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Contemporary topics in consumer morality: An investigation of ethical and unethical consumer judgment, decision making and behavior

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NEDERLANDSTALIGE SAMENVATTING

Ethiek gerelateerd aan consumentengedrag behelst een brede waaier aan consumentengedragingen, gaande van consumenten die liegen over producten die ze zelf hebben beschadigd, namaakproducten aankopen, digitale piraterij tot winkeldiefstal aan de ene kant, en aan de andere kant: het aankopen van milieuvriendelijke producten, Fair Trade producten en consumenten die eerlijk aangeven dat een rekening verkeerd werd berekend in hun voordeel. Ethiek gerelateerd aan consumentengedrag wordt gedefinieerd als "*de morele regels, principes en standaarden die het gedrag van een individu (of groep) beïnvloeden in de keuze, aankoop, het gebruik, de verkoop of het ontdoen van een product of dienst"* (Muncy & Vitell, 1992, p.298). Moreel geladen consumentengedrag oefent een enorme invloed uit op winkeliers en andere bedrijven, in de negatieve zin (vb. winkeldiefstal, namaakgoederen en digitale piraterij) maar ook in de positieve zin (vb. de verkoop van Fair Trade of milieuvriendelijke producten). De literatuur over ethiek gerelateerd aan consumentengedrag omspant twee stromen van onderzoek: onderzoek dat zich toelegt op negatief consumentengedrag (i.e. consumenten ethiek) en onderzoek dat zich toelegt op positief consumentengedrag (i.e. ethische consumptie). Naar dit positief consumentengedrag zal voortaan verwezen worden als **"ethisch consumentengedrag"** en omvat gedrag dat gericht is op het verhogen van andermans welzijn en het goeddoen voor anderen en/of de maatschappij in het algemeen. Anderzijds wordt naar negatief consumentengedrag verwezen als **"onethisch consumentengedrag"**. Dit omvat norm-overschrijdend gedrag met kwalijke gevolgen voor anderen en/of de maatschappij in het algemeen. Dit werkstuk legt zich toe op beide vormen van moreel consumentengedrag en op hoe de beoordeling van dit gedrag kan verschillen.

De wereld waarin de hedendaagse consument leeft is het voorbije decennium drastisch veranderd waardoor nieuwe vormen van ethisch en onethisch consumentengedrag tot uiting zijn gekomen. Onethisch consumentengedrag omvatte tot dan toe onethisch gedrag dat zich afspeelde binnen de muren van de fysieke winkel zoals winkeldiefstal, het frauduleus gebruik van kortingsbonnen of het terugbrengen van beschadigde goederen waarvoor de klant zelf verantwoordelijk was, enz. Tegenwoordig heeft de marktplaats zich verplaatst naar het internet waardoor nieuwe, unieke uitingen van onethisch consumentengedrag zich hebben ontwikkeld, zoals het online kopen van namaakgoederen of digitale piraterij. Daarentegen is ethisch consumentengedrag alsmaar belangrijker geworden omwille van een steeds aanhoudende globalisatie (met alle problemen van dien) en inspanningen tot het opwekken van een

bewustwording onder consumenten door milieu- en humanitaire pressiegroepen. Consumenten zijn alsmaar meer bezorgd over de afkomst van hun producten en de omstandigheden waaronder ze werden geproduceerd. Ethisch consumentengedrag omvat onder andere het aankoopgedrag van 'ethische producten'. Dit zijn producten die geproduceerd zijn met aandacht voor dierenwelzijn, het milieu, menswaardige werkomstandigheden, eerlijke verloning en de bestrijding van kinderarbeid.

Dit werkstuk legt zich toe op de beide kanten van moreel consumentengedrag, het voorziet een overzicht van theoretische raamwerken over ethische besluitvorming (Hoofdstuk I), onderzoekt hoe morele informatie wordt verwerkt (Hoofdstuk II) en gaat uiteindelijk dieper in op een hedendaags onderwerp binnen onethisch consumentengedrag: digitale piraterij (Hoofdstuk III) en een hedendaags onderwerp binnen ethisch consumentengedrag: Fair Trade producten (Hoofdstuk IV), ten slotte volgen conclusies en aanbevelingen voor toekomstig onderzoek (Hoofdstuk V).

Hoofdstuk II "De boosaardige haas en de brave schildpad: Een toepassing van de duale processen theorie op ethisch en onethisch gedrag" onderzoekt of er verschillen zijn in de verwerking van moreel geladen informatie. Dit hoofdstuk onderzoekt ethisch en onethisch gedrag simultaan en binnen het kader van de duale processen theorie. Vier experimentele studies vergelijken reactietijden tussen ethische en onethische situatieschetsen en tonen aan dat mensen onethische situaties sneller zullen herkennen en beoordelen dan ethische situaties.

Hoofdstuk III "Dekt het zeil de lading? Een psychometrische segmentatie van digitale piraten" gaat dieper in op hedendaags onethisch consumentengedrag en onderzoekt digitale piraterij. Digitale piraterij is immers een uniek raadsel voor de descriptieve ethiek. Sommige mensen vinden het onethisch, en anderen dan weer niet. Vooral jongeren staan hier zeer open tegenover. Met als gevolg dat onderzoek over digitale piraterij veel tegenstrijdige bevindingen heeft voortgebracht met betrekking tot de kenmerken en moraliteit van digitale piraten. In dit hoofdstuk poneren wij dat deze tegenstrijdige bevindingen het gevolg zijn van het feit dat digitale piraten eigenlijk een heterogene groep zijn en dat de tegenstrijdige literatuur telkens een ander type piraat heeft belicht. In dit hoofdstuk beschrijven we vier segmenten van digitale piraten die opgebouwd werden op basis van hun verschillen in termen van hun attitude tegenover piraterij, schuldgevoelens die ze al of niet ervaren en of ze piraterij al of niet als onethisch beschouwen. Deze vier segmenten verschilden vervolgens ook van elkaar in termen van hoe vaak ze digitale piraterij beoefenden, subjectieve norm, gepercipieerde zelf-effectiviteit, gewoonte, gepercipieerde schade en deontologische en teleologische evaluaties.

Tot slot is uit dit onderzoek gebleken dat piraterij-bestrijdende campagnes geen vat hadden op de meest intensief downloadende piraten.

In hoofdstuk IV “Zou u zo vriendelijk kunnen zijn om eerlijk te kopen? Over de invloed van interpersoonlijke gevoelens op Fair Trade consumptie” onderzoeken we hedendaags ethisch consumentengedrag. Dit hoofdstuk tracht een oplossing te bieden voor een belangrijke struikelblok binnen onderzoek naar ethisch consumentengedrag: onderzoek wijst namelijk uit dat consumenten zeer positief staan tegenover ethische producten maar deze positieve houding vertaalt zich niet naar aankoopgedrag. In dit hoofdstuk ligt de nadruk vooral op Fair Trade producten en wordt onderzocht of aankoopgedrag van Fair Trade producten kan worden beïnvloed door in te spelen op de behoefte naar interpersoonlijke banden. Dit wordt bewerkstelligd door het gebruik van een veelgebruikte zelf-affirmatie methode, namelijk de ‘vriendelijkheids-vragenlijst’. Door het invullen van deze vragenlijst worden allerlei interpersoonlijke gevoelens geactiveerd waardoor het belang van Fair Trade als productattribuut verhoogd wordt. In twee studies vinden we dat de invloed van de vriendelijkheids-vragenlijst verklaard wordt door een verhoogde ervaring van interpersoonlijke gevoelens, dat op hun beurt het belang van het Fair Trade productattribuut meer saillant maakt.

ENGLISH SUMMARY

Ethics in consumer behavior spans a wide variety of consumer behaviors, ranging from consumers lying about damaged goods, purchasing counterfeit luxury products, digital piracy to downright shoplifting on the one hand, and the purchase of environmentally friendly products, Fair Trade goods and consumer honesty when a bill was miscalculated in their favor on the other hand. Ethics relating to consumer behavior can be defined as "*the moral rules, principles and standards that guide the behavior of an individual (or group) in the selection, purchase, use, selling, or disposition of a good or service*" (Muncy & Vitell, 1992, p.298). Morally laden consumer behaviors exert a tremendous impact on retail and businesses, in the negative sense (e.g. shoplifting, counterfeit goods and digital piracy) but also in the positive sense (e.g. sales of Fair Trade and eco-friendly products). The literature on ethics relating to consumer behavior spans two key streams of research: research focusing on negative, unethical consumer behavior (i.e. consumer ethics) and research focusing on positive, ethical consumer behavior (i.e. ethical consumption). These positive ethical behaviors will be henceforth referred to as "**ethical behavior**" and reflects behavior aimed at enhancing other's well-being and doing good for others and/or society in general. On the other hand, unwanted, negative ethical behavior will be referred to as "**unethical behavior**". This reflects norm-violating behavior that is harmful to others and/or society in general. This dissertation focusses on both types of moral behavior and on how judgment of these behaviors differ.

The world the modern consumer lives in has changed radically in the past decade and new manifestations of ethical and unethical consumer behaviors have emerged ever since. Unethical consumer behavior has traditionally related to behaviors that take place within the confines of the brick and mortar store such as shoplifting, coupon fraud, fraudulent returns, etc. Nowadays, the marketplace has shifted to the online environment and new, unique manifestations of unethical consumer behaviors have developed, such as the online purchase of counterfeit goods and digital piracy. On the other hand, ethical consumer behavior has become more salient due to developments in globalization and the efforts of environmental and humanitarian activists. More and more consumers are concerned about where their products come from and under which conditions they were produced. Ethical consumer behavior relates to purchasing behavior of 'ethical products', which are products that are inspired by a concern for animal welfare, the environment, humane working conditions, fair wages and the absence of child labor.

This dissertation focusses on the moral dimensions of consumerism, it provides a literature overview of theoretical frameworks relating to ethical decision making (Chapter I), how moral information is differentially processed (Chapter II) and finally zooms in on a contemporary topic within negative or unethical consumer behavior: digital piracy (Chapter III) and a contemporary topic within positive or ethical consumer behavior: Fair Trade products (Chapter IV). We conclude with a general discussion and recommendations for future research (Chapter V).

Chapter II "The virtuous tortoise and the villainous hare: Applying dual process theory on ethical and unethical behavior" investigates whether differences can be found in how ethical and unethical information is processed. This chapter studies judgment of ethical and unethical behavior jointly and within the framework of dual process theory. Four experimental studies compare the reaction times of ethical versus unethical scenarios and consistently demonstrate that people are slow to recognize and judge ethical scenarios compared to unethical scenarios.

Chapter III "One sail fits all? A psychographic segmentation of digital pirates" zooms in on contemporary unethical consumer behavior: digital piracy. Digital piracy is a unique enigma in terms of descriptive ethics. Some consider it unethical, whereas other don't, especially the younger generation appears to be very tolerant towards it. As a result of this, the literature on digital piracy is struggling with many contradicting findings relating to characteristics and morality among digital pirates. In this Chapter, we propose that these contradictory findings result from the fact that the population of digital pirates is in fact heterogeneous. We find four pirate segments based on differing combinations of attitude toward piracy, ethical evaluation of piracy and feelings of guilt: the anti-pirate, conflicted pirate, cavalier pirate, and die-hard pirate. These four segments also differ in terms of pirating frequency, subjective norm, pirating self-efficacy, habit, perceived harm, deontological and teleological evaluations. We also find that anti-pirating campaigns are not able to reach the most intensively downloading pirates.

In Chapter IV "Would you be so kind to buy fair? The impact of interpersonal feelings on Fair-Trade consumption" we investigate contemporary ethical consumer behavior. We address a major issue within research on ethical products: Research shows that consumers report very positive attitudes towards ethical products, but these positive attitudes do not translate into purchasing behavior. We focus specifically on Fair Trade products and investigate whether purchasing behavior can be influenced by tapping into the consumers need for interpersonal connections. We do this by the use of a particular self-affirmation tool called the Kindness Questionnaire. This activates people's interpersonal feelings resulting in an increase in salience

and importance of the Fair Trade product attribute. In two studies, we find that the effect of the Kindness Questionnaire manipulation is indeed mediated by a rise in experienced interpersonal feelings, which in turn enhanced the salience of the Fair Trade product attribute.

CHAPTER I: INTRODUCTION

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1. Introduction

Ethics in consumer behavior spans a wide variety of consumer behaviors, ranging from consumers lying about damaged goods, purchasing counterfeit luxury products, digital piracy to downright shoplifting on the one hand, and the purchase of environmentally friendly products, Fair Trade goods and consumer honesty when a bill was miscalculated in their favor on the other hand. Ethics relating to consumer behavior can be defined as "*the moral rules, principles and standards that guide the behavior of an individual (or group) in the selection, purchase, use, selling, or disposition of a good or service*" (Muncy & Vitell, 1992, p.298). Research into ethics relating to consumerism is nested within marketing ethics (i.e. ethical behavior and decision-making in marketing, covering topics such as social marketing and ethical issues related to sales, product, market research,… See Schlegelmilch and Oberseder (2010) for an overview, Table 1) which in turn is nested in the long-standing research history of business ethics (i.e. ethical behavior and decision making in broader organizational contexts which is related to topics such as employee theft, corporate ethical culture, corporate social responsibility and whistle-blowing (Ghillyer, 2010)).

Morally laden consumer behaviors exert a tremendous impact on retail and businesses, in the negative sense (e.g. shoplifting, purchasing counterfeit goods and digital piracy) but also in the positive sense (e.g. sales of Fair Trade and eco-friendly products). According to a study released by the National Retail Federation, due to shoplifting (38% of shrinkage) and theft by employees (34.5% of shrinkage) losses of retailers in the U.S. amounted to a whopping $32 billion problem in 2015 (Wahba, 2015). The rise of e-commerce has resulted in a boom for counterfeit products according to a SOCTA (Serious and Organized Crime Assessment) report by Europol. In 2015 80.000 goods with an estimated market value of € 642 million were confiscated by customs officials in the EU and 4780 websites were shut down by Europol in 2016 (SOCTA, 2017). In spite of the availability of legal streaming alternatives such as Spotify and Netflix, tracking figures provided by ICM (Infringement Control Management) reveal that the proportion of consumers downloading illegally has remained static at 23% and are infringing more by volume (Bales, 2016). On the positive side, sales of Fair Trade products are on steady rise with a world average of 15% and an estimated global market value of € 5.5 billion. Although the market share is still marginal, more and more emerging economies are starting to participate in the Fair Trade business such as Kenya and India (Sarmadi, 2015). On the eco-friendly side, Belgian

based company Ecover's sales of household and toilet cleaning products have increased 4.9% and sales of fabric washing products have risen by 2.6% in 2015 (North, 2015).

These wanted, positive ethical behaviors will be henceforth referred to as "**ethical behavior**" and reflects behavior aimed at enhancing other's well-being and doing good for others and/or society in general. On the other hand, unwanted, negative ethical behavior will be referred to as "**unethical behavior**". This reflects norm-violating behavior that is harmful to others and/or society in general.

This dissertation focusses on the ethical dimensions of consumerism, it provides a literature overview of theoretical frameworks relating to ethical decision making (Chapter I), how moral information is differentially processed (Chapter II) and finally zooms in on a contemporary topic within negative or unethical consumer behavior: digital piracy (Chapter III) and a contemporary topic within positive or ethical consumer behavior: Fair Trade products (Chapter IV).

Topic	Examples
Ethical issues related to product	Product safety, product quality, product design, packaging, labelling and ethical products
Ethical issues related to price	Price fairness, price fixing, price discrimination, price gouging and misleading pricing
Ethical issues related to place	Exclusive distribution rights, channel control and slotting allowances
Ethical issues relating to promotion	Advertising ethics, product placement, direct marketing and sales promotion
Ethical issues related to sales	Ethical conflicts of salespeople, ethical values and behavior of salespeople
Corporate ethical decision making	Corporate ethical decision making, ethical values and ethical behavior of managers, CSR and marketing
Codes and norms	Marketing ethics theory, ethical norms and codes of ethics
Ethical issues related to consumers	Consumer ethical decision making, ethical values and ethical perceptions of consumers
Ethical issues related to vulnerable consumers	Ethical aspects of marketing decisions regarding children, the elderly and poor people
International/cross-cultural marketing ethics	Unethical conduct of multinational corporations, cross-cultural comparisons of various topics such as corporate ethical decision making and ethical decision making
Ethical issues relating to marketing research	Ethical responsibility and conduct of marketing research enterprises and their customers, such as embellishing results, privacy issues etc.
Ethical issues relating to marketing education	Integration of ethical questions in marketing education
Ethical issues related to social marketing	Concept and definition of social marketing, ethical dimensions of social marketing, social responsibility of marketing managers and cause-related marketing
Ethical issues related to green marketing	Social responsibility and costs of green marketing
Ethical issues related to law	Relationship between law and ethics within the marketing field
Ethical issues related to internet	Web privacy, identity theft, phishing and online auctions
Ethical issues related to religion	Impact of religion and religious values on marketing ethics
Literature reviews	Marketing ethics literature reviews

Table 1. Overview of ethical topics in marketing by Schlegelmilch and Oberseder (2010)

2. Ethical decision making models and frameworks: An overview

One of the earliest models for ethical decision making is Rest's **Four-component model** (1979) and originates from the field of moral psychology, see Figure 1. It represents the different stages of an individual's ethical decision making process. According to the model, an individual must first recognize a situation as moral and interpret how it would affect the welfare of others (*moral sensitivity*). Once the individual establishes that he is dealing with a moral situation, he needs to pass a moral judgment in which the individual evaluates which course of action is most justified according to his moral ideology. In the third stage, the individual must decide what he will do. He will have to prioritize moral concerns over personal interest (*moral motivation*) and finally perform the necessary behavior (*moral character*) while resisting possible distractions and obstacles. This model was later adapted by Trevino (1986) into the **Interactionists model**. Based on Kohlberg (1969) findings on moral development, the Interactionists model takes into account the individual's ability to process ethical information.

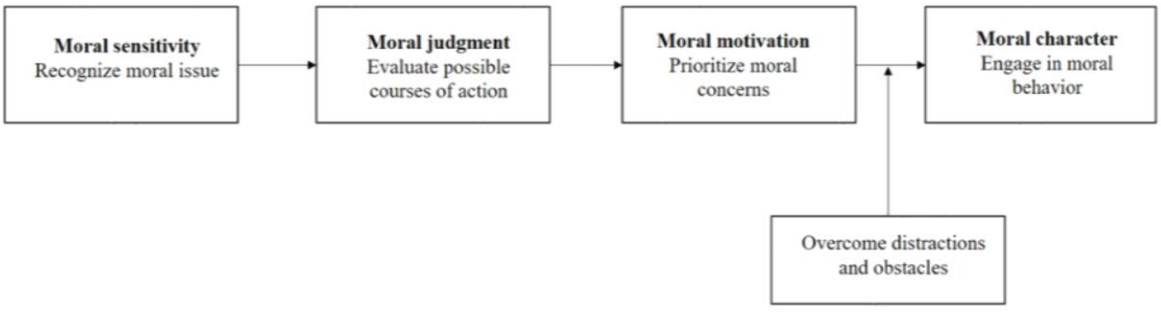

Figure 1. Four component model of ethical decision making (Rest, 1979)

The Four-Component model was later also extended by Jones' (1991) **Issue-contingent model** which proposes that ethical decisions are determined by the issues that are at stake, see Figure 2. It introduces the concept of *moral intensity* and reflects the graveness of the moral situation. Moral intensity captures all the characteristics a moral issue can have: the *magnitude of consequences* (the degree of harm that could be inflicted on third parties), *social consensus* (the degree of agreement that the behavior is appropriate), *probability of effect* (the probability that the behavior will actually inflict the predicted harm), *temporal immediacy* (the amount of time that will pass between the behavior and the onset of the consequences. The shorter the time, the

greater the immediacy), *proximity* (how near is the victim to the moral agent? This nearness can be either physical, psychological, social or cultural) and *concentration of effect* (an inverse function of how many people are affected by an act of a given magnitude).

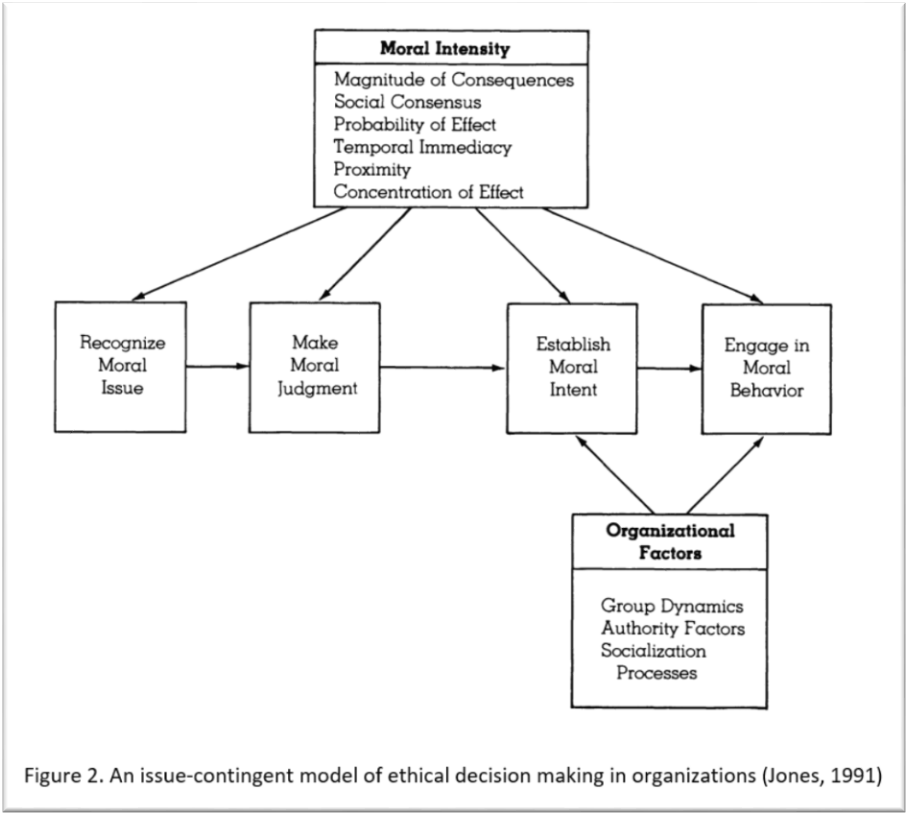

Figure 2. An issue-contingent model of ethical decision making in organizations (Jones, 1991)

The **Multidimensional contingency model** (Ferrell & Gresham, 1985) further expanded the importance of situational context on ethical decision making, see Figure 3. It takes the general social and cultural environment into account, as well as the impact of significant others (i.e. differential association and role set configuration), individual factors (i.e. the decision-maker's knowledge, values, attitudes and intentions) and opportunity provided by the wider organizational context (i.e. existing professional codes, corporate policy and reward/punishment structures). The model also incorporates a feedback loop that runs from the evaluation of a certain behavior (which is the outcome of the model) that feeds back to provide the individual with information for future decision-making.

The aforementioned frameworks do not take into account the two fundamental streams of thought in moral philosophy. Almost all normative moral theories can be classified as either deontological or teleological (Murphy & Laczniak, 1981). Deontological theories focus on the

inherent righteousness of the behavior itself and states that there are universal rules that should guide moral behavior. The term *deontological* stems from the Greek words for duty (*deon*) and science (or study) of (*logos*). Theories such as absolutism and idealism fall within this doctrine.

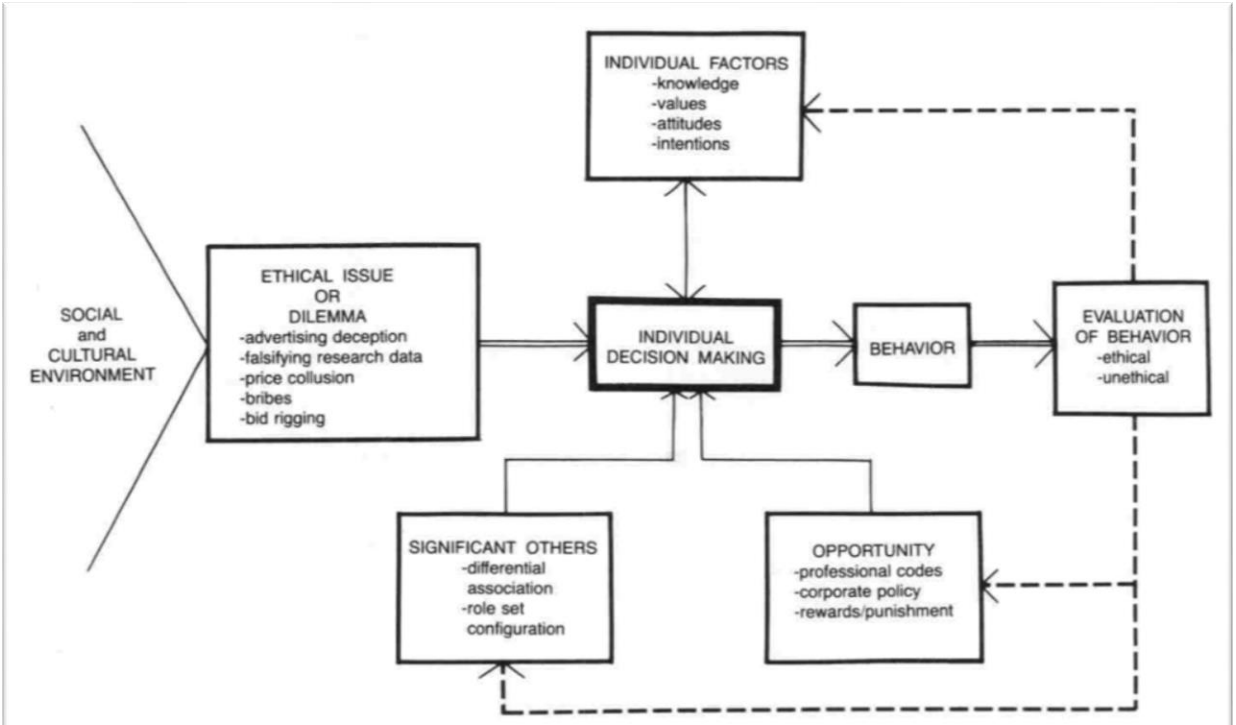

Figure 3. A contingency model of ethical decision making in a marketing organization (Ferrell & Gresham, 1985)

On the other hand, teleological theories focus on the consequences of the behavior, as opposed to the behavior itself. The term *teleological* derives from the Greek word for end or purpose (*telos).* Teleologists propose that people should determine the consequences of any action in a situation and evaluate the benefits and disadvantages of all possible consequences. Moral relativism, utilitarianism and consequentialism fall within this doctrine. In sum, deontologists rely on absolute rules that designates behavior as either good or bad (for example: "Killing someone is bad, no matter who or why.") whereas teleologists weigh the consequences of a certain behavior (for example: "Killing a murderer to prevent him from killing others is acceptable.").

Forsyth (1980) argued that people can differ in their approach when making ethical decisions and that they may have different ethical dispositions relating to idealism and relativism. Forsyth's taxonomy of ethical dispositions (see Figure 4), which is measured by the **Ethical**

disposition questionnaire (1980) departs from the notion that idealism and relativism are two uncorrelated constructs. It proposes that people can be classified into four different ethical types depending on how they rate on relativism and idealism: situationists (high idealism, high relativism), subjectivists (low idealism, high relativism), absolutionists (high idealism, low relativism) and exceptionists (low idealism, low relativism). A limitation with this taxonomy is that it relies heavily on individual differences and does not incorporate situational factors or behavioral outcomes.

	Relativism	
Idealism	High	Low
High	Situationists Rejects moral rules; advocates individualistic analysis of each act in each situation; relativistic.	Absolutists Assumes that the best possible outcome can always be achieved by following universal moral rules.
Low	Subjectivists Appraisals based on personal values and perspective rather than universal moral principles; relativistic.	Exceptionists Moral absolutes guide judgments but pragmatically open to exceptions to these standards; utilitarian.

Figure 4. Taxonomy of ethical ideologies (Forsyth, 1980)

The **Hunt-Vitell general theory of marketing ethics** (Hunt & Vitell, 1986) is the most influential and complete framework for understanding unethical behavior in the area of marketing ethics (Schlegelmilch & Oberseder, 2010), see Figure 5. It takes individual, environmental, cultural, normative and moral aspects into account and it integrates the two fundamental streams of thought in moral philosophy, deontological and teleological evaluation. The Hunt-Vitell model of general marketing ethics is based on the assumption that people are neither one nor the other, but that they will often weigh deontological and teleological considerations jointly in determining their moral judgment and ultimately their behavior.

According to the model, moral decisions follow a number of stages. First, the decision-maker must recognize that the situation contains moral content, next the decision-maker will contemplate about which course of action might be followed in order to resolve the moral problem and what consequences could ensue. Each step in this process is shaped by cultural, industrial, organizational and personal influences. Teleological evaluations are influenced by

the nature of the perceived consequences for all stakeholders: the probability of the consequences, an evaluation of the desirability of the consequences and an evaluation of the importance of the stakeholders. These constructs are similar to Jones' (1991) *moral intensity*, but with less emphasis on the characteristics of the stakeholders. All possible courses of actions are subjected to deontological and teleological evaluations and both types of evaluations in turn influence the decision-maker's final judgment.

What sets this theory apart is that is also takes into account that people may not always behave in a way that they themselves consider the most morally appropriate way. In other words, a decision-maker may perceive a particular course of action as the most moral alternative, but nonetheless choose another alternative because it yields positive consequences for the decision-maker himself, so the model incorporates the possibility that people would engage in unethical behavior even if they realize that the behavior is unethical. Intentions are influenced indirectly by deontological and teleological evaluations via moral judgment, but the model also provides a direct link between teleological evaluations and intentions. Lastly, the model stipulates that intentions are likely to lead to behavior depending on situational constricts. There must be an opportunity to adopt a certain alternative (Zey-Ferrell, Weaver, & Ferrell, 1979). Finally, the actual consequences of the behavior are evaluated and stored into memory for future reference, so they feed back into the construct of personal experiences that will influence future moral evaluations.

The abovementioned frameworks focus on how individuals arrive at an ethical judgment. Vitell and Muncy's (1992, 2005) **Consumer Ethics Scale** was developed to examine how consumers actually evaluate certain consumer behaviors as ethical or unethical and has since been a staple in ethical consumer research. The CES examines how acceptable or unacceptable people consider 31 consumer behaviors differing in terms of active or passive engagement, illegality and perceived harm. They devised a categorization of moral consumer behaviors based on consumer beliefs. The CES contains four original categories: (1) actively benefiting from illegal activities, (2) passively benefiting from illegal activities, (3) actively benefiting from deceptive (or questionable, but legal) practices, (4) no harm/no foul activities and three categories that were added later on (5) downloading, (6) recycling and (7) doing good (Vitell & Muncy, 2005). Table 2 represents the individual items within each category. The authors added the last three categories in a successful effort to enhance and update the CES stating that "all four of the existing dimensions deal with *avoiding doing wrong*.

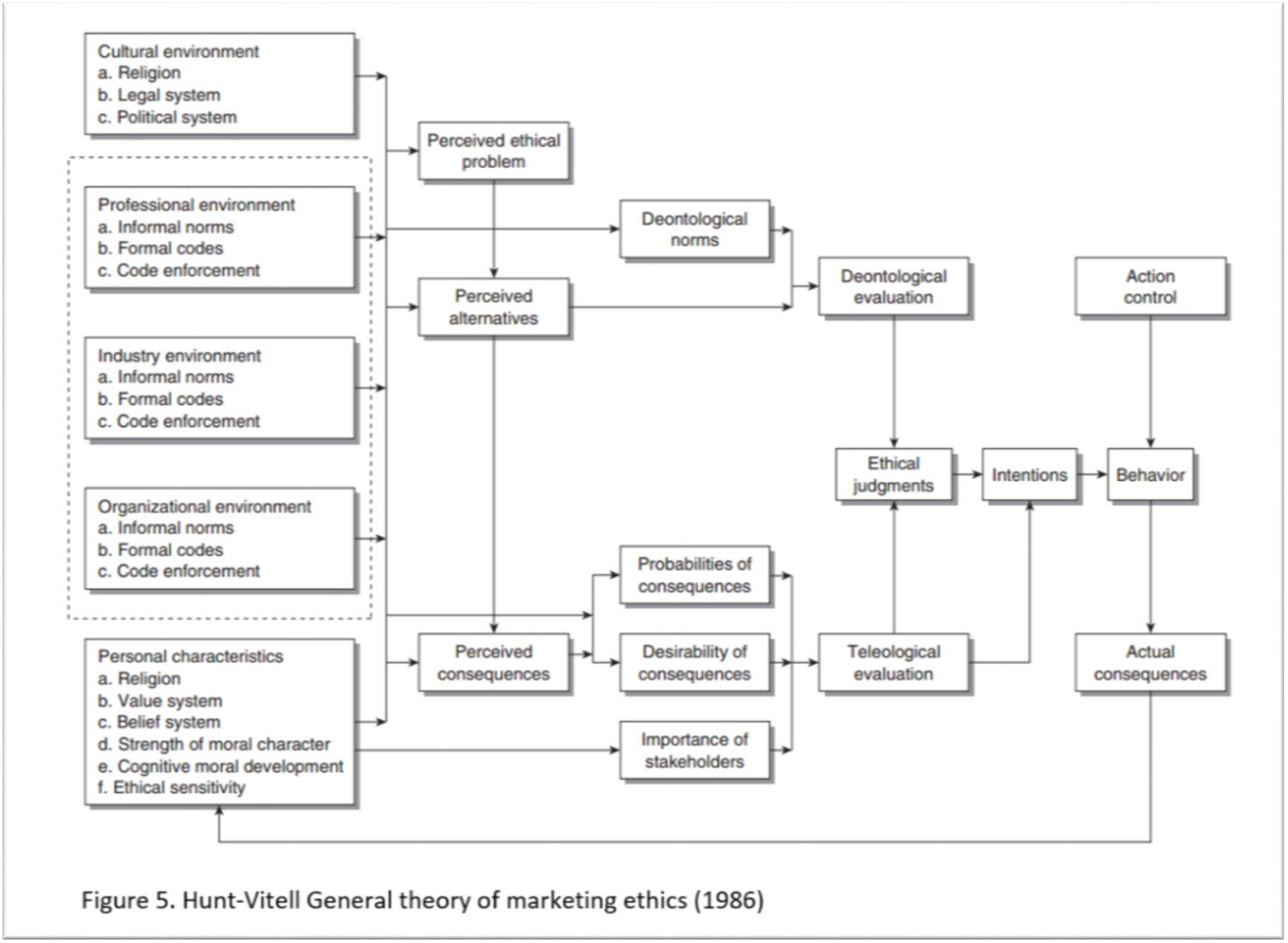

Figure 5. Hunt-Vitell General theory of marketing ethics (1986)

However, new items that capture the consumers' desire to *do the right thing* would offer a distinct and valuable contrast to the existing scale items" (p. 268).

The updated CES reflects two key streams of research within ethics relating to consumer behavior: research focusing on negative or unethical consumer behavior (i.e. consumer ethics) and research focusing on positive or ethical consumer behavior (i.e. ethical consumption). Although research on social marketing and corporate ethical decision making research can be traced back well into the 1970s, research into positive, ethical behavior on the consumer side is relatively new and has observed an upsurge of interest since the 2000s (Schlegelmilch & Oberseder, 2010). Vast societal and global changes have made topics that were mainly neglected by regular citizens pressing, pertinent and salient. Globalization has come at a cost for workers in developing countries. In the past, unsavory labor conditions and/or unfair wages would have remained well hidden for the western consumer, but the ubiquitous rise of the internet has created a means for exposing these practices. The unremitting economic growth also comes with a price for the environment and consumers are becoming increasingly aware of this. In light of these evolutions, research on ethical consumerism has known a steady rise in popularity but the development of theory is still in its infancy. As a result, research into ethical consumer behavior is relatively scattered and predominantly atheoretical. Few theoretical frameworks have been consistently applied and research is often descriptive and rarely experimental, which is typifying for any young area of research.

