which in turn triggers materialism. Table 5.7 and Figure 5.4 show this effect.

		Age									Total
		6	7	8	9	10	11	12	13	14	
SocialNet	0	1	9	63	57	59	52	28	0	0	269
	1	0	3	27	37	46	46	56	5	1	221
Total		1	12	90	94	105	98	84	5	1	490

Table 5.6 Frequencies of use of social networks by age

	β	SE β	*T*	*p*
Constant	1.32 [1.27,1.37]	0.024	55.39	*p*<.001
Age (centred)	-0.100 [-0.133,-0.067]	0.017	-5.95	*p*<.001
Internet hours (centred)	0.009 [0.002, 0.015]	0.003	2.62	*p*<.01
Age X Internet hours	0.005 [0.002, 0.008]	0.002	2.87	*p*<.01

Age	Effect	SE	*T*	*P*
-1.485	0.002	0.004	0.42	*NS*
0.000	0.009	0.003	2.62	*p*<.01
+1.485	0.016	0.004	3.63	*p*<.001

Values for quantitative moderators are the mean plus/minus one SD

Table 5.7 Age as moderator of Internet hours

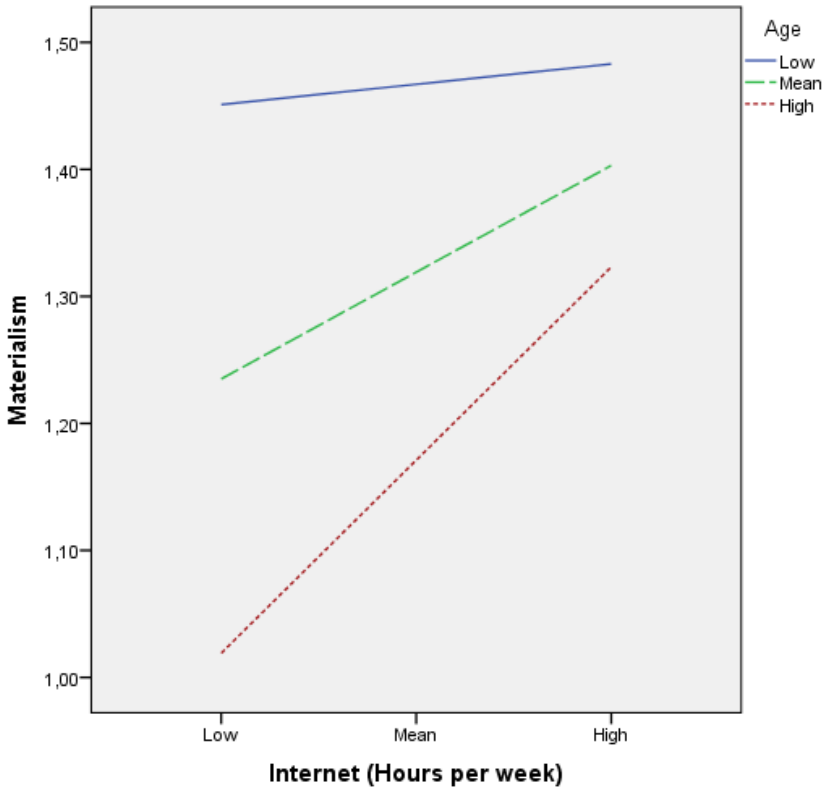


Figure 5.4 Slopes of the regression of materialism on Internet hours at three levels of age

Finally, the interaction effect between Internet hours and school type is significant for children in religious schools, but not for children in secular schools. The reasons for this impact on children of religious schools, but not in secular schools, may be similar to the ones explained in the case of TV hours. Table 5.8 and Figure 5.5 show these interaction effects.

	β	SE β	*t*	*p*
Constant	1.33 [1.29,1.38]	0.024	54.79	*p*<.001
School type (centred)	-0.16 [-0.27,-0.06]	0.052	-3.17	*p*<.01
Internet hours (centred)	0.007 [0.001, 0.012]	0.003	2.24	*p*<.05
School type X Internet hours	0.016 [0.004, 0.028]	0.006	2.62	*p*<.01

School type	Effect	SE	*T*	*p*
0 (secular)	0.003	0.004	0.74	*NS*
1 (religious)	0.019	0.005	3.76	*p*<.001

Values for quantitative moderators are the mean plus/minus one SD

Table 5.8 School type as moderator of Internet hours

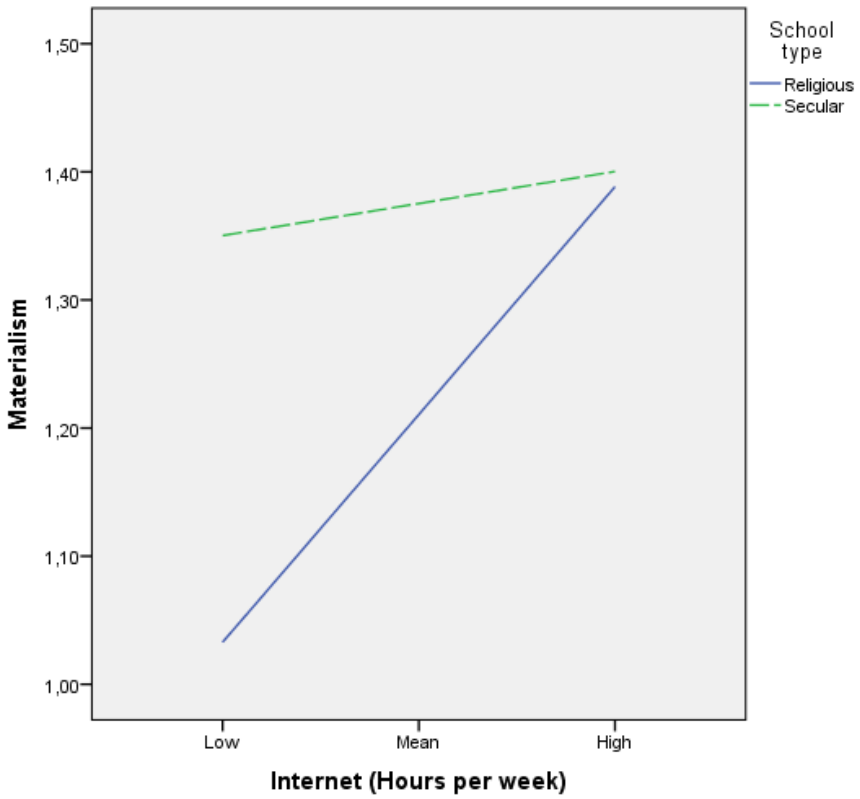


Figure 5.5 Slopes of the regression of materialism on Internet hours by school type

5.1.4 Understanding Clusters of Children by Materialism

Section 5.1.1 identified the factors linked to materialism. Moreover, section 5.1.2 highlighted the most influential factors in children's materialism. In this section, the consideration that children have different characteristics according to their levels of materialism is introduced. Children in the sample were segmented in four groups using non-hierarchical clusters with free centers of gravity. Segmentation was performed using children's materialism and all variables significantly correlated with it, except family income. The reason not to include this last variable was the comparatively low number of answers (N=339), as some parents refused to answer the question. Eliminating this variable from the cluster analysis allowed us to use 439 valid observations. All variables in the clusters had statistically significant *F* values. Four segments were found. Tables 5.9 and 5.10 describe the main variables of these segments:

	N	Minimum	Maximum	Mean	Std. deviation
Materialism	492	0.00	3.00	1.33	0.5447
Age	490	6.92	14.17	10.40	1.4828
Self-esteem	472	0.00	3.00	2.47	0.4769
School type	492	0	1	0.25	0.4330
Peer influence	484	0.00	3.00	0.66	0.6106
TV hours	489	0.00	78.00	14.14	10.3758
Internet hours	486	0.00	70.00	8.70	9.6064
Attitude to ads	482	0.00	3.00	0.70	0.5952
Imitation of celebrities	483	0.00	3.00	1.27	0.8443
Admiration of icon	486	0.00	3.00	2.13	0.7288

Table 5.9. Descriptive statistics of variables used in segmentation

(School type: 0=secular, 1=religious)