Dimension	Items
Original items (Vitell & Muncy, 1992)	
Actively benefitting from illegal actions	
	Returning damaged goods when the damage was your own fault.
	Giving misleading price information to a clerk for an unpriced item.
	Using a long distance access code that does not belong to you
	Drinking a can of soda in a store without paying for it
	Reporting a lost item as stolen to an insurance company in order to collect the insurance money
Passively benefitting	
	Moving into a residence, finding that the cable TV is still hooked up, and using it without paying for it
	Lying about a child's age to get a lower price
	Not saying anything when the waiter or waitress miscalculates a bill in your favor
	Getting too much change and not saying anything
	Joining a CD club just to get some free CD's with no intention of buying any
	Observing someone shoplifting and ignoring it
Questionable behaviors	
	Using an expired coupon for merchandise
	Returning merchandise to a store by claiming that it was a gift when it was not
	Using a coupon for merchandise you did not buy
	Not telling the truth when negotiating the price of a new automobile
	Stretching the truth on an income tax return
No harm, no foul	
	Installing software on your computer without buying it
	"Burning" a CD rather than buying it
	Returning merchandise after buying it and not liking it
	Taping a movie off the television
	Spending over an hour trying on clothing and not buying anything

Table 2. Consumer Ethics Scale

Dimension	Items
Added dimensions (Vitell & Muncy, 2005)	
Downloading	
	Downloading music from the internet instead of buying it
	Buying counterfeit goods instead of buying the original manufacturers brands
Recycling	
	Buying products labelled as environmentally friendly, even if they don't work as well as competing products
	Purchasing something made of recycled materials even though it is more expensive
	Buying only from companies that have a strong record of protecting the environment
	Recycling materials such as cans, bottles, newspapers, etc.
Doing good	
	Returning to the store and paying for an item that the cashier mistakenly did not charge you for
	Correcting a bill that has been miscalculated in your favor
	Giving a larger than expected tip to a waiter or waitress
	Not purchasing products from companies that you believe don't treat their employees fairly

Table 2 (continued). Consumer Ethics Scale

3. Ethical consumption

Research relating to ethical consumption covers a broad load, ranging from purchasing behavior that is inspired by a concern for animal welfare (Verbeke & Viaene, 1999), the environment (Barbarossa & De Pelsmacker, 2016; Grønhøj, 2006; Matulich, Haytko, & Austin, 1995; Onel & Mukherjee, 2015; Sachdeva, Jordan, & Mazar, 2015; Vanclay et al., 2011), humane working conditions, fair wages (Brunner, 2014; De Pelsmacker, Driesen, & Rayp, 2005; De Pelsmacker, Janssens, & Mielants, 2005; Doran, 2009; White, MacDonnell, & Ellard, 2012) and child labor (Auger, Devinney, Louviere, & Burke, 2008). It is not so much a lack of definition than an *abundance* of definitions that poses the largest stumbling block for research into ethical consumption. The concept of ethical consumption basically relates to how concerns for certain societal or environmental injustices are translated into purchasing behavior, in other words, it relates to the acquisition of ethical products. This rather broad delineation has given rise to a profusion of labels that have been associated with this concept, such as 'environmentally concerned' (Kalafatis, Pollard, East, & Tsogas, 1999; Straughan & Roberts, 1999), 'green consumerism' (Sachdeva et al., 2015) , 'ethical consumers' (Carrigan & Attalla, 2001; Carrington, Neville, & Whitwell, 2010; Devinney, Auger, & Echkhardt, 2009; Freestone & McGoldrick, 2008; Papaoikonomou, Cascon-Pereira, & Ryan, 2016; Papaoikonomou, Ryan, & Valverde, 2011; Uusitalo & Oksanen, 2004), 'socially conscious consumers' (DeVincenzo & Scammon, 2015), 'moral consumption' (Loureiro et al., 2016), 'the conscious consumer'(Szmigin, Carrigan, & McEachern, 2009) and 'sustainable consumer behavior' (Cornelissen, Pandelaere, Warlop, & Dewitte, 2008; Lee, Bahl, Black, Duber-Smith, & Vowles, 2016; Milfont & Markowitz, 2016; Nguyen & Paswan, 2015; Theotokis & Manganari, 2015) to name a few.

Value based frameworks are frequently employed in attempting to explain ethical consumption. In fact, values are argued to be a more effective means than demographics for the segmentation of ethical consumers (Andorfer & Liebe, 2012; De Pelsmacker, Driesen, et al., 2005; Doran, 2009). Values are found to play an important role in a variety of ethical consumer behaviors such as the consumption of genetically modified food (Honkanen & Verplanken, 2004), fashion leadership (Goldsmith, Freiden, & Kilsheimer, 1993), fair trade consumption (De Pelsmacker, Driesen, et al., 2005) and eco-friendly attitudes and behavior (Csutora, 2012; Dietz, Kalof, & Stern, 2002; Schultz & Zelezny, 1998; Shean & Shei, 1995). Schwarz values theory (Schwartz, 1994) in its entirety or elements of it is often used as the basis for research into ethical consumer behavior. Values as

defined by Schwartz and Bilsky (1987)(p. 551) “are concepts or beliefs, pertaining to desirable end states, which transcend specific situations, guide selection or evaluation of behavior and events, and are ordered by relative importance”. Schwartz’s theory is grounded on 57 single values that can be categorized into 10 overarching value types: Universalism, Benevolence, Conformity, Tradition, Security, Power, Achievement, Hedonism, Stimulation, and Self-direction. Schwartz (1994) found that 45 of the 57 values in his theory had similar meaning across cultures and could be thought to be universal but that some values may be more or less important in different cultures. Schwartz’s theory also describes the relationship between the 10 value types based on whether or not their motivational goals are compatible. These values and their relationships are represented as wedges in a circle and the distance between the wedges represent the nature of their relationships. See Figure 6.

An important issue with research into ethical consumption is the gap that exists between attitude, intention and behavior (Andorfer & Liebe, 2012; Auger & Devinney, 2007; Brunner, 2014; Carrigan & Attalla, 2001; Carrington et al., 2010; De Pelsmacker, Driesen, et al., 2005; Devinney, Auger, Eckhardt, & Birtchnell, 2006; Moons & De Pelsmacker, 2012; Szmigin et al., 2009; Vitell, 2015; White et al., 2012). For example, Csutora (2012) found that ecological footprints of individuals with high ethical intentions did not differ significantly from those with low intentions. Several explanations for this gap have been suggested. Two main streams of explanations can be drawn: some scholars claim that the attitude-behavior gap is a fallacy that has resulted from socially desirable answering behavior (Andorfer & Liebe, 2012; Auger & Devinney, 2007; Devinney et al., 2006), whereas others assert that external and internal factors may obstruct the translation from attitude into purchasing behavior: at the product level consumers could be dissuaded by the cost and not willing to pay the higher price premiums for ethical products or do not find the social features important enough (De Pelsmacker, Driesen, et al., 2005; Devinney, Auger, & Eckhardt, 2012; Szmigin et al., 2009; Vitell, 2015), at the consumer level consumers perhaps do not believe their ethical purchase would make a difference for those involved (White et al., 2012) or they simply do not believe in the ethical claims (De Pelsmacker, Driesen, et al., 2005).

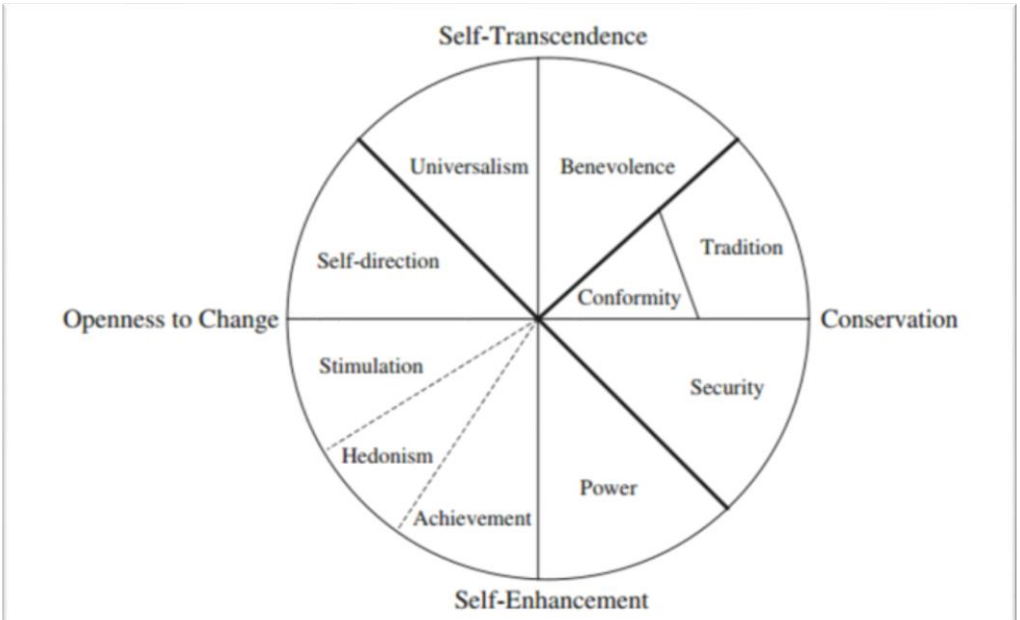

Figure 6. Schwartz (1994) Theoretical model of relations among values types

A possible solution for bridging this gap is offered by Devinney et al. (2006). They advocate the distinction between what they have coined as the 'socially responsible consumer' (C_NSR) and the 'ethical consumer'. They assert that C_NSR differs from 'ethical consumer behavior' in that it is completely stripped of any moral connotations and propose that these consumers simply also take nonfunctional product attributes which benefits others into consideration. For example, an 'ethical consumer' would purchase a product because it has been produced under conditions that are humane and fair wages were disbursed to the laborers (or refrain from purchasing a product because its production is morally tainted). A C_NSR consumer is not necessarily motivated by moral standards but would purchase a Fair Trade product because they attach value to Fair Trade as an intangible product attribute. This value could be derived either from the notion that is has been produced under fair circumstances, but also because they believe it tastes better and just as well because the consumer likes to be seen drinking Fair Trade coffee. Basically, it implies that "ethical consumption is concerned about the reason for consumption; socially responsible consumption is not" (pg. 228) (Devinney et al., 2012). By enhancing the value of the ethical product attribute (such as a Fair Trade label, an eco-label, an animal friendly-label,…) consumers could be motivated to purchase ethical products, regardless of the motivation for purchase. According to Devinney et al.

(2006) companies play a pivotal role in this value creation and that they should be socially *proactive* as opposed to socially *active.*

4. The interplay between rationality, intuition and emotion

Most formal ethical decision making models assume that consumers weigh options deliberately and rationally, but as in regular decision making, moral decision making is the result of a complex interplay between ratio, intuition and emotion (Dedeke, 2015; Greene, Morelli, Lowenberg, Nvstrom, & Cohen, 2008; Greene, Sommerville, Nystrom, Darley, & Cohen, 2001; Olatunji & Puncochar, 2014). Spearheaded by the **Cognitive-developmental** work of Kohlberg (1969) and Turiel (1983), moral judgment was initially thought to be the result of deliberate, rational and conscious reasoning. But this rigorously rational perspective was challenged by the notion of *moral dumbfounding* (Haidt, 2001). In a series of experiments, Haidt, Bjorklund, and Murphy (2000) presented a selection of taboo violations to participants. The scenarios were designed in such a way that any possible objection to certain moral transgressions was removed or neutralized. For instance, one vignette describes consensual intercourse between adult siblings Julie and Mark, who were both using contraceptives. The participants were then asked whether they considered this act as appropriate or not. The authors found that participants who deemed these taboo violations inappropriate were not able to provide compelling arguments for considering the acts as inappropriate, eventually stating "*I don't know, I can't explain it, I just know it's wrong*" (p. 814). Haidt (2001; 2000) argues that moral dumbfounding provides evidence for the notion that people do not engage in moral reasoning and proposes that moral judgment is primarily driven by unconscious intuitions. He proposes the **Social-intuitionist model**, which is grounded on the notion that moral judgment is automatic and intuitive and comparable to aesthetic judgments ('good' vs. 'bad'). This model does not disregard the existence of reasoning but states that reasoning, if needed, is merely employed in the form of a post-hoc rationalization of moral intuition. However, criticism has been voiced towards Haidts (2001; 2000) conclusions regarding moral dumbfounding and the diminished role of rationality (MacKenzie, 2012). Greene's work on **Dual process theory** (Greene, 2007, 2011; Greene & Haidt, 2002; Greene et al., 2008; Greene, Nystrom, Engell, Darley, & Cohen, 2004; Greene et al., 2001) provided an answer to the age-old discussion between ratio and intuition. It posits that both deliberate reasoning and automatic, affective reactions play an important role in the processing of moral information and that the manner of processing (deliberately or intuitively) will depend on the nature of the behavior or

situation under evaluation. Certain situations will elicit an immediate, affective response and will cause moral intuition to dominate a person's judgment. This effect is known as *affective primacy* (Greene et al., 2001; Haidt, 2001; Zajonc, 1980) and implies that moral judgment is established directly from an automatic and immediate intuition, a *moral intuition* by which the decision maker senses whether something is 'right or 'wrong'(Bargh, Chen, & Burrows, 1996; Haidt, 2001). On the other hand, if a situation lacks affective primacy and does not elicit strong affective reactions, a deliberate, rational and conscious processing style will be adapted by the decision maker. Greene (2008; 2001) also finds that deliberate processing can override affective responses, for instance when the decision maker experiences strong conflicting emotions (cf. Trolley dilemma, in which a person must decide whether he kills one innocent bystander in order to save several others).

As mentioned previously, moral intuition is described as the sudden occurrence of a moral judgment with affective valence ('good' or 'bad', 'like' or 'dislike', 'right' or 'wrong'), without having gone through steps of deliberate reasoning, searching, weighing and concluding (Haidt & Bjorklund, 2008). When these intuitions become so strong and differentiated, they can be conceptualized as *moral emotions* (Haidt & Kesebir, 2010; Olatunji & Puncochar, 2014). Haidt (2003) classifies moral emotions into *self-conscious emotions*, which include guilt, shame and embarrassment, and *other-condemning emotions*, encompassing contempt, anger and disgust. But also traditionally non-moral emotions can play a role in moral judgment. Haidt and Joseph (2004) propose that emotions accompany violations or compliance to innate moral foundations that can be found cross-culturally. They identify four moral foundations and related emotions: (1) *Suffering* is characterized by a concern for other people's suffering, kindness and caring for the vulnerable. It triggers compassion as a characteristic emotion. (2) *Hierarchy* encompasses principles like obedience, deference and loyalty and is related to the enforcement of systematic rules for living as a society, resulting in domination and protection. Characteristic emotions are resentment vs. respect and awe. (3) *Reciprocity* encompasses principles such as fairness, equality, sharing, trust, cooperation and loyalty. Anger and guilt are triggered by violations of these principles. Lastly, (4) *Purity* refers to principles of chastity, cleanliness, physical or spiritual purity and violations trigger feelings of disgust.

Since moral behavior is so varied, they are accompanied by a multitude of emotions. Some emotions (e.g. compassion, kindness) may activate people towards certain wanted behaviors such as ethical consumption, whereas other emotions (e.g. guilt) could deter people from engaging in

unwanted behaviors such as unethical consumer behavior. These wanted, positive ethical behaviors are referred to as "**ethical behavior**" and reflects behavior aimed at enhancing other's well-being and doing good for others and/or society in general. On the other hand, unwanted, negative ethical behavior are referred to as "**unethical behavior**". This reflects norm-violating behavior that is harmful to others and/or society in general. This dissertation focusses on both types of moral behavior and on how judgment of these behaviors differ. In what follows, an overview is given of the chapters included in this dissertation.

5. Dissertation outline

Chapter II focusses on differences in how morally charged information and scenarios are processed and investigates whether judgment and decision making with respect to ethical and unethical behavior occurs via different processes. Ethical behavior reflects behavior aimed at enhancing other's well-being and doing good for others and/or society in general. On the other hand, unethical behavior encompasses norm-violating behavior that is harmful to others and/or society in general. This chapter studies judgment of ethical and unethical behavior jointly and within the framework of dual process theory. The theory of dual processes is not new within cognitive psychology but the application of it on moral judgment has received increasing interest owing to new developments in neuroscientific research into morality (Bertsch et al., 2013; Greene, 2007; Killen & Smetana, 2008; Lamm & Majdandzic, 2015; Schirmann, 2013). In that sense, this Chapter also touches upon a contemporary topic within research on moral cognition. Dual process theory presents two ways in which information is processed, a slow and deliberate way and a fast and automatic way. Fast processing occurs via 'Type 1 processing' which refers to a diverse set of autonomous processes that are associated with intuition and learned, automated processes. Type 1 processing occurs quite automatically and is experienced by the decision-maker as receiving impressions, intentions, intuitions and emotions. (Kahneman, 2011). The slow processing type, denoted as 'Type 2 processing' relies heavily on working memory and is associated with deliberate and controlled cognitive processes. Decision-makers resort to Type 2 processing for issues that are more difficult, detailed and specific. Based on previous research on dual process accounts on unethical judgment and altruism (due to a lack of literature on 'ethical' behavior) , we propose that unethical judgment and decision making is driven by fast processing (Type 1 processing) and that ethical judgment and decision making is driven by slow processing (Type 2 processing). Four experimental studies

compare the reaction times of ethical versus unethical scenarios and consistently demonstrate that people are slow to recognize and judge ethical scenarios compared to unethical scenarios.

In the following two chapters, we zoom in on contemporary manifestations of moral consumer behavior. These chapters were inspired by the new additions to Vitell and Muncy's (2005) Consumer Ethics Scale (CES), which entailed a dimension relating to digital piracy and two dimensions about ethical consumer behavior: recycling and doing good.

Chapter III focusses on digital piracy. Digital piracy is a contemporary manifestation of unethical behavior, i.e. norm-violating behavior that is harmful to others and/or society in general. Digital piracy within this chapter is defined as downloading media files (music, movies and TV series in particular) via torrents from peer-to-peer networks, which is an ingenious way of downloading fragments of a file from different people in a network and then piecing the fragments back together via specialized software. This method significantly speeds up the downloading process and renders downloaders virtually undetectable to authorities. These characteristics make digital piracy into a unique enigma in terms of descriptive ethics. Even though it is essentially theft of intellectual property, whether digital piracy is unethical is the subject of great debate. Some consider it unethical, whereas other don't. In particular the younger generation harbors no moral qualms regarding digital piracy (Freestone & Mitchell, 2004). As a result of this, the literature on digital piracy is struggling with many contradicting findings relating to characteristics and morality of digital pirates. In this Chapter, we propose that these contradictory findings are not necessarily erroneous, but that the assumption they depart from is misguided: they assume that the population of digital pirates is homogenous. We propose that this is not the case, that one digital pirate is not the other and that a different approach is needed for each type of digital pirate. So the seemingly contradicting findings in literature could be the result of a focus on different types of pirates. In this chapter four pirate segments were found based on differing combinations of attitude toward piracy, moral evaluation of piracy and feelings of guilt: the anti-pirate, conflicted pirate, cavalier pirate, and die-hard pirate. These four types can be placed on a continuum of increasing pirating frequency, subjective norm, pirating self-efficacy, habit, and decreasing in perceived harm, respectively. The segments also differ in deontological and teleological orientations. Then, in an experimental mixed design we investigated the effectiveness of two different anti-pirating campaign strategies.

Chapter IV investigates the last two dimensions of the CES and focusses on ethical consumer behavior, i.e. behavior aimed at enhancing other's well-being and doing good for others and/or society in general. The issue with studying ethical consumer behavior is that it covers a very broad load, ranging from purchasing behavior that is inspired by a concern for animal welfare, the environment, humane working conditions, fair wages and child labor (Auger et al., 2008). Each of these ethical product features have distinct characteristics, activates different associations within the consumer's minds and addresses different needs and concerns. There is no one 'ethical product' that addresses all these needs simultaneously and some could contradict other needs. For instance, a Fair Trade product would meet someone's need to support farmers in underdeveloped countries, but would contradict with someone's need to help the environment since Fair Trade products usually are imported from faraway countries. Similar to contemporary *un*ethical behavior, contemporary ethical behavior encompasses very complex behavior with a wide range of determinants. Each ethical product addresses another need. In this chapter we focus specifically on Fair Trade products and investigate whether purchasing behavior can be influenced by tapping into the consumers need for interpersonal connections. We do this by the use of a particular self-affirmation tool called the Kindness Questionnaire. It consists of ten yes/no questions prompting people to recall and elaborate on specific situations in which they have been kind to others. This activates people's interpersonal feelings resulting in an increase in salience and importance of the Fair Trade product attribute. This way, we address a major issue within research on Fair Trade products: the gap between attitude and behavior. Consumers report very positive attitudes towards Fair Trade products, but these positive attitudes do not translate into purchasing behavior. In other words, *people* care about Fair Trade, *consumers* do not. This chapter describes two experimental studies, each investigating a different product category often used in Fair Trade research, chocolate and coffee in particular. The first study investigates whether the choice of a Fair Trade alternative is mediated by interpersonal feelings. The second study takes a range of product features of coffee into account and investigates whether the importance of the Fair Trade is driven by an increase in the experience of interpersonal feelings caused by the Kindness Questionnaire manipulation, compared to the control condition. We find that the effect of the Kindness Questionnaire manipulation is indeed mediated by a rise in experienced interpersonal feelings.

Table 3 provides an overview of the studies within chapters II to IV.

		Independent variables	Dependent variables	Sample	Methods and analysis
Chapter II	Study 1	ethical, unethical or non-moral scenarios	Reaction times, judgment	N = 141	Multilevel analysis
	Study 2	Framing of ethical or unethical scenarios	Reaction times, judgment	N = 654	Analysis of variance
	Study 3	Personal and impersonal ethical and unethical dilemmas	Reaction times, judgment	N = 485	Multilevel analysis
	Study 4	Personal and impersonal ethical and unethical dilemmas	Reaction times, pupil dilation, fixation count, fixation duration	N = 85	Eye-tracking analysis
Chapter III	Study 1	Motives for illegal downloading		N = 10	In depth interviews
	Study 2	Attitude, guilt, ethical evaluation[a]	Self-efficacy, subjective norm, habit, perceived harm, deontological evaluation, teleological evaluation, download frequency[b]	N = 1277	Latent class cluster analysis
	Study 3	Pirate types (anti-pirate, conflicted pirate, cavalier pirate, die-hard pirate)	Perceived illegality, perceived impunity, pirating intention, perceived harm, perceived triviality	N = 303	Analysis of variance
Chapter IV	Study 1	Kindness questionnaire	Interpersonal feelings, Fair Trade purchase behavior, purchase motives	N = 196	Mediation analysis
	Study 2	Kindness questionnaire	Interpersonal feelings, Fair Trade purchase intention, idealism, conjoint utilities	N = 117	Adaptive conjoint analysis

Table 3. Overview of studies

[a] Cluster variates, [b] profiling variables

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CHAPTER II:
THE VIRTUOUS TORTOISE AND THE VILLAINOUS HARE: APPLYING DUAL PROCESS THEORY ON ETHICAL AND UNETHICAL JUDGMENT

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Abstract

People often presume that what is 'unethical' must be the opposite of what is 'ethical', but this is not always the case. It is unethical if someone steals something from a store, but a person who leaves the store without having stolen anything is not by definition an 'ethical' person. What is 'ethical' is not always synonymous to 'not unethical', and vice versa. Neuroscientific literature indeed suggests that judgment of ethical behavior differs from the judgment of unethical behavior. This paper builds on this proposition and asserts that unethical judgment is driven by quick, autonomous and intuitive processes (Type 1 processing) whereas ethical judgment is driven by slow, deliberate and controlled processes that rely on working memory (Type 2 processing). Four experimental studies compare the reaction times of ethical versus unethical scenarios and consistently demonstrate that people are slow to recognize and judge ethical scenarios compared to unethical scenarios. These findings highlight the need for a unified theoretical framework for moral judgment and hopes to inspire more research studying ethical and unethical behavior jointly.

1. Introduction

"The distinction between fast and slow thinking has been explored by many psychologists over the last twenty-five years. […] I describe mental life by the metaphor of two agents, called System 1 and System 2, which respectively produce fast and slow thinking."

D. Kahneman, Thinking Fast and Slow (2011).

People often consider 'ethical' as the opposite of 'unethical', but this is not always the case. It is unethical if someone steals something from a store, but a person who leaves the store without having stolen anything is not by definition an 'ethical' person. What is 'ethical' is not synonymous to 'not unethical', and vice versa. We propose that 'ethical behavior' and 'unethical behavior' in most cases represent two distinct categories of behaviors. Ethical behavior encompasses behavior aimed at enhancing other's well-being and doing good for others and/or society in general. On the other unethical behavior encompasses norm-violating behavior that is harmful to others and/or society in general. Building on this rationale, this paper proposes that judging what is 'ethical' occurs in a different way than judging what is 'unethical'. We do this by applying dual-process theory to moral judgment and propose that ethical judgment relies on what Daniel Kahneman (2011) in the quote above denotes as 'slow thinking', which entails deliberate and controlled processes that rely heavily on working memory. Conversely, we propose that unethical judgment relies on 'fast thinking', which encompasses quick, autonomous and intuitive processes. Our studies consistently show that people are indeed slower to judge ethical scenarios compared to unethical scenarios.

2. Literature review

2.1 Dual-process theory

The notion of two distinct types of processing has a longstanding history. The main idea is that there are two types of mental processing: an intuitive type of processing on the one hand, and a more deliberate, reflective type of processing on the other hand.

Dual-process accounts have received increasing interest in the field of judgment and decision making (Barbey & Sloman, 2007; de Neys, 2006; Evans, 2008, 2012; Kahneman, 2011) and social cognition (Chaiken & Trope, 1999; Epstein, Pacini, DenesRaj, & Heier, 1996; E. R. Smith & DeCoster, 2000) and more recently in the realm of moral cognition (Cushman, Young, & Hauser,

2006; de Neys, 2006; Greene, 2007; Greene, Nystrom, Engell, Darley, & Cohen, 2004). As a result of their diverse origins and domains, various interpretations of these dual-process accounts exist and different terminologies have been coined. This uncoordinated proliferation has made the dual-process theory subject to a fair amount of criticism. Most critiques relate to the incoherent fragmentation of dual-processing accounts, the vagueness of definitions and confusion about the difference between defining characteristics of the two processes and context-dependent correlates (Stanovich & Toplak, 2012).

Most of these criticisms generally target what Evans and Stanovich (2013, p. 226) refer to as the *"received" or generic form of dual-system theory*, an amalgamate of attributes that have been gradually added to the feature list. These misconceptions aside, converging evidence from experimental, psychometric and neuroscientific methods support the existence of a dual-processing account (Evans & Stanovich, 2013). These studies support the distinction between what is henceforth referred to as "Type 2 processing", a type of processing that relies heavily on working memory and is associated with deliberate and controlled cognitive processes. Decision-makers tend to resort to Type 2 processing for issues that are more difficult, detailed and specific. Conversely, "Type 1 processing" refers to a diverse set of autonomous processes that do not rely on working memory and are associated with intuition and learned, automated processes. Type 1 processing occurs quite automatically and is experienced by the decision-maker as receiving impressions, intentions, intuitions and emotions (Kahneman, 2011). According to Evans and Stanovich (2013) whether or not there is a reliance on working memory is essentially the defining feature that differentiates both systems. The differences between the processes manifest in reaction times: Type 1 processing is assumed to produce the fastest responses whereas Type 2 processing is assumed take up more time due to its reliance on working memory (Chaiken & Trope, 1999; Kahneman, 2011).

2.2 Dual-process theory and the judgment of unethical behavior

A series of influential studies relate the application of dual-process theory to morality and provide convincing evidence towards the use of fast, automatic and intuitive processes. According to Greene, Sommerville, Nystrom, Darley, and Cohen (2001) people experience a salient, automatic affective response towards moral dilemmas, leading them to judge these dilemmas as inappropriate. The authors draw this conclusion based on the observation of increased reaction times for the

dilemmas where respondents judged moral violations as appropriate, compared to moral violations which respondents judged as inappropriate. This increase in reaction time indicates that respondents needed to exert cognitive control in order to override their automatic, intuitive response to judge the dilemma as inappropriate. These findings give rise to the notion that an autonomous prepotent social-emotional response (against the moral violation) can be overridden by a deliberate and controlled process, a phenomenon that bears resemblance to the Stroop-effect (Stroop, 1992). They also found increased activity in brain areas associated with emotion and social cognition for moral dilemmas.

Building on these results Greene et al. (2004) further investigate the role of emotional and cognitive processes in utilitarian moral judgment. They find that when participants gave a utilitarian response (i.e. they judged a personal moral violation as acceptable in order to serve the greater good) cognitive control was engaged in order to override the prepotent social-emotional response that was elicited by the dilemma. This cognitive intervention resulted in increased reaction times for utilitarian responses for moral dilemmas and increased activation in the anterior cingulate cortex (ACC), a region typically associated with cognitive conflict (Botvinick, Braver, Barch, Carter, & Cohen, 2001). Basically, when someone has to approve a moral violation in order to serve the greater good (i.e. make a utilitarian decision), deliberate processes (Type 2 processing) interfere in order to suppress automatic processes, which is why Greene et al. (2004) found higher reaction times for utilitarian responses on moral dilemmas.

However, one does not necessarily need fMRI to study dual process theory; the role of working memory on thinking processes can also be investigated by impairing it with a cognitive load. Greene, Morelli, Lowenberg, Nvstrom, and Cohen (2008) did exactly that, using a concurrent digit task as the cognitive load manipulation. They found that utilitarian moral judgments were driven by controlled cognitive processes whereas non-utilitarian (typically deontological) judgments were driven by automatic emotional processes. Here the authors focused on difficult moral dilemmas, such as the crying baby dilemma (See Appendix A). They found that cognitive load increased the reaction times of utilitarian judgments compared to utilitarian judgments without cognitive load. No such retardation in reaction times was found in non-utilitarian judgment, suggesting that utilitarian judgments were more deliberate (Type 2) than deontological judgments (Type1). This finding was later replicated by Conway and Gawronski (2013), who also found that utilitarian judgment was interfered by cognitive load, but deontological judgment was not. They also provide

further evidence for the intuitive nature of deontological judgment by demonstrating that enhancing empathy increased deontological inclinations, while utilitarian tendencies remained unaffected.

In the same vein, Suter and Hertwig (2011) observe that people tend to make more deontological judgments when they are put under time pressure. By limiting the time span and by prompting participants to answer swiftly they found that faster responses led to more deontological decisions in dilemmas in which an innocent person needed to be harmed in order to save several others. A. B. Moore, Clark, and Kane (2008) further demonstrate that people need to exert cognitive effort to arrive at utilitarian judgments by alluding to the effect of individual differences in working memory capacity. Participants had to judge several dilemmas on how appropriate it would be for them to kill one person in order to save several others. The dilemmas varied systematically in the physical directness of killing, the personal risk to the decision-maker, the inevitability of the death and the intentionality of the act. The authors find that participants with a higher working memory capacity found certain types of killing more appropriate and were more consistent, compared to participants with lower working memory capacity.

2.3 Dual-process theory and the judgment of ethical behavior

While the application of dual process theory in some form or another is well-established within the unethical section of moral cognition (Cushman et al., 2006; de Neys, 2006; Greene, 2007; Greene et al., 2004) to the best of our knowledge, few studies have addressed the ethical section of moral cognition within dual process theory. Kinnunen and Windmann (2013) investigated the differential impact of two processing types, intuitive (Type 1 processing) and rational (Type 2 processing) on three types of altruistic behaviors. The authors assert that in terms of overt behavior, altruism can generally take on three forms: costly sharing (i.e. giving help where one party gives from their resources to another without receiving anything in return), altruistic punishment (i.e. costly punitive actions against norm violators with the aim of enforcing social norms) and moral courage (i.e. the willingness to protest in a situation that conflicts with someone's moral rules or sense of justice). The authors find that a general thinking style that favors intuitive processing (Type 1) was associated with altruistic punishment and some form of sharing behavior (donating money to a charity), whereas a thinking style that favors deliberate processing (Type 2) was associated with moral courage. In the same vein, Corgnet, Espin, and Hernan-Gonzalez (2015) find that individuals with a more deliberate processing style (Type 2) are more likely to make choices consistent with

mildly altruistic motives in simple monetary decisions. Across two studies, they consistently find that behaviors that increase social welfare by increasing others' payoffs at a low cost for the individual may be the result of conscious deliberation rather than automatic processes. Unfortunately, the results of the abovementioned studies are only correlational and none have recorded reaction times or imposed cognitive load on working memory. However, they do provide preliminary evidence that ethical judgment and decision-making could be driven by conscious and deliberate Type 2 processing.

In terms of neuroscientific evidence, Izuma, Saito, and Sadato (2010) find that prosocial behavior composes a rational choice based on utilities, in line with social exchange theory which states that much alike economic behavior, people's behavior in social behavior is directed by maximizing the ratio of rewards to costs (Homans, 1958). They find that the ventral striatum, an area associated with the satisfaction people feel when they get monetary rewards, was activated when people donated money to a charity in the presence of another person. They propose that social rewards are processed in the same way as monetary rewards and that both are processed as a form of 'common neural currency'. So engaging in ethical behavior, at least in the presence of others, might just as well be a deliberate and calculated decision.

2.4 Judgment of unethical versus ethical behavior

Few studies investigate both sections of moral cognition jointly. The research on ethical versus unethical judgment differs and has been strictly segregated, making direct comparisons difficult. Research on unethical judgment and decision-making typically uses moral dilemmas and asks people to evaluate the appropriateness of certain actions (Greene et al., 2004), whether and how severe they would punish the actors involved (Gino, Moore, & Bazerman, 2009; Gino, Shu, & Bazerman, 2010; Small & Loewenstein, 2005) and what underlying rules or norms drive judgment (Cushman et al., 2006; Hunt & Vitell, 1986; Powell, Derbyshire, & Guttentag, 2012; Sunstein, 2005). On the other hand, the center of gravity in neuroscientific research on ethical judgment and decision-making of individuals is mainly situated within the realm of altruism and tends to focus on whether, how much and under which circumstances participants would donate to charity organizations (Greening et al., 2014; Harbaugh, Mayr, & Burghart, 2007; Izuma et al., 2010; Tankersley, Stowe, & Huettel, 2007) and the role that empathy, perspective taking and theory of mind (Farrow et al., 2001; S. Lee, Winterich, & Ross, 2014; Nomi et al., 2008; Seitz, Nickel, &

Azari, 2006; Tusche, Boeckler, Kanske, Trautwein, & Singer, 2016) play in prosocial and altruistic behavior.

To the best of our knowledge, few studies focus on how exactly ethical judgment is established and literature on underlying rules and norms that drive the judgment of what is considered 'ethical' is not nearly as extensive as its unethical counterpart. However, literature on altruism does provide some insight. It has focused primarily on the norm of self-interest and finds that people consider behavior as less altruistic if the actor also benefits from the deed (Lin-Healy & Small, 2012, 2013; Newman & Cain, 2014). Moreover, the association between altruism and sacrifice is so strong that people think less of those who benefit materially from good deeds, even when benefits were unexpected and out of the benefactor's control (Lin-Healy & Small, 2013). People are especially skeptical towards good deeds from companies if the campaign has produced benefits for the company (Foreh & Grier, 2003; Yoon, Gurhan-Canli, & Schwarz, 2006). As a result of this skepticism "individuals are motivated to convince themselves and others that their generosity is pure and that their good deeds are not motivated by selfish desires." (Barasch et al., 2014)(p. 395). These results provide strong evidence for the self-interest norm for what is considered as ethical.

But how is unethical behavior positioned against ethical behavior? The implicit assumption is that ethical and unethical behaviors are each other's inverse. But this is not always the case: stealing is considered unethical, but refraining from stealing something is not necessarily considered as ethical behavior. Conversely, donating money to charity is considered as an ethical act, but deciding to not donate to a charity does not make someone an unethical person. This distinction is an important one to make. In literature authors do not always tend to make this distinction, for instance in their study on charitable donation Greening et al. (2014) have operationalized the decision to refrain from donating as 'harmful'. Some authors implicitly draw the line based on the consequences of behavior, on whether they be positive or negative (Bostyn & Roets, 2016). In this paper, we draw a distinction between unethical and ethical behavior and define them as "norm violating behavior which causes harm to others" and "norm exceeding behavior which benefits others at a personal cost to the actor" respectively. By "norm exceeding" we refer to the notion that the actor does not simple adhere to the norm, but does more than what is expected in terms of the norm. In one of the few studies that does compare ethical and unethical behavior -to a certain extent- Bostyn and Roets (2016) find an action-omission bias that could only be found in scenarios with negative outcomes (i.e. unethical scenarios) because these judgments relied more on causal

attributions. They did not find this effect in scenarios with positive outcomes (i.e. ethical scenarios), unless participants were explicitly instructed to make causal attributions. Although this study did not measure reaction times, their results offer tentative evidence that judgment of ethical versus unethical scenarios is driven by different underlying processes.

Neuroscientific literature offers even stronger evidence that different processes might be involved. Morality is not localized in one specific area in the brain but rather constitutes a network of neural correlates (Greene & Haidt, 2002). Also, each anatomical brain region houses a number of other, non-moral functions. Connecting anatomic regions to psychological functions is not as straightforward as one might think but certain areas do reoccur. The prefrontal cortex (PFC) plays an important role in processing unethical as well as ethical information and houses a number of higher-order executive functions such as planning behavior, personality, moderating social behavior and decision-making (Miller, Freedman, & Wallis, 2002). There is some overlap in the anatomical regions involved with typically unethical versus ethical judgment, but the neural networks associated with these functions still differ in various other respects. And it is also important to note that de PFC is vast and diversified in terms of functional anatomy. For instance, the ventromedial prefrontal cortex (VMPFC), dorsolateral prefrontal cortex (DLPFC), orbitofrontal prefrontal cortex (the anterior and posterior cingulate cortex (PCC/ACC), anterior insula and amygdala are typically involved with judgment and decision-making relating to unethical actions (Bertsch et al., 2013; Greene & Haidt, 2002; Greene et al., 2004), whereas the posterior superior temporal cortex (pSTC), dorsal striatum, anterior insula, posterior cingulate cortex (PCC), tempo-parietal junction, ventral striatum and superior and inferior frontal gyri are associated with altruistic behavior, empathy and theory of mind (Farrow et al., 2001). Note that these lists are not exhaustive and a myriad of other regions play a role, the point we want to make here is that the neural networks associated with ethical versus unethical judgment and decision making are not identical. The neural networks of ethical and unethical judgment both include regions that are associated with strictly cognitive functions as well as emotional regions.

2.5 Research objectives

The main objective of this paper is to fill the hiatus in the current literature by studying ethical and unethical judgment jointly and to integrate them within the dual process framework. Based on the literature, we would expect that the evaluation of unethical situations would be driven by intuitive and fast Type 1 processing and the evaluation of ethical situations would be driven by deliberate and slow Type 2 processing. We can ascertain that unethical judgment is primarily driven by Type 1 processing, although the emphasis of previous literature was more on how this processing could be overridden by Type 2 processes (Greene, 2007; Greene et al., 2008; Greene et al., 2001), which is not the focus of our paper. Judgment of unethical behavior usually also has an emotional component, emotional regions such as the amygdala and insula in the brain also show increased activation (Bertsch et al., 2013). Moreover, evolutionary speaking, it would make sense that unethical behavior would be judged more rapidly compared to ethical behavior, the punishment of norm violators is hard-wired as we derive pleasure from punishing norm-violators (de Quervain et al., 2004) and proven by the notion that people are slow to approve moral violations but quick to condemn them (Greene et al., 2004). With respect to ethical judgment, we find promising evidence that ethical judgment could be driven by slow and deliberate processing, even though the research was limited to certain forms of altruistic behavior .

In order to learn 1) whether or not ethical and unethical judgments are driven by different processes and 2) which processes (Type 1 or Type 2) drive ethical versus unethical judgment, four studies were conducted. In the first study, we compare reaction times between the judgment of simple, everyday ethical, unethical and neutral, non-moral behaviors. In a second study, we study whether a difference can be detected in differently framed moral judgment tasks in order to account for possible moral framing effects. In the third study we tax working memory in order to find out whether ethical or unethical judgment is impaired by cognitive load. The rationale is that cognitive load would retardate reaction times for ethical judgment (Type 2 processing), but not for unethical judgment (Type 1 processing). In the fourth and final study, we use eye-tracking technology to explore whether differences information search behavior could further support the notion of dual processes.

3. Study 1

3.1 Participants and procedure

One hundred forty-one participants were recruited through the crowdsourcing platform Amazon's Mechanical Turk (AMT). Several studies have confirmed the reliability of recruiting respondents via online labor markets for running online experiments (Paolacci, Chandler, & Ipeirotis, 2010; Rand, 2012) and experiments involving reaction time measurements (Simcox & Fiez, 2014). The respondents are US citizens and have an AMT approval rating higher than 95%. The sample consisted of 69.3% males and the average age was 35.11 (SD = 11.22). The experiment was programmed in Inquisit Web (Millisecond Software™), a software that offers precision psychometrics for online research.

In a within-subjects design respondents were asked to evaluate 24 one-sentence scenarios on moral valence. There were 3 types of scenarios: 8 unethical, 8 ethical and 8 neutral scenarios. The unethical and ethical scenarios were gathered from the modified Muncy-Vitell Consumer Ethics Scale, which has been expanded by Vitell and Muncy (2005) with items representing ethical consumer behavior such as the recycling/environmental awareness and doing the right thing/doing good dimensions (Vitell & Muncy, 2005). Judgment scores and reaction times were measured.

The seven-point scale ranged from (1) "Very unethical" to (7) "Very ethical" or from (1) "Very ethical" to (7) "Very unethical". The order of the presentation was randomized and no effect was found of the order of answer options for all types of scenarios: neutral (p =.70), unethical (p = .42) and ethical (p = .52) on scenario judgments. The responses were rescaled so all judgments ranged from (1) "Very unethical" to (7) "Very ethical". This order will be used in the following analyses. The average number of words is equal over the scenario types (ethical: 12, unethical: 12 and neutral: 12). Reliability analyses revealed adequate Cronbach's Alpha values for all types (α = .73, .81 and .86 for ethical, unethical and neutral items resp.), also see Table 1 for descriptive statistics of the items.

3.2 Results and discussion

Manipulation check. A repeated measures analysis on the judgment scores revealed that all types were judged as significantly different from each other ($F(2,414) = 597.37$, $p < .001$, $\eta^2 = .80$). The unethical scenarios were judged as most unethical (M = 2.36, SD = .76), the ethical as most ethical (M = 5.55, SD = .77) and the neutral scenarios as somewhere in between (M = 4.75, SD = .84).

Reaction times (in milliseconds). As raw reaction time (RT) data is positively skewed, techniques requiring normally distributed data are not suitable for analyzing raw RT data. A nonparametric Friedman test for differences among repeated measures revealed a significant difference between the raw data of the ethical, unethical and neutral scenarios ($\chi^2(2) = 24.42$, $p < .001$), with a mean rank of 2.29 for the ethical scenarios, a mean rank of 1.99 for the unethical scenarios and a mean rank of 1.72 for the neutral scenarios. These preliminary results on the raw data already reveal that participants required more time to judge the ethical scenarios compared to the unethical scenarios. However, as nonparametric tests are limited in scope, the raw data need to be transformed in order to allow for the use of parametric testing. A log transform (ln) and an inverted transform (1/T) both did not result in a normal distribution of the data. Finally, the raw RT data were trimmed to within two standard deviations (Baayen & Milin, 2010; Greene et al., 2008; Whelan, 2008) and yielded normally distributed RT data suitable for parametric testing. This a-priori screening allows for a systematic removal of outliers and is a widely accepted practice for by-subject and by-item analysis (i.e. techniques depending on means being aggregated over subjects and items) (Baayen & Milin, 2010). It effectively handles extreme values in the right tail of the distribution, which is typical for raw RT data.

An important caveat with this method is the loss of power when the effect is situated in the tail of the distribution (Luce, 1986; Ratcliff, 1993), but on the other hand, power is increased if the effect is not situated in the tail (Baayen & Milin, 2010).

RT data were analyzed with a mixed effects model using the maximum likelihood (ML) fitting method. Multilevel regression analyses (also known as mixed effects models or random effects analysis) are recommended for analyses dealing with repeated measures within individuals. It allows for adding a random intercept that takes the variation in the dependent variable caused by differences between participants into account. In other words, some people might react slower or faster in general and a random intercept can account for these individual differences (Snijders & Bosker, 2012). Prior to using a multilevel model, a researcher must validate whether or not the use of a mixed effects model is appropriate. As the within-groups variance differs significantly from the between-groups variance ($\chi^2(3)=124.32$, $p < .001$), the application of a mixed effects model is appropriate. The model included participant as a random effect and the three types of scenarios (ethical, unethical and neutral) as fixed effects.

The main effect of type of scenario was significant ($F(2,205) = 14.12$, $p < .001$, AIC = 5588). The unethical type (M = 4917.56, SD = 1077.99) differed significantly from the ethical type (M = 5299.70, SD = 1222.34), p > .001. The neutral type (M = 4779.36, SD = 1190.62) differed significantly from the ethical type (p <.001) but not from the unethical type (p = .20). See Figure 1. These results show that participants need more time to evaluate an ethical scenario compared to an unethical scenario. These results show that not all morally laden situations are alike and provide preliminary evidence for the hypothesized difference between the judgment of ethical versus unethical scenarios. Depending on the moral valence (ethical versus unethical) of a situation, other processes are set in motion.

The evaluation of ethical scenarios appears to be slower and hence more deliberate compared to unethical scenarios. It is especially remarkable that such differences already manifest in very short, basic and everyday scenarios. This could be due to the possibility that reactions towards the violation of implicit and explicit social rules (i.e. unethical behavior) are more learned and neurologically hardwired. We also find that non-moral situations are evaluated as quickly as unethical scenarios. These neutral scenarios do not require deliberate thought and are easily processed. It is for the ethical scenarios that reaction times were slower. This indicates that people have more difficulty in recognizing ethical behavior. In other words, bad behavior is more easily recognized than good behavior.

Table 1

Study 1. Items, means and internal consistency of the scenarios.

	Item Mean	SD	Construct Mean	Cronbach's Alpha
Ethical scenarios (Vitell & Muncy, 2005)			5.55	.73
Recycling materials such as cans, bottles, newspapers etc.	5.97	1.17		
Giving a larger than expected tip to a waiter or waitress.	5.08	1.26		
Buying products labelled as 'environmentally friendly' even if they don't work as good as competing products.	4.91	1.38		
Returning to the store and paying for an item that the cashier mistakenly did not charge for you.	6.13	1.24		
Correcting a bill that has been miscalculated in your favor.	5.59	1.67		
Only buying products from companies that have a strong record of protecting the environment.	5.58	1.36		
Buying products made of recycled materials even though its more expensive.	5.58	1.18		
Refraining from buying products from companies that don't treat their employees fairly.	5.55	1.22		
Unethical scenarios (Vitell & Muncy, 2005)			2.36	.81
Giving misleading price information to a clerk in a store for an unpriced item.	2.23	1.14		
Lying about a child's age to get a lower price.	2.33	.96		
Not correcting a waiter or waitress who miscalculates a bill in your favor.	2.55	1.29		
Returning damaged goods to a store when the damage was your own fault.	2.39	1.29		
Getting too much change at the supermarket and not saying anything.	2.65	1.20		
Reporting a lost item as 'stolen' to an insurance company in order to collect the insurance money.	2.07	1.30		
Observing someone shoplifting and not saying anything.	2.62	1.09		
Drinking a can of soda in the store without paying for it.	2.01	1.07		
Neutral scenarios			4.75	.86
Booking a hotel on an online website for a holiday you are planning.	4.93	1.27		
Changing the channel when there is a show on TV you don't like.	4.71	1.22		
Talking to people about a movie you have recently seen.	4.59	1.13		
Writing down a shopping list before you leave for the supermarket.	4.93	1.24		
Taking the dog out for a walk on a rainy day even though you don't really feel like it.	4.94	1.29		
Maintaining a personal blog about gardening.	4.65	1.14		
Using your smartphone as an alarm clock for waking up in the morning.	4.89	1.22		
Reading yesterday's newspaper because you did not receive todays newspaper.	4.39	1.00		

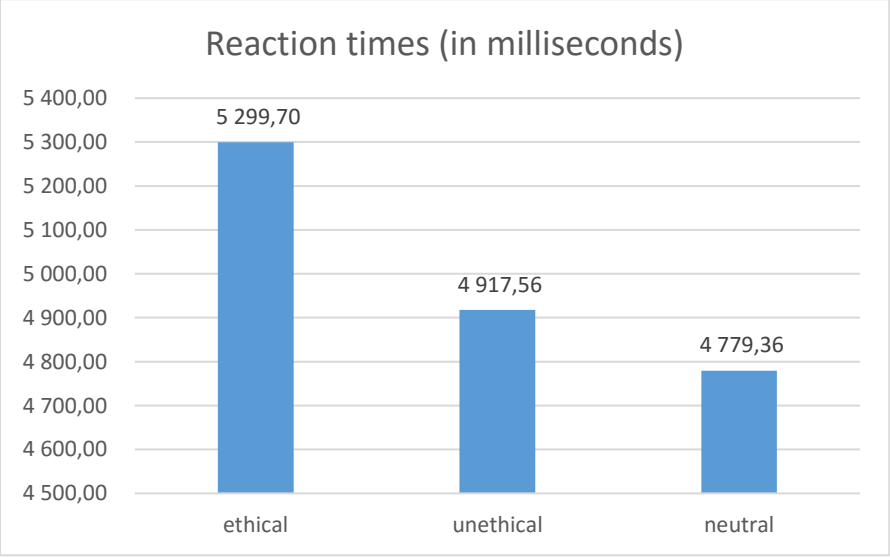
All items were measured on a 7-point Likert scale (1= "Very unethical" to 7 = "Very ethical")

3.3 Conclusion

This study has focused on differences between very distinct types of behavior (e.g. lying about a child's age versus using recycled products) so the difference in RT could also be due to varying unwanted processes triggered by the short scenarios, for instance, memories could be brought up if someone has encountered a similar experience as in one of the scenarios, self-reflection of whether they themselves have acted ethically or unethically, or other associations with the topics discussed in the scenarios could have been activated. It is not an issue in se if other processes are activated, the major issue is that there might be too much variance in the nature of other unwanted activity. The next study deals with this issue. The ethical and unethical scenarios have been designed to mirror each other in every aspect with the exception of moral valence (ethical versus unethical). An important caveat with this kind of research is that a number of moral biases relating to the manner in which the scenario is phrased could come into play, namely the identifiable victim effect (Small & Loewenstein, 2005), the singularity effect (Kogut & Ritov, 2005), entativity (R. W. Smith, Faro, & Burson, 2013) and attribute framing (X. T. Wang, 1996), to name a few. In order to account for these possible effects the ethical and unethical scenarios have been framed differently while holding the general outcome constant.

Figure 1

Study 1. Reaction times of scenarios.



4. Study 2

The second study investigates whether a difference can be detected in a morally laden judgment task. Five differently framed descriptions of the same scenario were presented to participants for either an unethical or an ethical scenario. In the unethical scenario, a robbery is described in which a total amount of € 1000 has been stolen. The scenario either states the total amount that has been stolen (€ 1000), or the total amount and a small number of thieves (€ 1000 is stolen by 5 thieves), or the total amount and a large number of thieves (€ 1000 by 20 thieves), or a small number of thieves and the large amount they each steal (5 thieves each steal € 200) or a large number of thieves and the small amount they each steal (20 thieves each steal € 50). In the ethical scenario, customers of a web shop accidentally receive free clothing due to a bug in the store's delivery software. The scenario describes the total store value of the clothes a number of customers send back, which is € 1000. The scenario either states the total store value that has been returned (€ 1000), or the total amount and a small number of customers (€ 1000 is returned by 5 customers), or the total amount and a large number of customers (€ 1000 by 20 customers), or a small number of customer and the large amount they each return (5 customers each return € 200) or a large number of customers and the small amount they each return (20 customers each return € 50). See Table 2 for an overview of the conditions.

Table 2
Study 2. Reaction times (in s) by framing

Framing		**Unethical** M (SD)	N	**Ethical** M (SD)	N	T-value
	Actors	*Thieves*		*Customers*		
€ 1000 is stolen/returned		6.17 (2.56)	65	7.81 (3.64)	66	-3.09**
€ 1000 stolen/returned by 5 actors		5.46(1.94)	69	7.28 (3.40)	64	-3.76***
€ 1000 stolen/returned by 20 actors		5.85 (2.36)	65	8.61 (3.88)	62	-4.81***
5 actors each steal/return € 200		6.10 (2.34)	64	7.67 (2.66)	64	-3.54**
20 actors each steal/return € 50		6.07 (2.31)	67	7.73 (3.63)	68	-3.18**
Total		5.91 (2.31)	*330*	7.82 (3.47)	324	-8.23***

Significant at ***p<.001,**p<.01,*p<.05

4.1 Participants and procedure

Six hundred fifty-four participants were recruited through the university's online research panel. The sample consisted of 62% females and the average age was 30.64 (SD = 14.80). The experiment was programmed in Qualtrics, an online survey software.

In a 5 (framing: €1000, €1000 by 5 actors, €1000 by 20 actors, 5 actors each steal/return € 200, 20 actors each steal/return € 50) x 2 (unethical versus ethical scenario) between-subjects design respondents were asked to evaluate the scenarios on moral valence. The seven-point scale ranged from (1) "Very unethical" to (7) "Very ethical" or from (1) "Very ethical" to (7) "Very unethical". Reaction times were measured in seconds.

Participants also completed cognitive processing self-assessment scales, such as the Rational Experiential Inventory (REI) (Epstein et al., 1996) and the Situation Specific Thinking Scale(SSTS) (Novak & Hoffman, 2009),which consists of two subscales measuring a rational thinking style and an experiential thinking style. This scale measures situational influences on thinking style and is grounded on the notion of two qualitatively distinct methods of processing information (Kahneman, 2003). The REI on the other hand consists of two subscales measuring Need For Cognition and Faith in Intuition. The REI is theoretically grounded in an integrative theory of personality; the Cognitive-Experiential Self-Theory (CEST) (Epstein, 1991) which shares broad conceptual similarities with dual-process theory in that it proposes two modes of processing: a *rational system* and an *experiential system*. The *rational system* functions mainly at the conscious level and is predominantly verbal, intentional, analytic and relatively affect-free. It is measured by the Need for Cognition scale, which is a subscale of the REI. Its counterpart, the *experiential system* is assumed to operate at a preconscious, affective, associative and verbal level and is measured by the other subscale of the REI: the Faith in Intuition scale. The difference with dual-process theory (Evans, 2008) is that Need for Cognition and Faith in Intuition are modes of processing that can be favored by an individual and are considered more as personality traits and the SSTS implies a strong element of control and that an individual can choose which method is more suited, depending on the situation. The item means are presented in Table 3.

Table 3

Study 2. Items, means and internal consistency of self-reported processing styles.

	Item Mean	SD	Construct Mean	Cronbach's Alpha
Situation Specific Thinking Scale (Novak & Hoffman, 2009)				
Rational SSTS Items			3.88	.91
I reasoned things out carefully.	3.88	1.44		
I tackled this task systematically.	3.76	1.43		
I figured things out logically.	4.81	1.28		
I approached this task analytically.	3.69	1.48		
I was very focused on the steps involved in doing this task.	3.40	1.40		
I applied precise rules to deduce the answers.	3.21	1.40		
I was very focused on what I was doing to arrive at the answers.	3.92	1.43		
I was very aware of my thinking process.	4.42	1.50		
I arrived at my answer by carefully assessing the information in front of me.	4.21	1.44		
I used clear rules.	3.53	1.44		
Experiential SSTS Items			5.06	.87
I used my gut feelings.	5.24	1.17		
I went by what felt good to me.	5.63	0.98		
I trusted my hunches.	4.99	1.27		
I relied on my sense of intuition.	5.31	1.09		
I relied on my first impression.	5.25	1.18		
I used my instincts.	5.05	1.25		
I used my heart as a guide for my actions.	5.06	1.26		
I had flashes of insight.	4.67	1.38		
Ideas just popped in my head.	5.18	1.22		
I used free association, where one idea leads to another.	4.27	1.41		
Rational Experiential Inventory (Epstein e.a., 1996)				
Need for Cognition			4.04	.78
I don't like to have to do a lot of thinking. (R)	3.08	1.33		
I try to avoid situations that require thinking in depth about something. (R)	2.91	1.22		
I prefer to do something that challenges my thinking abilities rather than something that requires little thought.	4.90	1.24		
I prefer complex to simple problems.	4.23	1.39		
Thinking hard and for a long time about something gives me satisfaction.	4.76	1.22		
Faith in Intuition			4.84	.87
I trust my initial feelings about people.	4.89	1.19		
I believe in trusting my hunches.	4.98	1.15		
My initial impressions of people are always right.	4.66	1.23		
When it comes to trusting people, I can usually rely on my "gut feelings".	4.87	1.20		
I can usually feel when a person is right or wrong even if I can't explain how I know.	4.82	1.27		

All items were measured on a 7-point Likert scale (1= "Completely do not agree" to 7 = "Completely agree")

4.2 Results and discussion

Reaction time (in seconds). The RT for all the unethical scenarios were aggregated and the same was done for the ethical scenarios. A nonparametric test (Kruskall-Wallis) revealed a significant difference between the ethical and unethical scenarios ($H(1) = 45.68$, $p < .001$, with a mean rank of 304.25 for the unethical scenarios and a mean rank of 408.45 for the ethical scenarios. These preliminary results on the raw data already reveal that participants required more time to judge the ethical scenarios compared to the unethical scenarios. The raw RT data were trimmed to within two standard deviations (Baayen & Milin, 2010; Greene et al., 2008; Whelan, 2008) and yielded normally distributed RT data suitable for parametric testing.

An independent samples t-test on the aggregated data revealed that the evaluation of ethical scenarios ($M = 7.82$, $SD = 3.47$) took longer than the unethical scenarios ($M = 5.91$, $SD = 2.31$). These RT were measured in seconds. Of course, since the scenarios differed in framing, information is lost when aggregating data. Separate analyses of each scenario were run and each yielded longer RT for the evaluation of the analogous ethical scenario, see Table 2 for an overview of the results. No differences in RT were found *within* the 5 ethical ($F(4, 319) = 1.23$, $p = .30$) and 5 unethical scenarios ($F(4, 325) = 1.00$, $p = .41$).

Self-reported processing styles. Several measures of self-reported processing styles and preferences were analyzed. With the exception of the rational subscale of the SSTS ($t(639) = 2.88$, $p < .01$), no differences were found between the ethical and unethical scenarios with respect to the experiential subscale of the SSTS ($t(639) = -.42$, $p = .68$), Need for Cognition ($t(635) = .99$, $p = .33$) and Faith in Intuition ($t(635) = .16$, $p = .87$, see Table 4. Yet, still differences in RT emerge between the evaluation of ethical versus unethical scenarios.

Though not much can be concluded from null results, this could point to the possibility that people may not be consciously aware of these differences. Interestingly, participants in the unethical scenarios claimed to rely more on a rational, systematic reasoning to arrive at their judgment yet the lower RT does not support this self-reported assertion. These results could possibly suggest that people are not aware of the different processes that drive judgment and by extension, decision making with respect to ethical versus unethical contexts and behaviors. It also adds to the notion that this difference in processing is not the result of differences in personality traits (REI) or

situational processing preferences (SSTS), but rather a universal setting that appears to be hardwired in the brain.

Table 4
Study 2. Self-reported thinking styles by condition

	Unethical M (SD)	**Ethical** M (SD)	T-value
SSTS – Rational	4.00 (1.07)	3.76 (1.02)	2.88**
SSTS – Experiential	5.05 (.88)	5.08 (.77)	-.41^{ns}
REI – Need for Cognition	4.07 (.93)	4.00 (.90)	.99^{ns}
REI – Faith in Intuition	4.85 (1.06)	4.84 (0.89)	.16^{ns}

Significant at ***p<.001,**p<.01,*p<.05

Judgments. Judgment of the moral valence of the scenario (ranging from (1) "Very unethical" to (7) "Very ethical") were recorded. Overall, people judged the unethical scenarios as unethical (M = 1.34, SD = .56) and the ethical scenarios as ethical (M = 6.06, SD = 1.00). Within the unethical scenarios, more differences within the degree of unethicality were found ($F(4, 352) = 5.04$, $p < .01$) compared to the ethical scenarios ($F(4, 353) = 2.90$, $p < .05$), see Table 5 for an overview of the post hoc tests.

Table 5
Study 2. Judgments by framing

Actors	M (SD)	€ 1000	€ 1000 5 actors	€ 1000 20 actors	5 actors € 200 each	20 actors € 50 each	Total
Thieves	**Unethical**	1.59 (.67)	1.19 (.40)	1.32 (.66)	1.34 (.48)	1.29 (.49)	1.34 (.56)
Customers	**Ethical**	6.35 (.63)	5.96 (1.20)	5.96 (.80)	5.87 (1.21)	6.18 (.96)	6.06 (1.00)

		Post hoc tests	
Actors	M (SD)	F-value	Multiple comparisons
Thieves	**Unethical**	5.04**	1>2,1>3,1>5
Customers	**Ethical**	2.90*	1>4

All items were measured on a 7-point Likert scale (1= "Very unethical" to 7 = "Very ethical") Significant at ***p<.001,**p<.01,*p<.05

Our results show that participants were more susceptible to the way the unethical scenarios were framed compared to the way the ethical scenarios were framed. McElroy and Seta (2003) find that people relying on analytic processing style are less sensitive to framing effects than people

engaging in a more heuristic processing style. Although caution is advised when assuming causality, our results indicate that participants in the ethical scenarios could have been less sensitive to the way the scenario was framed because they were relying more on Type 2 processing, which is more analytic in nature, compared to the participants in the unethical scenarios.

4.3 Conclusion

In this study we found that participants were slower to evaluate ethical scenarios compared to unethical scenarios, regardless of how the scenario was framed. Up until now, the findings have only been correlational and an experimental design is needed in order to test whether the differences we find are the result of a reliance on working memory for the ethical scenarios (Type 2 processing) versus the autonomous processes driving the judgment of unethical scenarios (Type 1 processing). Also, Studies 1 and 2 have only dealt with straightforward descriptions of morally laden situations, while research on morality has a strong tradition of the use of moral dilemmas. These dilemmas are better suited for exposing processing styles as they force participants to make difficult trade-offs. In Study 3 cognitive load is manipulated in order to tease out differences in processing for ethical and unethical dilemmas.

5. Study 3

According to Evans and Stanovich (2013) the most essential difference between Type 1 (fast and autonomous processing) and Type 2 processing (slow and deliberative processing) is the reliance on working memory. Type 2 processing is characterized by its dependence on working memory and is expected to be impaired when working memory is taxed by concurrent tasks. On the other hand, because Type 1 processing is autonomous and does not rely on working memory, it should not be interfered by an engaged working memory. Study 3 seeks to uncover whether controlled cognitive processing drives ethical judgment by investigating its reliance on working memory. We hypothesize that cognitive load would increase RT for decision making in ethical dilemmas compared to decision making without cognitive load. Secondly, we hypothesize that RT for decision making in unethical dilemmas would not be hindered by cognitive load.

5.1 Participants and procedure

Four hundred eighty-five participants were recruited through the crowdsourcing platform Amazon's Mechanical Turk (AMT). The sample consisted of 62.8% females and the average age was 34.68 (SD = 10.45). The experiment was programmed in Inquisit Web (Millisecond

Software™), a software that offers precision psychometrics for online research. In a 2 (cognitive load vs. no cognitive load) x 4 (type of dilemma: unethical-personal, unethical-impersonal, ethical-personal and ethical-impersonal) mixed-subjects design respondents were presented with all 4 morally charged dilemmas of varying moral valence and gravity. Half of the sample (50.7%) was randomly assigned to the cognitive load condition. Reaction times in milliseconds and their decision with respect to the dilemma were measured.

To the best of our knowledge, all classical moral dilemmas used in literature are in fact, unethical dilemmas. See Greene et al. (2008) for an overview of existing unethical dilemmas. We find that most dilemmas follow the same structure: respondents must choose between taking action or doing nothing. Each option (action vs. refraining from action) contains a trade-off that balances the personal interference, responsibility and accountability of the decision maker against a possible alleviation of the severity of the consequences. In the Trolley or Footbridge dilemma (see Appendix A), the archetypical example of a moral dilemma, the decision maker must decide whether he will interfere by killing one person (directly or indirectly) in order to save four or five other persons. By undertaking action, the decision maker exposes himself to accountability. The decision maker is no long a bystander but plays an active role. On the other hand, by refraining from taking action, the outcome is more severe and more victims are harmed. The struggle is often one between a deontological conviction e.g. “Murdering someone is wrong” and a teleological conviction “One must do whatever possible in order to minimize harm for the largest number of people.”

With respect to traditional unethical dilemmas, Greene et al. (2004) make the distinction between moral personal and moral impersonal dilemmas. They consider a moral dilemma as ‘personal’ if it meets three criteria and classify dilemmas that fail to meet these criteria as ‘impersonal moral dilemmas’. A moral dilemma is considered ‘personal’ if it involves (1) the infliction of serious bodily harm (2) to a particular person or a set of persons (3) where the harm does not result from a deflection of an existing threat to a third party. They find evidence that personal moral dilemmas (which they consider as violations familiar to our primate ancestors) elicit strong prepotent negative social-emotional responses whereas impersonal moral dilemmas (which is more related to the modern humans problems) are more cognitive in nature and show more similarities with non-moral dilemmas. This distinction between personal and impersonal moral dilemmas certainly merits attention and is addressed in this study.

While unethical dilemmas are widely known and used, no such alternatives exist for ethical dilemmas. Most ethical decision making protocols in academic literature comprise a choice between whether or not a participant donates to a certain charity and how much is donated. However, in the structure mentioned above, this can hardly be considered as a dilemma including a trade-off of two equally challenging options. In an unethical dilemma, both possible outcomes have a predominantly negative connation, so in that vein both possible outcomes of an ethical dilemma should have a predominantly positive connotation (i.e. people are helped in both options). In the traditional unethical dilemmas, personal accountability is part of a difficult trade-off. The ethical counterpart of this accountability could be represented by notion of self-sacrifice. Literature on altruism offers support for this claim as it posits that people consider someone who does a good deed but benefits personally from the act as less altruistic. What's more, in some cases the presence of personal or material benefits, even if they were not intended, can even completely backfire for the do-gooder, resulting in even more negative evaluations of the intentions of the do-gooder (Lin-Healy & Small, 2012). Based on these findings, we conclude that the element of self-sacrifice (in addition to the perceived intentions of the do-gooder and the magnitude of the consequences) might play an important role in the judgment of ethical behavior.

Analogous to unethical dilemmas, ethical dilemmas should comprise a difficult choice between two equally challenging options which encompass a trade-off of personal self-sacrifice against a possible optimization of benefits for a third party. Keeping these considerations in mind, we have constructed four moral dilemmas: a unethical-personal, unethical-impersonal, ethical-personal and ethical-impersonal dilemmas. The nature and degree of harm (financial versus physical) and required action (instrumental versus physical) were held constant for the personal and impersonal dilemmas. See Appendix B for a scheme of the structure of the dilemmas. Existing moral dilemmas were not employed in order to avoid learned responses of participants. If respondents would already be familiar with a given dilemma, they could have already formed an opinion prior to the study. This would undermine our attempts to investigate processes that drive judgment and decision making.

Respondents had to indicate which course of action they were most likely to undertake, ranging from (1) Action to (6) No action. This scale format allowed room for nuance in participants' responses and would preferably result in more contemplation. These scores were then rescaled into a binary response during the analysis.

5.2 Dilemmas

Unethical and impersonal

Scholarships

You are a scholarship admissions officer. You see that a student from a very wealthy family has been appointed a very large scholarship, that he not even needs. You also see that another, very bright and promising student from a poor background was only appointed enough money to last for only one semester. By transferring money from the scholarship of the rich student to the scholarship of the poor student, you can help this student through college. The chances of getting caught are small, but if you do get caught, you could lose your job. What would you be inclined to do?

Unethical and personal

Life boat

You are on a cruise ship when there is a fire on the boat and the ship has to be abandoned. There are not enough lifeboats and the lifeboat you are in, Lifeboat 1, is full. You are safe in Lifeboat 1. When floating around, you see that a nearby lifeboat, Lifeboat 2, is carrying too many people and is sinking fast. There is an injured person in Lifeboat 2 who will not survive in any case. If you knock him out with your paddle, the passengers from Lifeboat 2 will be able to throw that person overboard. That way Lifeboat 2 will stay afloat and the remaining passengers will be saved. What would you be inclined to do?

Ethical and impersonal

Game show

You are participating in a game show in which you have already won a small sum of money that will go to a child in need. If you stop here, the child will get a better life for some time, but if you continue to the second round you could win a much larger amount for that child to have a better life forever. But, if you lose this second round, the child will not be helped at all. What would you be inclined to do?

Ethical and personal

Vaccine

A terribly infectious and lethal disease has emerged and you happen to be immune to the virus. Doctors do not really know much about the disease but you are the key to finding the cure. If you participate in medical trials the doctors can produce a vaccine that could save thousands of people and cure the disease forever. But these medical trials would give you permanent scars. Or instead, you could donate blood and save a few people with blood transfusions. What would you be inclined to do?

5.3 Results and discussion

Reaction time (in milliseconds). The raw reaction times (RT) were corrected for the number of words in the dilemmas and trimmed to within two standard deviations to correct the positive skewness of the raw RT data (Baayen & Milin, 2010; Whelan, 2008). RT data were analyzed with a mixed effects model using the maximum likelihood (ML) fitting method. As the within-groups variance differs significantly from the between-groups variance ($\chi^2(3)=224$, $p < .001$), the application of a mixed effects model is appropriate. The model included participant as a random effect and cognitive load, the type of dilemma and the interaction term as fixed effects.

No significant main effect of cognitive load ($F(1,484) = .00$, $p = .99$) was found on RT. A significant main effect of type of dilemma ($F(3, 934) = 57.58$, $p < .001$) and a significant interaction effect of type of dilemma x cognitive load ($F(3, 934) = 23.74$, $p < .001$, AIC = 22818) were found. Planned post hoc contrasts showed an increase in RT in the personal ethical dilemmas under cognitive load (M = 30479.01, SD = 772) compared to no load (M = 26959.54, SD = 825.10), $t(925) = - 5.76$, $p < .001$), confirming our predictions. Conversely, RT decreased under cognitive load for the personal unethical dilemmas (M = 23274.82, SD = 817.46) compared to no load (M = 28149.91, SD = 780.30), $t(950) = 7.77$, $p < .001$, 95% CI [484.76;812.60]. No significant differences were found however in the impersonal dilemmas for the unethical ($t(922) = - 1.33$, $p = .18$) nor ethical impersonal dilemma ($t(940) = - .82$, $p = .42$). See Figure 2.

These results confirm our hypothesis that ethical and unethical decision making is driven by different types of processing. The slower RT for ethical decisions under cognitive load provide

evidence that working memory plays a role in the judgment and decision making of ethical dilemmas. Surprisingly, RT for unethical dilemmas were significantly faster under cognitive load. The expectation was that there would be no difference between RT under cognitive load compared to no cognitive load. However, this finding does not invalidate our proposition that unethical decision making is driven by autonomous processes. People rely more on automated processes and heuristics under cognitive load (Barrouillet, Bemardin, Portrat, Vergauwe, & Camos, 2007; Pelham, Sumarta, & Myaskovsky, 1994), in this case working memory load has induced participants to respond even faster. We did not find any differences for impersonal ethical and unethical dilemmas. This result is not surprising given the previous research of Greene (2004; 2001) in which he did not find any differences for impersonal unethical dilemmas and concluded that impersonal dilemmas are more similar to non-moral dilemmas. These results add to this conclusion that might also apply to ethical moral dilemmas.

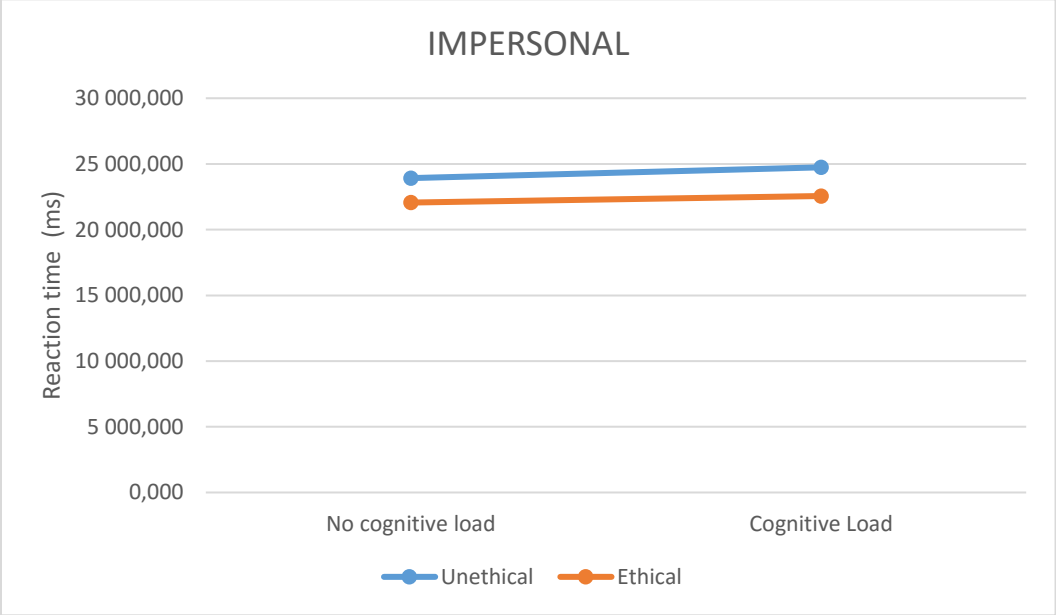
Responses. Additional analyses on the participants responses might shed more light on the decision making processes. In the ethical impersonal dilemma 52% opted for undertaking action, a binomial test indicated that this proportion did not differ significantly from 50% ($p = .41$), the same goes for the unethical impersonal dilemma, in which 47% opted for undertaking action ($p = .17$). For the unethical personal dilemmas, an equal proportion of participants opted for the action and inaction option (50%) which did not differ significantly from 50% ($p = 1.00$). For the ethical dilemma, an overwhelming majority opted for the action option (75%), a binomial test indicated that this proportion significantly differs from a proportion of 50% ($p < .001$). Further analyses reveal a relationship between the duration of response time and the nature of the response the participant gave. We find a significant correlation between the response and response time for all ethical dilemmas, but not for the unethical dilemmas. In the impersonal ethical dilemma participants that opted for inaction needed more time (M = 2202.21, SD = 770.30) than for action (M = 2027.23, SD = 763.14), $t(346) = 2.13$, $p < .05$. Conversely, in the ethical personal dilemma participants that opted for action needed more than time (M = 2934.32, SD = 1275.96) than for inaction (M = 2326, SD = 1152.75), $t(351) = -3.68$, $p < .001$. No such differences were found for the impersonal ($t(333) = .81$, $p = .42$) and personal ($t(350) = -1.07$, $p = .29$) unethical dilemmas. This significant relation between response and response time for the ethical dilemmas leads us to believe that for the ethical dilemmas, people are taking a number of considerations into account and a deliberate reasoning process is undertaken. Whereas, for the unethical dilemmas, the participants could have followed

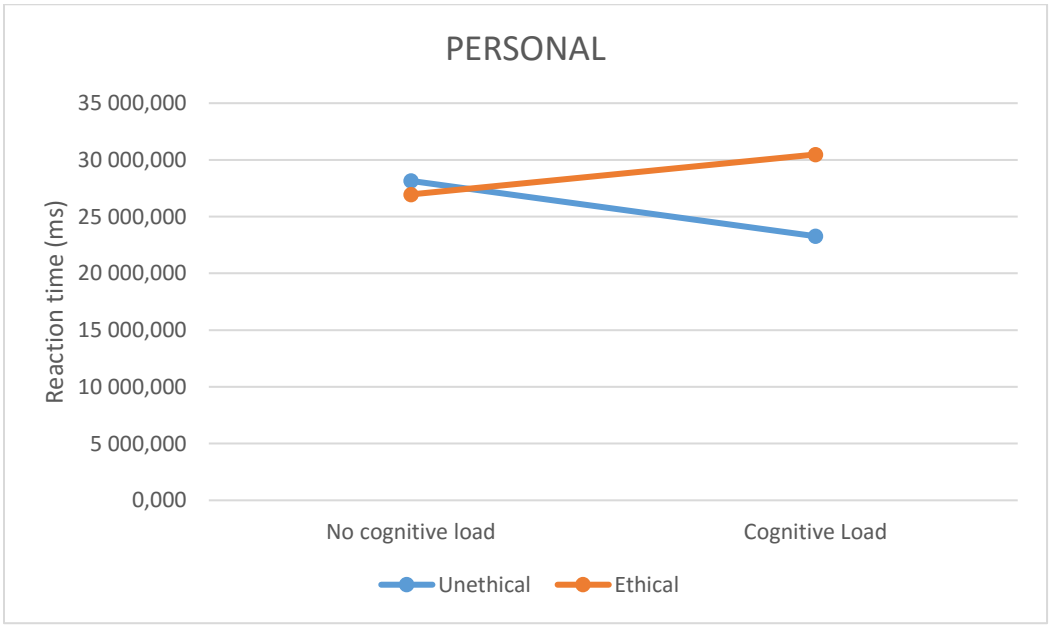
a gut feeling that would lead them to either action or inaction, which could explain the indifference for response in terms of reaction time.