	Religious School Non Materialists	Secular School Non Materialists	Media Fanatics	Heavy Materialists	Total
Materialism	1.2	1.0	1.5	1.8	1.3
Age	10.4	10.8	11.4	9.5	10.4
Self-esteem	1.8	2.7	2.5	2.5	2.5
Peer influence	0.5	0.4	0.7	1.1	0.7
TV hours	9.2	12.1	24.1	15.9	14.1
Internet hours	6.8	5.6	26.3	7.2	8.7
Attitude to ads	0.7	0.4	0.6	1.1	0.7
Imitation of celebrities	1.0	0.9	1.3	2.0	1.3
Admiration of icon	1.8	2.1	2.3	2.3	2.1
N	84	204	57	147	492
%	17.1	41.5	11.6	29.9	100.0

Table 5.10. Mean variables by group

The first group represents 17.1% of the sample and is labeled *Religious School Non Materialists*. 51.2% of children in this group attend a religious school (mean sample was 25%). They have the second lowest materialism level, but surprisingly the lowest level of self-esteem (F=106.20, p<.001). They have the second lowest susceptibility to peer influence, only surpassed by Group 2. Regarding their exposure to media, this group watches TV less hours than all the other groups (F=33.39, p<.001), significantly lower than Group 2 (p<.01), Group 3 (p<.001) and Group 4 (p<.001), but the time they spend surfing the internet is not significantly different from Group 2 or Group 4 (and only different from the amount spent by Media Fanatics). Their admiration of icon is the lowest of all groups (F=12.17, p<.001).

The second segment is the largest one (41.5% of the sample) and is labeled *Secular school – non materialists*. 76.0% of children in this group study in secular schools. They have the lowest level of materialism (F=105.89, p<.001) and the highest level of self-esteem (F=106.20, p<.001). They have the lowest level of susceptibility to peer influence (F=66.84, p<.001), significantly lower than all the other groups. Regarding their exposure to media, the hours of TV they watch per week is slightly below average, and they are the group with the lowest level of weekly hours of internet (F=134.01, p<.001), significantly lower than Media Fanatics (p<.001) and Heavy Materialists (p<.05). They also show the lowest level of attitude to ads (F=58.39, p<.001) and imitation of celebrities (F=71.80, p<.001). This latter is non-significantly different from Group 1 (Religious School non

materialists), but lower than Media Fanatics (p<.001) and Heavy Materialists (p<.001).

The third segment is called *Media Fanatics*. 11.6% of the sample followed this profile. Their most relevant characteristic is that they spend nearly two times more hours watching TV than the other groups (F=33.39, p<.001), and three times more hours surfing the internet (F=134.01, p<.001). Their level of materialism is the second highest, and their level of self-esteem is in the average. Their susceptibility to peer influence and their imitation of celebrities are exactly the average of all groups. This group has lower family income than all the other groups (65% of the children live in households earning less than €30,000 per year, compared with 50.2% of the total sample).

The fourth group, labeled *Heavy Materialists*, represents 29.9% of the sample, and shows the highest level of materialism (F=105.89, p<.001). They are also the youngest group, with a mean age of 9.5 years (F=40.98, p<.001). This group has the higher susceptibility to peer influence, significantly higher than all other groups (F=66.84, p<.001), reinforcing our finding that susceptibility to peer influence is an important predictor of materialism. Although the hours they spend watching TV and surfing the internet is around the average, they have the highest level of attitude to ads, i.e. they tend to believe advertisements more and be more influenced by them than all the other groups (F=58.39, p<.001). They also show the highest level of imitation of celebrities, i.e. they are attracted to the lifestyle of the famous more than all the other groups (F=71.80, p<.001). Only 12.9% of children in this group attended a religious school.

It must be remembered that this sample was chosen to measure the impact of each factor on children's materialism. As a result, using it for

segmentation purposes has the inconvenience that it may not be totally representative of the population. However, segmentation of children's population is not the main goal, but is presented to provide additional insights on how clusters of children can be identified using the variables presented in our conceptual framework.

Finally, the following graph displays the relative importance of each group as a percentage of our sample. These figures may differ from the actual population, as the sample is not totally representative of it.

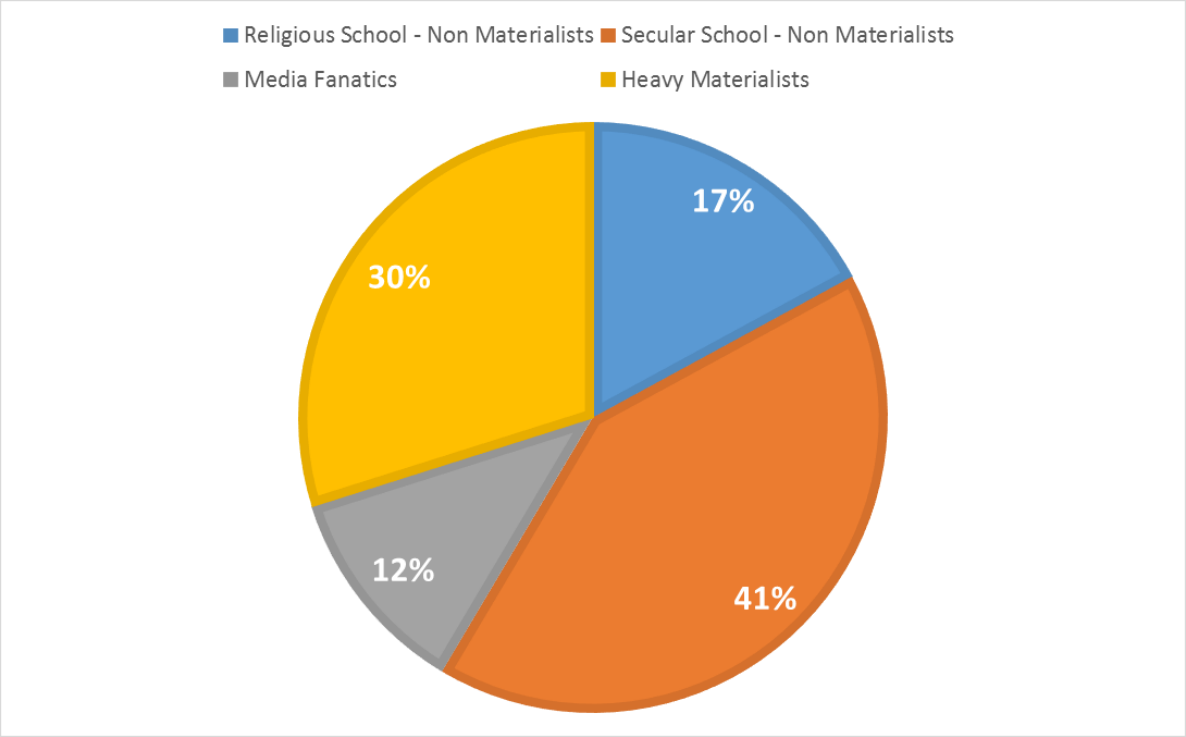


Figure 5.6 Clusters of children by materialism

Chapter 6: Conclusions

In this section, two different contributions will be presented: those related to the conceptual framework presented in Chapter 3, and those related to the empirical research. Moreover, limitations will be presented and further research suggested. Finally, recommendations for families and policy makers will be proposed.

6.1 Contributions

Regarding the conceptual framework, it is a contribution to the field in at least three ways. First, there is no previous attempt to classify the factors that influence materialism in children within a comprehensive model, although classification is a basic step in the development of science. Our classification of factors in three concentric groups allows a deeper understanding of the nature of factors, and opens the way to further research on the interactions among them.

Second, our framework helps to orientate the efforts of parents and educators in the prevention of materialistic traits in children. It identifies those factors under control of the parents, and in which they are more likely to have an impact. For example, parents may lose a lot of time trying to prevent children from watching TV, while they could be more effective in altering materialism of their offspring by changing other variables, such as discussing contents of TV programs.

And third, the framework may help authorities have a deeper understanding of the policies they can enact to effectively deal with materialism among children. For example, they may favour policies informing parents about the benefits of actively discussing with their children TV contents, instead of simply enacting bans or restrictions.

Regarding the empirical study, it contributes to the literature with several findings.