An issue with dual process theories is that evidence is usually based on outcome measures (i.e. reaction times and responses) as opposed to the activity that takes place during decision making (de Neys, 2006; Gigerenzer & Regier, 1996). In the next and final study, we exploratively investigate eye-movements of respondents reading morally laden dilemmas during an eye-tracking study.

Figure 2

Study 3. Reaction times under cognitive load.





6. Study 4

Eye-tracking allows researchers to document various characteristics of reading and information search behavior, such as the number and duration of fixations (i.e. moments in which the eye remains relatively still), distances and velocities of saccades (i.e. rapid movements of the eyes between fixations), gaze duration (i.e. when saccades are included in the duration of a fixation) and pupillary diameter. Existing dual process theories do not offer specific predictions as to which other information seeking behavior can be expected when doing an eye-tracking study (Horstmann, Ahlgrimm, & Glöckner, 2009). Pupillary diameter (i.e. the size of the pupil) has been extensively researched and has been found to be related to cognitive effort (Barral, 2016). Querino et al (2015) provide evidence that the dissociation between dual processes (controlled and automatic) can be observed through pupillary dilation. They conducted a Five Digits Task, which is a measure of cognitive performance, and found that the pupillary diameter of respondents was smaller in the tasks in the control stage (which were designed to elicit automated processes) compared to the tasks in the corresponding test stage (which were designed to elicit controlled processes such as inhibitory control and cognitive flexibility). Recent findings also demonstrate that pupil diameter can also be used as an indirect metric for uncertainty during effortful control processes (Geng, Blumenfeld, Tyson, & Minzenberg, 2015). Based on this research, we should expect to find larger pupillary diameters for the ethical dilemmas compared to the unethical dilemmas. This study is the first to investigate moral dilemmas in an eye-tracking study, for that reason, this study is mainly intended as an exploratory study.

6.1 Participants and procedure

Eighty-five participants were recruited on campus grounds. Participants were presented with the same four morally laden dilemmas as in Study 3 in a random order on a computer screen (using stimulus presentation software Experiment Suite 360°™ by SensoMotoric Instruments (SMI)). In keeping with the participants native language, the dilemmas were translated into Dutch. Each trial was preceded by a blank screen with a fixation cross.

Eye movements were recorded using the SMI RED250 (SMI) Binocular Remote Eye-tracker with a sampling rate of 120Hz and a gaze position accuracy of 0.4°. An infrared sensitive camera attached below the monitor records corneal reflection of near-infrared light directed towards the

pupil. By use of this method, the X and Y coordinates of the participants gaze point on the monitor can be determined.

6.2 Results and discussion

Reaction time (in milliseconds). In line with previous findings, the unethical dilemmas ($M_{Scholarships}$ = 30,940.73, $SD_{Scholarships}$ = 14,958.27; $M_{Life\ boat}$ = 35,562.67, $SD_{Life\ boat}$ = 13,195.62) show faster reaction times than the ethical dilemmas ($M_{Game\ show}$ = 31,816.50, $SD_{Game\ show}$ = 10,988.19; $M_{Vaccine}$ = 36,334.07, $SD_{Vaccine}$ = 15,088.05), $F(3,82) = 4.04$, $p < .05$.

Fixations. Fixation counts were higher in the unethical ($M_{Scholarships}$ = 106.44, $SD_{Scholarships}$ = 49.41; $M_{Life\ boat}$ = 130.73, $SD_{Life\ boat}$ = 52.05) compared to the ethical dilemmas ($M_{Game\ show}$ = 86.39, $SD_{Game\ show}$ = 37.90; $M_{Vaccine}$ = 101.01, $SD_{Vaccine}$ = 47.50), $F(3,82) = 25.98$, $p < .001$. Fixation durations tended to take longer in the unethical ($M_{Scholarships}$ = 19,792.23, $SD_{Scholarships}$ = 11,7942.23; $M_{Life\ boat}$ = 24,574.82, $SD_{Life\ boat}$ = 11,788.82) compared to the ethical dilemmas ($M_{Game\ show}$ = 15,885.47, $SD_{Game\ show}$ = 7,903.44; $M_{Vaccine}$ = 18,844.77, $SD_{Vaccine}$ = 10,941.06), $F(3,82) = 19.97$, $p < .001$. And fixations were more dispersed in the unethical ($M_{Scholarships}$ = 8,334.62, $SD_{Scholarships}$ = 3,803.16; $M_{Life\ boat}$ = 10,174.99, $SD_{Life\ boat}$ = 4,087.88) compared to the ethical dilemmas ($M_{Game\ show}$ = 6,717.13, $SD_{Game\ show}$ = 3,003.76; $M_{Vaccine}$ = 7,837.21, $SD_{Vaccine}$ = 3,565.02), $F(3,82) = 22.66$, $p < .001$ Based on the fixation counts and fixation dispersion, it appears that more information was inspected in the unethical dilemmas and that this information was inspected more intensely. The longer fixation durations for the unethical dilemmas are somewhat surprising, since this is what could be expected for a more deliberate manner of information processing. However, this could also signify that participants exhibited a higher involvement.

Saccades. There were more saccades in the unethical ($M_{Scholarships}$ = 108.02, $SD_{Scholarships}$ = 51.04; $M_{Life\ boat}$ = 132.46, $SD_{Life\ boat}$ = 53.29) compared to the ethical dilemmas ($M_{Game\ show}$ = 87.56, $SD_{Game\ show}$ = 38.98; $M_{Vaccine}$ = 102.38, $SD_{Vaccine}$ = 48.32), $F(3,82) = 26.68$, $p < .001$. Saccades were more rapid in the unethical ($M_{Scholarships}$ = 13,283.24, $SD_{Scholarships}$ = 7,845.01; $M_{Life\ boat}$ = 16,119.71, $SD_{Life\ boat}$ = 7,195.53) compared to the ethical dilemmas ($M_{Game\ show}$ = 10,545.82, $SD_{Game\ show}$ = 5,130.23; $M_{Vaccine}$ = 12,580.25, $SD_{Vaccine}$ = 6,923.97), $F(3,82) = 19.11$, $p < .001$ Finally, the scanpaths were longer for the unethical ($M_{Scholarships}$ = 27,201.84, $SD_{Scholarships}$ = 11,867.71; $M_{Life\ boat}$ = 33,617.06, $SD_{Life\ boat}$ = 12,460.59) compared to the ethical dilemmas ($M_{Game\ show}$ = 21,987.81, $SD_{Game\ show}$ = 9,402.53; $M_{Vaccine}$ = 27,105.69, $SD_{Vaccine}$ = 13,366.46), $F(3,82) = 27.47$, $p < .001$. A large number

of saccades and larger scanpaths in the unethical dilemmas point towards the possibility that participants returned to previously read sections to reinspect information. Faster saccade velocity could be indicative for a fast and perhaps hasty search strategy. The saccade and scanpath results generally point towards a rash and perhaps impulsive search strategy with frequent returns to previously inspected words.

Pupillary diameter (in mm). A repeated measures analysis reveals a significant difference in pupillary diameter between the dilemmas ($\chi^2(3,85) = 20.60$, $p < .001$). Significantly larger pupillary diameters were found for ethical dilemmas ($M_{Game\ show} = 3.50$, $SD_{Game\ show} = 0.49$; $M_{Vaccine} = 3.52$, $SD_{Vaccine} = 0.49$) compared to unethical dilemmas ($M_{Scholarships} = 3.46$, $SD_{Scholarships} = 0.52$; $M_{Life\ boat} = 3.48$, $SD_{Life\ boat} = 0.49$). Larger pupil sizes for the ethical dilemmas could be suggestive for a reliance on working memory and therefore Type 2 processing. Though research has shown that pupil dilation is associated with cognitive effort (Barral, 2016; Querino et al., 2015), the measure is highly controversial as it could also be an indication of involvement or emotional arousal (Bradley, Miccoli, Escrig, & Lang, 2008). For an overview of the descriptive statistics, see Table 6.

6.3 Conclusion

Although these explorative results do not provide conclusive process evidence, we observe more, longer and more dispersed fixations, faster, longer and more numerous saccades and smaller pupil sizes for the unethical dilemmas compared to the ethical dilemmas. These patterns could be indicative for a more immediate, spontaneous information search and processing strategy for the unethical dilemmas. However, these patterns could also be interpreted as higher involvement. In any case, though no robust conclusions with respect to the direction of the difference can be drawn, we can tentatively conclude is that there are at least some differences between ethical and unethical dilemmas in terms of eye-tracking results.

Table 6
Study 4. Eye-tracking metrics

	Unethical		**Ethical**		Post hoc tests	
	Impersonal *Scholarships*	Personal *Life boat*	Impersonal *Game show*	Personal *Vaccine*	Test statistic	Multiple comparisons
Reaction time (in ms)[a]	30,940.73 (14,958.27)	35,562.67 (13,195.62)	31,816.50 (10,988.19)	36,334.07 (15,088.05)	4.04*	1<2, 1<4, 2>3, 3<4
Fixation count[b]	106.44 (49.41)	130.73 (52.05)	86.39 4.04(37.90)	101.01 (47.50)	25.98***	1>2, 1>3, 2<3, 2<4, 3>4
Fixation duration (in ms)[a]	19,792.23 (11,7942.23)	24,574.82 (11,788.82)	15,885.47 (7,903.44)	18,844.77 (10,941.06)	19.97***	1>2,1>3, 2>3, 2>4, 3<4
Saccade count[b]	108.02 (51.04)	132.46 (53.29)	87.56 (38.98)	102.38 (48.32)	26.68***	1<2, 1>3, 2>3, 2>4, 3<4
Saccade velocity[b] (in °/s)	13,283.24 (7,845.01)	16,119.71 (7,195.53)	10,545.82 (5,130.23)	12,580.25 (6,923.97)	19.11***	1>2, 1>3, 2>3, 2>4, 3<4
Scanpath (in px) [b]	27,201.84 (11,867.71)	33,617.06 (12,460.59)	21,987.81 (9,402.53)	27,105.69 (13,366.46)	27.47***	1<2, 1>3, 2>3, 2>4, 3<4
Pupillary diameter[b]	3.46 (.52)	3.48 (.49)	3.50 (.49)	3.52 (.49)	20.60***	1<2, 1<3, 1<4, 2<3, 2<4, 3<4

[a]Friedman test for differences among repeated measures
[b]Repeated measures ANOVA
Significant at ***p<.001,**p<.01,*p<.05

7. General discussion

Ample research has investigated dual-process accounts, unethical behavior and ethical behavior, but to the best of our knowledge, none have attempted to tie this knowledge together by studying these topics jointly. The domain of moral cognition is becoming increasingly multidisciplinary and the need for a general unified theory on moral judgment and decision making has become more important. This paper set out to investigate whether different types of processes drive ethical versus unethical judgment and which types of processing is involved. Based on the literature, we proposed that unethical behavior is more likely to be driven by Type 1 processing (i.e. a diverse set of autonomous processes that do not rely on working memory and are associated with intuition, intuition and learned, automated processes and ethical behavior is more likely to be driven by Type 2 processing (i.e. a type of processing that relies heavily on working memory and is associated with cognitive decoupling, hypothetical thinking and thus with deliberate and controlled cognitive

processes). Our studies provide evidence for these claims and provide a general framework that can help guide future research and hypothesis building.

In the first study we find that participants needed more time to judge ethical scenarios, even for short sentences describing basic, everyday behaviors. These findings show that people are more quick to recognize and consequently judge unethical behavior, compared to ethical behavior. This is not surprising due to the notion that recognizing unethical behavior is evolutionary speaking more advantageous. It is more important to be able to quickly recognize whether your neighbor is out to harm you rather than help you. This difficulty in recognizing ethical behavior could also be due to the ambiguous meaning and lack of definition of what constitutes ethical behavior. People will have less difficulty in defining unethical behavior than they will when defining ethical behavior. They may feel it in their gut when something is bad or good. What is experienced as 'bad' shows more overlap with what is 'unethical' than what is experienced as 'good' overlaps with 'ethical'. What is ethical goes further than just 'good', because 'good' for a person generally entails the things that are beneficial for the person himself, but not necessarily for society. Ethicality is a rational, artificial construction created by the modern human, whereas unethicality is description of unacceptable behavior that is felt on an ancestral, basal level.

This asymmetry sometimes extends to the importance that is attached to unethical versus ethical deeds. Research shows that consumers are generally intolerant to unethical abuses by retailers and consumers (Auger et al., 2008; Fullerton, Kerch, & Dodge, 1996; Steenhaut & Van Kenhove, 2005) but appear indifferent toward ethical practices of companies, as ethical efforts of companies are not rewarded by the consumers purchasing behavior (Aaker, Vohs, & Mogilner, 2010; Carrington et al., 2010; Luchs, Naylor, Irwin, & Raghunathan, 2010; White et al., 2012).

In the second study we replicate the finding that participants were slower to judge ethical scenarios compared to analogous unethical scenarios. Also, participants that were exposed to the ethical scenarios were less susceptible to framing effects, which is to be expected from people relying on a more analytic processing that is characteristic to Type 2 processing (McElroy & Seta, 2003). We also did not find significant correlations between the self-reported scales and participants' reaction times. This could point towards the possibility that these processes manifest at a subconscious level outside the participant's awareness. But it must also be stressed that null-results do not carry conclusive implications and more research into the matter is necessary.

The third study teases out the differences in Type 1 and Type 2 processing by overtaxing the participants working memory during their decision making in four morally laden dilemmas. Cognitive load in the form of a digit task hampered decision making in the ethical personal dilemma by significantly slowing down reaction times, whereas decision making in the unethical personal dilemma was not negatively affected by cognitive load. Moreover, participants reacted even faster compared to the no-load condition. No differences were found however in the impersonal unethical and ethical dilemmas. This result is in line with previous research (Greene et al., 2004; Greene et al., 2001) which did not find any differences for impersonal unethical dilemmas and concluded that impersonal dilemmas are more similar to non-moral dilemmas. This could be because the impersonal dilemmas do not involve grave, life-threatening matters in which the decision to be made is pressing. In that sense impersonal dilemmas are less likely than personal dilemmas to elicit strong reactions that expose differences more clearly.

The final study tracked participants eye movements and pupil diameters while reading and deciding upon the four morally laden dilemmas from Study 3. The number of fixations and saccades was higher, in the unethical compared to the ethical dilemmas. The fixations were longer and more dispersed and saccades were faster for the unethical compared to the ethical dilemmas. Finally, pupil diameter was larger for the unethical dilemmas. It appears as if information was inspected more superficially, hastily and repeatedly in the unethical dilemmas, which could point towards the possibility that a more immediate, spontaneous information search and processing strategy was used for the unethical dilemmas. However, the longer fixation durations for the unethical dilemmas could be an indication of higher involvement (Behe, Bae, Huddleston, & Sage, 2015; Holmqvist, Nÿstrom, Andersson, & van de Weijer, 2011; Kennedy, 2016). Smaller pupil sizes for the ethical dilemmas on the other hand could be an indication for a more effortful processing style, but this metric is subject to debate as a conclusive measure for cognitive effort (Barral, 2016; Querino et al., 2015), because it could also be an indication of emotional arousal or involvement (Bradley et al., 2008). At this point it is difficult (if not impossible) to conclusively link these eye tracking metrics to Type 1 or Type 2 processing, but what these exploratory results do reveal is that ethical and unethical information is inspected and processed differently. The results also show that involvement and emotional arousal could possibly play a role but they do not provide a decisive verdict how and where they exert influence.

Purely rational models of moral reasoning that dismiss the role of emotion (Kohlberg, 1969; Turiel, 1983) have been amply disproved by neuroscientific studies on the neural correlates of moral judgment (Bertsch et al., 2013; Greene, 2011; Greene & Haidt, 2002; Nomi et al., 2008; Seitz et al., 2006). There is a general consensus that moral judgment and decision making is the result of a complex interplay between emotion and cognitive reasoning, but less consensus exists on how and where emotions play a role in moral judgment, both ethical and unethical. Emotions can be used as input in a decision or as a means of signaling moral significance or importance. According to Horberg, Oveis, and Keltner (2011) emotions help people prioritize decisions in dilemmas that involve conflicting moral norms. Others have found a positive link between emotional arousal and the probability of making deontological judgments (Szekely & Miu, 2015; Tassy et al., 2011). Conversely, the social-intuitionist approach states that moral judgment stems from a moral intuition and emotion and that moral reasoning is a post hoc construction that is generated after the judgment has been reached (Haidt, 2001). In light of our findings, perhaps emotions enter at different moments during ethical and unethical judgment. As ethical judgment relies more on Type 2 processing, emotions could serve as input along with several other elements of the ethical situation that are under consideration. During unethical judgment, emotions could come into play at a much earlier stage, at the base of gut feelings that could influence Type 1 processing.

8. Limitations and future research

Some limitations should be noted. Firstly, most results are based mainly on reaction times and are merely correlational. They do not provide conclusive evidence for causality. Prolonged reaction times could also be a reflection of the engagement of other, nonspecific mental processes such as visual processing or motor responding, especially when using tasks that impose cognitive load. In Study 3 a concurrent digit task was employed, but this could have activated other unwanted processes. Future research should replicate results using several types of cognitive load tasks that activate different other areas in the brain while imposing cognitive load, some relying on spatial memory, such as the dot memory task (Trémolière, De Neys, & Bonnefon, 2014), memorization of words, such as the operation span task or Gospan test (de Neys, 2006), the memorization of numbers, such as the digit span tasks, or time pressure. Second, in the vein of the findings of Greene et al. (2008), in which they found that it is possible that Type 2 processing may take place for unethical judgment, it is also possible that Type 1 processing may occur for ethical judgment. For instance if there is a strong personal involvement, or for people who bolster strong, outspoken

norms and principles regarding ethical behavior or uphold strong values of benevolence or universalism (Yoon et al., 2006). Third, this paper did not include the role of emotion, even though emotion makes up a vital aspect of moral judgment and decision making. Future research on the application of dual-processes should seek to incorporate the role of emotion. Fourth, we did not find gender-effects in our studies, but literature suggest that the gender effect on moral judgment is contingent on the differential use of double standards depending on the type of (un)ethical behavior under scrutiny (Vermeir & Van Kenhove, 2008). Since literature on gender effects on ethical judgment are somewhat mixed (Craft, 2013; O'Fallon & Butterfield, 2005), more research into in what type of dilemma or context possible gender effects could occur is necessary. Fifth, this paper was the first to venture into the use of eye-tracking for investigating moral judgment. There are certainly limitations in the use of this methodology with respect to investigating judgment processing. Although eye tracking can generate a great deal of data, it is still a '*black box'* method. We know what information is inputted and we can observe the resulting output, but this method cannot provide conclusive process evidence, since many alternative explanations exist for e.g. fixation duration and pupil dilation. Future research could triangulate eye tracking results with reaction time data and fMRI results (high spatial resolution) or EEG results (high temporal resolution).

Lastly, since to date, no ethical dilemmas have been devised, further research is needed to validate the use of ethical dilemmas. The dilemmas used may differ on more than the degree of ethicality versus unethicality as they differ considerably in context, e.g. there is a dilemma which takes place in a job-related context (*Scholarships*), survival context (*Life boat*), recreational context (*Game show*) and medical context (*Vaccine*). Moreover, people are more likely to be confronted with a dilemma similar to the *Scholarships* dilemma in real-life than with the other dilemmas, which could have also influenced response times. On the other hand, we have attempted to keep the level of severity (life threatening versus financial repercussions) and the nature of required action (indirect versus direct physical contact) constant over the personal versus impersonal and ethical versus unethical dilemmas. This issue is also prevalent in the items of Study 1, which also differ considerably in context and hence are not directly comparable. Future research could focus on keeping the context constant, for instance by negating certain behaviors within the same context (e.g. recycling versus littering).

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10. Appendices

Appendix A.

Overview of existing personal and impersonal moral dilemmas as collected and categorized by Greene e.a. (2008).

Impersonal Dilemmas

1. Standard Trolley (Foot, 1978; Thomson, 1986): You are at the wheel of a runaway trolley quickly approaching a fork in the tracks. On the tracks extending to the left is a group of five railway workmen. On the tracks extending to the right is a single railway workman. If you do nothing the trolley will proceed to the left, causing the deaths of the five workmen. The only way to avoid the deaths of these workmen is to hit a switch on your dashboard that will cause the trolley to proceed to the right, causing the death of the single workman. Is it appropriate for you to hit the switch in order to avoid the deaths of the five workmen?

2. Standard Fumes (Thomson, 1986): You are the late-night watchman in a hospital. Due to an accident in the building next door, there are deadly fumes rising up through the hospital's ventilation system. In a certain room of the hospital are three patients. In another room there is a single patient. If you do nothing the fumes will rise up into the room containing the three patients and cause their deaths. The only way to avoid the deaths of these patients is to hit a certain switch, which will cause the fumes to bypass the room containing the three patients. As a result of doing this the fumes will enter the room containing the single patient, causing his death.

3. Donation (Unger, 1996): You are at home one day when the mail arrives. You receive a letter from a reputable international aid organization. The letter asks you to make a donation of two hundred dollars to their organization. The letter explains that a two hundred-dollar donation will allow this organization to provide needed medical attention to some poor people in another part of the world. Is it appropriate for you to not make a donation to this organization in order to save money?

4. Vaccine Policy (Baron, 1988): You work for the Bureau of Health, a government agency. You are deciding whether or not your agency should encourage the use of a certain recently developed vaccine. The vast majority of people who take the vaccine develop an immunity to a certain deadly disease, but a very small number of people who take the vaccine will actually get the disease that the vaccine is designed to prevent. All the available evidence, which is very strong, suggests that the chances of getting the disease due to lack of vaccination are much higher than the chances of getting the disease by taking the vaccine. Is it appropriate for you to direct your agency to encourage the use of this vaccine in order to promote national health?

5. Environmental Policy A1: You are a member of a government legislature. The legislature is deciding between two different policies concerning environmental hazards. Policy A has a 90% chance of causing no deaths at all and has a 10% chance of causing 1000 deaths. Policy B has a 92% chance of causing no deaths and an 8% chance of causing 10,000 deaths. Is it appropriate for you to vote for Policy A over Policy B?

6. Environmental Policy A2: You are a member of a government legislature. The legislature is deciding between two different policies concerning environmental hazards. Policy A has a 90% chance of causing no deaths at all and has a 10% chance of causing 1000 deaths. Policy B has an 88% chance of causing no deaths and a 12% chance of causing 10 deaths. Is it appropriate for you to vote for Policy B over Policy A?

7. Sculpture (Baron, 1988): You are visiting the sculpture garden of a wealthy art collector. The garden overlooks a valley containing a set of train tracks. A railway workman is working on the tracks, and an empty runaway trolley is heading down the tracks toward the workman. The only way to save the workman's life is to push one of the art collector's prized sculptures down into the valley so that it will roll onto the tracks and block the trolley's passage. Doing this will destroy the sculpture. Is it appropriate for you to destroy the sculpture in order to save this workman's life?

8. Speedboat (Baron, 1988): While on vacation on a remote island, you are fishing from a seaside dock.

You observe a group of tourists board a small boat and set sail for a nearby island. Soon after their departure you hear over the radio that there is a violent storm brewing, a storm that is sure to intercept them. The only way that you can ensure their safety is to warn them by borrowing a nearby speedboat. The speedboat belongs to a miserly tycoon who would not take kindly to your borrowing his property. Is it appropriate for you to borrow the speedboat in order to warn the tourists about the storm?

9. Guarded Speedboat (Unger, 1996): While on vacation on a remote island, you are fishing from a seaside dock. You observe a group of tourists board a small boat and set sail for a nearby island. Soon after their departure you hear over the radio that there is a violent storm brewing, a storm that is sure to intercept them. The only way that you can ensure their safety is to warn them by borrowing a nearby speedboat. The speedboat belongs to a miserly tycoon who has hired a fiercely loyal guard to make sure that no one uses his boat without permission. To get to the speedboat you will have to lie to the guard. Is it appropriate for you to lie to the guard in order to borrow the speedboat and warn the tourists about the storm?

10. Five-for-Seven Trolley (Foot, 1978; Thomson, 1986): You are at the wheel of a runaway trolley quickly approaching a fork in the tracks. On the tracks extending to the left is a group of five railway workmen. On the tracks extending to the right is a group of seven railway workmen. If you do nothing the trolley will proceed to the left, causing the deaths of the five workmen. The only way to save these workmen is to hit a switch on your dashboard that will cause the trolley to proceed to the right, causing the deaths of the seven workmen on the other side. Is it appropriate for you to hit the switch in order to avoid the deaths of the five workmen?

11. Three-for-Seven Fumes (Thomson, 1986): You are the late-night watchman in a hospital. Due to an accident in the building next door, there are deadly fumes rising up through the hospital's ventilation system. In a certain room of the hospital are three patients. In another room there are seven patients. If you do nothing the fumes will rise up into the room containing the three patients and cause their deaths. The only way to save these patients is to hit a certain switch, which will cause the fumes to bypass the room containing the three people. As a result of doing this the fumes will enter the room containing the seven patients, causing their deaths. Is it appropriate for you to hit the switch in order to avoid the deaths of the three patients?

12. Resume: You have a friend who has been trying to find a job lately without much success. He figured that he would be more likely to get hired if he had a more impressive resume. He decided to put some false information on his resume in order to make it more impressive. By doing this he ultimately managed to get hired, beating out several candidates who were actually more qualified than he. Was it appropriate for your friend to put false information on his resume in order to help him find employment?

13. Taxes: You are the owner of a small business trying to make ends meet. It occurs to you that you could lower your taxes by pretending that some of your personal expenses are business expenses. For example, you could pretend that the stereo in your bedroom is being used in the lounge at the office, or that your dinners out with your wife are dinners with clients. Is it appropriate for you to pretend that certain personal expenses are business expenses in order to lower your taxes?

14. Environmental Policy B1: You are a member of a government legislature. The legislature is deciding between two different policies concerning environmental hazards. Policy A has a 90% chance of causing no deaths at all and has a 10% chance of causing 1000 deaths. Policy B has a 92% chance of causing no deaths and an 8% chance of causing 10,000 deaths. Is it appropriate for you to vote for Policy B over Policy A?

15. Environmental Policy B2: You are a member of a government legislature. The legislature is deciding between two different policies concerning environmental hazards. Policy A has a 90% chance of causing no deaths at all and has a 10% chance of causing 1000 deaths. Policy B has a 88% chance of causing no deaths and a 12% chance of causing 10 deaths. Is it appropriate for you to vote for Policy A over Policy B?

16. Stock Tip: You are a management consultant working on a case for a large corporate client. You have access to confidential information that would be very useful to investors. You have a friend who plays the stock market. You owe this friend a sizable sum of money. By providing her with certain confidential information you could help her make a lot of money, considerably more than you owe her. If you did this, she would insist on

canceling your debt. Releasing information in this way is strictly forbidden by federal law. Is it appropriate for you to release this information to your friend so that she will cancel your debt?

17. Illegal Lunch: You are a lawyer working on a big case. The judge presiding over the trial happens to be someone you knew from law school. The two of you were rather friendly back then, but now, decades later, it seems that your old friend barely remembers you. You're quite sure that if you were to talk to him over lunch, you could jog his memory and he would begin to see you as an old buddy, which would be very good for your work on this case. It's illegal for judges and lawyers working on the same case to meet socially. Is it appropriate for you to meet with this judge socially in order to help you win your case?

18. Lost Wallet: You are walking down the street when you come across a wallet lying on the ground. You open the wallet and find that it contains several hundred dollars in cash as well the owner's driver's license. From the credit cards and other items in the wallet it's very clear that the wallet's owner is wealthy. You, on the other hand, have been hit by hard times recently and could really use some extra money. You consider sending the wallet back to the owner without the cash, keeping the cash for yourself. Is it appropriate for you to keep the money you found in the wallet in order to have more money for yourself?

Personal Moral Dilemmas

1. Transplant (Thomson, 1986): You are a doctor. You have five patients, each of whom is about to die due to a failing organ of some kind. You have another patient who is healthy. The only way that you can save the lives of the first five patients is to transplant five of this young man's organs (against his will) into the bodies of the other five patients. If you do this, the young man will die, but the other five patients will live. Is it appropriate for you to perform this transplant in order to save five of your patients?

2. Footbridge (Thomson, 1986): A runaway trolley is heading down the tracks toward five workmen who will be killed if the trolley proceeds on its present course. You are on a footbridge over the tracks, in between the approaching trolley and the five workmen. Next to you on this footbridge is a stranger who happens to be very large. The only way to save the lives of the five workmen is to push this stranger off the bridge and onto the tracks below where his large body will stop the trolley. The stranger will die if you do this, but the five workmen will be saved. Is it appropriate for you to push the stranger on to the tracks in order to save the five workmen?

3. Country Road (Unger, 1998): You are driving along a country road when you hear a plea for help coming from some roadside bushes. You pull over and encounter a man whose legs are covered with blood. The man explains that he has had an accident while hiking and asks you to take him to a nearby hospital. Your initial inclination is to help this man, who will probably lose his leg if he does not get to the hospital soon. However, if you give this man a lift, his blood will ruin the leather upholstery of your car. Is it appropriate for you to leave this man by the side of the road in order to preserve your leather upholstery?

4. Architect: You are a young architect visiting one of your construction sites with your boss. Your boss is a despicable individual who makes everyone around him miserable including you. It occurs to you that if you were to push him off of the building you are inspecting he would fall to his death and everyone would think it was an accident. Is it appropriate for you to push your boss off of the building in order to get him out of your life?

5. Hard Times: You are the head of a poor household in a developing country. Your crops have failed for the second year in a row, and it appears that you have no way to feed your family. Your sons, ages eight and ten, are too young to go off to the city where there jobs, but your daughter could fare better. You know a man from your village who lives in the city and who makes sexually explicit films featuring small children such as your daughter. He tells you that in one year of working in his studio your daughter could earn enough money to keep your family fed for several growing seasons. Is it appropriate for you to employ your daughter in the child pornography industry in order to feed your family?

6. Smother for dollars: You are in hospital lounge waiting to visit a sick friend. A young man sitting next to you explains that his father is very ill. The doctors believe that he has a week to live at most. He explains further that his father has a substantial life insurance policy that expires at midnight. If his father dies before midnight, this young man will receive a very large sum of money. He says that the

money would mean a great deal to him and that no good will come from his father's living a few more days. He offers you half a million dollars to go up to his father's room and smother his father with a pillow. Is it appropriate for you to kill this man's father in order to get money for yourself and this young man?

7. Crying Baby: Enemy soldiers have taken over your village. They have orders to kill all remaining civilians. You and some of your townspeople have sought refuge in the cellar of a large house. Outside you hear the voices of soldiers who have come to search the house for valuables. Your baby begins to cry loudly. You cover his mouth to block the sound. If you remove your hand from his mouth his crying will summon the attention of the soldiers who will kill you, your child, and the others hiding out in the cellar. To save yourself and the others you must smother your child to death. Is it appropriate for you to smother your child in order to save yourself and the other townspeople?

8. Plane Crash: Your plane has crashed in the Himalayas. The only survivors are yourself, another man, and a young boy. The three of you travel for days, battling extreme cold and wind. Your only chance at survival is to find your way to small a village on the other side of the mountain, several days away. The boy has a broken leg and cannot move very quickly. His chances of surviving the journey are essentially zero. Without food, you and the other man will probably die as well. The other man suggests that you sacrifice the boy and eat his remains over the next few days. Is it appropriate to kill this boy so that you and the other man may survive your journey to safety?

9. Hired Rapist: You have been dissatisfied with your marriage for several years. It is your distinct impression that your wife no longer appreciates you. You remember how she appreciated you years ago when you took care of her after she was mugged. You devise the following plan to regain your wife's affection. You will hire a man to break into your house while you are away. This man will tie up your wife and rape her. You, upon hearing the horrible news, will return swiftly to her side, to take care of her and comfort her, and she will once again appreciate you. Is it appropriate for you to hire a man to rape your wife so that she will appreciate you as you comfort her?

10. Grandson: A young boy is visiting his grandmother for the weekend. Usually she gives him a gift of a few dollars when he arrives, but this time she doesn't. He asks her why not and she says something about how he doesn't write her as many letters as he used to. Angered by this, the boy decides to play a trick on her. While his grandmother is busy cooking he removes a handful of pills from the medicine cabinet and puts them in his grandmother's teapot. Later that night, she makes her tea, and the dissolved pills make her sick. In the morning she is dead. Was it appropriate for this boy to put pills in his grandmother's teapot in order to play a trick on her?

11. Infanticide: You are a fifteen-year-old girl who has become pregnant. By wearing loose clothing and deliberately putting on weight you have managed to keep your pregnancy a secret. One day, while at school, your water breaks. You run to the girls locker room and hide for several hours while you deliver the baby. You are sure that you are not prepared to care for this baby. You think to yourself that it would be such a relief to simply clean up the mess you've made in the locker room, wrap the baby in some towels, throw the baby in the dumpster behind the school, and act as if nothing had ever happened. Is it appropriate for you to throw your baby in the dumpster in order to move on with your life?

12. Lifeboat 2: You are on a cruise ship when there is a fi re on board, and the ship has to be abandoned. The lifeboats are carrying many more people than they were designed to carry. The lifeboat you're in is sitting dangerously low in the water—a few inches lower and it will sink. The seas start to get rough, and the boat begins to fill with water. If nothing is done it will sink before the rescue boats arrive and everyone on board will die. However, there is an injured person who will not survive in any case. If you throw that person overboard the boat will stay afloat and the remaining passengers will be saved. Is it appropriate for you to throw this person overboard in order to save the lives of the remaining passengers?

13. Preventing the Spread 2: You are a waiter. You overhear one of your customers say that he is about to go to jail and that in his last forty-eight hours of freedom he plans to infect as many people as possible with HIV. You know him well enough to know that he is telling the truth and that he has access to many potential victims. You happen to know that he has a very strong allergy to poppy

seeds. If he eats even one he will go into convulsions and have to be hospitalized. for at least forty-eight hours. Is it appropriate for you to cause this man to have a serious allergy attack in order to prevent him from spreading HIV?

14. Ecologists: You are part of a group of ecologists who live in a remote stretch of jungle. The entire group, which includes eight children, has been taken hostage by a group of paramilitary terrorists. One of the terrorists takes a liking to you. He informs you that his leader intends to kill you and the rest of the hostages the following morning. He is willing to help you and the children escape, but as an act of good faith he wants you to kill one of your fellow hostages whom he does not like. If you refuse his offer all the hostages including the children and yourself will die. If you accept his offer then the others will die in the morning but you and the eight children will escape. Is it appropriate for you to kill one of your fellow hostages in order to escape from the terrorists and save the lives of the eight children?

15. Bomb 2: You are negotiating with a powerful and determined terrorist who is about to set off a bomb in a crowded area. Your one advantage is that you have his teen-age son in your custody. There is only one thing that you can do to stop him from detonating his bomb, which will kill thousands of people if detonated. To stop him, you must contact him over the satellite hook-up that he has established and, in front of the camera, break one of his son's arms and then threaten to break the other one if he does not give himself up. Is it appropriate for you to break the terrorist's son's arm in order to prevent the terrorist from killing thousands of people with his bomb?

16. Submarine: You are the captain of a military submarine travelling underneath a large iceberg. An onboard explosion has caused you to lose most of your oxygen supply and has injured one of your crew who is quickly losing blood. The injured crew member is going to die from his wounds no matter what happens. The remaining oxygen is not sufficient for the entire crew to make it to the surface. The only way to save the other crew members is to shoot dead the injured crew member so that there will be just enough oxygen for the rest of the crew to survive. Is it appropriate for you to kill the fatally injured crew member in order to save the lives of the remaining crew members?

17. Lawrence of Arabia: You are the leader of a small army that consists of warriors from two tribes, the hill tribe and the river tribe. You belong to neither tribe. During the night a hill tribesman got into an argument with a river tribesman and murdered him. The river tribe will attack the hill tribe unless the murderer is put to death, but the hill tribe refuses to kill one of its own warriors. The only way for you to avoid a war between the two tribes that will costs hundreds of lives is to publicly execute the murderer by cutting off is head with your sword. Is it appropriate for you to cut off this man's head in order to prevent the two tribes from fighting a war that will cost hundreds of lives?