First, external factors are by far the most clearly linked to children's materialism. The four factors classified in our conceptual framework as external influences (school type, media exposure, peer influence and celebrities) have all significant, positive correlations with materialism. These results are more intriguing, as they come from a sample of children aged 8 to 12 years and fail to support our original idea that family influences were predominant in younger children, while external influences became more important as children grew into teenagers.

The second surprising finding is that, in Spain, almost all family related factors (parent's materialism, family communications patterns, family disruption and family religiosity) are non-significant, with *p* values between .10 and .20 in most cases. Only family income was negatively related to children's materialism. This contradicts research done in countries such as the United States or the UK, where these factors were significant in explaining children's materialism.

Our research reveals that in Spain, parents have lost much of their power to influence their children's attitudes toward consumption and that peers, advertising, media icons and schools play a major role in preventing or fostering materialism in youngsters.

Third, school type appears as a strong predictor of materialism in the final structural equation model. However, income and school type were highly correlated in our sample. Religious schools in the Barcelona area are mainly of medium-upper economic level, so our selected religious school was just representative of the universe. To ensure that school type had a real influence on children's materialism, we also obtained the partial

correlation of materialism and school type controlling for income, and it was significant (ρ=-.121, p<.05). Religious schools may influence children by transmitting a world view where spiritual ends are more important than possessions, and promoting the Catholic tradition that "The gospel condemns the worship of wealth" (as Pope Francis put it on March 5, 2014).

One should note that 'religiosity' in previous studies was measured as adolescent's own religiosity. This is the first study to measure family religiosity and link it with children's materialism. As hypothesized, families in the higher quartile of religiosity had less materialistic children (M=1.26) than families in the lower quartile (M=1.40) and this difference fell short of (but did not reach) the commonly accepted threshold of significance (*p*=.076).

Our results seem to validate the model of materialism proposed by Kasser *et al*. (2004). According to Kasser, materialism arises from feelings of insecurity and exposure to materialistic models and values. Susceptibility to peer influence was highly correlated to materialism, suggesting that an insecure child who strives for acceptance of his peers is more likely to become materialistic. In addition, admiration of celebrities was a significant predictor of materialism. A child who craves the lifestyle of the rich and famous will be more materialistic. But the effects of susceptibility to peer influence were mediated by other variables, namely attitude to ads and admiration of celebrities. A higher susceptibility to influence translates therefore into children believing advertising more and aspiring to the lifestyle of celebrities depicted in the media, which in turn increases materialism.

Scholars who have thus far studied the relationship between susceptibility to peer influence and materialism have called for more research on peer influence (John, 1999), further exploration of the causality between the two variables (Achenreiner, 1997) or including more factors to build an integrated model (Chaplin & John, 2010). Our research makes a significant contribution to this line, suggesting that both an increased trust in advertising and an aspiration to the lifestyle of the rich and famous work as two mechanisms through which susceptibility to influence results in higher materialism in children. A child easily influenced by his peers is also affected by vicarious influencers such as advertising messages and celebrities. And the presence of these two factors is key for the development of materialism: a child who trusts advertising accepts a worldview where consumption makes people happy and successful, as depicted over and over in commercials. At the same time, a child who takes the rich and famous as role models will believe that wealth and glamorous consumption are essential ingredients of a happy life—a belief emblematic of becoming more materialistic.

Previous research may help understand the relationship between susceptibility to peer influence and attitude to ads. A negative relationship between susceptibility to peer influence and disbelief in advertising had been previously reported (Boush, Friestad, & Rose, 1994; Mangleburg & Bristol, 1998). Mangleburg and Bristol (1998) specifically found that teens' susceptibility to normative peer influence was negatively related to skepticism toward ads—or, conversely, that children more susceptible to normative peer influence had better attitudes to ads. They measured normative (as opposed to informational) peer influence with a subset of the questions used by Bearden, Netemeyer, and Teel (1989). According to the authors, to the extent to which children conform to peers' opinions in

search of what is 'cool', they may accept less critically the models of 'coolness' depicted in TV ads.

Regarding age, in our sample younger children are more materialistic than older ones. This contradicts Chaplin and John (2007) findings, that materialism rises from 8 to 12 years due to a decline in self-esteem as a result of changes in body and self-image. Our results confirm Chan (2003) findings in a sample of Hong Kong children, where materialism was higher in 6 and 7 year olds. It is possible that younger children in Spain are more slanted to imitate older peers and have lower psychological resources to cope with peer pressure, a factor that leads to increased materialism.

Finally, our study is the first one to explore the effect of admiration of media celebrities on younger children. Former studies on the subject, such as La Ferle & Chan (2008) or Clark et al. (2001) explored the effect of celebrities in samples of adolescents aged 13-18 and 15-18 respectively. Besides, only one study by Banerjee & Dittmar (2008) had explored the influence of perceived peer pressure on children aged 8 to 11 years in the UK, while most studies focused only on older adolescents. Our research extends the knowledge of these two factors, showing that admiration of celebrities and peer pressure are strong predictors of materialism in very young kids.

6.2 Limitations and Further Research

Our research has six limitations we wish to mention. First, it was carried out in a Western European country such as Spain, so generalizability to other cultures must be dealt with carefully. Our finding that children in

religious schools are less materialistic than children in secular schools applies to a specific cultural and religious context. Further research should explore whether these results are also found in non-Christian societies, especially in Islamic and Eastern countries, or even in Catholic countries from different cultural backgrounds such as Latin American or African societies.

Second, Common Method Variance (CMV) may affect the measurement of variables, as the dependent variable (children's materialism) and all external variables were answered by children. CMV poses a threat to the assertion that family has lost its influence on Spanish children and that external factors are the most important ones. However, CMV will always be a threat as long as the dependent variable (children's materialism) is measured with a questionnaire, either to children or parents. In this study, time and access constraints dictated that materialism be measured with a scale instead of more time-demanding methods such as collage techniques (for an example, see Chaplin and John [2007]). It seemed more appropriate to ask children themselves about their own materialism rather than building a measure based on teachers' or parents' perception, as the latter may be biased and incorrect. The low level of significance of the family-related variables hints that, even if CMV exists, these variables may indeed not be as strong predictors of children's materialism as the external variables.

A third limitation is that, for some variables, causality is not clear. For family factors (like income or family religiosity) causality is easy to determine: it is plausible to posit that lower income or lower religiosity levels in parents induce children's materialism, as the opposite direction of causality does not make much sense. But when we come to external

factors, causality becomes unclear. It seems reasonable to affirm that children more susceptible to peer influence are more willing to make comparisons with peers and indulge in consumption. Materialism could develop as a result of insecurity, which creates a dependence on what others buy and wear in order not to be excluded from the group. Reports of children fearing being bullied or beaten up for not wearing the right brand of 'trainers' (sneakers) (Elliott & Leonard, 2004) indicate the extent to which peer pressure can encourage materialism in children.

However, causes are less clear in the case of other external factors. Do children who have positive attitudes to ads become more materialistic, or does their materialism drive them to watch TV and believe advertising more? The same can be said about admiration of celebrities. Do children who admire wealthy icons become materialistic or they are attracted to the lifestyle of media icons because they are materialistic? As an example of research already done in this line, Opree, Buijzen, van Reijmersdal, & Valkenburg (2013) examined the influence of TV ads on children using two sets of data with a year of difference and concluded that TV ad exposure had a positive longitudinal effect on materialism.

A fourth limitation of our study is that susceptibility to peer influence was measured using the degree to which a child tends to be influenced by other children's behaviours or thoughts. However, other measures exist. Banerjee and Dittmar (2008) developed a Perceived Peer Group Pressure scale that measures perceptions of pressure to conform to a peer culture. Future studies may use this and other scales to explore the mechanisms by which peer pressure affects children's materialism.

Fifth, a remark has to be made about the model fit of the Structural Equation Model. Since this is a relatively new area of research, we may not

have been able to incorporate all the latent variables of interest in the model. Further, the methodology was limited to a survey. We should be cautious while interpreting the good or acceptable model fit as it is possible to achieve a good fit even when the model needs better specification.

Sixth, it is important to note that some experiments performed in the U.S. regarding family communication patterns (Moschis & Moore, 1979) took place over 30 years ago, and those exploring family disruption (Rindfleisch et al., 1997; J. A. Roberts et al., 2003) over 10 years ago. Would these results still hold if experiments were performed in contemporary samples in the U.S.? However, some of the studies linking other family factors to children's materialism are indeed very recent: parent's materialism (Adib & El-Bassiouny, 2012; Chaplin & John, 2010), family income (Chan & Cai, 2009), and religiosity (Speck & Peterson, 2010).

Finally, it is important to draw attention to the fact that, for all family factors that did not reach significant levels of association with children's materialism (parents' materialism, family communication patterns, family disruption and family religiosity) the sign of the correlations was as expected, based on previous literature (positive for parent's materialism, negative for socio-oriented communication, positive for family disruption and negative for family religiosity) although, as already said, they did not reach significance. Future research willing to explore the isolated effect of each specific factor may use convenience samples to see whether there are associations that approach significance.

6.3 Recommendations

Our research provides insights for families, educators and government agencies. Efforts aiming at preventing materialistic attitudes in children could achieve better results by working on their critical reception of ads and their tendency to admire celebrities. Informing children about the selling intention of ads, and disclosing the not-so-glamorous aspects of celebrities' lives may help children to redefine their priorities regarding materialism.

The role of religious schools as a deterrent to materialistic attitudes could also be considered. Our research shows that children in religious schools were less materialistic than children in secular ones. Public policy makers should consider that some religious schools might be partners in the effort to prevent materialism in society. Further research might explore the mechanisms through which religious education curbs materialism in children, and whether some of these mechanisms can be replicated in secular schools.

Furthermore, a great deal of debate has centered on the impact of TV programs, TV ads and the Internet on children's materialism. But regarding TV watching, our research shows that the attitudes of children toward ads, and not the mere hours spent watching TV, are more closely related to materialism. Parents and educators can work on their children's perception of TV ads, and make them aware of the selling intention of advertising from a very early age, in an effort to diminish the effect of TV viewing on materialism.

The finding that admiration of celebrities encourages materialism has implications for managers selling to children. Marketers in the last two decades have been using celebrities and famous sportsmen as brand ambassadors to support products offered to children. Controversy aroused when this brand ambassadors supported HFSS foods, and in some countries, legislative changes were made to prevent celebrities from promoting the intake of unhealthy food. Our research shows that the use of icons to sponsor a specific brand can have negative effects, even if the brand is not "unhealthy", for most of the icons chosen are usually celebrities or sportsmen identified with a glamorous lifestyle and, in turn, their admiration promotes materialistic attitudes. Moreover, managers in the broadcasting and film industry should understand that they have a huge responsibility, for TV programs focusing on the life of famous people (very popular in the last decades) may be, in fact, encouraging materialism in children or adolescents.

Finally, our results suggest that the influence of parents at home is limited, and that supervising a child's relations with friends, encouraging a critical attitude to commercial messages or selecting a specific school are priorities when creating a suitable set of 'external factors' to reduce materialism in children. Moreover, parents, educators and government should also consider that family income, family disruption, family communication patterns, and gender are not the main priorities when attempting to reduce the level of materialism of Spain's younger generations.

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Appendixes

Appendix 1

Richins materialism scale (reproduced from Richins 1987). An * indicates reverse scoring. Tested using a Likert scale, no information about the number of Likert points is given in the article.

1. It is important to me to have really nice things.
2. I would like to be rich enough to buy anything I want.
3. I'd be happier if I could afford to buy more things.
4. It sometimes bothers me quite a bit that I can't afford to buy all the things I would like.
5. People place too much emphasis on material things. *
6. It's really true that money can buy happiness.
7. The things I own give a great deal of pleasure

A factor analysis showed the seven items loaded on three factors: a *personal materialism* factor, or the idea that possessions are important for one's own happiness (possibly items 1, 2, 3 and 4); a *general materialism* factor, or the general idea that money brings happiness (items 5 and 6), and a third factor (item 7). This last item was excluded from the final list of items.

Appendix 2

Belk materialism scale (reproduced from Belk 1985). Questions in this appendix have been grouped in the three traits: possessiveness, non-generosity and envy. An * indicates reverse scoring. Tested using 5-point Likert (*agree-disagree*) scale.

Possessiveness

8. Renting or leasing a car is more appealing to me than owning one. *
9. When I travel I like to take a lot of photographs.
10. I don´t get particularly upset when I lose things *
11. I am less likely than most people to lock things up *
12. I tend to hang on to things I should probably throw out
13. I would rather buy something I need than borrow it from someone else.
14. I worry about people taking my possessions.
15. I never discard old pictures or snapshots.
16. I get very upset is something is stolen from me, even if it has little monetary value.

Non-generosity

17. I enjoy having guests stay in my home. *
18. I enjoy sharing what I have. *
19. I don´t like to have anyone in my house when I´m not there.
20. It makes sense to buy a lawnmower with a neighbor and share it *
21. I don´t mind giving rides to those who don´t have a car *
22. I enjoy donating things to charities *
23. I don´t like to lend things, even to good friends.

Envy

24. There are certain people I would like to trade places with.
25. I am bothered when I see people who buy anything they want.
26. I don't seem to get what is coming to me.
27. I don´t know anyone whose spouse or steady date I would like to have as my own. *

28. When friends do better than me in competition it usually makes me happy for them. *
29. When Hollywood stars or prominent politicians have things stolen from them I really feel sorry for them. *
30. When friends have things I cannot afford it bothers me.
31. People who are wealthy often feel they are too good to talk to average people.

Appendix 3

Richins and Dawson Materialism scale based on three dimensions: Success, Centrality and Happiness. Reproduced from Richins and Dawson (1992), p. 310.

Items are measured on a 5-point Likert scale (*strongly agree*, *agree*, *neutral*, *disagree*, *strongly disagree*). An * indicates reverse scoring.

Success

1. I admire people who own expensive homes, cars and clothes.
2. Some of the most important achievements in life include acquiring material possessions.
3. I don´t place much emphasis on the amount of material objects people own as a sign of success. *
4. The things I own say a lot about how well I´m doing in life.
5. I like to own things that impress people.
6. I don´t pay much attention to the material objects other people own. *

Centrality

7. I usually buy only the things I need. *
8. I try to keep my life simple, as far as possessions are concerned. *
9. The things I own aren´t all that important to me. *
10. I enjoy spending money on things that aren´t practical.
11. Buying things give me a lot of pleasure.
12. I like a lot of luxury in my life.
13. I put less emphasis on material things than most people I know. *

Happiness

14. I have all the things I really need to enjoy life. *
15. My life would be better if I owned certain things that I don´t have.
16. I wouldn´t be any happier if I owned nicer things. *
17. I´d be happier if I could afford to buy more things.
18. It sometimes bothers me quite a bit that I can´t afford to buy all the things I like.

Appendix 4

Richins (2004) Short Version of the Materialism scale based on three dimensions: Success, Centrality and Happiness. Reproduced from Richins (2004), p. 217-218.

Items are measured on a 5-point Likert scale (*strongly agree*, *agree*, *neutral*, *disagree*, *strongly disagree*). An * indicates reverse scoring. Numbers in parenthesis indicate whether the item was included in the 9, 6 and 3 item shorter forms. The 9-items form showed acceptable levels of validity and reliability. The 6-items form requires further testing and the 3-items version performs poorly.

Success

1. I admire people who own expensive homes, cars and clothes. (9, 6, 3)
2. Some of the most important achievements in life include acquiring material possessions.
3. I don´t place much emphasis on the amount of material objects people own as a sign of success. *
4. The things I own say a lot about how well I´m doing in life. (9, 6)
5. I like to own things that impress people. (9)

Centrality

6. I try to keep my life simple, as far as possessions are concerned. * (9)
7. The things I own aren´t all that important to me. *
8. Buying things give me a lot of pleasure. (9, 6)
9. I like a lot of luxury in my life. (9, 6, 3)
10. I put less emphasis on material things than most people I know. *

Happiness

11. I have all the things I really need to enjoy life. *
12. My life would be better if I owned certain things that I don´t have. (9, 6)
13. I wouldn´t be any happier if I owned nicer things. *
14. I´d be happier if I could afford to buy more things. (9, 6, 3)
15. It sometimes bothers me quite a bit that I can´t afford to buy all the things I like. (9)

Appendix 5

Youth Materialism Scale

(Reproduced from Goldberg et al, 2003)

1. I´d rather spend time buying things, than doing almost anything else.
2. I would be happier if I had more money to buy more things for myself
3. I have fun just thinking of all the things I own
4. I really enjoy going shopping
5. I like to buy things my friends have
6. When you grow up, the more money you have, the happier you are
7. I´d rather not share my snacks with others if it means I´ll have less for myself
8. I would love to be able to buy things that cost a lot of money
9. I really like the kids that have very special games or clothes
10. The only kind of job I want when I grow up is one that gets me a lot of money

Answers were evaluated on a 4 point scale, with values of 1 (*disagree a lot*), 2 (*disagree a little*), 3 (*agree a little*) and 4 (*agree a lot*).