18. Sophie's Choice: It is wartime and you and your two children, ages eight and five, are living in a territory that has been occupied by the enemy. At the enemy's headquarters is a doctor who performs painful experiments on humans that inevitably lead to death. He intends to perform experiments on one of your children, but he will allow you to choose which of your children will be experimented upon. You have twenty-four hours to bring one of your children to his laboratory. If you refuse to bring one of your children to his laboratory he will find them both and experiment on both of them. Is it appropriate for you to bring one of your children to the laboratory in order to avoid having them both die?

19. Sacrifice: You, your husband, and your four children are crossing a mountain range on your return journey to your homeland. You have inadvertently set up camp on a local clan's sacred burial ground. The leader of the clan says that according to the local laws, you and your family must be put to death. However, he will let yourself, your husband, and your three other children live if you yourself will kill your oldest son. Is it appropriate for you to kill your oldest son in order to save your husband and your other three children?

20. Vitamins (Unger, 1998): You are the leader of a mountaineering expedition that is stranded in the wilderness. Your expedition includes a family of six that has a genetically caused vitamin deficiency. A few people's kidneys contain large amounts of this vitamin. There is one such person in your party. The only way to save the lives of the six members of this family is to remove one of this man's kidneys so that the necessary vitamins may be extracted from it. The man will not die if you do this, but his health will be compromised. The man is opposed to this plan, but you have the power to do as you see

fi t. Is it appropriate for you to forcibly remove this man's kidney in order to save the lives of the six vitamin-deficient people?

21. Vaccine Test A: viral epidemic has spread across the globe killing millions of people. You have developed two substances in your home laboratory. You know that one of them is a vaccine, but you don't know which one. You also know that the other one is deadly. Once you figure out which substance is the vaccine you can use it to save millions of lives. You have with you two people who are under your care, and the only way to identify the vaccine is to inject each of these people with one of the two substances. One person will live, the other will die, and you will be able to start saving lives with your vaccine. Is it appropriate for you to kill one of these people with a deadly injection in order to identify a vaccine that will save millions of lives?

22. Euthanasia: You are the leader of a small group of soldiers. You are on your way back from a completed mission deep in enemy territory when one of your men has stepped in trap that has been set by the enemy and is badly injured. The trap is connected to a radio device that by now has alerted the enemy to your presence. They will soon be on their way. If the enemy finds your injured man they will torture him and kill him. He begs you not to leave him behind, but if you try to take him with you your entire group will be captured. The only way to prevent this injured soldier from being tortured is to shoot him yourself. Is it appropriate for you to shoot this soldier in order to prevent him from being tortured by the enemy?

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Appendix B.

Structure of moral dilemmas used in studies 3 and 4.

SCENARIOS		UNETHICAL		ETHICAL		Severity
		Inaction	Action	Inaction	Action	
	Trade-offs	Consequences are worse but there is no personal accountability	Consequences are better but there is personal accountability	Consequences are less optimal but there is no personal cost	Consequences are better but at a personal cost	
Personal		**Life boat**		**Vaccine**		
	Consequence	Multiple people die	One person dies	Less people get cured	A vaccine is developed and every sick person gets cured	Physical ~people can die
	Accountability/ personal cost	None	Murder	None	Permanent scars	
Impersonal		**Scholarships**		**Game show**		
	Consequence	The underprivileged student can only go to college for one semester	The underprivileged student gets a full scholarship	One child is aided temporarily	One child is aided for good	Financial ~people in need
	Accountability/ personal cost	None	Theft	None	Loss of face	

CHAPTER III:
ONE SAIL FITS ALL? A PSYCHOGRAPHIC SEGMENTATION OF DIGITAL PIRATES

CHAPTER III:
ONE SAIL FITS ALL? A PSYCHOGRAPHIC SEGMENTATION OF DIGITAL PIRATES

Abstract

This paper focuses on segmenting digital movie and TV series pirates and on investigating the effectiveness of piracy-combatting measures i.e., legal and educational strategies, in light of these segments. To address these research objectives, two online studies were conducted. First, 1277 valid responses were gathered with an online survey. Four pirate segments were found based on differing combinations of attitude toward piracy, ethical evaluation of piracy and feelings of guilt. The anti-pirate, conflicted pirate, cavalier pirate, and die-hard pirate can be placed on a continuum of increasing pirating frequency, subjective norm, pirating self-efficacy, habit, and decreasing in perceived harm, respectively. The segments also differ in deontological and teleological orientations. Second, in an experimental mixed design, we find that the educational strategy is more effective than the legal strategy in lowering pirating intentions for the conflicted and cavalier pirate. However, both strategies fail at lowering intentions of the die-hard pirate, although perceived harm and perceived impunity were significantly influenced. These findings offer a more profound understanding of pirate segments and how they react differently to piracy-combatting measures. As a result, better strategies can be developed to control digital piracy.

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1. Introduction

Piracy, viz., the unauthorized use of intellectual property, is not a recent phenomenon. The difference between people taping a movie on TV on VHS and people downloading all of the seasons of their favorite TV show onto their hard drive lies in the scale on which this activity currently occurs (Johns, 2009). However, due to the damage and loss of revenue, this development has been regarded with great discontent by the intellectual property protection industry. According to the RIAA (Recording Industry Association America), piracy produces an annual estimated cost of 12.5 billion dollar to the American economy (RIAA, 2014; Siwek, 2007) and an estimated annual cost of 6.1 billion dollars to the movie industry, according to a study by L.E.K. Consulting (LEK, 2006) funded by the MPAA (Motion Picture Association of America). However, some authors claim that a precise assessment of actual economic loss from piracy is very difficult (Bialik, 2013; Plumer, 2012; Vany & Walls, 2007). Digital piracy is a form of unethical consumer behavior, i.e. norm-violating behavior that is harmful to others and/or society in general.

We define digital piracy in this study as the illegal procurement of infringed copyrighted digital media files by (Bit)Torrent downloading via P2P networks. We focus on the most widespread and mainstream form of digital piracy, more specifically that of movies and TV shows. In April 2011, the infamous BitTorrent indexing website *The Pirate Bay* started conducting studies in collaboration with the department of sociology of law at Lund University in Sweden and collected responses of 75.000 file-sharing users (Svensson et al., 2014). The data are freely available on their website, fittingly renamed "The Research Bay". Recent figures show that 44% of uploads contain movies and TV series, followed by 35% adult content and 9% music content; of which the latter has been on the decline (Ernesto, 2014). In spite of the availability of legal streaming alternatives such as Spotify and Netflix, tracking figures provided by ICM (Infringement Control Management) reveal that the proportion of consumers downloading illegally has remained static at 23% and are infringing more by volume (Bales, 2016). For definitions and descriptions of torrent downloading terminology, see appendix A.

Digital piracy is an intricate phenomenon, and literature focusing on antecedents or ethical components of digital piracy often tends to be contradictory. This paper is unique because it does not seek to find a general framework to understand "the pirate" but proposes that digital pirates make up a heterogeneous population. It aims to understand contradictory evidence in the piracy

literature by investigating the pirating population as a collection of idiosyncratic subgroups. First, in depth interviews were organized in order to fully grasp the full range of motivational factors that drive consumers towards digital piracy and to gauge their position towards the acceptability and ethicality of the matter. By means of an online survey, segmenting digital pirates is the focus of the second study. The current paper also contributes to the literature by investigating the effectiveness of piracy- combatting measures, i.e., the legal and educational strategy in light of these segments. In a mixed experimental design, the third study addresses this research objective. Ultimately, a more profound understanding can be established and better strategies can be developed to control digital piracy.

2. Literature overview and conceptual framework

The current piracy literature can be roughly partitioned into 3 main perspectives on piracy, namely a behavioral perspective, an ethical perspective and a descriptive perspective, although these perspectives may overlap. Unfortunately, much of the research on piracy tends to be contradictory. However, if indeed the population of digital pirates is heterogeneous, then these divergent findings may simply be the result of focusing on different pirate segments. Any segmentation should attempt to incorporate each of these perspectives, explain differences in pirating behavior and integrate these seemingly contradictory findings. The first section in the literature overview is provided to focus on finding potential candidate variables for segmentation and later profiling. The last section focuses on piracy-combatting measures.

2.1 Behavioral perspective

The theory of planned behavior (TPB) (Ajzen, 1991) is the most frequently used framework for understanding various forms of piracy (Al-Rafee & Cronan, 2006; Cronan & Al-Rafee, 2007; Holt & Copes, 2010; Kwong & Lee, 2002; Liao et al., 2009; Peace et al., 2003; Robertson et al., 2011; Wagner & Sanders, 2001). According to the theory of planned behavior, the occurrence of behavior is determined by intention, which in turn is influenced by one's attitude toward the behavior in question, subjective norms and perceived behavioral control. Perceived behavioral control pertains to one's beliefs regarding one's capacity to exert certain behavior (Ajzen, 1991). The application of the TPB to piracy has been confirmed for several forms of piracy. Attitude, subjective norms and perceived behavior control were found significant predictors of intention to illegally copy

software (Peace et al., 2003), purchase pirated goods (Ang et al., 2001), download music (Kwong & Lee, 2002; Plowman & Goode, 2009) and use pirated software (Liao et al., 2009).

Attitude

Of these constructs, attitude has been found to be most influential in predicting behavior (Beck & Ajzen, 1991; Trafimow & Finlay, 1996). A consistent finding in the piracy literature is a positive relationship between a positive, accepting attitude toward the act of illegal downloading and past, current and future downloading behavior (Chiou et al., 2005; d'Astous, Colbert, & Montpetit, 2005; Gopal et al., 2004; Kwong & Lee, 2002; Levin, Dato-on, & Rhee, 2004; Liao et al., 2009; Lysonski & Durvasula, 2008; Peace et al., 2003; Plowman & Goode, 2009; Wingrove, Korpas, & Weisz, 2010). In contrast to this unambiguous finding, less unity is found with respect to the antecedents of piracy attitudes. These antecedents range from singer idolization, perceived prosecution risk, perceived magnitude of consequences and social consensus (Chiou et al., 2005), to a lack of an equitable relationship (Kwong & Lee, 2002). Because several antecedents influence piracy attitudes, we expect to find differentiation in people's attitudes toward piracy. For that reason, we propose that attitude would be a suitable variable for segmentation.

Subjective norms

Subjective norms are a second important part of the TPB and encompass an individual's beliefs as to whether significant others or peers find such behavior acceptable (Ajzen, 1991; Conner & Armitage, 1998). Regarding this construct's role in the TPB, it would seem apparent that subjective norms should be included in a segmentation of digital pirates. However, given the positive relationship between attitudes and subjective norms (Al-Rafee & Cronan, 2006; Liao et al., 2009), including both constructs in the segmentation could be superfluous. Moreover, it is not advisable to include highly correlated variables in a segmentation (Hair, Black, Babin, & Anderson, 2010; Ketchen & Shook, 1996). In this case, the TPB construct could disproportionally influence the segmentation outcome. For this reason, subjective norms are not included as a variable for segmentation but as a variable for segment profiling.

Perceived behavioral control and self-efficacy

Finally, perceived behavioral control (PBC) refers to the extent to which one believes that his or her behavior is under control (Ajzen, 1989). There has been some difficulty in measuring PBC owing to the unclear definition of the concept and authors tend to interpret it differently (Kuo &

Hsu, 2001; Trafimow, Sheeran, Conner, & Finlay, 2002). Trafimow et al. (2002) found that PBC is, in fact, a mixture of two constructs: perceived control (the degree to which the behavior is perceived as one that can be performed voluntarily) and perceived facilitation (the difficulty of performing the behavior). More importantly, they found perceived facilitation to be a better predictor of intentions and behavior than perceived control.

Kuo and Hsu (2001) argued for the use of self-efficacy as an operationalization of PBC in the context of Internet ethics because it goes further than perceived facilitation, also covering skills, knowledge, and conviction (Bandura, 1997; Conner & Armitage, 1998). Self-efficacy not only reflects one's skill but also judgments of what one can do with whatever skills he or she possesses (Bandura, 1986, p. 391). For this reason, we henceforth opt to focus on the construct of self-efficacy.

The confidence and ability to perform the actions needed for digital piracy play a mediating role between intention and action. The degree of perceived expertise positively influences the intensity of illegal downloading (Chun-Yao, 2003; Hinduja & Higgins, 2011). Since most research has been cross-sectional, the causal relationship between pirating behavior and self-efficacy is unclear. People could engage in piracy more often because they are able to do so, or they may become skilled due to frequent practice (Ajzen, 1991; Conner & Armitage, 1998). Therefore, we will not include pirating self-efficacy as a variable for segmentation but as a variable for profiling the resulting segments.

Habitual patterns in digital piracy

The TPB is based on the premise that behavior is rational and consciously intentional. However, advocates of social cognitive theory (Bandura, 1991) argue that this may not always be the case. In the context at hand, one's intention to pirate could also be influenced by the formation of repeated, habitual behavior within the notion of deficient self-regulation (i.e., the extent to which a behavior is outside an individual's conscious control). Both LaRose and Kim (2007) and Jacobs, Heuvelman, Tan, and Peters (2012) observed a positive relationship between deficient self-regulation (which includes items relating to the degree to which habitual patterns exist) and pirating intentions and behavior.

Other scholars have measured habit strength by employing past piracy behavior (PPB) as a proxy (Coyle, Gould, Gupta, & Gupta, 2009; Cronan & Al-Rafee, 2007; Higgins et al., 2005; Levin et

al., 2007; Lysonski & Durvasula, 2008; Robertson et al., 2011), finding a significant positive relationship between PPB and either intention to pirate or actual pirating behavior. Though the two are closely related, we fail to recognize a direct connection between PPB and habit. For this reason, we will directly address habitual patterns in digital piracy in our study. To investigate whether and how pirates may differ in terms of habitual patterns, we include habit as a profiling variable.

2.2 Ethical perspective

In varying degrees in nations worldwide, downloading copyright infringing data is illegal; thus, engagement in online piracy can be considered deviant, noncompliant and even criminal consumer behavior. In this vein, researchers tend to associate illegal downloading with physical theft, arguing that it can be explained by the same motivators that drive traditional shoplifting (Shanahan & Hyman, 2010), and relate the willingness to pirate to the willingness to endorse in other morally questionable acts (Levin et al., 2004). Consequently, a common underlying assumption is that illegal downloaders possess less developed ethical standards (Chaudhry et al., 2011; Cronan & Al-Rafee, 2007; Gopal & Sanders, 1997; Gopal et al., 2004; Levin et al., 2007; Levin et al., 2004; Lysonski & Durvasula, 2008; Robertson et al., 2011; Tan, 2002; Thong & Chee-Sing, 1998).

Jambon and Smetana (2012) dispute the operationalization of ethical propensity as a general trait that determines how individuals arrive at the evaluation of ethical issues. They argue that researchers have employed measures that gauge an individual's ethical evaluation of acts that are unrelated to illegal downloading, such as withholding information about safety hazards, tax evasion or drinking a soda in the supermarket without paying for it (Gopal et al., 2004; Levin et al., 2004). Moreover, an increasing amount of research does not support the assumption that digital pirates display a lack of moral standards (Jambon & Smetana, 2012; Simpson, Banerjee, & Simpson, 1994). Al-Rafee and Cronan (2006) did not find that moral judgment proved a significant influence on attitude toward piracy. Furthermore, Lysonski and Durvasula (2008) found that ethical orientation was associated with the intention of stealing a CD from a store, but not with illegal downloading. These results indicate that an individual's specific ethical evaluation of digital piracy should perhaps be viewed separately from a general ethical disposition.

Ethical evaluation of digital piracy

The largest challenge possibly lies in the fact that some people simply do not consider piracy an ethical transgression (Bonner & O'Higgins, 2010; Coyle et al., 2009; Hinduja & Higgins, 2011; Jacobs et al., 2012; Moores & Chang, 2006; Robert, 2004; Shang, Chen, & Chen, 2007) and consider it more acceptable than other aberrant behavior (Freestone & Mitchell, 2004). Other pirates find themselves in an ambiguous position, while recognizing that it is not acceptable they would still recommend it to others (Altschuller & Benbunan-Fich, 2009). Therefore, on the one hand, they consider it an act of stealing, whereas on the other hand they perceive it as a harmless act (Jambon & Smetana, 2012; Levin et al., 2004). There appears to be a disconnection between ethical orientation and attitudes toward digital piracy (Altschuller & Benbunan-Fich, 2009; Bonner & O'Higgins, 2010; Chun-Yao, 2003; Lysonski & Durvasula, 2008). Moreover, despite recognizing that pirating is unethical, people may nonetheless engage in the behavior (Simpson et al., 1994). In view of these opposing findings, it is likely that a differentiation can be found in whether people consider piracy unethical. For that reason we propose to include ethical evaluation as a segmentation variable.

Guilt

Once an individual recognizes a certain behavior as unethical, self-regulatory mechanisms in the form of moral emotions such as guilt or shame may come into play. Guilt and shame may seem closely related, but there is a distinct difference between them: shame is focused on the self (e.g., "I *am* a horrible person"), whereas guilt is focused on the behavior in question (e.g., "I *did* a horrible thing") (Tangney & Dearing, 2002). These emotions also differ in how the individual copes with them. While guilt leads to attempts to rectify the norm-violating behavior (LaRose & Kim, 2007), shame results in emotion-focused coping (Antonetti & Maklan, 2014). Though understudied in piracy literature, guilt is generally the focus when self-regulatory emotions are included.

Cronan and Al-Rafee (2007) found that moral obligation (a three-item construct that included one item about guilt) was negatively correlated with the intention to pirate digital goods. They also found that 50.7% of their sample experienced feelings of guilt, a similar proportion to that found by Hinduja (2003) with regards to softlifting (i.e., pirating software). In contrast, Higgins et al. (2005) did not find a significant relationship between guilt and intention to pirate, and X. Wang and McClung (2012) reported that anticipated guilt predicted intentions only for frequent

downloaders, not for sporadic ones or non-downloaders. Due to these contrasting findings and the regulating properties of guilt with regards to unethical behavior (Nagin & Pogarsky, 2003, 2004), we expect to find a differentiation in the experience of guilt with respect to digital piracy. For that reason, we propose to include guilt as a segmentation variable.

Perceived harm

Intertwined with any ethical issue is the question of whether and to what extent a third party is harmed. Fullerton et al. (1996) found that the ethical evaluation of a situation is positively related to the recognition of its social and economic consequences. Similarly, Freestone and Mitchell (2004) observed that Generation Y consumers seemed more accepting of digital piracy, precisely because of their belief that they were not inflicting direct harm on sellers; they also claimed to be themselves victims of prices that were maintained at an artificially high level. Regardless, the premise that downloaders consider piracy a harmless activity is well-established in the literature (Chaudhry et al., 2011; Hinduja & Higgins, 2011; Jacobs et al., 2012; Jambon & Smetana, 2012; Levin et al., 2007; Levin et al., 2004; Lysonski & Durvasula, 2008; Nunes, Hsee, & Weber, 2004). Perceived harm is not included as a segmentation variable because of the possible confounding relationships between perceived harm and ethical evaluation (Fullerton et al., 1996) and between perceived harm and attitude (Freestone & Mitchell, 2004). However, we do expect to find differences in perceived harm when profiling the pirate segments.

Deontological and teleological orientation

It is interesting to investigate how digital pirates arrive at their ethical judgments. To the best of our knowledge, few authors have investigated the role of deontological (i.e., evaluating ethical issues based on moral rules) and teleological (i.e., evaluating ethical issues in light of the possible consequences of certain actions) orientations in the case of digital piracy.

Thong and Chee-Sing (1998) confirmed the application of the general theory of marketing ethics or Hunt-Vitell model (Hunt & Vitell, 1986, 2006) on the unauthorized use of copied software (i.e., softlifting). They concluded that, consistent with this model, IT professionals used both deontological and teleological evaluations to arrive at their ethical judgment on an issue. The Hunt-Vitell model also posits that teleological evaluations may directly affect intentions. It is thus possible that an individual may perceive a particular action as the most ethical alternative yet nonetheless opt for another alternative that yields more preferred consequences for the individual.

Thong and Chee-Sing (1998) did not find a significant direct effect of teleological evaluations on moral intention. This finding is unexpected, as the literature shows that people continue to pirate even if they consider doing so to be unethical (Simpson et al., 1994).

In a more recent study, Shang et al. (2007) investigated deontological and teleological evaluations of music sharing in a P2P environment but removed teleological evaluations from their analyses for methodological reasons. These studies (Shang et al., 2007; Thong & Chee-Sing, 1998) have certain limitations in the sense that their measures are scenario-dependent and do not gauge the core aspects of deontological and teleological reasoning directly, employing items such as "Based on my own values, without considering any possible consequences, I think Alternative 1 is very ethical" and "Based on the possible consequences, I think Alternative 1 is very ethical" for deontological and teleological evaluations, respectively.

In light of these methodological issues, we opt to explore whether and how the resulting segments differ in terms of a more general deontological and teleological orientation.

2.3 Descriptive perspective

Gender

Little consensus exists among researchers concerning the demographic composition of the digital pirate population. Robertson et al. (2011) did not find significant differences in gender with regard to the propensity to download illegally. This finding was replicated by Moores and Chang (2006). Conversely, Chaudhry et al. (2011) did find differences between men and women; they found that men are more inclined to pirate. This too has been replicated by a collection of authors (Al-Rafee & Cronan, 2006; Ang et al., 2001; Chiang & Assane, 2002; Coyle et al., 2009; Cronan & Al-Rafee, 2007; Gopal & Sanders, 1997; Hinduja, 2003; Hinduja & Higgins, 2011).

Age

Likewise, results of studies of the age of pirates have been mixed. Freestone and Mitchell (2004) found that Generation Y consumers are more permissive toward illegal downloading behavior. In their study, they defined consumers born between 1977 and 1993 (age 8 to 24 at the time of the study; see Freestone and Mitchell, 2014, p. 123) as Generation Y consumers, due to their experience with a changing retail environment, increased purchasing power, access to computers and the Internet during the greater part of their lifetime, and their relative homogeneity. Several

studies have confirmed the notion that younger consumers are more likely to pirate (Bhattacharjee, Gopal, & Sanders, 2003; Bonner & O'Higgins, 2010; Coyle et al., 2009; Gopal & Sanders, 1997; Higgins et al., 2005; Hinduja, 2003; Kwong & Lee, 2002; Lau, 2003; Mandel & Süssmuth, 2010; Moon, McCluskey, & McCluskey, 2010; Moores & Chang, 2006); however, the actual age boundaries differ among studies. Bonner and O'Higgins (2010) also argued that age, not merely one's status as a student (as opposed to being employed), impacts behavior. In light of these findings, we wish to investigate what differences, if any, exist between pirate segments with regard to gender, age, and employment.

Pirating frequency

Pirating frequency is generally the outcome variable of interest. In the literature, this variable is conceptualized as either pirating intentions or reported pirating frequency, depending on the study design. Digital consumers are usually segmented based on this behavior—e.g., between light, heavy, and non-downloaders (Levin et al., 2007; Plowman & Goode, 2009). Because we aim to explain differences in pirating frequency rather than building upon these differences, frequency will be included as a profiling variable, not a segmentation variable.

2.4 Segmentation framework

We propose to explore whether different pirate segments can be outlined based on differing combinations of attitude toward piracy, ethical evaluation of piracy, and experienced guilt associated with piracy.

Attitude provides valuable information about a person's general appraisal of the appropriateness of a certain behavior and is indispensable in any framework that aims to understand behavior (Ajzen, 1991). Although personal characteristics are included in the revised Hunt-Vitell model (Hunt & Vitell, 2006) and few studies of ethical behavior also incorporate attitude (Vitell, Singh, & Paolillo, 2007). Some researchers may not consider attitude in their models because they presume that attitude is correlated with ethical judgment, and therefore, considering an act unethical implies having a negative attitude toward that act. However, the literature suggests that attitude is not necessarily contingent on or related to ethical judgment. Several studies covering people's attitudes toward businesses, among other variables, and their ethical judgments regarding various questionable consumer actions have suggested a weak or even non-existent relationship between consumers' general attitude toward businesses and their ethical judgment in "no harm, no

foul" situations that include illegal downloading (Patwardhan, Keith, & Vitell, 2012; Vitell & Muncy, 1992; Vitell et al., 2007)). Hence, there is good reason to include both attitude and ethical evaluation as distinct factors.

Finally, experienced guilt is included as it functions as an inhibitory mechanism that might help to further differentiate pirate segments. According to the Hunt-Vitell model (Hunt & Vitell, 2006), people may engage in activities that they deem unethical when the outcomes are favorable for them, a phenomenon that we believe could be applicable to digital piracy (Simpson et al., 1994). Consequentially, guilt can arise whenever behavior is not in accordance with one's ethical judgment. Given the conflicting results in existing literature with respect to guilt and digital piracy, we consider it necessary to include experienced guilt in the segmentation.

To externally validate the resulting segmentation, we must confirm that the segments differ in aspects other than the ones used to perform the segmentation (Hair et al., 2010; Ketchen & Shook, 1996). Therefore, we explore whether the resulting segments also differ in terms of subjective norms, self-efficacy, habit, perceived harm, deontological and teleological orientation, gender, age, employment, and pirating frequency, thus, resulting in a more robust profiling. As an additional form of validation, we explore whether and how current measures taken to combat piracy affect the various pirate segments. The next section provides a brief overview of the piracy-combatting literature.

2.5 Piracy-combatting measures

Digital piracy is very difficult to eradicate due to the decentralized architecture of Bit Torrent networks, the fragmentary dissemination of infringed digital media files (see Appendix A), and the dynamic nature of the online community. Since high-quality movies or complete television series can contain up to several gigabytes, downloading and uploading entire media files from a single source is very time-consuming. The Bit Torrent protocol (i.e., torrent downloading) circumvents this problem by splitting the media file into separate chunks and disseminating it to members (i.e., the computers of downloaders or "peers") within a network or "swarm." In the swarm, each peer can serve as a distributor of chunks of media that he or she has stored on a computer (thus acting as a "seeder") and can simultaneously download chunks from other peers (thus acting as a "leecher"). The downloaded torrent file does not constitute the media file itself; in fact, it contains no media content at all but only information about the location of specific chunks of a media file

in the swarm ("metadata"). Metaphorically speaking, a torrent file resembles a road map that leads the torrent client (the software needed to engage in torrent downloading) to the location of each chunk of the media file. Once all the chunks have been downloaded, the torrent client sorts and reassembles the chunks into the original media file, which is now ready for the downloader to use. See Eger, Hossfeld, Binzenhofer, and Kunzmann (2007) for a detailed overview of the Bit Torrent protocol.

To thwart digital piracy, the entertainment industry has resorted to several strategies, including technological innovation (e.g., digital rights management), educational campaigns, legislation, and legal digital alternatives. However, there is little evidence that any of these methods have been effective in eradicating digital piracy (Gopal et al., 2004; Jeong & Khouja, 2013; T. Orme, 2014; Sinha & Mandel, 2008). Here we focus on the legal and educational approaches.

Legal strategy

To curb digital piracy, the entertainment industry has resorted to legal enforcement initially aimed at file-sharing services (such as Napster, Kazaa and Limewire) and at a later stage at end users (Electronic Frontier Foundation, 2008). This approach is consistent with deterrence theory, or the premise that a certain, severe, and immediate punishment will reduce criminal behavior (Williams & Hawkins, 1986). Meta-analyses have shown that the certainty of punishment, rather than severity, has a higher influence on the perceived cost of criminal behavior (Paternoster, 1987; Yu & Liska, 1993); this was confirmed in the context of software piracy by manipulating punishment certainty in a factorial design (Higgins et al., 2005). These findings inspire us to investigate whether the legal strategy has a positive effect on perceived certainty of punishment within all pirate segments.

Some people might not consider piracy a serious crime (Coyle et al., 2009; Freestone & Mitchell, 2004). Legislation can be confusing and differs from country to country. Additionally, due to processes of computer deindividuation (Kwong & Lee, 2002) and the prevalent notion that the virtual world exists separately from the physical world, with separate rules and norms (Johnston & Johal, 1999), people may tend not to view cybercrime as a matter of much gravity (Morrison, 1994). Because a legal strategy works only if respondents realize that what they are doing is in fact illegal, we investigate whether the legal strategy has a positive effect on perceived illegality within all pirate segments.

Ultimately, the goal is to reduce pirating behavior and intentions. Sinha and Mandel (2008) demonstrated that this strategy might be successful only for certain segments of consumers and might even be counterproductive for other consumers; that is, it could slightly *increase* the likelihood to pirate among individuals with a higher risk tolerance. We investigate whether perceived illegality is associated with reduced pirating behavior for the resulting pirate segments.

In sum, we are interested in whether and how the legal strategy impacts perceived impunity, perceived illegality, and downloading intentions for all pirate segments.

Educational strategy

The educational strategy takes a softer approach, aiming to influence behavior by increasing consumer awareness of the harm that piracy inflicts on the entertainment industry, on other stakeholders, and ultimately on consumers themselves (Chiu, Lin, Lee, Nieh, & Chen, 2008). Increasing awareness seems critical because most pirates do not believe that any harm is being inflicted (Chaudhry et al., 2011; Freestone & Mitchell, 2004; Hinduja & Higgins, 2011; Levin et al., 2004; Lysonski & Durvasula, 2008; Nunes et al., 2004), whereas perception of harm is negatively related to pirating intentions (Cockrill & Goode, 2012). Moreover, pirates might not even consider piracy an important matter to begin with, and a negative relationship between perceived importance and attitude exists (Al-Rafee & Cronan, 2006). Therefore, for an educational campaign to be effective, it should achieve a notable rise in the perception of inflicted harm and a decrease in the perception of triviality. For that reason, we explore whether the educational strategy positively influences perceived harm and negatively influences perceived triviality in all pirate segments.

A simulation study conducted by Jeong and Khouja (2013) indicated that the educational strategy is more effective when consumers are more resistant to anti-piracy measures. Gopal et al. (2004) did not find any effect of deterrent policies (stressing the legal consequences) on music piracy; their results suggest that an educational campaign would be more likely to reduce piracy. These findings inspire us to investigate whether the educational strategy negatively influences downloading intentions among all segments of pirates.

2.6 Approach

This paper describes three studies. The first studies explores motivational and moral aspects of digital pirates with in-depth interviews. The second study investigates (1) whether digital pirates

can be segmented by attitude toward piracy, ethical evaluation of piracy, and feelings of guilt and (2) whether this segmentation yields pirate subtypes who also differ in terms of pirating frequency, subjective norms, habit, pirating self-efficacy, perceived harm, and teleological and deontological orientation. The third study investigates whether and how pirate segments react to current piracy-combatting strategies. More specifically, we examine (1) whether and how the *legal strategy* influences perceived impunity, perceived illegality, and downloading intentions in the various pirate segments and (2) whether and how the *educational strategy* influences perceived triviality, perceived harm, and downloading intentions in various pirate segments. Ultimately, we assess which strategy is most effective in lowering downloading intentions.

3. Study 1

3.1 Sample characteristics

A total of 10 semi-structured in-depth interviews were conducted with Belgian respondents ranging from the age of 21 to 28. The sample comprises a majority of male participants (80%). However, this male preponderance should not pose an issue, since qualitative research focusses on developing an understanding of complex issues relating to human behavior rather than attaining representativeness and generalizability (Marshall, 1996). A maximum variance sample was opted which is designed to maximize diversity within the subjects. Subjects were recruited based upon their self-reported downloading frequencies and type of files downloaded, such as music, movies and/or TV shows. The sample is comprised of 3 self-reported low, 3 medium and 4 frequency downloaders. The data collection phase was concluded at the point of theoretical saturation (Glaser & Strauss, 2012).

3.2 Research method

In order to capture the complex nature of digital piracy conventional content analysis was adopted (Hsieh & Shannon, 2005). By use of conventional content analysis researchers immerse themselves in the data to allow new insights to emerge (Kondracki, Wellman, & Amundson, 2002) by gaining direct information from study participants without being influenced by preconceived theoretical perspectives (Hsieh & Shannon, 2005). A fixed topic guide containing open-ended questions was adopted for all participants, subsequent follow-up questions were posed, differing between interviews depending on the flow of the conversation. All interviews set off with broad questions

and gradually narrowed down to the topic of digital piracy, for the complete topic guide we refer to Appendix B.

3.3 Results

The qualitative research findings indicate a variety and gradation in attitudinal and ethical dispositions towards digital piracy. When it comes to digital piracy, it is not simply a matter of pro or con, rather there appears to be a complex interplay of various elements. Firstly, differences in ethical evaluations were found among subjects. When posing the question as to whether one considers digital piracy as a wrongful and immoral act, a range of diverging reactions were recorded. These reactions range from prudent acknowledgments such as "*but if you look at it purely technically, it's still a form of stealing* " and "*come to think of it, it's actually quite wrong*". Others evaluate conditionally, yet these conditions vary as well, e.g.: "*I don't consider it wrong for TV shows and movies, I do though for music*", "*For music not at all, movies a bit more*" or "*No, given that one would still purchase something or go to a concert at some point in time.* While others do not consider it wrong in the least, e.g.: "*No. Because we grew up with it, because everybody does it, basically because we take it for granted*." and "*No, these things should be accessible to everyone, just like knowledge, art and culture.*" Differences were also found in levels of guilt experienced, yet these differences did not seem to be solely contingent on whether they considered digital piracy as wrong. A person acknowledging piracy as a moral transgression nonetheless did not report feelings of guilt e.g. : "*In a way it's not completely right, but on the other hand, it doesn't really trouble me, I don't really care*". For other subjects feelings of guilt surfaced which were swiftly followed by some form of rationalization, e.g.: "*Well, now I feel guilty, but I do pay for Prime and Spotify, so I'm doing my best*" and "*So I bought their CD and for mind soothing reasons deleted the pirated MP3s from my computer*." For another person feelings of guilt were surpassed by the benefits of the act, e.g.: "*Convenience outweighs guilt. It's (piracy) just too easy to do.*"

Other, yet less salient differences were found in the degree to which subjects considered piracy as an unimportant, merely trivial matter, e.g.: "*I don't feel bad about it, it's something too trivial to feel guilty about*". Accordingly, variation in perceptions of the consequences and awareness of the consequences of digital piracy was found, e.g.: "*I don't think about the consequences for the artists, because it does not make a difference if one person does not buy something*" and "*No, I'm not*

going to feel bad about a big faceless corporation." Similarly to guilt, a subjects attitude towards piracy was not necessarily thwarted by the acknowledgment of piracy as immoral, when asked if they would continue downloading although they had previously stated that digital piracy was wrong , all subjects in question acquiesced. When inquiring for reasons as to why they pirate an almost ubiquitous similarity is the fact that they do it because it is free and for practical reasons such as not having to leave their house and the speed with which they are able to obtain the media files of their choosing, e.g.: "*I don't think people download just for the sake of downloading, they do it because they need something, and this is an easy way to get it*.". As a result of a long-term bond with digital piracy, some subjects take piracy for granted and consider it a natural thing they do, without questioning it, e.g.: "*We're used to it, and if I would win the lottery and become extremely rich, I would still continue downloading, it's just because we grew up with it, it's all we've ever known"* and *"it's so deeply incorporated in our generation and in the next one".* General agreement is also found in the acceptance of the activity by peers, downloading is by no means a taboo among their social circles, e.g.: "*Piracy is considered as very trivial among my friends, it is accepted and maybe even encouraged*". In addition, the subjects did not feel daunted by the law, a general impression of impunity was apparent as well as a varying knowledge concerning the judicial framework surrounding digital piracy. The interviews also yielded an increasingly strident call for a new business model which is more attuned to the needs of this generation, e.g.: "*I believe the industry should adapt their business model in order to meet the consumers' needs and not the other way around. […] Isn't that the basic principle of doing business? Listening to the consumers' needs and not taking them to court*." and "*The industry needs to change, they can't keep fighting this, people will always find a way to circumvent their bans".*

At the conclusion of the qualitative phase, it becomes clear that considering the whole fleet as a homogeneous mass might not do justice to reality. A noticeable divergence was found in ethical evaluation of the act and the same can be stated for experienced guilt. Interestingly, experienced guilt was not always contingent on ethical evaluation, in that sense that certain people who do consider piracy as an unethical act did not necessarily report feeling guilty. In addition, attitude also does not seem to be necessarily contingent upon ethical evaluation, a person can evaluate piracy as unethical yet still bear a positive attitude towards the act.

4. Study 2

4.1 Sampling

Most studies within the domain of piracy have used convenience samples, usually composed of college students. Because a high proportion of college students have been shown to pirate, they constitute a representative sample (Chun-Yao, 2003; Madden & Lenhart, 2003). However, a younger generation of pirates is arising (Chaudhry et al., 2011; Chiou et al., 2005; Freestone & Mitchell, 2004; Shang et al., 2007), and the previous generation remains active in pirating as well; because of the significant number of younger pirates, the minimum age for participation was set at 15 years. The questionnaire was conducted online, consistent with the medium under investigation. This mode of inquiry permitted full anonymity in order to minimize social desirability bias (Grimm, 2010). The link to this questionnaire was forwarded via university email to all students at a university and to an online university research panel; it was also disseminated via online learning platforms (such as Smartschool) in collaboration with local high schools and via social networks (for example, Facebook and Netlog). This outreach yielded 1,277 valid responses. When the questionnaire was administered, the participants' average age was 23.02 (SD = 6.62), with an average birth year of 1991. The age breakdown was as follows: 16.8% of respondents were age 15-18 (teenagers born between 1996 and 1999), 66.2% were age 19-25 (college-aged, born between 1989 and 1995), 10.3% were age 26-35 (young adults born between 1979 and 1988), and 6.7% were age 36-55 (adults born between 1959 and 1978). Of the sample population, 51.8% was female.