Appendix 6

Materialism scale used by Achenreiner (1997) with a sample of children aged 8, 12 and 16 years. It is adapted from Richins (1987) and is ranked with a 4-point Liker scale (YES, yes, no, NO)

Reproduced from Achenreiner (1997), p. 85.

1. It is important to me to have really nice things.
2. I would like to be rich enough to buy anything I want.
3. I´d be happier if I could afford to buy more things.
4. It bothers me when friends have things that I don´t have
5. It´s really true that money can buy happiness

Comments: Items 1 and 3 seem to be related with the *centrality* dimension, and items 3 and 5 with the *happiness* dimension in the Richins and Dawson scale (1992). But item 4 seems related to the *Envy* trait of the Belk scale (1985). Coefficient alpha for the scale was .66, within the recommended range of .60 and .80 for basic research (Achenreiner 1997)

Appendix 7

Materialism scale used by Robert, Manolis and Tanner (2003) with children 11 to 15 years (adapted from Richins and Dawson, 1992)

Reproduced from Roberts et al (2003), p. 309.

Happiness Dimension

1. My life would be better if I had certain things I do not have
2. I wouldn´t be any happier if I had nicer things (R)
3. It sometimes bothers me quite a bit that I can´t afford to buy all the things I´d like

Centrality dimension

1. I enjoy spending money on things that I don´t really need
2. Buying things gives me a lot of pressure (pleasure?)
3. I like a lot of luxury in my life
4. I put less emphasis on things than most people I know.

Success dimension

1. I look up to people who own expensive homes, cars and clothes.
2. I believe that having things is one of the most important achievements in life.
3. The things I own say a lot about how well I´m doing in life

4. I like to own things that impress people

Items are measured on a Likert scale, from 1=*strongly disagree* to 7=*strongly agree*. "R" indicates reverse score. The original scale consisted of 18 items: 5 for *happiness*, 7 for *centrality* and 6 for *success.* This revised and shortened scale correlated with the original one ($r=.83$, $p<.001$)

Appendix 8

Practice and Belief Scale (PBS) used by Holder, Coleman and Wallace. The scale was selected and adapted from the Brief Multidimensional Measurement of Religiousness/Spirituality (BMMRS) developed by the Feltzer Institute (1999).

Items were rated using a 7-points Likert scale.

I. Children´s practice of their belief:

1. How often do you go to a place of worship such as a church?
2. How often do you pray or meditate privately outside of church or other place of worship?
3. I read religious or spiritual books or magazines.

II. Children´s belief in a higher power

4. I feel a higher power´s presence.
5. I believe in a higher power who watches over me.
6. I feel a higher power´s love for me.
7. I desire to be closer to a higher power.

III. Spirituality´s role in coping and everyday life

8. How often do you find strength and comfort in your religion or spirituality?

9. When you are worried or have a problem, how often do you depend on your religion or spirituality to help you?

10. I try hard to use my religious or spiritual beliefs in all parts of my life.

IV. Overall self-perception of religiousness or spirituality

11. Do you think of yourself as a religious or spiritual person?

Appendix 9

Religious Orientation Scale developed by Allport & Ross and used to measure Intrinsic-Extrinsic Religiosity. Reproduced from Maltby an Lewis (1996). (I) indicates that the item measures Intrinsic Religiosity, (E) that it measures Extrinsic Religiosity.

1. I enjoy reading about my religion (I)
2. I go to Church because it helps me make friends (E)
3. It doesn´t matter what I believe so long as I am good. (E)
4. Sometimes I have to ignore my religious beliefs because of what other people might think of me. (E)
5. It is important for me to spend time in private thought and prayer. (I)
6. I would prefer to go to church (1) a few times a year (2) once every month or two (3) two or three times a month (4) once a week (5) more than once a week. (I)
7. I have often had a strong sense of God´s presence. (E)
8. I pray mainly to gain relief and protection (E)
9. I try to live all my life according to my religious beliefs. (I)
10. What religion offers me most is comfort in times of trouble and sorrow. (E)
11. My religion is important to me because it answers many questions about the meaning of life. (I)

12. I would rather join a Bible study group than a church social group. (I)
13. Prayer is for peace and happiness. (E)
14. Although I am religious, I don´t let it affect my daily life. (E)
15. I go to church mostly to spend time with my friends. (E)
16. My whole approach to life is based on my religion. (I)
17. I go to Church mainly because I enjoy seeing people I know there. (E)
18. I pray mainly because I have been taught to pray. (E)
19. Prayers I say when I am alone are as important to me as those I say in church. (I)
20. Although I believe in my religion, many other things are more important in my life. (E)

Appendix 10

Survey to children (original version in Spanish).

The interview comprises 47 questions and was answered in the classroom in approximately 15 to 25 minutes, under supervision of one researcher.

(Starts in the next page)

ENCUESTA PARA ALUMNOS

Contesta a las siguientes preguntas encerrando la respuesta con un círculo.

1. Me pasaría el tiempo comprando cosas, en vez de hacer cualquier otra cosa.

SÍ sí no NO

2. Sería más feliz si tuviera más dinero para comprarme cosas.

SÍ sí no NO

3. Me divierte pensar en todas las cosas que tengo.

SÍ sí no NO

4. Realmente me gusta ir de compras.

SÍ sí no NO

5. Me gustaría comprar cosas que mis amigos tienen.

SÍ sí no NO

6. Cuando eres grande, cuanto más dinero tienes, más feliz eres.

SÍ sí no NO

7. Compartiría mi merienda con otros aunque eso signifique tener menos para mí.

SÍ sí no NO

8. Me encantaría poder comprar cosas que cuesten mucho dinero.

SÍ sí no NO

9. Realmente me agradan los chicos que tienen juegos o prendas de vestir especiales.

SÍ sí no NO

10. El único trabajo que quiero tener cuando crezca es uno que me dé mucho dinero.

SÍ sí no NO

11. ¿Cuándo es tu cumpleaños? Día ___ Mes _____

12. En tu último cumpleaños cumpliste ____ años.

13. Eres : Chico Chica

14. "Muchas cosas están mal en mí." ¿Te sientes así?

SÍ sí no NO

15. "Yo no soy muy bueno en nada." ¿Te sientes así?

SÍ sí no NO

16. "No soy bueno." ¿Te sientes así?

SÍ sí no NO

17. "Creo que no soy bueno para nada" ¿Te sientes así?

SÍ sí no NO

18. ¿Estás feliz con ser la persona que eres?

(A) Muy feliz  (B) Feliz  (C) Infeliz  (D) Muy infeliz. 

19. Todos tenemos cosas que son buenas y cosas que son malas. ¿Tú tienes más cosas…

(A) BUENAS?  (B) buenas?  (C) malas?  (D) MALAS? 

20. ¿Cuántas horas de TV ves <u>CADA DÍA</u>, los días que vas al cole? (Encierra en un círculo)

0 ½ 1 1½ 2 2½ 3 3½ 4 Más (indica cuántas) ___

21. ¿Cuántas horas de TV ves los días sábados?

0 ½ 1 1½ 2 2½ 3 3½ 4 Más (indica cuántas) ___

22. ¿Cuántas horas de TV ves los días domingos?

0 ½ 1 1½ 2 2½ 3 3½ 4 Más (indica cuántas) ___

23. ¿Cuántas horas <u>CADA DÍA</u> estás en internet, los días que vas al cole ?

0 ½ 1 1½ 2 2½ 3 3½ 4 Más (indica cuántas) ___

24. ¿Cuántas horas estás en internet los días sábados?

0 ½ 1 1½ 2 2½ 3 3½ 4 Más (indica cuántas) ___

25. ¿Cuántas horas estás en internet los días domingos?

0 ½ 1 1½ 2 2½ 3 3½ 4 Más (indica cuántas)___

26. ¿Participas en alguna red social en internet?

SÍ NO

Si tu respuesta es SÍ, indica en qué red (o redes) participas:

Twitter Tuenti Facebook Hi5 Google+ Otra _____

27. ¿Tienes teléfono móvil propio?

SÍ NO

28. ¿Accedes a internet desde tu teléfono móvil?

SÍ NO

29. Los anuncios de TV hacen que tú desees tener más juguetes

SÍ sí no NO

30. Los anuncios de TV siempre dicen la verdad

SÍ sí no NO

31. Los anuncios de TV te indican qué cosas deberías tener

SÍ sí no NO

Las preguntas 32 a 38 se refieren a  ZAPATILLAS DE DEPORTE

32. Me gustaría tener las  que mis amigos piensan son bonitas.

SÍ sí no NO

33. Es importante que a mis amigos les gusten mis nuevas 

SÍ sí no NO

34. Para asegurarme de comprar los mejores  , miro qué  tienen mis amigos.

SÍ sí no NO

35. Me gusta saber qué tipo de  harán que los demás piensen que soy guay.

SÍ sí no NO

36. Me siento igual a mis amigos si tengo las  que ellos usan.

SÍ sí no NO

37. Preguntaría a mis amigos para que me ayuden a elegir las mejores  .

SÍ sí no NO

38. Si pienso que alguien es guay, trato de que me compren las  que esa persona usa.

SÍ sí no NO

39. Quiero ser tan listo como los actores de cine

SÍ sí no NO

40. Quiero ser tan elegante como las personas que aparecen en los anuncios

SÍ sí no NO

41. Quiero estar tan de moda como los modelos de las revistas

SÍ sí no NO

42. Me gustaría vivir igual que viven los famosos

SÍ sí no NO

Escribe el nombre de un DEPORTISTA FAMOSO o persona FAMOSA DEL ESPECTÁCULO a quien ADMIRES MUCHO pero que NO CONOZCAS PERSONALMENTE: _____

Señala si crees que esta persona…

43. Es un buen modelo a seguir para tí

SÍ sí no NO

44. Da un buen ejemplo.

SÍ sí no NO

45. Es un buen ejemplo a seguir para otros.

SÍ sí no NO

46. Te gustaría trabajar y comportarte igual que él.

SÍ sí no NO

47. Actúa como un modelo a seguir para ti.

SÍ sí no NO

Appendix 11

Interview to parents (original version in Spanish).

The interview comprises 52 questions and was answered upon request by parents at home. Children were instructed to give the survey to the parent or relative with whom they spent most of the time. Answers were sent back to the school teacher and collected by the researchers after one week.

(Starts in the next page)

Benvolguda mare o pare de família,

Li remetem a continuació una enquesta que es farà servir per a un estudi com a part de l'elaboració d'una tesi doctoral i d'una sèrie d'articles acadèmics en el camp de les ciències socials.

L'enquesta consta de dues parts: una per ser emplenada pel seu fill/a, i l'altra per vostè. El seu fill ja va contestar la seva a l'escola. Li agrairem que dediqui 10 minuts del seu temps a contestar les preguntes corresponents als pares.

L'enquesta és anònima. La informació que vostè i el seu fill/a esmentin és confidencial i no s'utilitzarà per a cap altre propòsit que per als estudis esmentats.

Estimada madre o padre de familia,

Le remitimos a continuación una encuesta que se usará para un estudio como parte de la elaboración de una tesis doctoral y de una serie de artículos académicos en el campo de las ciencias sociales.

La encuesta consta de dos partes: una para ser rellenada por su hijo/a, y la otra por usted. Su hijo ya contestó su parte en el colegio. Le agradeceremos que tome 10 minutos de su tiempo para contestar a las preguntas para usted

La encuesta es anónima. La información que usted y su hijo/a mencionen es confidencial y no se usará para ningún otro propósito que para los estudios mencionados.

ENCUESTA PARA MADRE O PADRE

1. Su relación con el niño: Madre ( ) Padre ( ) Abuelo/a ( ) Otro _____
2. Escriba el código postal de su domicilio: ✉ _____
3. ¿Cuántas personas viven en su casa? 1 2 3 4 5 Más (indicar)____
4. ¿Cuál es el nivel de estudios del cabeza de familia?

Primaria ( ) Secundaria ( ) FP ( ) Universitaria ( ) Master ( ) Doctorado ( )

5. Nacionalidad del cabeza de familia _____
6. Su religión o tradición religiosa es:

   Católica ( ) Protestante o evangélica ( ) Islámica ( ) Otra _____

7. Su ingreso <u>familiar</u> anual está en el rango:

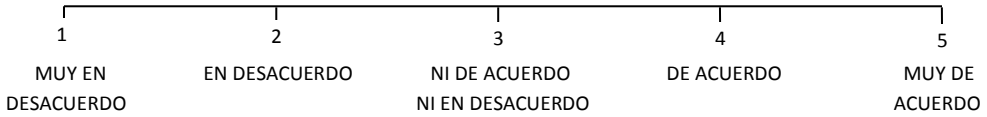
   a. Menor a € 20,000
   b. € 20,001 a € 30,000
   c. € 30,001 a € 40,000
   d. € 40,001 a € 50,000
   e. € 50,001 a € 60,000
   f. € 60,001 a € 70,000
   g. Mayor a € 70,000

8. Su estatus familiar es:

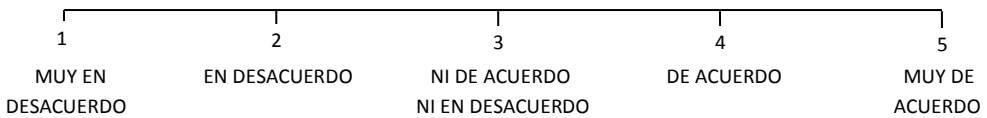
   a. Pareja casada
   b. Pareja de hecho
   c. Madre o padre soltero
   d. Divorciado/a o Separado/a
   e. Casado/a en segundas nupcias

Marque con un círculo su nivel de acuerdo con las siguientes frases:

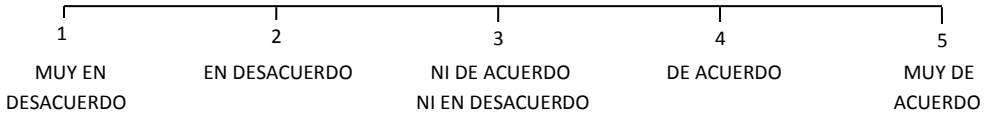
9. Admiro a las personas que son dueños de casas, coches y ropa caras



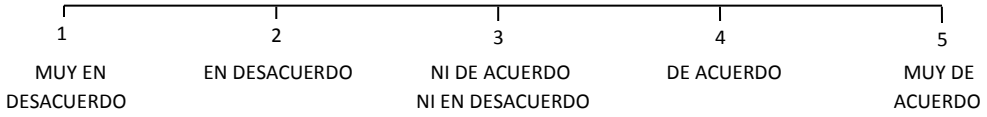
10. Algunos de los logros más importantes de la vida incluyen la adquisición de bienes materiales.



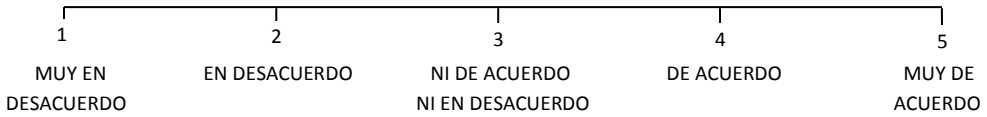
11. No le doy mucha importancia a la cantidad de objetos materiales que la gente posee como signo de éxito.



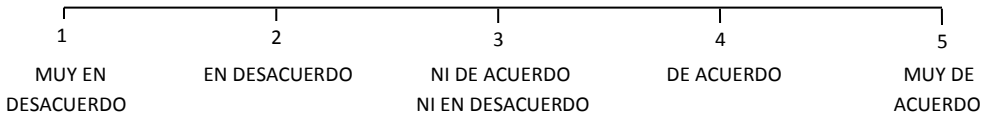
12. Las cosas que poseo dicen mucho acerca de cuán bien me va en la vida.