4.2 Instrument measures

Table 1 presents the items used, corresponding item means, construct means and internal consistency measures. Most constructs were gauged with a single-item measure. Scholars have advocated that measures consisting of one item can be practically as effective (Nagy, 2002; Russell et al., 2004; Stanton et al., 2002), have acceptable psychometric properties and therefore provide a viable alternative to multi-item scales (Bergkvist & Rossiter, 2007; Drolet & Morrison, 2001; Fuchs & Diamantopoulos, 2009). Bergkvist and Rossiter (2007) asserted that the use of single-item measures is appropriate if the object of the construct (which in this case relates to digital piracy) and its related attributes are "concrete singular," meaning that the object and attributes are uniformly and easily imagined in the minds of raters. Conversely, self-efficacy is a multifaceted, domain-specific construct and must be tailored to fit the particular purpose (Bandura, 1997, 2006).

To assess *pirating self-efficacy*, a scale was adapted as proposed in Bandura's (2006) guidelines for constructing domain-specific self-efficacy scales. The items were measured on a 7-point Likert scale ranging from 1 ("Completely disagree") to 7 ("Completely agree"). The scale consisted of eight items and was found to be highly reliable (Cronbach's $\alpha = .95$).

For *deontological and teleological orientation*, items were adapted from Tanner, Medin, and Iliev (2008). The respondents were first exposed to a hypothetical dilemma (see Appendix C) and then had to indicate which of the two proposed courses of action they preferred. After that, they were asked a set of deontological and teleological probes with respect to how they arrived at their decision. A principal component analysis with varimax rotation yielded a two-factor solution (KMO = .77, Bartlett's test of sphericity: χ^2 (28) = 892.04, $p < .01$; see Table 2). Two scales of four items each were found to be highly reliable (Cronbach's $\alpha = .75$ and .84 for deontological and teleological orientation, respectively).

Pirating behavior was operationalized as the frequency of pirating movies, television series and music, with nine choices: never (1), once a year (2), once every six months (3), once every three months (4), once a month (5), several times per month (6), once a week (7), several times per week (8), and daily (9).

All items used in the survey were formulated in a semantically neutral way to the extent possible. For example, the term "torrent downloading" was utilized instead of "illegal downloading" or "pirating" to avoid prompting the respondent to respond in a socially desirable manner. However, the introduction to the survey indicated (and footnotes throughout the survey reinforced) that this study concerned torrent downloading without financial reimbursement of copyright holders. Whenever the term "torrent downloading" was used in the survey, this description was displayed at the bottom of the page. A pretest confirmed respondents' understanding that this term implicitly referred to illegal downloading.

Table 1
Study 2: Items, means and internal consistency

	Item Mean	SD	Construct Mean	Cronbach Alpha
Segmentation variables				
Attitude				
I have a positive attitude towards torrent downloading.	4.98	1.53		
Ethical Evaluation				
Torrent downloading is unethical.	3.37	1.45		
Guilt				
I (would) feel guilty when downloading torrents.	2.61	1.52		
Profiling variables				
Pirating self-efficacy *(adapted scale from Bandura (2006))*			4.61	.95
I usually find the files I need.	5.13	1.62		
I am competent in torrent downloading.	4.24	2.03		
I am capable of avoiding viruses.	4.09	1.99		
I am capable of avoiding files of inferior quality.	4.24	1.99		
I generally understand how torrents work.	4.43	1.97		
I am capable of using downloading software (e.g. Bittorrent, Vuze,…).	4.68	2.05		
I know how to play downloaded files.	5.44	1.70		
When I download torrents, I don't have to think hard about how I have to do it.	4.60	2.05		
Subjective norm				
The people I find important in my life are accepting of torrent downloading.	5.41	1.28		
Habit				
Torrent downloading is a habit I already have for a long time.	4.33	1.92		
Perceived harm			4.14	.83
Torrent downloading hurts the music industry.	4.46	1.53		
Torrent downloading hurts the movie industry.	4.37	1.56		
Torrent downloading hurts retailers.	4.69	1.47		
Deontological evaluation *(adapted scale from Tanner et al.(2008)*				
I chose this option because…			4.31	.75
…this alternative is consistent with general principles/rules one has to follow.	4.45	1.56		
…I have a moral duty to select this alternative.	4.83	1.44		
…the other alternative is morally wrong.	3.78	1.73		
…some behaviors are definitely right or wrong, irrespective of the consequences.	4.18	1.47		
Teleological evaluation				
I chose this option because…			4.85	.84
… the positive outcomes outweigh the negative consequences.	4.82	1.46		
…this alternative offers the best possible outcome compared to the outcome of the other alternative.	4.83	1.41		
…this is the best alternative if you compare the advantages with the disadvantages.	4.77	1.58		
… this alternative can be justified by its outcomes.	4.98	1.36		

All items were measured on a 7-point Likert scale (1= "Completely do not agree" to 7 = "Completely agree")

Table 2
Study 2: Factor loadings deontological and teleological orientation

	Deontological orientation	**Teleological orientation**
I chose this option because…		
… the positive outcomes outweigh the negative consequences.	.86	
…this alternative offers the best possible outcome compared to the outcome of the other alternative.	.83	
…this is the best alternative if you compare the advantages with the disadvantages.	.83	
… this alternative can be justified by its outcomes.	.77	
…this alternative is consistent with general principles/rules one has to follow.		.83
…I have a moral duty to select this alternative.		.80
…the other alternative is morally wrong.		.75
…some behaviors are definitely right or wrong, irrespective of the consequences.		.63

Note: Factor loadings < .25 are suppressed

4.3 Results and conclusions

A latent class cluster model was constructed using the Latent GOLD® Choice 4.5 software. A latent class cluster model differs from a traditional ad hoc cluster analysis in that it includes model selection criteria, and classification is based on membership probabilities (Vermunt & Magidson, 2005a). These probabilities are estimated directly from the model parameters and are used to assign cases to the class yielding the highest probability. The primary difference between the Latent GOLD® algorithm and traditional cluster analysis techniques (such as K-means and hierarchical cluster analysis) is that the algorithm assigns cases to clusters based on the estimated membership probability, whereas traditional clustering techniques iteratively assign (or reassign) variables to clusters based on distances to other cases within a cluster or to cluster centroids. The resulting membership classification was exported to IBM SPSS Statistics 22 for further profiling of the segments using analysis of variance (ANOVA) and chi-square tests. Segment profiling is also possible in Latent GOLD® Choice by means of inactive covariates (Vermunt & Magidson, 2005b) but lacks the possibility of post hoc testing. For more information, see Vermunt and Magidson (2005a, 2005b, 2005c) for the Latent GOLD® technical guide and user manuals.

An additional benefit of the Latent GOLD® software is that it also provides fit indices, thus, introducing an objective indicator to an otherwise subjective process (Hair et al., 2010; Ketchen & Shook, 1996). Based on these fit indices, supplemented with a visual assessment of the composition of the resulting clusters, a four-cluster solution emerged as the most optimal segmentation. Compared with single-, two-, and three-cluster solutions, the four-cluster model provided the least amount of information loss, resulting in the lowest BIC and AIC values (BIC = 9019.29, AIC = 8880.18). A five-cluster model yielded slightly lower BIC and AIC values, but on closer examination the fifth cluster appeared to be a variation of an existing cluster and contained only 1% of the sample. Additionally, with the five-cluster model, the proportion of cases estimated to be misclassified (classification errors) began to rise. See Table 3 for a comparison of the cluster models. The results show that these four segments differ significantly from one another regarding attitude (Wald chi-square = 404.93, $p < .001$, $R^2 = 0.27$), ethical evaluation (Wald chi-square = 368.38, $p < .001$, $R^2 = 0.24$), and guilt (Wald chi-square = 237061.40, $p < .001$, $R^2 = 0.89$). To validate the robustness of the results, the dataset was randomly split in half, and analyses were rerun on the two separate datasets (Hair et al., 2010). Ketchen and Shook (1996) also recommend the use of within-method triangulation, which implies that the clustering should be repeated using different methods. A two-step cluster analysis combining a nonhierarchical (Ward's method) with a nonhierarchical (K-means) clustering procedure (Hair et al., 2010) was conducted, and it yielded a similar pattern as that of the Latent GOLD® results.

Table 3
Study 2: Overview of cluster models

	Log Likelihood (LL)	**Bayesian Information Criterion (BIC)**	**Akaike Information Criterion (AIC)**	**Number of Parameters**	**Classification Errors**
1-Cluster	-6982.50	14007.92	13977.00	6	0.000
2-Cluster	-5993.35	12079.68	12012.70	13	0.012
3-Cluster	-4936.12	10015.28	9912.24	20	0.006
4-Cluster	-4413.09	9019.29	8880.18	27	0.005
5-Cluster	-4232.17	8707.52	8532.35	34	0.018

By comparing cluster means, we arrived at the identification of four segments, which are labeled as follows: the anti-pirate, the conflicted pirate, the cavalier pirate, and the die-hard pirate. Table 4 offers an overview of the composition of the segments. Further profiling by analysis of variance yielded significant differences between the segments regarding subjective norms ($F(3,1273) = 78.11$, $p < .001$, $\eta^2 = .16$), pirating self-efficacy ($F(3,491) = 29.33$, $p < .001$, $\eta^2 = .15$), habit ($F(3,491) = 25.25$, $p < .001$, $\eta^2 = .13$), perceived harm ($F(3,1271) = 65.59$, $p < .001$, $\eta^2 = .13$), deontological orientation ($F(3,290) = 2.89$, $p < .05$, $\eta^2 = .03$), teleological orientation ($F(3,290) = 4.69$, $p < .01$, $\eta^2 = .05$), and pirating frequency ($F(3,1272) = 70.57$, $p < .001$, $\eta^2 = .14$). Chi-square tests were used to investigate demographic differences among the segments. Significant differences were found regarding gender ($\chi^2(3, N = 1254) = 93.70$, $p < .001$, Cramer's V = .27), age ($\chi^2(9, N = 1254) = 45.57$, $p < .001$, Cramer's V = .11), and employment ($\chi^2(3, N = 1236) = 22.12$, $p < .001$, Cramer's V = .13). See Tables 5 and 6 for an overview of the profiling results.

Table 4
Study 1: Overview of segment composition

Cluster variable	Cluster 1 **Anti-Pirate**	Cluster 2 **Conflicted Pirate**	Cluster 3 **Cavalier Pirate**	Cluster 4 **Die Hard Pirate**
	N= 364(28.5%)	N=188 (14.7%)	N=354 (27.7%)	N=371 (29.1%)
Attitude towards piracy	Negative	Positive	Positive	Positive
Ethical evaluation of piracy	Unethical	Unethical	Unethical	Not unethical
Guilt	Yes	Yes	No	No

Regarding the downloading frequency results in Table 6, it should be noted that there may or may not be overlap between the media types. For example, the 42.6% of die-hard pirates who report never downloading music are not necessarily asserting that they download nothing at all; they might exclusively download movies or only movies and television series. The results can be interpreted by examining patterns relative to the expected average of all pirate segments, i.e., the expected percentage if no difference existed among pirate segments (see the "Total" column in Table 6). For instance, 2.4% of die-hard pirates report downloading music daily, which is a much higher percentage than the 0.8% of the total sample who download music daily.

Table 5
Study 1: Further profiling: General Linear Model

Profiling variable	**Anti-Pirate** M(SD)	**Conflicted Pirate** M(SD)	**Cavalier Pirate** M(SD)	**Die-Hard Pirate** M(SD)	Total N=1277	Post hoc tests	
						F-value	Multiple comparisons
Subjective norm	4.68 (1.34)	5.36 (1.03)	5.63 (1.00)	5.95 (1.22)	5.41 (1.28)	78.11***	1<2,1<3,1<4,2<4,3<4
Pirating self-efficacy	3.79 (1.62)	4.52 (1.47)	5.08 (1.28)	5.34 (1.68)	4.61 (1.66)	29.33***	1<2,1<3,1<4,2<4,
Habit	3.40 (1.87)	4.42 (1.71)	4.80 (1.55)	5.08 (1.94)	4.33 (1.92)	25.25***	1<2,1<3,1<4
Perceived harm	4.70 (0.98)	4.29 (0.90)	4.10 (1.04)	3.55 (1.39)	4.14 (1.20)	65.59***	1>2, 1>3,1>4,2>4,3>4
Deontological orientation	4.53 (1.05)	4.38 (1.04)	4.01 (1.08)	4.29 (1.41)	4.31 (1.16)	2.89*	1>3
Teleological orientation	4.51 (1.14)	4.82 (1.07)	4.98 (1.12)	5.16 (1.33)	4.85 (1.19)	4.69**	1<4

Significant at ***p<.001,**p<.01,*p<.05

Table 6
Study 1: Further profiling: Cross tabulation

Profiling variable	**Anti-Pirate** (in %)	**Conflicted Pirate** (in %)	**Cavalier Pirate** (in %)	**Die Hard Pirate** (in %)	Total N=1277	Chi-Square tests	
						X^2	Cramer V
Gender							
Male	32.8	35.1	52.7	65.7	48.2	93.70***	.27
Female	67.2	64.9	47.3	34.3	51.8		
Age							
Teenagers (15-18 years)	15.8	15.1	16.2	18.4	16.6	45.57***	.11
College students (19-25 years)	57.6	72.4	70.4	67.9	66.3		
Young adults (25-35 years)	13.0	7.0	8.8	10.4	10.2		
Adults (over 35 years)	13.6	5.4	4.6	3.3	6.9		
Employment							
Student	67.4	79.2	80.7	79.8	76.5	22.12***	.13
Employed	32.6	20.8	19.3	20.2	23.5		

Significant at ***p<.001,**p<.01,*p<.05

Table 6 (continued)
Study 1: Further profiling: Cross tabulation

Profiling variable	**Anti-Pirate** (in %)	**Conflicted Pirate** (in %)	**Cavalier Pirate** (in %)	**Die Hard Pirate** (in %)	Total N=1277 (in %)	Chi-Square tests	
						X^2	Cramer V
Music download frequency							
Never	58.8	39.4	39.3	31.6	42.6	110.95***	.17
Once a year	8.2	5.3	8.8	7.0	7.6		
Once every 6 months	6.3	10.1	5.9	5.7	6.6		
Once every 3 months	7.4	13.3	7.6	9.5	8.9		
Once a month	7.1	12.2	9.3	11.6	9.8		
Several times a month	5.5	10.6	15.5	14.1	11.5		
Once a week	3.6	4.8	6.2	8.4	5.9		
Several times a week	3.0	4.3	7.1	9.7	6.3		
Daily	0.0	0.0	0.3	2.4	0.8		
Movie download frequency							
Never	67.0	31.4	29.7	23.2	38.7	240.40***	.25
Once a year	5.5	2.1	5.9	4.1	4.7		
Once every 6 months	4.4	9.6	4.0	4.6	5.1		
Once every 3 months	4.9	9.6	9.6	8.1	7.8		
Once a month	5.5	13.3	12.1	9.5	9.6		
Several times a month	6.3	19.7	16.1	20.5	15.1		
Once a week	4.1	9.6	11.0	12.7	9.3		
Several times a week	1.9	4.8	10.7	13.8	8.2		
Daily	0.3	0.0	0.8	3.5	1.3		
TV series download frequency							
Never	72.3	44.1	38.7	32.7	47.3	191.31***	.22
Once a year	3.8	7.4	5.4	5.1	5.2		
Once every 6 months	4.4	4.8	5.1	4.6	4.7		
Once every 3 months	2.2	7.4	6.5	5.7	5.2		
Once a month	4.1	3.7	6.8	6.8	5.6		
Several times a month	3.3	11.2	13.3	7.8	8.5		
Once a week	4.7	5.9	7.9	7.6	6.6		
Several times a week	4.4	15.4	13.6	22.2	13.7		
Daily	0.8	0.0	2.8	7.6	3.2		

Significant at ***p<.001,**p<.01,*p<.05

Anti-pirates (28.5%, n = 364) have the least favorable attitude toward piracy (M = 3.86, SD = 1.46, 95% CI [3.72; 4.00]) compared with the other segments. They consider piracy ethically unacceptable (M = 4.29, SD = 1.21, 95% CI [4.16; 4.42]) and experience the largest amount of guilt (M = 4.66, SD = .89, 95% CI [4.61; 4.71]) compared to the other segments. They tend to pirate least frequently of all segments, ranging from "never" to "once a year", and report the lowest subjective norms (M = 4.68, SD = 1.34, 95% CI [4.55; 4.80]). The anti-pirates also report the lowest piracy self-efficacy (M = 3.79, SD = 1.62, 95% CI [3.56; 4.02]), does not really consider their piracy a habit (M = 3.40, SD = 1.87, 95% CI [3.13; 3.67]), and believe that digital piracy inflicts harm on the industry (M = 4.70, SD = 0.98, 95% CI [4.58; 4.81]). They report the highest deontological (M = 4.53, SD = 1.05, 95% CI [4.32 ; 4.73]) and the lowest teleological orientation (M = 4.51, SD = 1.14, 95% CI [4.29 ; 4.74]) of all pirate segments. Anti-pirates are more likely to be female, 25 to 55 years old (i.e., young adults or adults), and employed.

Conflicted pirates (14.7%, n = 188) have a positive attitude toward piracy (M = 4.87, SD = 1.15, 95% CI [4.68; 5.06]), although they consider piracy ethically unacceptable (M = 3.68, SD = 1.09, 95% CI [3.49; 3.86]) and experience relatively more guilt when pirating (M = 3.00, SD = .00), compared to the other segments, with the exception of the anti-pirate. This juxtaposition typifies the conflicted pirate, who tends to pirate more than the anti-pirate (ranging from once every six months to several times a month) yet less than the other segments do. Compared with the rest, the conflicted pirate reports a moderate subjective norm (M = 5.36, SD = 1.03, 95% CI [5.19; 5.53]) and believes that digital piracy harms the industry (M = 4.29, SD = 0.90, 95% CI [4.13; 4.45]). The same pattern emerges for pirating self-efficacy (M = 4.52, SD = 1.47, 95% CI [4.19; 4.85]) and habit (M =4.42, SD = 1.71, 95% CI [4.04; 4.81]). Similar to anti-pirates, conflicted pirates are more likely to be female, 18 to 25 years old (college age), and students.

Cavalier pirates (27.7%, n = 354) have a positive attitude toward digital piracy (M = 5.27, SD = 1.25, 95% CI [5.13; 5.41]) and recognize piracy as an unethical activity (M = 3.19, SD = 1.22, 95% CI [3.06; 3.32]) but do not experience high levels of guilt over piracy (M = 2.00, SD = .00), unlike the two segments described above. This nonchalant and indifferent mindset typifies the cavalier pirate. This segment is slightly more likely to pirate than the conflicted pirates, ranging from once every three months to several times a week. Cavalier pirates report higher levels of subjective norm (M = 5.63, SD = 1.00, 95% CI [5.51; 5.76]), pirating self-efficacy (M = 5.08, SD = 1.28, 95% CI [4.80; 5.36]), consider their activity more of a habit (M = 4.80, SD = 1.55, 95% CI [4.47; 5.12]),

and perceive it as slightly less harmful (M = 4.10, SD = 1.04, 95% CI [3.98; 4.22]) when compared with the previous two segments. Cavalier pirates report the lowest deontological orientation (M = 4.01 , SD = 1.08, 95% CI [3.76 ; 4.27]) . These pirates are more likely to be men, 18 to 25 years old, and students.

Die-hard pirates (29.1%, n = 371) express the most favorable attitude of all segments (M = 5.87, SD = 1.31, 95% CI [5.74; 6.01]) and do not consider it unethical (M = 2.49, SD = 1.43, 95% CI [2.36; 2.61]). They also experience the least amount of guilt (M = 1.00, SD = .00), which is consistent with their belief that the action is not unethical. Die-hard pirates tend to pirate the most of all pirate segments, ranging from once a month to daily. They report the highest subjective norm (M = 5.95, SD = 1.22, 95% CI [5.83; 6.07]), the highest pirating self-efficacy (M = 5.34, SD = 1.68, 95% CI [5.07; 5.61]), and they do not believe that piracy causes much harm to the industry (M = 3.55, SD = 1.39, 95% CI [3.43; 3.67]). For the die-hard pirate, pirating is habitual (M = 5.08, SD = 1.94, 95% CI [4.77; 5.40]). Die-hard pirates report the highest teleological evaluation (M = 5.16, SD = 1.33, 95% CI [4.84; 5.48]) and are most likely to be men, between 15 and 18 years old (teenagers) or 18 and 25 years old (college age), and students.

A paired-samples *t*-test showed no differences between deontological and teleological orientation among anti-pirates ($t(100) = .101$, $p = .92$, $d = .02$) or among conflicted pirates ($t(50) = -1.96$, $p = .056$, $d = -.42$). However, teleological orientation scores were higher than those for deontological orientation among cavalier pirates ($t(72) = -5.44$, $p < .001$, $d = -.88$) and die-hard pirates ($t(68) = -4.76$, $p < .001$, $d = -.64$).

In conclusion, we find four identifiable segments within the pirate population. These segments differ from one another in aspects other that those used as segmentation variables, namely subjective norms, pirating self-efficacy, habit, perceived harm, deontological and teleological orientation, pirating frequency, gender, age and employment status.

5. Study 3

5.1 Sampling

In the third study, 303 completed surveys were collected online. As in Study 1, the minimum age was set at 15 years (birth date: 1999). When the questionnaire was administered, the average age of participants was 22.45 years (SD = 5.98) and the average birth year was 1992. Overall, 16.4% were age 15 to 18 (born between 1996 and 1999), 71.1% were age 19 to 25 (born between 1989 and 1995), 7.7% were age 26 to 35 (born between 1979 and 1988), and 4.7% were age 36 to 55 (born between 1959 and 1978). The sample was 51% male, and 69.5% were enrolled in school. The questionnaire hyperlink was forwarded via university email to students of the entire university; it was also distributed via social networks such as Facebook and Netlog, to an online university research panel, and via online learning platforms (such as Smartschool) in collaboration with local high schools.

5.2 Design and instrument measures

In a 2 (between-subjects: legal vs. educational) x 4 (between-subjects: anti-pirate, conflicted pirate, cavalier pirate, or die-hard pirate) x 2 (within-subjects: before vs. after the manipulation) mixed design, participants were randomly assigned to either the legal or the educational condition and their responses were measured before and after the manipulation. Segment membership was determined thereafter. To keep the manipulation as realistic as possible, respondents in both conditions were exposed to real-life stimuli. In the legal condition, respondents read an article from a local newspaper covering the house searches, arrests, and hardware confiscations of website hosts and the shutdown of two websites, although a fictitious paragraph was added stating that a number of end users also faced administrative fines. For the educational condition, respondents were exposed to a brochure from the Belgian Anti-Piracy Federation (BAF) informing consumers about intellectual property rights and the detrimental consequences of piracy on the entertainment industry. The brochure explicitly referred to piracy as stealing and emphasized that the creative sector was losing jobs and revenue for innovation because of piracy. For an overview of the translated stimuli, see Appendix D.

Table 7
Study 3: Items, means and internal consistency

	Item Mean	SD	Construct Mean	Cronbach's Alpha
Legal condition				
Perceived illegality				
Torrent downloading is illegal.	4.56	1.76	4.71	.85
Torrent downloading is forbidden by Belgian law.	4.99	1.65		
Torrent downloading is in violation with the law.	4.57	1.72		
Perceived impunity				
The chance of being caught for illegal downloading is very small in Belgium.	5.92	1.39		
Pirating intention				
How likely are you to download your movie/series of choice?	4.79	2.17		
Educational condition				
Perceived harm				
Torrent downloading hurts the music industry.	4.45	1.62	4.07	.83
Torrent downloading hurts the movie industry.	4.37	1.65		
Torrent downloading hurts retailers.	4.67	1.49		
Perceived triviality				
I am not interested in the debate surrounding torrent downloading.	4.03	1.72	4.16	.81
The debate surround torrent downloading is not interesting enough to bother me.	4.18	1.69		
The whole debate around torrent downloading is Exaggerated.	4.34	1.55		
Pirating intention				
How likely are you to download your movie/series or choice?	4.86	2.19		

All items were measured on a 7-point Likert scale (1= "Completely do not agree" to 7 = "Completely agree")

In both conditions, pirating intentions were measured before and after the manipulation. The same segmentation items as in Study 1 (i.e., attitude, ethical evaluation, and guilt associated with digital piracy) were measured first. On the following page, respondents had to select, from a list, a recent movie or TV series that they would like to watch and were then asked, "How likely are you to download [name of selected movie/series]?" Answers were on a 7-point scale ranging from 1 ("Not likely at all") to 7 ("Very likely"). The choice of the movie or TV series was irrelevant to the study but was requested in order to enhance the realism of the situation for the respondent. On the next page, depending on the condition to which the respondent had been randomly assigned, the respondent was presented with items on either perceived illegality and impunity (legal condition)

or perceived harm and triviality (educational condition). The items were measured on a 7-point scale ranging from 1 ("Completely disagree") to 7 ("Completely agree"). After a filler task, the manipulation was administered and afterwards the participants' downloading intention was measured again, along with items associated with either perceived illegality and perceived impunity (legal condition) or perceived harm and triviality (educational condition). See Table 7 for an overview of the items for each condition and their corresponding item means, construct means and internal consistency measures.

5.3 Results and conclusion

Using the LatentGOLD® Choice 4.5 software, a latent class cluster analysis based on attitude, ethical evaluation and guilt yielded the same four-cluster solution, thus replicating the findings from Study 1. The segment memberships were exported, and repeated measures ANOVA were run in IBM SPSS Statistics 22.

Legal strategy

A legal strategy was successful in increasing perceptions of the illegality of piracy in all segments except for the die-hard pirates. A significant drop in perceived impunity was found in all segments except the conflicted pirates. Interestingly, although this strategy was effective in changing perceptions of illegality and impunity in most segments, it did not significantly lower pirating intentions in any segment. Moreover, it actually resulted in an increase in pirating intentions for the cavalier pirates. Perhaps this segment will indeed exhibit higher levels of risk tolerance, as Sinha and Mandel (2008) observed in their study. For a detailed overview of these results, see Table 8. When comparing the posttest results of all segments, we find that they differ significantly in terms of pirating intentions ($F(3,145) = 9.44$, $p < .001$, $\eta^2 = .16$), and perceived illegality ($F(3,142) = 4.96$, $p < .01$, $\eta^2 = .10$). These results indicate that, although changes occurred on the within-subjects level, the absolute differences between segments (i.e., anti-pirates having the lowest scores, conflicted and cavalier pirates somewhere in the middle and die-hard pirates having the highest scores) remained unaffected. Remarkably, the segments do not differ in terms of perceived impunity ($F(3,142) = 2.27$, $p = .08$, $\eta^2 = .05$), signifying a general perception of impunity surrounding piracy.

The educational strategy

The educating strategy significantly increased perceptions of harm caused by piracy, apart from the anti-pirate segment, that already shows high perceptions of harm to begin with, indicative of a ceiling effect. The strategy was effective in lowering pirating intentions for the cavalier and conflicted pirates, but no significant difference was found for the anti-pirates and the die-hard pirates. This result for the anti-pirates can be explained by a floor effect as they already download so little. For the die-hard pirates, however, the educational strategy, although successful in significantly increasing perceived harm, remained insufficient for generating an effect on pirating intentions. For all segments, perceived triviality was not affected by the strategy, indicating that in spite of an increased awareness of inflicted harm, piracy remained an issue of little consequence for all segments. See Table 9 for an overview of the results. When comparing the posttest results between all segments, we find that they differ significantly in terms of pirating intentions ($F(3,150) = 13.75$, $p < .001$, $\eta^2 = .22$), and perceived harm ($F(3,148) = 5.81$, $p < .01$, $\eta^2 = .11$), indicating that although changes occurred on the within-subjects level, the absolute differences between segments remained unaffected. Not surprisingly, the segments also did not differ in terms of perceived triviality ($F(3,148) = .22$, $p = .89$, $\eta^2 = .00$).

Table 8
Study 3. Legal strategy

	N	Perceived illegality			Perceived impunity			Pirating intention		
		Pretest M(SD)	Posttest M(SD)	F-value	Pretest M(SD)	Posttest M(SD)	F-value	Pretest M(SD)	Posttest M(SD)	F-value
All segments	149	4.71 (1.42)	5.18 (1.24)	29.68***	5.92 (1.16)	5.12 (1.40)	46.11***	4.79 (2.17)	5.11 (2.42)	11.53**
Anti-Pirate	26	5.12 (1.09)	5.81 (0.85)	12.14**	5.56 (0.96)	4.64 (1.22)	23.25***	3.35 (2.04)	3.31 (2.06)	.03
Conflicted	20	5.00 (1.28)	5.40 (1.11)	6.58*	5.50 (1.24)	4.80 (1.20)	4.03	4.75 (1.83)	5.10 (1.97)	3.71
Cavalier	57	4.72 (1.28)	5.20 (0.90)	14.84***	5.95 (1.02)	5.20 (1.20)	16.90***	4.67 (2.23)	5.05 (2.41)	10.01**
Die-Hard	46	4.36 (1.72)	4.70 (1.63)	3.38	6.27 (1.30)	5.44 (1.70)	11.29**	5.78 (1.81)	6.22 (2.20)	4.11

Significant at ***p<.001,**p<.01,*p<.05

Table 9
Study 3. Educational strategy

	N	Perceived harm			Perceived triviality			Pirating intention		
		Pretest M(SD)	Posttest M(SD)	F-value	Pretest M(SD)	Posttest M(SD)	F-value	Pretest M(SD)	Posttest M(SD)	F-value
All segments	154	4.07 (1.24)	4.38 (1.37)	17.69***	4.16 (1.38)	3.99 (1.28)	5.97*	4.86 (2.19)	4.44 (2.14)	16.69***
Anti-Pirate	30	4.72 (1.08)	4.83 (1.44)	.25	4.13 (0.91)	3.90 (1.13)	1.30	3.23 (2.16)	2.77 (2.01)	1.83
Conflicted	28	4.28 (0.86)	4.78 (1.15)	10.03**	4.23 (1.26)	3.86 (1.17)	4.24	4.64 (2.16)	4.18 (2.07)	7.10*
Cavalier	43	4.20 (1.16)	4.53 (1.15)	9.08**	4.13 (1.32)	4.03 (1.25)	1.12	5.05 (2.06)	4.40 (1.82)	17.50***
Die-Hard	53	3.49 (1.34)	3.77 (1.43)	6.02*	4.17 (1.72)	4.07 (1.45)	.68	5.74 (1.80)	5.55 (1.84)	1.29

Significant at ***p<.001,**p<.01,*p<.05

6. Discussion

Four segments of pirates were distinguished based on differing constellations of attitude, ethical evaluation of piracy, and guilt: the anti-pirate, conflicted pirate, cavalier pirate and die-hard pirate. The segments differ on two important and actionable outcome variables, pirating frequency and pirating intentions, thereby further validating the selection of the segmentation variables. They also show scaling degrees of pirating self-efficacy, subjective norm, habit, perceived harm, perceived triviality and perceived illegality. The segments could therefore be placed on a continuum of pirating intensity, not merely in terms of behavioral frequency but also in terms of internalization (Scott, 1971). The latter term refers to the process of acceptance of a set of norms and values established by people who are influential to the individual. At one end of the continuum resides the anti-pirate, who is not very familiar with digital pirating, nor is his or her social environment familiar with it. At the other end of the continuum are die-hard pirates who consider piracy a normal thing, feel that their peers support it, and feel proficient in doing it.

The pirate segments also differ in their general deontological and teleological orientation. Cavalier pirates report the lowest deontological orientation of all pirate segments. Perhaps they continue pirating in spite of considering it unethical because their behavior is not directed by moral absolutes. However, anti-pirates reported the lowest teleological orientation. They tend to focus less on the repercussions and are guided more by moral absolutes (e.g. “Taking something that does not belong to you is wrong”). Compared to the other segments, conflicted pirates hovered in between. When comparing their deontological and teleological orientations, the difference is either marginally significant or marginally non-significant, depending on the point of view, with a slight edge toward teleological orientation. This is presumably because they experience a struggle between the two considerations: they consider digital piracy unethical, yet they long to reap its benefits. This could explain why conflicted pirates experience more guilt than cavalier pirates. Lastly, die-hard pirates report the highest teleological orientation of all pirate segments. Perhaps this teleological orientation is so deeply embedded in them that they fail to perceive digital piracy as unethical, instead viewing it as a harmless act. This exploratory inquiry into ethical orientations reveals thought-provoking differences among the segments but is by no means comprehensive. Further application of the Hunt-Vitell model (Hunt & Vitell, 2006), using items specific to digital piracy, is needed to identify at what point in the evaluation process deontological and teleological considerations take effect, whether and how neutralization techniques are involved (Sykes &

Matza, 1957), and which alternatives digital pirates consider. For instance: presenting to choose between: "pirating or not watching" versus "pirating or purchasing" might yield different teleological evaluations. In any case, this segmentation has revealed general deontological and teleological differences among digital pirates that would have gone unnoticed if they were studied as a homogeneous mass.

The need for such segmentation has also been insinuated by previous piracy literature. The fact that so many contradictory findings exist is not an artifact of differences in methodology but rather of sampling. Opposing findings are not necessarily coincidental or erroneous. For instance, Jacobs et al. (2012) did not find a significant effect of pirating self-efficacy on illegal downloading behavior, whereas numerous other studies did (Cronan & Al-Rafee, 2007; Kwong & Lee, 2002; LaRose & Kim, 2007; Liao et al., 2009; Peace et al., 2003; Shanahan & Hyman, 2010). The difference is that Jacobs et al. (2012) sampled from an online forum predominantly populated by tech-savvy computer enthusiasts. They also sampled from a population of university students; however, university students represented only one-quarter of the sample, and respondents who indicated that they have never downloaded movies were excluded. Therefore, Jacobs et al. (2012) could in fact have been investigating a sample primarily of die-hard pirates, who are homogeneous with respect to self-efficacy.

More importantly, by establishing these four different segments of digital pirates, we can understand better how current piracy-combatting measures influence them differently and why the overall success of such measures has been rather limited. We find that the educational strategy is more effective than the legal strategy in terms of lowering pirating intentions. Moreover, the legal strategy can even be counterproductive for cavalier pirates because it increases pirating intentions. Sinha and Mandel (2008) indicated a similar finding, namely that a certain segment of respondents reported higher illegal downloading intentions after exposure to a deterrent strategy. This segment was characterized by higher levels of optimum stimulation (i.e., higher risk tolerance) and could coincide with cavalier pirates.

Although the legal strategy was successful in significantly influencing perceptions of illegality and impunity, it was insufficient to sway die-hard pirates toward lowering their pirating intentions. The educational strategy displayed the same weakness, as die-hard pirates reported significantly heightened perceptions of harm after the manipulation but their general level of perception of harm

remained significantly lower than that of all other segments. This slight increase was also insufficient to move die-hard pirates toward lowering their pirating intentions. We have thus determined that both strategies fail to change the pirating intentions of the most challenging target segment, i.e., die-hard pirates. These people, who do the most frequent pirating, do not recognize that much harm is being inflicted and do not view piracy as unethical.

7. Managerial implications

Even if a strategy did prove effective, it remains uncertain how durable any attitude change would be and whether the return on investment would justify the undertaking. Bhattacharjee, Gopal, Lertwachara, and Marsden (2006) tracked the file-sharing activities of 2,056 people before and after RIAA-related lawsuits and found that respondents' sharing behavior decreased significantly around the time of RIAA legislative activity but then, after a period of time, returned to its original level. To the best of our knowledge, no such longitudinal studies with educational strategies have been conducted, but, based on our results, perhaps a different approach would be more suitable—one focused not on preventing piracy from occurring but on offering better service value than that promised by pirating files (Jeong & Khouja, 2013). Such an approach could make it unnecessary to awaken pirates' ethical sensitivity, causing even the die-hard pirates to become more focused on legal alternatives.

Several legal alternatives are already available (Papies, Eggers, & Wlömert, 2010). The classic system is that of Electronic Sell-Through (EST), whereby consumers pay a one-time fee per media file they download on their hard drive (e.g., at the iTunes store). The downside is that files can come with restrictions, and costs of single songs add up. Next, there is the subscription model wherein, for a monthly fee, consumers receive unlimited access to an online library for the duration of their membership. This model mostly uses streaming (e.g., Spotify, Netflix), a media delivery method in which the consumer views or listens to files as they are downloaded but the files are not saved to the consumer's hard drive. Finally, the advertising-based model bears some resemblance to the subscription model, but relies on advertising rather than monthly fees as its revenue source and can thus offer its services gratis. Papies et al. (2010) found that this model has the potential to attract new customers who did not previously download legally. Although this model is very attractive because it provides an unlimited and free service, the fact that one does not own the files

and the populace's general aversion toward advertising (Papies et al., 2010) cause such a service to remain problematic.

Could these alternatives convert pirates into law-abiding citizens? Today, the idea of ownership is complicated. Consumers used to have a feeling of ownership when they bought a DVD or a CD, but with legal digital alternatives, this ownership is temporary and restricted. Piracy offers true ownership of files and the freedom do to what consumers want to do, whenever and for as long as they wish. Sinha, Machado, and Sellman (2010) stated that the music industry could benefit from removing digital rights management (DRM) restrictions because doing so may convert some pirates into paying customers. If the entertainment industry wants to change the behavior of a significant number of pirates, it must loosen its grip on digital files and offer better value than piracy does to consumers.