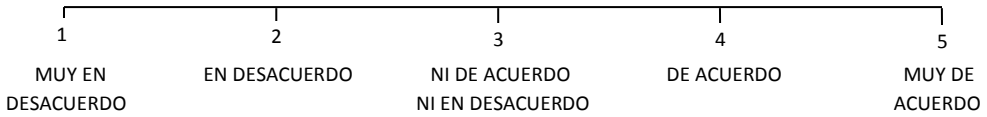
13. Me gusta poseer cosas que impresionan a la gente.



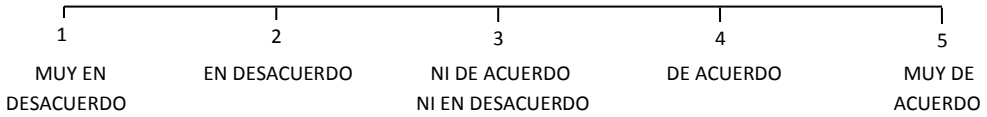
14. Trato de mantener mi vida sencilla, en lo que se refiere a bienes.



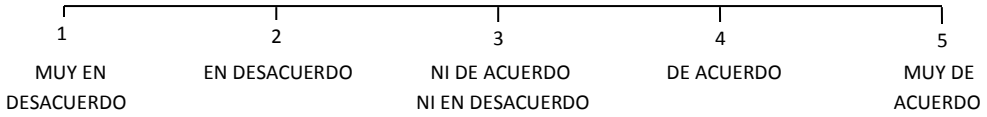
15. Las cosas que poseo no son tan importantes para mí.



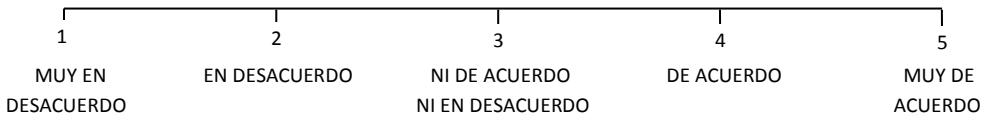
16. Comprar cosas me da mucho placer.



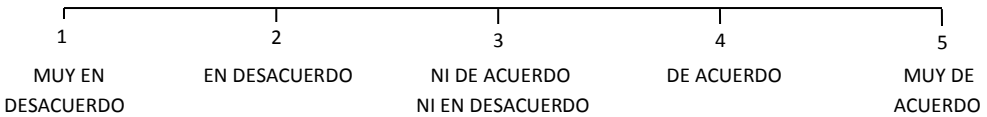
17. Me gusta tener mucho lujo en mi vida.



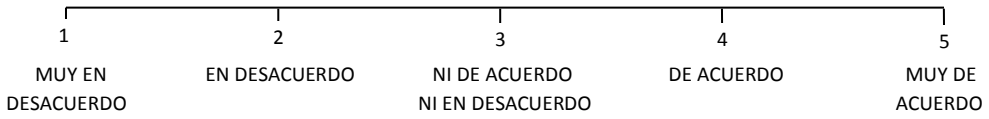
18. Pongo menos énfasis en las cosas materiales que la mayoría de la gente que conozco



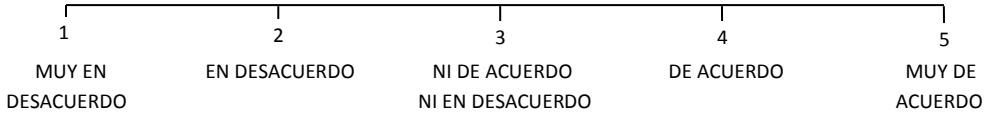
19. Tengo todas las cosas que necesito para disfrutar de la vida.



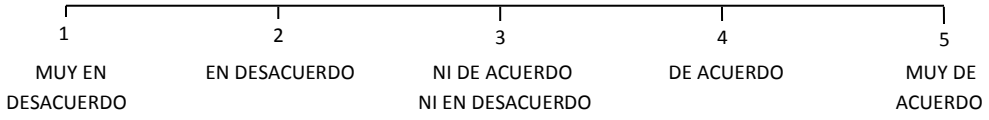
20. Mi vida sería mejor si tuviera ciertas cosas que no tengo.



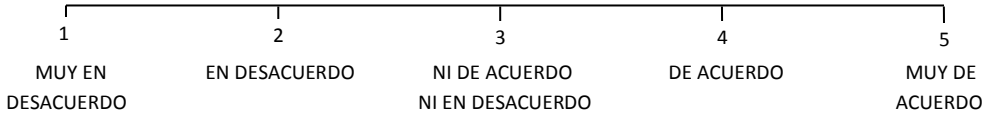
21. Yo no sería más feliz si poseyera mejores cosas.



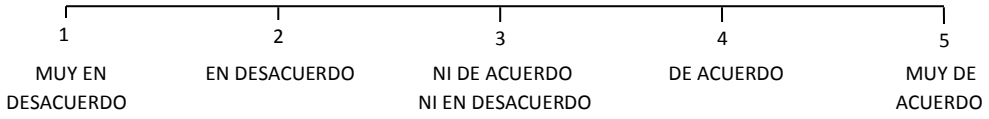
22. Sería más feliz si pudiera comprar más cosas.



23. A veces me molesta un poco que no puedo darme el lujo de comprar todas las cosas que me gustaría.

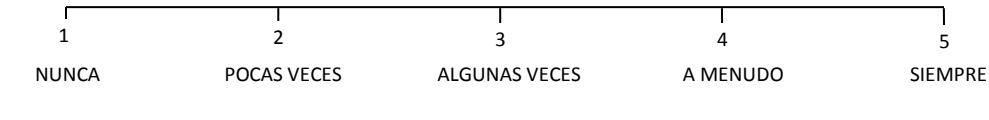


24. Me considero una persona materialista –los bienes materiales ocupan un lugar central en mi vida–.

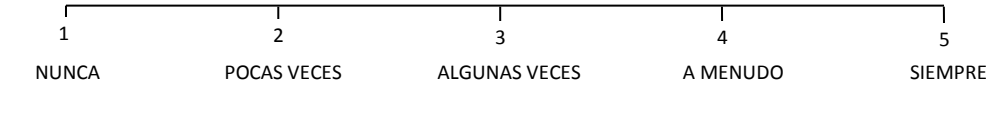


¿LE DICE A SU HIJO/A…

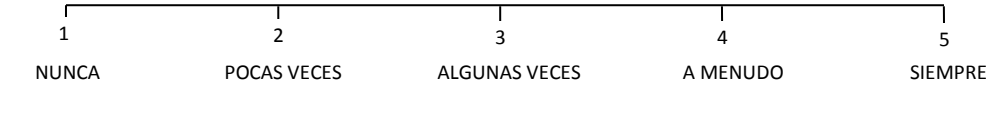
25. …que cada miembro de su familia debe tener algo que decir en las decisiones de compra de la familia?



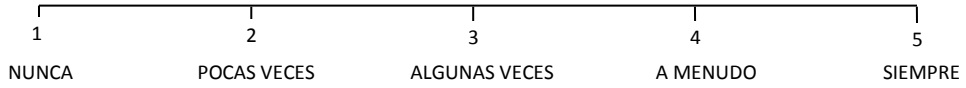
26. …que dé su opinión al discutir compras de la familia?



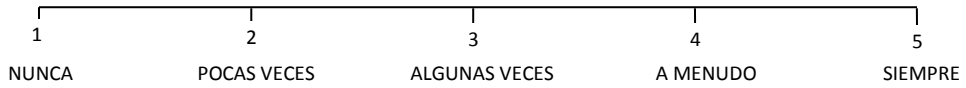
27. …que dé su opinión sobre productos y marcas?



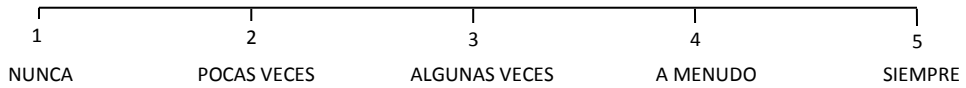
28. … que usted aprecia sus conocimientos sobre determinados productos o marcas?



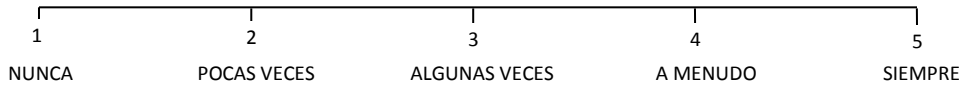
29. … que usted tiene en cuenta sus preferencias al realizar una compra?



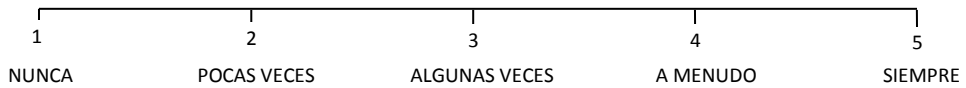
30. … que considere las ventajas o desventajas de los productos o marcas?



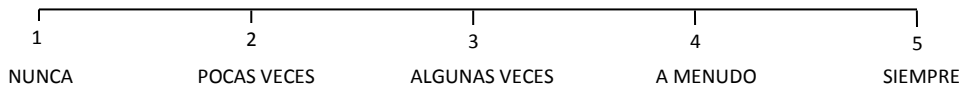
31. … que puede participar en la decisión cuando usted hace compras para él (ella)?



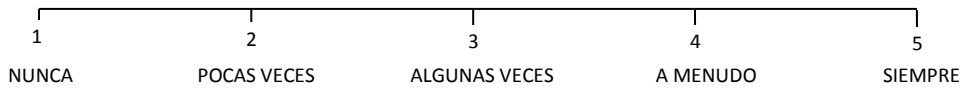
32. …que usted sabe qué productos son los mejores para él (ella)?



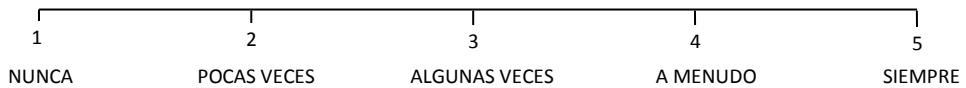
33. …que no discuta con usted cuando usted le dice "no" a la compra de algún producto?



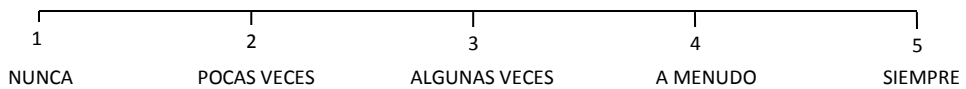
34. …que usted espera que él (ella) acepte sus decisiones sobre compras de productos?



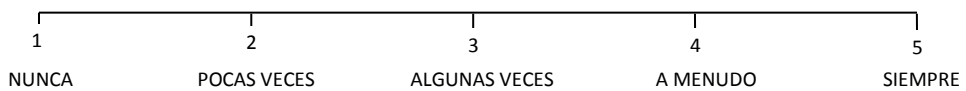
35. … qué productos se comprarán o no se comprarán para la familia?



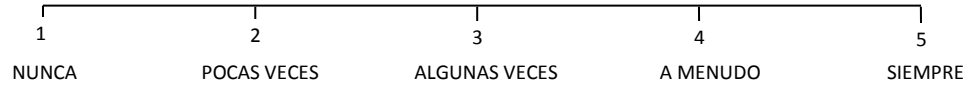
36. … qué productos él (ella) debería o no comprar?



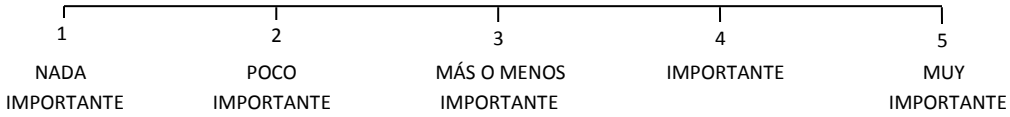
37. …que usted tiene reglas claras y estrictas cuando se trata de comprar productos?



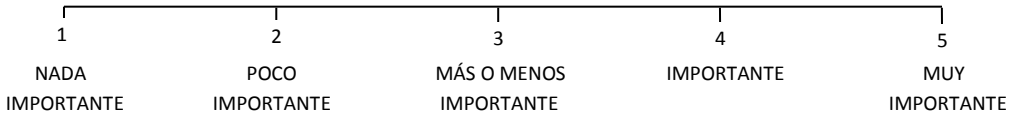
38. …que no se le permite pedir productos?



39. Califique la importancia de su fe religiosa para usted.



40. Califique la importancia de dar educación religiosa a su hijo/a



41. ¿Con qué frecuencia asiste usted a la misa o servicio religioso?

1= Nunca 2= Menos de una vez al mes 3= Una vez al mes

4= Dos o tres veces al mes 5= Una vez por semana 6= Más de una vez por semana

7= Diariamente

42. ¿Con qué frecuencia reza usted?

1= Nunca 2= Menos de una vez al mes 3= Una vez al mes

4= Dos o tres veces al mes 5= Una vez por semana 6= Más de una vez por semana

7= Diariamente

43. ¿Con qué frecuencia lee usted la Biblia o libros espirituales o religiosos?

1= Nunca 2= Menos de una vez al mes 3= Una vez al mes

4= Dos o tres veces al mes 5= Una vez por semana 6= Más de una vez por semana

7= Diariamente

44. ¿Con qué frecuencia habla con su hijo/a sobre temas religiosos?

1= Nunca 2= Menos de una vez al mes 3= Una vez al mes

4= Dos o tres veces al mes 5= Una vez por semana 6= Más de una vez por semana

7=Diariamente

45. ¿Con qué frecuencia reza usted con su hijo/a?

1= Nunca 2= Menos de una vez al mes 3= Una vez al mes

4= Dos o tres veces al mes 5= Una vez por semana 6= Más de una vez por semana

7= Diariamente

46. ¿Con qué frecuencia lleva usted a su hijo/a a la iglesia o lugar de culto?

1= Nunca 2= Menos de una vez al mes 3= Una vez al mes

4= Dos o tres veces al mes 5= Una vez por semana 6= Más de una vez por semana

7= Diariamente

47. ¿Con qué frecuencia diría usted que su marido/mujer asiste a misa o servicio religioso?

0= No tengo marido / mujer 1= Nunca 2= Menos de una vez al mes

3= Una vez al mes 4= Dos o tres veces al mes 5= Una vez por semana

6= Más de una vez por semana 7= Diariamente

48. ¿Hay en la familia una abuela o abuelo que se interese en la educación religiosa de su hijo/a (por ejemplo, lo lleve a misa, rece con él (ella), etc.)?

SÍ NO

<u>Si la respuesta es NO, pase a la pregunta 51</u>

49. ¿Con qué frecuencia la abuela o el abuelo reza junto con su hijo/a?

1= Nunca 2= Menos de una vez al mes 3= Una vez al mes

4= Dos o tres veces al mes 5= Una vez por semana 6= Más de una vez por semana

7= Diariamente

50. ¿Con qué frecuencia la abuela o el abuelo lleva a su hijo/a a la iglesia o lugar de culto?

1= Nunca 2= Menos de una vez al mes 3= Una vez al mes

4= Dos o tres veces al mes 5= Una vez por semana 6= Más de una vez por semana

7= Diariamente

51. ¿Su hijo/a se está preparando este año para hacer la Comunión?

SÍ NO

52. ¿Su hijo/a tiene algún hermano mayor que haya hecho la Comunión?

SÍ NO

FIN DE LA ENCUESTA. MUCHAS GRACIAS POR SU COLABORACIÓN.

Esta Tesis Doctoral ha sido defendida el día ____ d_____ de 201__

En el Centro_____

de la Universidad Ramon Llull, ante el Tribunal formado por los Doctores y Doctoras abajo firmantes, habiendo obtenido la calificación:

Presidente/a

_____

Vocal

_____

Vocal *

_____

Vocal *

_____

Secretario/a

_____

Doctorando/a

(*): Sólo en el caso de tener un tribunal de 5 miembros

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