8. Research limitations and future research

A limitation of this study consists in its use of a sample from a single nation (Belgium) where piracy is not high on the political agenda and where prosecutions are rare or nonexistent, as reflected by the high degree of perceived impunity in our sample. An interesting corollary of this situation is that the responses were not biased by fear of prosecution. However, cross-cultural research is needed to generalize the existence of the four pirate segments identified here, because piracy is a global issue. This study reveals the existence of distinct segments but does not offer insights as to which antecedents lead to an individual's membership in a certain segment. Additionally, one cannot exclude the possibility of migration among segments; for example, a cavalier pirate could become a conflicted pirate as he or she grows older. Longitudinal research would be needed to examine this proposition.

Furthermore, this study does not consider the impact of financial considerations on piracy. Future research could investigate whether differences in total income or discretionary income exist between the pirate segments. In addition, the influence on each segment of financial risks related to digital piracy or of pricing strategies of legal alternatives could be investigated.

Study 1 investigated pirating frequency, yet this variable does not clearly reflect the amount of media material downloaded. Differences may exist between downloading patterns of the pirate segments; for instance, certain pirates may download in batches (i.e., they download full seasons of television programs or a number of movies or songs in one session), and others may download

sequentially (i.e., they download episodes upon release), whereas others may download according to their immediate needs (e.g., they are having friends over, they want to catch up on a show during a long flight, or they want to hear a specific song). Moreover, some pirates' downloading behavior might be erratic and could fall under all three of the above-mentioned descriptions at various times. Nonetheless, when measuring download volume, one needs to take the dominant downloading pattern of each pirate into account, as asking respondents simply to report their recent behavior could convey a misleading impression; for example, questioning a prolific batch downloader in between batches will yield an underestimation, whereas questioning a sequential downloader at the start of a new television season will yield an overestimation.

Lastly, the ethical perspective should be wholly investigated. The identification of differences in general deontological and teleological orientations warrants further investigation of the application of the Hunt-Vitell model (Hunt & Vitell, 2006) to digital piracy. Future research could examine specific deontological and teleological evaluations relating to digital piracy, pinpointing whether and how these evaluations take effect and which alternatives certain pirate segments take into consideration. Differences in neutralization techniques (Sykes & Matza, 1957), motives, and beliefs with respect to digital piracy could also be scrutinized.

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10. Appendices

Appendix A. Glossary

Term	Definition
Digital Piracy	The illegal procurement of infringed copyrighted digital media files. In this study it refers to procuring infringed movies and TV shows by use of BitTorrent downloading.
Digital Media	Digitized music- and video files in various formats such as .MP3, .WAV, .WMA,.MP4, .AVI,…
Peer-to-peer (P2P) network	A computer network wherein each connected computer can act as a server (i.e. *seeder*) as well as a client (i.e. *leecher*) for other computers in the network (i.e. *peers*) without the use of a central infrastructure.
(Bit)Torrent (Bit)Torrent downloading	(Bit)torrent is the dominant P2P file-sharing protocol and generally operates by splitting content (i.e. files) into several small pieces that can each be downloaded by and from different peers. Information about the files to be shared (i.e. *metadata*) and information about the tracker are called (Bit)Torrents.
(Bit)Torrent Client	A BitTorrent client is any program that implements the bit torrent protocol. Every client is capable of requesting and transmitting any kind of computer file over the network using the protocol. Examples include Vuze Inc. and BitTorrent Inc.
(Bit) Torrent Tracker	Trackers contain information about all peers that currently possess pieces of a particular file. Trackers coordinate the downloads but do not contain any content. Examples include The Pirate Bay, Demonoid and Sumotracker.
(Bit) Torrent Index Site	Websites that contain an index of torrent files and act as search engines through which torrents can be downloaded are called torrent sites. Examples include The Pirate Bay, KickassTorrents, Torrentz and Mininova (which offers only legally redistributable media).
Streaming	Streaming is a media delivery method. During streaming a part of the data is buffered so the file can be played. This way the audiovisual media can be consumed without downloading the entire file. Examples of streaming websites include Spotify and Netflix.

Appendix B. Study 1: Topic Guide

Topics
Ice breaker: General music experience
Do you often listen to music?
What role does music take in your life?
What devices do you usually use to listen to music?
Ice breaker: General movie and TV experience
Do you often watch movies?
Do you often watch TV shows?
What role do movies play in your life?
What role do TV shows play in your life?
What devices do you usually use to watch movies?
What devices do you usually use to watch TV shows?
Downloading
Where do you get your music/movies/TV shows from?
Where do most of your friends get their music/movies/TV shows from?
Why do you think your friends would download?
Why do you think people in general would download?
Why do you download?
What do you believe are benefits to downloading?
What do you believe are downsides to downloading?
What would impede people from downloading?
Do you think a lot of people do it? Why/Why not?
What sort of person do you believe the "typical downloader" would be?
What sort of person do you believe the "typical non-downloader" would be?
How do you believe the majority of Belgians think about illegal downloading?
How do you feel when downloading illegally?
Do you consider the consequences when downloading illegally?
Would you consider illegal downloading as wrong and immoral? Why/why not?
Despite the fact you know it's wrong, why would you continue downloading?
Would you consider illegal downloading similar to stealing a CD/DVD from a store? Why/Why not?
Would you consider illegal downloading similar to riding a bus without paying? Why/why not?
Before this interview, had you already reflected upon this subject?

Appendix C. Study 2: Ethical dilemma

"A promising yet very experimental treatment for cancer is being developed, but has severe side-effects. In order to test the treatment you have to conduct tests that can make the participants very sick and could lead to premature death. What do you do?"

A. I test the treatment
B. I do not test the treatment

Appendix D. Study 3: Stimuli

Legal strategy (translated from Dutch)

TWO MAJOR WEBSITES SHUT DOWN DUE TO MILLIONS OF ILLEGAL DOWNLOADS: USERS PUNISHED

Ghent, March 22nd 2014. –Two Belgian websites were shut down by the investigating judge in Ghent as a result of a judicial investigation because these websites were enabling users to download movies, music,… They refer to millions of downloads of infringed copyrighted material. Several users of these websites have received fines that amounted to thousands of euros.

The Federal police was able to localize those responsible after intensive research and in collaboration with BAF. Nine house searches were conducted in which computer hardware was confiscated.

House searches

In total, 9 house searches were conducted in Lier, Ranst, Edegem, Hasselt, Aalst, Putte, Westerlo and Lint, and this at the residence of the individuals who hosted two websites and of several users.
As a result, 10 computers, 9 laptops, 45 external hard drives and 10 USB sticks were confiscated. In addition, both websites were shut down.
A 40 year old man from Hasselt, the host of one of these website was taken into custody.

Punishment

Those responsible for the website can be sentenced for the violation of the copyright law of June 30th 1994. Penal fines can be imposed ranging from 550 to 550,000 euros and/or imprisonment from 3 months to 3 years and the destruction of confiscated materials.

Several users were also prosecuted and received fines that could mount up to 8,250 euros.

In addition to this, the BAF can also file a claim for damage restitution. The going rate is 20 euros per infringed item, which in total can mount up to hundreds of thousands of euros and can fall upon the website hosts as well as the users.

Warning

Users of these websites do not always fully realize which violations they make and which risks they take. Users of these websites run the risk of getting fines up to thousands of euros!
The police and the BAF strongly advise users to stay away from these websites and warn users that in the fight against piracy many more of these websites will be shut down.

Educational strategy (English translation below)

Wat is *piraterij?*

Onder piraterij verstaan we het kopiëren of verspreiden van auteurs-rechtelijk beschermde werken, zoals films, muziek en games, zonder de toestemming van de makers.

Wat is auteursrecht ?

Wie een film, game, of muziek maakt of bedenkt is een 'auteur' en mag als enige beslissen hoe dit werk aan de man gebracht wordt. Dankzij dit recht krijgt deze bedenker een vergoeding voor de geleverde prestatie. Jij mag dus nooit een film, liedje of video game kopiëren en verspreiden zonder toestemming van de auteur.

Alle makers hebben de vergoedingen voor hun werk broodnodig om nieuwe creaties te kunnen starten en betalen. Mocht iedereen alles zomaar gratis kopieëren, dan is het onmogelijk om nog nieuwe films, muziek en games te produceren.

What is *piracy*?

Piracy entails copying or disseminating copyrighted works, such as movies, music and games, without permission of the creators.

What is copyright?

The person that produces or creates a movie, game or music is an "author" and is the only one who gets to decide how this work is distributed. Due to this right the authors get compensated for the work they put into it. So you may never copy or disseminate a movie, song or video game without the authors permission.

All creators sorely need the compensation for their work so they can start and fund new creations. If everyone would just copy everything for free, it would be impossible to produce new movies, music and games.

You are also a **victim!**

Who is the victim of piracy?

Piracy is theft and you are also the victim!

Every music-, movie- or game lover is affected by illegal copies or downloads. A person that does not pay for a movie, game or CD may not realize it, but is stealing from artists and producers and indirectly of all music-, movie- or game lovers.

This is because less money can be invested in the development of new products or new talent.

Protecting **creative talent.**

The Belgian movie industry annually loses about 10% of its revenue as a result of piracy. Since 2000 the revenue of the music industry has declined with 50% worldwide. Specifically, this means that no new jobs are created in the Belgian entertainment industry or even that people lose their jobs.

In order to protect creative talent and investments, the BAF fights against illegal copying and dissemination of these entertainment products.

-“Oh well… what’s the harm in downloading one CD?”

-“Oh well… what’s the harm in downloading one game?”

-“What’s the harm in downloading one movie?”

-“Oh well…What’s the harm in downloading one CD?”

-…

CHAPTER IV:
WOULD YOU BE SO KIND TO BUY FAIR? THE IMPACT OF INTERPERSONAL FEELINGS ON FAIR-TRADE CONSUMPTION

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WOULD YOU BE SO KIND TO BUY FAIR? THE IMPACT OF INTERPERSONAL FEELINGS ON FAIR-TRADE CONSUMPTION

Abstract

Consumers claim to have very positive attitudes towards Fair Trade products, but these positive attitudes unfortunately do not translate into purchasing behavior. It seems that people care about Fair Trade, but *consumers* do not. In this paper we investigate whether the importance consumers attach to the Fair Trade-attribute of a product can be increased by activating the experience of interpersonal feelings such as love, connectedness, pride, generosity, joy, benevolence, compassion and empathy. The results of two experimental studies demonstrate that it is possible to enhance the importance of the Fair Trade product attribute by activating the experience of interpersonal feelings using Reed and Aspinwall's (1998) Kindness Questionnaire in two different product categories, namely chocolate and coffee. These results suggest that consumers can be nudged towards choosing a Fair Trade product and thus a potential solution is proposed for bridging the attitude-behavior gap that is especially prominent in research on Fair Trade purchase behavior.

1. Introduction

Consumption of Fair Trade goods is a form of ethical consumer behavior or ethical consumerism, which reflects behavior aimed at enhancing other's well-being and doing good for others and/or society in general. In this paper we investigate whether the importance consumers attach to the Fair Trade attribute of a product can be increased by activating the experience of interpersonal feelings. This way consumers can be nudged towards choosing a Fair Trade alternative and thus a potential solution is proposed for bridging the attitude-behavior gap that is especially prominent in research on Fair Trade purchase behavior. Consumers boast very positive attitudes towards Fair Trade products, but curiously these positive attitudes do not translate into positive sales figures. It seems that people care about Fair Trade, but unfortunately, consumers do not.

Consumers in developed countries are becoming increasingly aware and concerned about where their products come from and under which circumstances they were produced. People appear to care deeply about the social aspects of the products they consume (Auger, Burke, Devinney, & Louviere, 2003; Auger & Devinney, 2007; Auger et al., 2008; Rice, 2001) and Fair Trade products offer a way of soothing the consumers' conscience.

Fair-trade products are products produced and sold under Fair Trade standards which ensure better terms of trade for local farmers and achieve sustainable development of producers in disadvantaged circumstances (Fair Trade International, 2016). Generally speaking, Fair Trade is an alternative to free-market trade in which the payment of fair wages and prices, worker circumstances, the development of sustainable businesses and ultimately the establishment of political and social justice is promoted (De Pelsmacker, Janssens, et al., 2005; Littrell & Dickson, 1999).

Coffee, bananas, flowers and cocoa still make up the most important product categories for Fair Trade (Sarmadi, 2015). The Fair Trade product portfolio has increased steadily, amounting to up to 30,000 product references in 125 countries across the world, ranging from coffee and tea to wine and cosmetics (Smithers, 2014). Although market share is rather marginal, Fair Trade products are definitely on the rise, with a world average (of participating countries) of 15% (Sarmadi, 2015). The United States of America, which is a relatively new market since Fair Trade was not introduced until 2012 is one of the strongest growing markets with a growth rate of 501% and brand new markets such as India and Kenya are exhibiting rapidly growing sales of Fair Trade products. Germany and UK are currently boasting the largest Fair Trade retail sales worldwide with a sales

increase of 12% and 23% respectively, an impressive increase of markets that are already the largest in terms of Fair Trade products worldwide (Sarmadi, 2015; Smithers, 2014).

In light of these optimistic figures local farmers in underdeveloped countries, retailers and Fair Trade activists should be able to rest securely on their laurels. But can they? Bearing in mind that market share is still marginal, the Fair Trade market is still considered a niche market that has yet to reach the general populace (Devinney et al., 2009). The main challenge lies in the apparent gap that exists between consumer attitude and actual purchasing behavior. Consumers positive attitudes towards socially responsible products (Auger et al., 2003; Auger & Devinney, 2007; Auger et al., 2008; Rice, 2001) do not translate into actual purchasing behavior (Aaker et al., 2010; Carrington et al., 2010; Luchs et al., 2010; White et al., 2012).

2. Literature review

Several explanations for this gap have been suggested. Auger and Devinney (2007) posit that the alleged attitude-behavior gap behavior is merely an artifact of methodology because conventional surveys elicit social desirable responses and consequently cause an overestimation of intentions. Several authors recommend the use of research methods that force respondents to reveal their true preferences, attitudes and intentions such as contingent valuation methods, conjoint analyses, choice experiments or natural field experiments (Andorfer & Liebe, 2012; Auger & Devinney, 2007; Devinney et al., 2006). Perhaps social desirability could indeed inflate stated preferences and attitudes, but this does not discount the notion that people could still have a positive attitude towards Fair Trade products overall. Many obstacles could obstruct the translation from attitude into actual behavior: the price trade-off could be too strong (De Pelsmacker, Driesen, et al., 2005; Devinney et al., 2012; Szmigin et al., 2009; Vitell, 2015), people do not believe justice restoration can be achieved (White et al., 2012), people could be using neutralization techniques (Brunner, 2014) or they could simply not believe the ethical claims (De Pelsmacker, Driesen, et al., 2005).

Regardless of what could be driving this gap, the fact of the matter remains: people care about Fair Trade, but consumers don’t. Yet herein lies a vast pool of potential consumers for companies. Devinney et al. (2006) propose a proactive model of consumer social responsibility in which the initiative does not come from the consumer itself, but from companies bolstering a market by awaking latent needs of socially conscious consumers. Corporations should take the lead and act

socially proactive as opposed to socially active. A crucial step in this endeavor is investigating how to bridge the gap between attitude to behavior and capitalize on it.

The problem is that current literature does not offer an action-oriented answer to this question. Research on Fair Trade consumption is relatively new and most literature to date is –though necessary- descriptive and diagnostic in nature and mainly investigates drivers of Fair Trade consumption by exploring demographic characteristics (Auger et al., 2003; Bellows, Alcaraz, & Hallman, 2010) or values (Auger et al., 2008; De Pelsmacker, Driesen, et al., 2005; De Pelsmacker, Janssens, et al., 2005; Doran, 2009). This paper focusses on what could trigger consumers to opt for a Fair Trade option in a naturalistic experimental setting, while taking into account the trade-offs that people are willing to make.

In concreto we investigate whether completing Reed & Aspinwalls (1998) Kindness Questionnaire compared to completing a control questionnaire would nudge participants into choosing a Fair Trade alternative as opposed to a regular product.

The Kindness Questionnaire (Reed & Aspinwall, 1998) is rooted in self-affirmation theory and is a typical tool used in manipulating self-affirmation. According to Steele (1988) people have a desire to view themselves as being moral, competent, adaptive and in control of the outcome of their lives. Self-affirmation theory (Steele, 1988) refers to processes that are attuned to the preservation of a person's self-worth. Whenever a person's self-worth is threatened, people will tend to engage in a general affirmation of their self-worth. Threats to a person's self-worth may take on many forms, people may behave in a way that is inconsistent with their attitudes which in turn threatens their perception of their own self-worth (Thibodeau & Aronson, 1992), receiving negative self-relevant information (Dillard, McCaul, & Magnan, 2005; Reed & Aspinwall, 1998; Sherman, Nelson, & Steele, 2000) but may also include negative judgments by others or a failure to perform according to personal standards (Duclos, Bettman, Bloom, & Zauberman, 2012), though the list is not exhaustive.

Studies in health literature find that people who have the opportunity to self-affirm prior to receiving negative self-relevant health information (e.g. confronting coffee-drinkers with negative information about the effects of consuming coffee) react less defensively towards the information given, compared to a control (Reed & Aspinwall, 1998; Sherman et al., 2000). Self-affirmation can be manipulated in a number of ways, for instance by first threathening the self and consequently

offering an opportunity to affirm the self in one of the conditions. Usually the self-affirming procedure entails a reflective writing component, for instance by writing about values participants find important (Crocker, Niiya, & Mischkowski, 2008) or by thinking about a time they felt like an honest person and writing about it (Dillard et al., 2005). But the most popular tool for self-affirmation is Reed and Aspinwall's (1988) Kindness Questionnaire.

It consists of ten yes/no questions prompting people to recall and elaborate in writing on specific situations in which they have been kind to others such as "Have you ever forgiven another person when they have hurt you?". The Kindness Questionnaire has been shown to increase receptiveness to threatening information, increase motivation and change behavior (Armitage, Harris, Hepton, & Napper, 2008; Reed & Aspinwall, 1998). Self-affirmation is assumed to enhance self-esteem, but evidence on this mechanism is mixed (McQueen & Klein, 2006). For instance, in a study on communicating harmful effects of smoking, Dillard et al. (2005) did not find that allowing respondents to self-affirm reduced defensiveness. In addition, Armitage and Rowe (2011) find that the Kindness Questionnaire did not affect self-esteem or global self-feelings. The authors conclude that self-affirmation probably operates not by reinforcing the self, but rather by distracting the self away from the threat by focusing it on positive interpersonal feelings.

However, in contrast to the effect on self-esteem and self-concept, the evidence of the effects on positive interpersonal feelings is more robust (Armitage et al., 2008; Armitage & Rowe, 2011; Epton & Harris, 2008; McQueen & Klein, 2006). Positive interpersonal feelings entail feelings such as love, compassion, empathy, connectedness etc. and are feelings that are outwardly directed toward another social entity. Crocker et al. (2008) also refer to them as 'other-directed feelings' and contrast them to 'self-directed feelings' such as pride and superiority. They measured 18 feelings and found that self-affirmation had a greater impact on other-directed feelings such as love, than on self-directed positive feelings. Using a subset of these 18 feelings, Armitage and Rowe (2011) also found an increase in interpersonal feelings.

In this paper the authors focus specifically on the Kindness Questionnaire manipulation. The mere notion that this manipulation would increase the experience of positive interpersonal feelings should theoretically speaking suffice to nudge participants into selecting a Fair Trade product, regardless of any threat to the person's self-image because ample literature has shown that positive feelings and positive interpersonal feelings foster a range of prosocial behaviors (Aknin, Dunn, &

Norton, 2012; Bankard, 2015; Baron, 1997; Cavanaugh, Bettman, & Luce, 2015; Kelley & Hoffmann, 1997; Telle & Pfister, 2016).

Based on these findings, we hypothesize that the Kindness Questionnaire manipulation would nudge people into opting for the Fair Trade alternative (Study 1) as opposed to a regular product and attaching more importance to the Fair Trade product attribute (Study 2) due to an increase in the salience of interpersonal feelings.

Our paper contributes in three ways, first it offers an action-oriented approach for retailers and Fair Trade stakeholders to nudge consumers towards Fair Trade products. Second, to the best of our knowledge, this paper is one of the few that applies the Kindness Questionnaire on product choice (see Townsend and Sood (2012) for an application of self-affirmation theory –without the use of the Kindness Questionnaire- on aesthetic product choice) or prosocial behavior. Most literature on self-affirmation and by extension the Kindness Questionnaire focusses on health behavior (Crocker et al., 2008; Dillard et al., 2005), with the exception of Duclos et al. (2012). Lastly, our studies refrain from the use of traditional surveys in order to curb the effects of social desirability, as recommended by Andorfer and Liebe (2012).

This paper describes two studies, each investigating a different product category often used in Fair Trade research, chocolate and coffee in particular. The first study investigates whether (1) respondents in the Kindness Questionnaire condition have a higher likelihood of choosing the Fair Trade alternative in a real-life store simulation and (2) whether this choice is mediated by interpersonal feelings. Respondents could choose between a brand name regular milk chocolate bar (Cote d'Or) and a brand name Fair Trade milk chocolate bar (Oxfam) of comparable size (47 and 50 grams, resp.) and general appearance (both chocolate bars had red packaging). The second study takes a range of product features of coffee into account and investigates whether the importance of the Fair Trade is driven by an increase in the experience of interpersonal feelings caused by the Kindness Questionnaire manipulation, compared to the control condition. We find that the effect of the Kindness Questionnaire manipulation is indeed mediated by a rise in experienced interpersonal feelings.

3. Study 1

3.1 Participants and procedure

One-hundred ninety-six undergraduate students at a Western European University participated in the study. The average age was 22.56 years (SD = 4.84) and the sample consisted of 59 % female participants.

The participants were invited to the lab and were randomly assigned to either the Kindness Questionnaire condition (N=99) or the control condition (N=97). After completing the questionnaire the participants reported their experienced levels of interpersonal feelings, among other unrelated filler tasks. Next, the participants were instructed to partake in what they believed was a taste test, but was actually the choice segment of the experiment. The participant was told that he or she was participating in a milk chocolate taste test and that they had the freedom to choose between two brands, without explicitly attracting attention to the fact that one of the brands was a Fair Trade product. They could choose between a regular brand (Cote d'Or) and a Fair Trade brand (Oxfam). Both bars were of similar size (47grams and 50 grams respectively) and similar in general appearance as both had red colored packaging. No explicit control questions were asked as to whether or not the participant noticed that one of the brands was Fair Trade. On the one hand because the Fair Trade brand (Oxfam) is relatively well-known as a Fair Trade brand and on the other hand because we did not want to reveal the true purpose of the study. The participants returned to their seats with the selected chocolate bar and completed a survey about the chocolate bar they had selected. The respondents were allowed to keep the rest of the chocolate bar in case they had not finished it during the alleged taste test, received payment for their participation and thanked at the end of the survey.

Materials

Kindness Questionnaire condition

Participants assigned to this condition were instructed to complete a Kindness Questionnaire. The Kindness Questionnaire was a Dutch translation of the one used by Reed and Aspinwall (1998) in which participants were prompted to elaborate on their past acts of kindness. Ten questions prompted participants to recall specific acts of kindness they had engaged in in the distant or present past. The Kindness Questionnaire consists of the following ten "yes or no" questions: 'Have you ever forgiven another person when they have hurt you?', 'Have you ever been considerate of

another person's feelings?', 'Have you ever been concerned with the happiness of another person?', 'Have you ever put another person's interests before your own?', 'Have you ever been generous and selfless to another person?', 'Have you ever attended to the needs of another person?', 'Have you ever tried not to hurt the feelings of another person?', 'Have you ever felt satisfied when you have helped another person?', 'Have you ever gone out of your way to help a friend even at the expense of your own happiness?' and 'Have you ever found ways to help another person who was less fortunate than yourself?'. When the participant answered 'yes' to a question, they were asked to describe one (or several) specific act(s) of kindness related to the question.

Control condition

The control condition was also a Dutch translation of the control questionnaire that was utilized by Reed and Aspinwall (1998). Participants in the control condition also had to complete a ten item questionnaire, similar to the Kindness Questionnaire condition. The difference lies in the content of the questions. Here the participants were probed for their opinions of ten neutral statements that were completely unrelated to acts of kindness. The control questionnaire consisted of the following ten statements: 'I think the color blue looks great on most people.', 'I think that chocolate is the best flavor for ice cream.', 'I think that winter is the most satisfying season of the year.', 'I think that the most aromatic trees in the world are pine trees.', 'I think that cooking is an important skill to possess.', 'I think that houseplants help to brighten the home.', 'I think that sewing is an important skill to possess.', 'I think that the beach is a great place to go on holiday.', 'I think that the underground is the best form of public transportation.', and 'I think that fruit makes the best dessert.'. Consistent with the Kindness Questionnaire group, when the participants answered 'yes' to a statement, they were asked to elaborate on as to why they would hold that particular opinion.

Measures

Interpersonal feelings were measured using items based on previous research (Armitage & Rowe, 2011; Crocker et al., 2008) and encompassed love, connectedness, pride, generosity, joy, benevolence, compassion and empathy. Participants were asked to rate the degree to which they experienced these feelings at the present moment on a scale ranging from (1) Not at all to (5) Extremely. Exploratory factor analysis revealed that the interpersonal feelings measures loaded on a single factor explaining 50.6 % of the variance in the data, resulting in a scale with $\alpha = .86$.

Motives

In addition to an open ended question 'Why did you choose this product?' other quantifiable questions were asked in order to gain insight into the motives driving their decision. Two general questions about taste preference and brand familiarity were formulated. In order to further mask the true objective of the study several health-related questions were posed.

3.2 Results and discussion

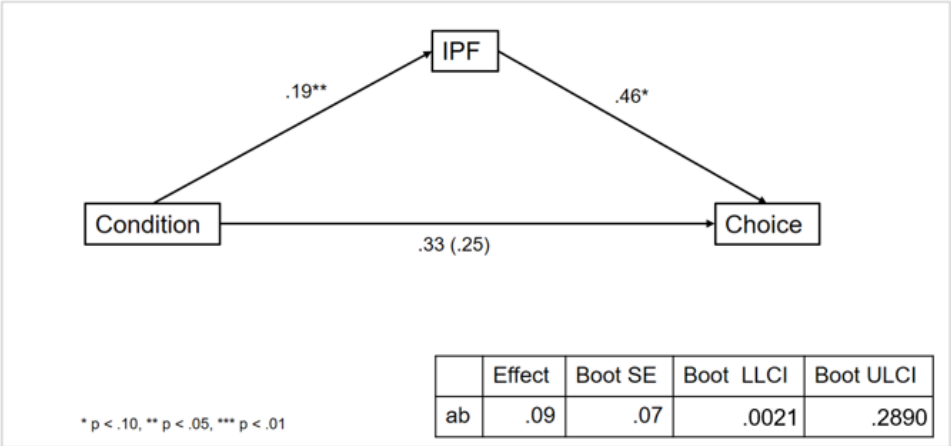
An independent samples T-Test revealed that participants in the Kindness Questionnaire (KQ) condition did indeed report higher levels of experienced interpersonal feelings (M=3.82, SD=.52) than the control condition (M=3.63, SD=.69), $t(194) = 2.23$, $p < .05$.

We found that the effect of the Kindness Questionnaire on product choice was mediated by interpersonal feelings. As Figure 1 illustrates, the regression coefficient between condition and interpersonal feelings was statistically significant (B=.19, SE=.09, $p < .05$), and marginally significant between interpersonal feelings and product choice (B=.46, SE=.25, $p = .06$). We tested the significance of this indirect effect using bootstrapping procedures. Unstandardized indirect effects were computed for each of 10,000 bootstrapped samples, and the 95% confidence interval was computed by determining the indirect effects at the 2.5th and 97.5th percentiles. The bootstrapped unstandardized indirect effect was .09 (Boot SE=.07), and the 95% confidence interval ranged from .00 to .29. The indirect effect was statistically significant.

A chi-square test of independence was performed to examine whether participants who were exposed to the KQ have a higher tendency of selecting the Fair Trade option. Unfortunately, the relation between these variables proved statistically insignificant, χ^2 (1, N = 196) = 1.35, $p = .25$. Although slightly more participants selected the Fair Trade option (49.5%) compared to the participants in the control condition (41.2%). The lack of significance could be explained by the overpowering influence of brand familiarity on an effect that is already expected to be small to begin with. Analyses on the motive items reveal that a large number of the participants that selected the regular brand option (Cote d'Or) were driven by familiarity motives (52.3%) compared to the number of participants that selected the Fair Trade option (3.4%), χ^2 (1,N=196) = 55.37, $p < .000$.

Figure 1.

Unstandardized regression coefficients for the relationship between condition and product choice as mediated by interpersonal feelings. The unstandardized regression coefficient between condition and product choice, controlling for interpersonal feelings, is in parentheses.



	Effect	Boot SE	Boot LLCI	Boot ULCI
ab	.09	.07	.0021	.2890

To clarify, Table 1 (section "By product choice") reflects the motives for choice split up by the product they have chosen. In other words, of the participants that chose the regular product, 52.3% did so because they were motivated by brand familiarity. Conversely, of the participants that chose the Fair Trade product, 3.4% were motivated by brand familiarity. A strong preference for the taste of the well-known regular chocolate brand (Cote d'Or) probably also imposed an subduing effect on the manipulation as a large number of the participants that selected the regular brand option (Cote d'Or) were driven by flavor motives (56.1%) compared to the number of participants that selected the Fair Trade option (16.9%), χ^2 (1, N = 196) = 31.63, $p < .000$, which in part could be also be explained by the brand's overwhelming ubiquity. Though it is interesting to note that still a relatively large proportion of the sample opted for the Fair Trade option (45.4%). No differences between the conditions was found with respect to motives of taste (χ^2 (1, N = 196) = .72, $p = .40$) or brand familiarity (χ^2 (1, N = 196) = 1.40, $p = .24$). See Table 1 for an overview of these Chi Square tests. In addition, there was no correlation between product choice and any of the health-related questions ("Do you smoke?", χ^2 (1,N=196) = .01, $p = .93$; "How is your health in general?", χ^2 (1,N=196) = .15, $p = .70$, "How often do you eat candy?", χ^2 (1,N=196) = .59, $p = .87$ and "How often do you exercise?", χ^2 (1,N=196) = .88, $p = .35$).

Table 1
Study 1*:* Chi-square tests by condition and by product choice

By **condition**:	Kindness N=99 (in %)	Control N=97 (in %)	Total N=196 (in %)	Chi-Square tests X^2	Cramer V	p-value
Product choice						
Regular	50.5	58.8	54.6	1.35	.08	.25
Fair Trade	49.5	41.2	45.4			
Total	100	100	100			
Brand familiarity						
Yes	26.3	34.0	30.1	1.40	.09	.24
No	73.7	66.0	69.9			
Total	100	100	100			
Taste preference						
Yes	35.4	41.2	38.3	.72	.06	.40
No	64.6	58.8	61.7			
Total	100	100	100			

By **product choice**:	Regular N=99 (in %)	Fair Trade N=97 (in %)	Total N=196 (in %)	Chi-Square tests X^2	Cramer V	p-value
Brand familiarity						
Yes	52.3	3.4	30.1	55.37	.53	***
No	47.7	96.6	69.9			
Total	100	100	100			
Taste preference						
Yes	56.1	16.9	38.3	31.64	.40	***
No	43.9	83.1	61.7			
Total	100	100	100			

Significant at ***p<.01,**p<.05, *p<.10

3.3 Conclusion

We find that the inclination of respondents in the KQ condition towards the Fair Trade option is mediated by a rise in interpersonal feelings. The smaller size of the effect could be due to the imposing influence of brand familiarity on product choice. Cote d'Or is a strikingly popular brand among Belgian users. The following study should neutralize the effect of brand familiarity whilst keeping it in the product equation. Also, Study 1 does not control for idealistic dispositions, it could well be that certain participants would have selected the Fair Trade option due to personal beliefs

unrelated to the manipulation or that one condition could contain a larger concentration of idealistic participants by chance. De Pelsmacker, Janssens, et al. (2005) found that consumers high in idealism tend to have a stronger inclination towards Fair Trade products.

4. Study 2

4.1 Participants and procedure

One-hundred seventeen coffee-consuming undergraduate students of a Western European University participated in the study. The average age was 22.41 years (SD = 5.47) and the sample consisted 53 % female participants.

Participants were screened based on their coffee-consumption and invited to the lab. People who did not drink coffee were not included in the analysis. They were randomly assigned to either the Kindness Questionnaire condition (N=60) or the control condition (N=57). After completing the questionnaire in a computer room the participants were probed for their experienced levels of a range of interpersonal feelings. After completing these tasks the participants completed an adaptive conjoint analysis survey about coffee.

Adaptive conjoint analysis (ACA) is a computerized survey design in which a relatively large number of product attributes are presented in combinations that are customized based on the respondents previous answers. In order to avoid information overload and extended and tiresome survey questioning ACA focuses only on the attributes that are most relevant to the respondent. This survey design enables researchers to determine indirectly what product attributes are considered important by presenting trade-offs of these attributes to respondents. Contrary to a traditional survey, in which respondents can claim that they find every attribute as important, respondents are now forced to choose what they truly find important and which attribute takes precedence in a trade-off. The researcher introduces several product or service attributes (for example: color, weight, design,…) and declares the number of levels each attribute has (for example, the 3 levels for the attribute color are blue, yellow and green). Based on a customized presentation of combinations the importance of these attributes is indirectly derived. The ACA survey consists of several sections which each have a specific purpose. First, the preference level for each attribute is directly gauged (known as the '*ACA rating*'), second the relative importance of each attribute is measured (known as the '*ACA importance'),* third come the paired-comparison trade-off questions which elicit the conjoint trade-offs and lastly the computer composes a series

of ‘calibrating concepts’, in other words, it composes products with attribute combinations ranging from the most ideal product to the most undesirable product and prompts the respondent to report either their purchase likelihood. (Sawtooth, September 2007).

The attributes and their appropriate levels were partly inspired by the attributes De Pelsmacker, Driesen, et al. (2005) used and were based on an exploratory group discussion they conducted with coffee consumers, and partly on a short pilot study. We distinguish two types of attributes: product versus ethical attributes. The following product attributes and associated levels were used in the ACA survey:

- Brand: manufacturer brand or private label
- Blending: arabica or robusta
- Strength: strong, regular or decaf
- Type: coffee pads or grounded coffee
- Price: €2, €3 or €4
- Point of purchase: supermarket or organic specialist store

As well as the following ethical attributes:

- Fair Trade label: present or absent
- Organic certification (“Bio-label”): present or absent

The authors have opted to include organic certification in the ACA survey to not attract too much attention to the Fair Trade attribute. Since research has shown that consumers rating high on idealism tend to have a stronger tendency for purchasing Fair Trade products (De Pelsmacker, Janssens, et al. ,2005) the participants completed a questionnaire which measured idealism in order to control for these idiosyncratic ethical dispositions. Upon completion, participants received payment for their participation and thanked at the end of the survey.

Measures

Interpersonal feelings: The same items as in the first study were used. Participants were asked to rate the degree to which they experienced these feelings at the present moment on a scale ranging from (1) Not at all to (5) Extremely. Exploratory factor analysis revealed that the interpersonal feelings measures loaded on a single factor explaining 52.5 % of the variance in the data, resulting in a scale with $\alpha = .87$.

Idealism: Idealism was measured with items from the ethical position questionnaire (Forsyth, 1980). The Ethics Position Questionnaire was designed to measure individual differences in moral thought. Examples of items of the idealism scale are "People should make certain that their actions never intentionally harm another even to a small degree." and "The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.". Items were measured on a seven-point scale ranging from (1) Completely disagree to (7) Completely agree. The coefficient alpha for the idealism scale was .89.

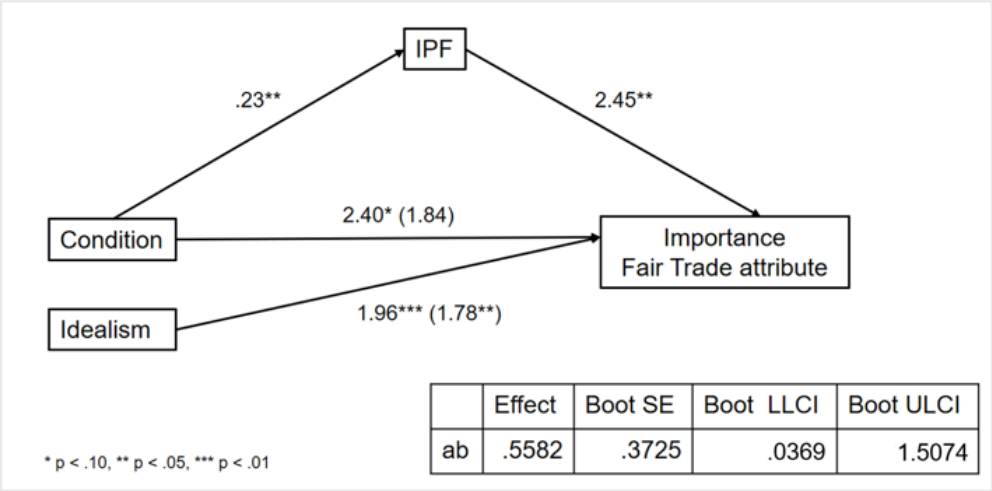
4.2 Results and discussion

Attribute importance and conjoint utilities: An adaptive conjoint analysis was implemented using the Sawtooth adaptive conjoint analysis software, the data was imported into IBM SPSS Statistics 23. The most important attribute overall is coffee strength (18.3%), followed by point of purchase (15.1%), type (13.9%), brand (11.6%), presence of Fair Trade label (11.6%), price (10.9%), organic certification (9.3%) and blending as least important attribute (9.2%). Table 2 presents an overview of overall attribute importances and conjoint utilities (See B. Orme (2010) for more information on the interpretation of adaptive conjoint analysis). Again, a significant difference in IPF is found between the KQ condition (M=3.89, SD=.50) and the control condition (M=3.67, SD=.69), t(115)=2.02, $p < .05$. Interestingly, when comparing attribute importances between the conditions we see a marginally significant difference in the importance of the Fair Trade label between the KQ condition (M=9.97, SD=7.75) and the control condition (M=7.65, SD=6.14), t(115)=1.79, $p = .07$. But we do not find a difference in importance in the other ethical attribute, namely the presence of an organic certification (t(115)=1.35, $p = .89$). For an overview of all pairwise comparisons we refer to Table 2. This suggests that the increase in IPF exclusively impacts the ethical value that has a strong humane, social aspect (i.e. the Fair Trade label) as opposed to the other ethical value that has a more global, environmental overtone. One could even go so far to state that is has some self-oriented benefits, as organic food is often believed to be healthier (Yusoff, Ibrahim, Shafie, & Rennie, 2012).

Again, we found that the effect of the Kindness Questionnaire on product choice was mediated by interpersonal feelings, even when controlling for idealism. As Figure 2 illustrates, the regression coefficient between condition and interpersonal feelings was statistically significant (B=.23, SE=.06, $p < .05$), as was the regression coefficient between interpersonal feelings and product

choice (B=2.45, SE=1.04, $p < .05$) and the regression coefficient between the covariate idealism and product choice was also significant (B=1.79, SE=.71, $p < .01$).

Figure 2.
Unstandardized regression coefficients for the relationship between condition and importance of Fair Trade attribute as mediated by interpersonal feelings and controlling for idealism. The unstandardized regression coefficient between condition and importance of Fair Trade attribute, controlling for interpersonal feelings, is in parentheses.



	Effect	Boot SE	Boot LLCI	Boot ULCI
ab	.5582	.3725	.0369	1.5074

We tested the significance of this indirect effect using bootstrapping procedures. Unstandardized indirect effects were computed for each of 10,000 bootstrapped samples, and the 95% confidence interval was computed by determining the indirect effects at the 2.5th and 97.5th percentiles. The bootstrapped unstandardized indirect effect was .56 (Boot SE=.36), and the 95% confidence interval ranged from .04 to 1.51.

4.3 Conclusion

We can thus conclude that participants who received the kindness manipulation attached more importance to the Fair Trade attribute and this effect can be explained by an increase in interpersonal feelings. As could be expected, idealistic participants attached more importance to the Fair Trade attribute, yet including this covariate in the model did not eliminate the effect of the Kindness Questionnaire manipulation.

Table 2

Study 2*:* Attribute importances and conjoint utilities[a] overall (a) and compared between the kindness and control condition (b*).*

Attribute	Overall (a)		Kindness (b)		Control (b)		T-test	
	Attribute importance	Conjoint utility	Attribute importance	Conjoint utility	Attribute importance	Conjoint utility	T-value	p-value
Strength	18.27 %		20.41 %		24.65 %		2.99	***
Strong		.03		.05		.18		
Regular		.33		.49		.38		
Decaf		-.45		-.63		-.69		
Type	13.93 %		15.49 %		16.00 %		.31	.76
Coffee pads		-.11		-.18		-.36		
Grounded coffee		.05		.12		.27		
Price	15.14 %		14.57 %		13.67 %		.72	.47
€2		.31		.30		.23		
€3		.09		.13		.09		
€4		-.49		-.53		-.44		
Brand	10.86 %		10.52 %		10.06 %		.34	.73
Private label		-.27		-.36		-.26		
Manufacturer brand		.20		.30		.18		
Point of purchase	11.59 %		11.35 %		9.83 %		1.08	.28
Supermarket		.20		.30		.09		
Organic specialist store		-.26		-.36		-.17		
Blend	9.25 %		10.18 %		10.76 %		.40	.69
Arabica		.02		.04		-.08		
Robusta		-.09		-.03		.00		
Fair Trade label	11.64 %		9.97 %		7.65 %		1.79	*
Present		.24		.23		.20		
Absent		-.30		-.29		-.28		
Organic certificate	9.33 %		7.51 %		7.36 %		.14	.89
Present		.14		.02		.18		
Absent		-.21		-.08		-.26		

Significant at ***p<.01,**p<.05, *p<.10

5. General discussion

Our results demonstrate that it is possible to nudge consumers into choosing a Fair Trade alternative by increasing the experience of interpersonal feelings through Reed and Aspinwall's (1998) Kindness Questionnaire. We could find this effect in two different product categories, namely chocolate and coffee. In the first study we find that participants choice for a Fair Trade milk chocolate brand versus a well-known regular brand was driven by an increase of interpersonal feelings. We find that participants in the Kindness Questionnaire condition were slightly more inclined than participants in the control condition to choose the Fair Trade product. The effect of choice of a product was not large because the regular milk chocolate brand was too popular amongst our sample. However it should be noted that in reality, brand familiarity is always a force to be reckoned with. In the conjoint analysis survey in study 2 the product attribute private label brand versus manufacturer brand was included in the model, but no specific brands were mentioned hence mitigating the influence of brand names. In the second study we found that participants in the Kindness Questionnaire condition attached more importance to the Fair Trade attribute than did the participants in the control condition.

The Kindness Questionnaire is traditionally used in research on self-affirmation theory, a theory that states that people wish to view themselves as moral, competent, adaptive and in control of the outcome of their lives. According to self-affirmation theory, whenever that view is threatened, people will engage in actions that help reastablish that view (Steele, 1988). However this paper does not focus on self-affirmation theory. In part because the empirical evidence of self-affirmation is not convincing (see McQueen and Klein (2006) for a review). What is more, specific to the Kindness Questionnaire Dillard et al. (2005) found no effect on self-esteem or global self-feelings. But they did find an increase in interpersonal feelings, which is what we have specifically focused on in this paper.

A second issue with studying self-affirmation theory is that the theory states that self-affirmation can be flexible. So when someone's self-image is threatened, this person can also self-affirm in a domain unrelated to the domain under threat. Imagine that someone receives a negative evaluation at work and work is important to that person's self-integrity. This person could then think about how satisfying his or her family life is and by considering his or her personal life as more important than their job, this person can reaffirm and restore their self-integrity. This possibility complicates research on self-affirmation theory, since there is no way of knowing whether the theory is disconfirmed or whether the respondent self-affirms outside

the bounds of the experiment. Lastly, in the setup of our studies, the use of the self-affirmation theory is in fact inconsequential because the respondents self-integrity is never threatened. This is because Kindness Questionnaire consolidates respondents' self-integrity, as opposed to threatening it. This is in fact its main purpose: researchers use the Kindness Questionnaire to restore respondents' self-integrity after threatening it.

Our studies have confirmed that the Kindness Questionnaire leads to an increase in the experience of interpersonal feelings, thus replicating previous research (Armitage et al., 2008; Armitage & Rowe, 2011; Epton & Harris, 2008; McQueen & Klein, 2006). This boost in interpersonal feelings in turn nudges respondents towards choosing a Fair Trade product. Several explanations can be offered for this effect. For one, by completing the Kindness Questionnaire people could be induced into a mindset in which they transcend self-directed concerns and focus more on others. In their paper on the influence of writing about self-important values on defensiveness towards self-threatening information Crocker et al. (2008) posit that values affirmation reduces defensiveness via self-transcendence and not via self-integrity, which is contrary to what self-affirmation theory would predict. Similar to the findings of this study, they find that writing about values respondents considered important induced more positive other-directed emotions (such as love and compassion), than positive self-directed emotions (such as pride). The effect of the Kindness Questionnaire on the importance of the Fair Trade label, but not the organic certification in Study 2 also demonstrates this focus on others rather than on the self. Fair Trade has a much stronger social and humanitarian component than does an organic certification, which is more focused on the self as consumers believe it to be more healthy and beneficial (Yusoff et al., 2012).

A second explanation could be that respondents felt good when experiencing a rise in interpersonal feelings and wished to continue feeding this 'warm and fuzzy feeling'. Aknin et al. (2012) propose the existence of a positive feedback loop between prosocial behavior and happiness. They find that recalling a past prosocial behavior (their paper focusses on prosocial spending specifically) increases happiness levels, which in turn increase the likelihood of engaging in prosocial behavior and so on. The respondents in this study could have been feeling good about themselves when remembering the kind acts they have performed for others and would therefore be more inclined to purchase a Fair Trade product due to this positive feedback loop.

Lastly, attribution theory (Kelley & Michela, 1980) could also explain why the Kindness Questionnaire would lead to an inclination to opt for the Fair Trade option. Grounded in persuasion literature, attribution theory deals with how people arrive at causal explanations of events. R. L. Miller, Brickman, and Bolen (1975) find that a persuasion communication designed to manipulate the attribution a person makes about themselves can result in enduring behavioral and motivational changes. A practice that is also referred to as 'labelling' (E. M. Moore, Bearden, & Teel, 1985). In their study on the modification of children's littering behavior, R. L. Miller et al. (1975) randomly assigned three fifth-grade classrooms to three conditions: a persuasion condition, an attribution condition and a control condition. In the persuasion condition, they hung up a poster in the class stating "Don't be a litterbug." With "Don't litter" and "Be neat" bordering it. In the attribution condition, a poster was also hung but it stated "We are Andersens's Litter-Conscious Class". At the end of an eight day period, the authors found that not only was the attribution condition more effective, the effects also lasted longer than in the persuasion condition. The authors conclude that the children in the attribution class had internalized the message the most and were least likely to litter on follow-up tests, even when they did not know they were being monitored. Attribution could explain what was happening in our studies. By completing the Kindness Questionnaire, respondents were subtly internalizing the message: 'You are a kind person' and behaved accordingly. The rise in interpersonal feelings could have reinforced this attribution of kindness.

It is worth noting that our effect sizes are on the small side. This is an unfortunate yet inevitable outcome that coincides with the subject matter. The consumer purchase process is dazzlingly complex and a myriad of factors have to be taken into account. More importantly, at this point, for only a handful of idealistic consumers Fair Trade might be a unique selling proposition but for the mainstream consumer Fair Trade is no more than a product attribute competing with other product attributes that are much more powerful, such as price and functionality (Devinney et al., 2009). Consumers are not easily distracted from habitual purchases and the comfort of brand familiarity, especially when it comes to permanently switching to Fair Trade products. It will require a slow and gradual process issued and governed by corporations. The "ethical consumer" as such is a myth and the socially responsible consumer is to be created not discovered (Devinney et al., 2009; Devinney, Auger, & Eckhardt, 2010). This paper demonstrates that there is hope yet, it is possible to nudge the consumer towards choosing Fair Trade in a positive way by reminding them of how kindhearted they are and not by guilt tripping them into a choice they will not wholeheartedly embrace. This positive approach has proven

much more effective in persuading people towards making better decisions because they do not feel they are being coaxed into doing something. They let their guard down and react less defensively, therefore allowing for more long-lasting behavioral change (Cornelissen et al., 2008; R. L. Miller et al., 1975).

Though this paper does not explicitly investigate specific drivers of the attitude-behavior gap, the results can be used as a means for bridging or even circumventing this gap. We find that it is possible to nudge people into opting for a Fair Trade option by reminding them of how kind they are and by making interpersonal feelings salient. Persuading people into buying Fair Trade products by inducing warm and positive affect is not new in Fair Trade marketing. The marketing strategy of the Fairtrade Foundation is basically intent on raising awareness about how Fair Trade can improve the lives of local farmers (it mostly boils down to 'making the world a better place for all humanity') and the bulk of their promotional and packaging material features smiling farmers (see Marketing Society (2013) for an overview of The Fairtrade Foundations marketing strategy and objectives). Research shows that smiling models in advertising produce more consumer joy (Berg, Soderlund, & Lindstrom, 2015). The difference is that the positive affect these campaigns instill is abstract, broad-based and 'far from home', whereas this paper shows that people need to feel close, concrete, specific and self-relevant positive affect oriented at others. The Kindness Questionnaire does just that: it reminds them of specific moments in which they were kind to others and may even relive those feelings.

6. Managerial implications

Although the Kindness Questionnaire has proven effective, completing it is time consuming and it is cumbersome to apply in a real life supermarket environment. The boost in interpersonal feelings is likely to be fleeting and short-lasting so any use of it should be implemented at the point of purchase and/or at the level of product packaging. Drawing on attribution theory, texts such as "You are a kind person" or more specific statements inspired on the items of the Kindness Questionnaire such as "Your friends can rely on you" or "You are generous towards friends and family" could be printed on the product packaging or on a poster near the Fair Trade product assortment. It is important to keep the tone of the message positive. Posing questions outside the context of the Kindness Questionnaire could backfire and result in defensive reactions. Reading "Have you ever put another person's interests before your own?" on a Fair Trade product could sound judgmental and coercing to consumers.

In the long run, interventions like the Kindness Questionnaire could abet the increase of the value that is attached to a Fair Trade label. According to Devinney's (2012) notion of 'socially responsible consumption' (C_NSR) consumers need not necessarily be driven by ethical motives but that the consumer could take into account "*non-functional components of the consumption activity where benefits to others are taken into consideration, either directly or indirectly*" (pg 228). This much broader view on the consumption of ethical products does not require that consumer is driven by ethical motives, but merely by the appreciated value of the Fair Trade product attribute in itself. To illustrate, a socially responsible consumer could purchase a Fair Trade product because he strongly believes that minimum labor standards are imperative, but he could just as well purchase a Fair Trade product simply because he likes being seen with a Fair Trade product, or because he prefers the flavor or quality. In that sense, C_NSR is not concerned with whether the reasons for consumption are ethical or not, but focusses on the value that is attached to the ethical product attribute.

7. Limitations and future research

Fair Trade products exist for over more than 60 years but researching this topic still remains challenging due to social desirability. This study has attempted to circumvent this issue by concealing the true research objective. In Study 1 by telling participants they were participating in a taste test. Participants only had the choice between two options, so it is imaginable that some participants saw through this false pretense and behaved in a way they thought were expected to behave. Second, in the open-ended questions some participants declared that they had chosen the Fair Trade option because they did not know the brand and just wanted to try something new. Then again, this could also have been an a posteriori rationalization of a choice they had made as a result of the manipulation. Future research should grant participants a budget and allow for real price trade-offs and offer a larger number of regular and Fair Trade brands. Study 2 employed an adaptive conjoint analysis survey design as recommended by Andorfer and Liebe (2012). However this technique is also not completely immune to socially desirable responses, respondents could attribute a higher importance to certain attributes they believe they are expected to attached a higher importance to, such as Fair Trade, or child labor-free practices. But the trade-off section of the survey is able to tease out what the respondent really finds important, this makes socially desirable responding less straightforward compared to traditional surveys.

The effect sizes tend to be on the small side. This could in fact be a reflection of the small role Fair Trade currently plays for consumers. Larger sample sizes could improve statistical significance, but would not change the size of the effects. Still, it is indeed advisable that future researchers use much larger sample sizes when studying the role Fair Trade plays in a consumers purchasing behavior. It is also not clear what truly drives the behavior: is it merely the rise in interpersonal feelings, attribution/labelling or a combination of both? Future research should focus on disentangling these possible mechanisms. This paper has also focused on consumers as a whole, but several studies have shown that there exist different segments of consumers, some with a larger propensity of purchasing Fair Trade (De Pelsmacker, Janssens, et al., 2005; Doran, 2009). There could be variety in the effectiveness of the Kindness Questionnaire depending on the type of consumer. Lastly, coffee and chocolate are one of the most typical Fair Trade product categories, but in order to generalize to all Fair Trade goods, future research should incorporate other product categories such as bananas, sugar, textiles and flowers.

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CHAPTER V:
CONCLUSIONS, CONTRIBUTIONS AND FUTURE RESEARCH

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This dissertation investigates and compares contemporary topics in ethical and unethical consumer behavior. We take a broad comparative perspective and study the different cognitive processes that drive ethical and unethical judgment and then zoom in on contemporary topics in ethical and unethical consumer behavior. This final chapter is structured as follows. First, a recapitulation of the main findings of Chapters II to IV is provided, followed by an overview of specific and general theoretical and managerial contributions and the final section concludes with suggestions for future research.

1. Recapitulation of findings

In the second chapter we study judgment of decision-making of ethical and unethical behavior jointly by integrating them in a dual process framework. This chapter investigates whether different types of processes drive ethical versus unethical judgment and which types of processing are involved. Ethical behavior encompasses behavior aimed at enhancing other's well-being and doing good for others and/or society in general. On the other unethical behavior encompasses norm-violating behavior that is harmful to others and/or society in general. Based on the literature, we have proposed that unethical behavior is more likely to be driven by Type 1 processing (i.e. a diverse set of autonomous processes that do not rely on working memory and are associated with intuition, intuition and learned, automated processes) and ethical behavior is more likely to be driven by Type 2 processing (i.e. a type of processing that relies heavily on working memory and is associated with cognitive decoupling, hypothetical thinking and with deliberate and controlled cognitive processes).

In the first study we find that participants needed more time to judge ethical scenarios, even for short sentences describing basic, everyday behaviors. These findings show that people are more quick to recognize and consequently judge unethical behavior, compared to ethical behavior. In the second study we replicate the finding that participants were slower to judge ethical scenarios compared to analogous unethical scenarios. Also, participants who were exposed to the ethical scenarios were less susceptible to framing effects, which is to be expected from people relying on a more analytic processing that is characteristic to Type 2 processing (McElroy & Seta, 2003). We also find that participants do not appear to be aware of these differences, which lead us to conclude that these differences might be hardwired on a more

basal level, out of the reach of conscious reflection and control. The third study teases out the differences in Type 1 and Type 2 processing by overtaxing the participants working memory during their decision making in four morally laden dilemmas. Cognitive load in the form of a digit task hampered decision making in the ethical personal dilemma by significantly slowing down reaction times, whereas decision making in the unethical personal dilemma was not negatively affected by cognitive load. Moreover, participants reacted even faster compared to the no-load condition. The final study tracked participants eye movements and pupil diameters while reading and deciding upon the four morally laden dilemmas from Study 3. More, longer and more dispersed fixations, faster, longer and more numerous saccades and smaller pupil sizes were observed for the unethical dilemmas compared to the ethical dilemmas. Though no conclusive process evidence can be deduced from the eye tracking metrics, the results showed that ethical and unethical information is processed differently.

In the third chapter we investigate a contemporary manifestation of unethical consumer behavior, i.e. norm-violating behavior that is harmful to others and/or society in general and segment the population of digital pirates and find four segments of pirates were distinguished based on differing constellations of attitude, moral evaluation of piracy, and experienced guilt associated with piracy. The selection of these cluster variates was inspired by the aspiration to include only the most fundamental building blocks to achieve a parsimonious model that would adequately reflect possible differences between digital pirates. Attitude provides valuable information about a person's general appraisal of the appropriateness of behavior (Ajzen, 1991). Some researchers may not consider attitude in their models because they presume that attitude is correlated with ethical judgment, i.e. they assume that if people think something is unethical, they will have a negative attitude toward it. However, the literature suggests that attitude is not necessarily contingent on or related to ethical judgment, especially when it comes to illegal downloading (Patwardhan et al., 2012; Vitell & Muncy, 1992; Vitell et al., 2007). Hence, there is good reason to include both attitude and ethical evaluation as distinct factors. Finally, experienced guilt is included because it works as an inhibitory mechanism that might help to further differentiate pirate segments.

This resulted in four pirate segments: the anti-pirate, conflicted pirate, cavalier pirate and die-hard pirate. *Anti-pirates* are characterized by the least favorable attitude toward piracy, consider piracy as morally unacceptable and experience the largest amount of guilt compared to the other segments. They tend to pirate the least frequent of all segments, report the lowest subjective norms and piracy self-efficacy. For them, piracy is by no means a habit and they strongly

believe that digital piracy inflicts harm to the industry. *Conflicted pirates* have a positive attitude toward piracy, although they consider piracy as morally unacceptable and feel guilty when pirating. This juxtaposition typifies the conflicted pirate, who tends to pirate more than the anti-pirate yet less than the other segments do. Compared to the rest, the conflicted pirate reports a moderate subjective norm, pirating self-efficacy, habitual behavior and believes that digital piracy harms the industry. *Cavalier pirates* have a positive attitude toward digital piracy and recognize piracy as an unethical activity but do not experience guilt over piracy. This nonchalant and indifferent mindset typifies the cavalier pirate. This segment pirates more than conflicted pirates, reports higher levels of subjective norm, pirating self-efficacy, considers their activity more of a habit and perceives it as less harmful compared to the previous two segments. *Die-hard pirates* express the most favorable attitude of all segments and do not consider it unethical. They also experience the least amount of guilt, which is consistent with their belief that the action is not unethical. Die-hard pirates tend to pirate the most of all pirate segments, report the highest subjective norm, pirating self-efficacy and they do not believe that piracy causes much harm to the industry. For the die-hard pirate, pirating is just a habit.

More importantly, by establishing these four different segments of digital pirates, we can understand better how current piracy-combatting measures influence them differently and why the overall success of such measures has been rather limited. We find that the educational strategy is more effective than the legal strategy in terms of lowering pirating intentions. But even though the legal strategy was successful in significantly influencing perceptions of illegality and impunity, it did not lower the pirating intentions of die-hard pirates. The educational strategy displayed the same weakness, as die-hard pirates reported significantly heightened perceptions of harm after the manipulation but their general level of perception of harm remained significantly lower than that of all other segments and in addition, it did not lower their pirating intentions. We have thus determined that both strategies fail to change the pirating intentions of the most challenging target segment, i.e., die-hard pirates.

In the fourth chapter we focus on the consumption of Fair Trade goods, which is a form of ethical consumer behavior or ethical consumerism, and reflects behavior aimed at enhancing other's well-being and doing good for others and/or society in general. We investigate whether purchasing behavior can be influenced by tapping into the consumers need for interpersonal connections. We do this by the use of a particular self-affirmation tool called the Kindness Questionnaire which works by prompting people to recall and elaborate on specific situations in which they have been kind to others. Our results demonstrate that it is possible to nudge

consumers into choosing a Fair Trade alternative by increasing the experience of interpersonal feelings through the Kindness Questionnaire. We could find this effect in two different product categories, namely chocolate and coffee. In the first study we find that participants choice for a Fair Trade milk chocolate brand versus a well-known regular brand was mediated by an increase of interpersonal feelings. In the conjoint analysis survey in study 2 the product attribute private label brand versus manufacturer brand was included in the model, but no specific brands were mentioned hence mitigating the influence of brand names. In the second study we found that participants in the Kindness Questionnaire condition attached more importance to the Fair Trade attribute than did the participants in the control condition. Our studies have confirmed that the Kindness Questionnaire leads to an increase in the experience of interpersonal feelings, thus replicating previous research (Armitage et al., 2008; Armitage & Rowe, 2011; Epton & Harris, 2008; McQueen & Klein, 2006). This boost in interpersonal feelings in turn could nudge respondents towards choosing a Fair Trade product.

Linking the results of Chapter III and IV back to the findings of Chapter II, it would be expected that the evaluation of digital piracy would follow Type 1 processing, whereas purchasing decision making of Fair Trade products would follow Type 2 processing. But this could be different depending on the circumstances. Anti-pirates and die hard pirates will probably engage in Type 1 processing because their behavior follows their evaluation that digital piracy is unethical/not unethical. For the conflicted and cavalier pirates (to a lesser extent), chances are that Type 2 processing is engaged in order to articulate rationalizations for why they would still engage in digital piracy. In the case of Fair Trade, for mainstream consumers who would normally purchase regular products, the decision to purchase a Fair Trade product is controlled and intentional, thus Type 2 processing. These consumers would have to deviate from their regular, default brand and would have to consider why they would purchase a Fair Trade product instead. Interventions such as the Kindness Questionnaire could serve as an additional argument (i.e., emotion as information) and could help tilt the balance in the advantage of the Fair Trade product. Conversely, for consumers who have strong, outspoken ethical principles regarding Fair Trade and/or highly idealistic consumers (De Pelsmacker, Janssens, et al., 2005) and/or habitually purchase Fair Trade products, purchasing decisions could be more automatic and intuitive.

2. Theoretical and managerial implications

Chapter II contributes to the literature on moral cognition by applying dual process theory on ethical and unethical judgment. In doing so it highlights the need of a general, unifying theory

on morality which could set a new stream of comparative research in motion. As the field becomes more multidisciplinary and more knowledge is gathered, the need for a framework in which to structure and outline this knowledge becomes more important. This paper does not advocate that ethical and unethical should *always* be studied jointly, but it could be interesting to study both for contrast. To quote Vitell and Muncy (2005) "[…] items that capture the consumers' desire to *do the right thing* would offer a distinct and valuable contrast to the existing scale items" (p. 268). After the publication of the updated Consumer Ethics Scale, which included unethical as well as ethical items, most authors continued using either the ethical (Cojuharenco, Cornelissen, & Karelaia, 2016) or unethical items (Albert, Reynolds, & Turan, 2015; Egan, Hughes, & Palmer, 2015). But in doing so, valuable information is lost. To illustrate, Lu, Chang, and Chang (2015) measured whether the CES items are related to the purchase of green (ecological) products. They found that only the dimensions Recycling, Doing Good and Questionable behavior was positively related to green purchase intentions, but the other dimensions Actively, Passively Benefitting and No Harm, No Foul were not related at all to green purchasing behavior. Based on these findings, Lu et al. (2015) utter the possibility that ethical behavior is independent of unethical behavior. These findings are in line with the main assumption of Chapter II, namely that ethical and unethical behaviors are distinct behaviors.

Chapters III and IV produce specific implications for their respective fields and related businesses. Chapter III offers an encompassing framework through which digital piracy can be better understood and acted upon. This paper is not the only one which has attempted to segment the pirating population, but it is unique in the sense that the segmentation is more than just a theoretical exercise because it also focuses on practical and actionable uses. The segmentation includes important insights and elements from the extensive literature on digital piracy and offers insights relating to actionable outcomes, such as pirating frequency, perceived harm, perceived illegality and perceived impunity. Our findings suggest that anti-pirating campaigns are targeting the wrong pirates because they rely on the assumption that piracy is the result of a lack of awareness, guilt and fear. Based on our findings, we propose a different approach for tackling digital piracy, one focused not on preventing piracy from occurring but on offering better service value than digital piracy (for instance, ad-based streaming subscriptions). Such an approach could make it unnecessary to awaken pirates' moral sensitivity, causing even the die-hard pirates to become more interested on legal alternatives.

Chapter IV highlights the importance of addressing the specific needs that are related to the ethical product attribute. We found that the Kindness Questionnaire manipulation had an impact

on the importance of the Fair Trade product attribute, but not on the organic certification. This suggests that the increase in interpersonal feelings exclusively impacts the ethical value that has a strong humane, social aspect (i.e. the Fair Trade label) as opposed to the other ethical value that has a more global, environmental overtone. By appealing to the consumers kindness, the gap between attitude and behavior could be bridged. Our paper contributes in three ways, first, to the best of our knowledge, this paper is one of the few that applies the Kindness Questionnaire on product choice or prosocial behavior. Second, our studies refrain from the use of traditional surveys in order to curb the effects of social desirability. Finally, it offers an action-oriented approach for retailers and Fair Trade stakeholders to nudge consumers towards Fair Trade products. We propose that texts such as "You are a kind person" or more specific statements inspired on the items of the Kindness Questionnaire such as "Your friends can rely on you" or "You are generous towards friends and family" could be printed on the product packaging or on a poster near the Fair Trade product assortment.

The common thread that runs through the recommendations for business is paradoxical: in order to increase the purchase of ethical products and decrease digital piracy, one must strip the behaviors of its moral connotation and the negative affect that accompanies it. By providing better service value than piracy (instead of campaigns to make them feel bad or guilty for pirating), and by reminding customers of how kind they have been (instead of campaigns that make them feel bad or guilty for not helping poor and unfortunate farmers because they are not buying Fair Trade products).

3. Limitations and suggestions for future research

The studies in Chapters II to IV in this dissertation are subject to certain limitations, however, acknowledgment of limitations can provide inspiration and avenues for future research.

The notion that ethical and unethical behavior are distinct behaviors and more than simply each other's opposites opens up new opportunities and venues for research. Because the domain of moral cognition is becoming increasingly multidisciplinary the need for a general unified theory on moral judgment and decision making is becoming more important. Chapter II provides a strong impetus for the start of a line of comparative research within the field of morality. This Chapter found robust results that were repeatedly replicated over different morally charged contexts, but we have only scratched the surface and there is much uncharted territory that is yet to be explored. Future research could replicate the application of cognitive load by using manipulations that tax different parts of the brain, such as the dot memory task, operation span

task or time pressure. This way, the difference cannot be attributed by unwanted processes elicited by the cognitive load manipulation. This could entail task-specific processes such as encoding, retention, retrieval and abstract processing, but also general processes such as visual processing and motor responding. It is also possible that under certain circumstances, Type 1 processing may occur for ethical judgments, for instance if when people bolster strong, outspoken norms and principles regarding ethical behavior or uphold strong values of benevolence or universalism (Yoon et al., 2006). Just as it is possible that Type 2 processing occurs for unethical judgment, for instance when automatic, proponent responses need to be overridden by utilitarian considerations (Greene et al., 2008). Further research into these boundary conditions could nuance and advance our understanding of dual processing in moral reasoning. Also, the role of emotion has not been addressed in this paper, but it almost certainly plays an important role. Future research could attend to how and where emotions takes effect or whether there are differences between the nature of the emotions that are involved. For instance, judgment of unethical behavior could be driven by more primordial emotions, such as anger, disgust and fear. These are 'activating' emotions which can set the sympathetic nervous system in motion, which is responsible for the 'fight or flight' response and for which quick responses are crucial. Contrary to this, ethical behavior could elicit more 'passive' emotions, such as contentment, empathy and affection. These could be linked to the parasympathetic nervous system, which is characterized by the 'rest and digest' response, a state of mind which lends itself for reflection and deliberation. But also, the role of moral emotions such as shame, guilt, embarrassment and pride should be investigated. More importantly, the stimuli (scenarios and dilemmas) that were used are subject to improvement. The stimuli sometimes differ on more than the ethical/unethical aspect. Though careful effort was invested in the design of the dilemmas and in keeping the level of severity (life threatening versus financial repercussions) and the nature of required action (indirect versus direct physical contact) constant, their contexts still differ in terms of the context in which they are situated. The constant context-issue also afflicts the other studies in the chapter. Future research should focus on designing and validating comparable ethical and unethical dilemmas and scenarios. Finally, there are certainly limitations in the use of eye tracking for investigating judgment processing since many alternative explanations are possible for the resulting output. Although based on the results of our eye tracking study we can conclude with a level of certainty that differences do exist, future research could further investigate how and in which direction these differences could be interpreted.

Chapter III studies piracy, which is a global issue, with a single nation sample. Cross-cultural research is needed to determine whether the structure of the segmentation is generalizable across cultures. Studies have confirmed that Asian cultures are much more tolerant towards digital piracy due to the Confucian values they adhere to. These values propagate social harmony, cooperation and sharing with others what one creates, hence these countries are less eager to accept claims to intellectual property by corporations (Chen, Shang, & Lin, 2008). Cross-cultural research could determine whether there is a much larger proportion of die-hard pirates within these nations, or whether the structure of the segmentation is different entirely. However, this particular sample has the advantage that it is taken from a nation where piracy is not high on the political agenda which eliminates the risk of socially desirable responses motivated by a fear of prosecution. Future research could also look into possible antecedents that will cause someone to become a particular type of pirate. Also, since this study was cross-sectional, longitudinal research could shed light on possible transfers across segments. Someone could be a die-hard pirates as a student but at later age become a conflicted, or a cavalier pirate, or even an anti-pirate. Furthermore, this study does not consider the role of financial considerations on piracy. Future research could investigate whether differences in total income or discretionary income exist between the pirate segments. Future research could also delve deeper into the moral aspects of digital pirates and further investigate moral personality traits such as machiavellism, idealism, relativism and the situational antecedents as suggested in the Hunt and Vitell (1986) model. Future research could also investigate the neutralization techniques and concepts such as moral licensing (Blanken, van de Ven, & Zeelenberg, 2015) pirates use.

Chapter IV also suffers from certain limitations. Contrary to Chapter III, social desirability poses a much greater risk in this Chapter, which studies ethical consumer behavior. We have attempted to eliminate this issue by concealing the true nature of the study from the participants, by making them believe they were participating in a taste test or by adding various other product attributes. The use of an adaptive conjoint analysis also hinders social desirability but it is not infallible against social desirability, respondents could attribute a higher importance to certain attributes they believe they are expected to attach a higher importance to. Another limitation were the effect sizes. This could in fact be a reflection of the small role Fair Trade currently plays for consumers. Larger sample sizes could improve statistical significance, but would not change the size of the effects. Still, it is indeed advisable that future researchers use much larger sample sizes when studying the role Fair Trade plays in the consumer's purchasing behavior. It

is also not clear what truly drives the behavior: is it merely the rise in interpersonal feelings, attribution/labelling or a combination of both? Future research should focus on disentangling these possible mechanisms. This paper has also focused on consumers as a whole, but several studies have demonstrated that different segments of consumers exist, some with a larger propensity of purchasing Fair Trade (De Pelsmacker, Janssens, et al., 2005; Doran, 2009). There could be variety in the effectiveness of the Kindness Questionnaire depending on the type of consumer. Also, coffee and chocolate are one of the most typical Fair Trade product categories, but in order to generalize to all Fair Trade goods, future research should incorporate other product categories such as bananas, sugar, textiles and flowers. Future research could investigate the effectiveness of nudging texts on the packaging of the Fair Trade products, as suggested in the managerial implications. In this paper, we have only focused on Fair Trade products, but future research could investigate how the purchase of other ethical products can be influenced by tapping into needs and concerns that are specific to those ethical product attributes or by activating related memories, like the Kindness Questionnaire did. For example by reminding people of how well they have treated their pets in the past (and present) to make the animal-welfare attribute salient.

Finally, this dissertation also points out the need for a clear definition of the concept of 'ethical behavior', which to date has not been addressed by the literature. We started out with a very broad definition of ethical behavior. But there is a strong need for a clear definition of what 'ethical behavior' entails. Only then can the field of ethical behavior advance. The same goes for 'ethical consumer behavior'. Research in the field is fragmented and not guided by a general framework. Also, the definition of ethical consumer behavior that is used by many others is limited to purchasing behavior. Researchers should build on a definition that goes much broader than this so it also covers other behaviors such as consumption patterns (e.g. consuming less to generate less waste), the way consumers reuse regular products such as recycling or upcycling, but also other behaviors in the consumption-context, such as returning to a store to pay for a product that was accidentally not charged.

To our opinion, the development of a general framework for ethical consumerism deserves top priority. Preliminary steps in that direction have already been undertaken in the literature of corporate governance, management and leadership (Morales-Sanchez & Cabello-Medina, 2013; Shanahan & Hyman, 2003) but to the best of our knowledge no such research has been undertaken for ethical consumer behavior. Shanahan and Hyman (2003) have developed a 'virtue ethics scale' which is basically a categorization of traits that people appreciate in the

workplace: empathy, protestant work ethic, piety, reliability, respect and incorruptibility. But this is not applicable to consumer ethics and even it would be, it would not address the dire need of research into the descriptive ethics of ethical behavior. And with descriptive ethics we mean: what do people think is right? Undoubtedly, just as there are gradations in how unethical people consider certain norm violating behaviors, there will also be gradations in how people judge ethical behavior. The Vitell and Muncy's (2005) Consumer Ethics Scale (CES) captures the gradations in *unethical* behavior based on beliefs that people have on what is more wrong. We believe that such a scale should also be developed for ethical consumer behavior. There are 3 principles of *unethical* behavior that result in a higher moral condemnation: the action principle (harm caused by action is worse than harm caused by inaction), the intention principle (harm caused intentionally is worse than harm caused unintentionally) and the contact principle (causing physical harm is worse).

Based on our literature review, we propose 3 principles for higher ethical approval or appreciation. People would consider behavior as more ethical if: it was intentional (intention principle), at a high cost for the benefactor (sacrifice principle) and the recipient is abstract or unrelated to the benefactor (proximity principle). The more distant and abstract the recipient is, the smaller the possibility that the benefactor could have self-interests invested in the deed. Adaptive conjoint analyses could generate and investigate trade-offs between these principles. For the development of the ethical equivalent of the CES, the following steps could be taken. Since Vitell and Muncy (2005) are already using the term 'ethical' in the name of their unethical scale, it could be baptized as the 'Consumer Virtue Scale'. Focus groups and other qualitative techniques are needed to generate a multitude of ethical consumer situations and behaviors. Participants would then rate these behaviors on how virtuous (ethical) they consider these behaviors a factor analysis could determine categories varying in virtuous (ethical) gradation. There is also an urgent need for an ethical (virtuous) decision model, similar to the H-V model. If we would better understand what mechanisms could drive people to act against their own interests to the benefit of others, more insights can be gained as to how people can be swayed into engaging in ethical behavior. Also, only if we have a better understanding and delineation of ethical behavior we can venture into comparative studies between ethical and unethical behavior. Ethical research could also benefit from a multidisciplinary approach. Unethical behavior is a well-researched domain, but much attention and advances are still needed within the domain of ethical behavior. In other words, we already have a good idea of what we're doing wrong, in the future, let's focus on how we could do it right.

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