

A Little Good is Good Enough:

Ethical Consumption, Cheap Excuses, and Moral Self-Licensing

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This paper explores the role of cheap excuses in product choice. If agents feel that they fulfill one ethical aspect, they may care less about other independent ethical facets within product choice. Choosing a product that fulfills one ethical aspect may then suffice for keeping a high moral self-image in agents, and render it easier to ignore other ethically relevant aspects they would otherwise care about more. The use of such cheap excuses could thus lead to a *'static moral self-licensing' effect*. This would extend the logic of the well-known *dynamic moral self-licensing*.

Our experimental study provides empirical evidence that the static counterpart of moral self-licensing exists. Furthermore, effects spill over to unrelated, ethically relevant contexts later in time. Thus, static moral self-licensing and dynamic moral self-licensing can exist next to each other. Yet it is important that agents do not feel that they fulfilled an ethical criterion out of sheer luck, i.e., agents need some room so that they can attribute the ethical improvement at least partly to themselves. Outsiders, though monetarily incentivized for correct estimates, are completely oblivious to the effects of moral self-licensing, both, static and dynamic.

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1. Introduction

Green, environmentally sustainable products are on the rise in a variety of areas, such as food, fashion, and electronics.¹ Many customers claim that they care about ethical dimensions of products, and that they are willing to pay extra in order to support ethical standards of the items they buy. Yet stated intent and real consumption decisions often differ drastically. While they correlate, spending on ethically improved products amount often only to 10 percent of what consumers claim they would be willing to spend (Cowe and Williams 2000). Moreover, data suggests that many consumers try to ignore ethically questionable production standards when possible (Zane et al. 2016). This suggests that while many consumers have some awareness of ethical problems in production processes, cheap excuses may be welcome when it comes to opting for less ethical items.

Some brands, such as Wholefoods, foster a universal approach towards more ethical production. Yet many companies seem to focus on one specific ethical facet of their products instead, and remain rather silent about others. For example, fashion-producer H&M (2015) advertises to replace conventional cotton in its “conscious collection,” and to use organic or recycled cotton instead. In a similar way, Apple (2016) has publicly announced to audit all its suppliers with regard to the use of conflict minerals. Yet even though H&M (2018a, 2018b) as well as Apple (2018) have included the well-being of their workers in their codes of conduct and thus emphasize its importance, reports of problematic working conditions keep turning up.²

Of course, for a company, it may be easier to focus on one ethically relevant dimension. We follow Bandura (2016) and Gert (2012) and define moral and ethical behavior in avoiding harm to other people and/or the environment. Hence, companies might, for example concentrate on limiting environmental damage from growing cotton for garments, instead of improving upon all ethically relevant aspects of their products at the same time. It may also be the case that some facets such as environmental impact are easier to address than other facets such as labor and safety standards. This may partly explain why many companies stress specific ethical aspects in order to gain a more ethical reputation. Yet another reason for such practices could be that they serve customers’ moral interests very well by doing so. Maybe, for customers, fulfilling one ethical aspect is “enough” to ease their moral conscience when buying a product. Potentially, for many product decisions, “a little good is good enough.” If so, the need to improve other ethical facets may become quite irrelevant for companies as soon as they address one aspect.

¹ Compare overviews on different industries such as organic agriculture (FiBL & IFOAM - Organics International 2016, US Department of Agriculture 2016) and electronics (Consumer Technology Association 2015, UL 2014).

² See e.g. the reports by Burke (2013), Duhigg and Barboza (2012), Fullerton (2018), Preston and Leffler (2016).

This experiment explores whether subjects indeed care comparatively less about another ethical, unrelated dimension as soon as one ethical aspect of a product appears to be fulfilled. For this purpose, we elicit subjects' willingness to pay for improved manufacturing standards of textile products. Specifically, we employ towels in neutral colors and of comparable size and weight (grammage of the cotton used).

The instructions inform subjects that manufacturing (i.e., sewing towels) is a production step unrelated to generating the raw material, in our case cotton, and that the two production steps often even take place in different countries. Thus, whether a towel is made from conventional versus organic cotton has nothing to do with the manufacturing standards in the sewing step. Nevertheless, our experimental³ data shows that willingness to pay for secure working standards in the sewing process is highly significantly smaller if subjects know that they decide between towels that are made from organic cotton instead of conventional cotton. Ensuring better working standards becomes highly significantly more important to subjects when they decide about towels made from conventional cotton instead.

Our data demonstrates that organic cotton seems to serve as a kind of moral excuse for ignoring the working conditions in the sewing sector. The data thereby shows that a static version of the classic dynamic moral self-licensing exists,⁴ i.e., if one facet seems ethically fine, another unrelated ethical facet becomes significantly less relevant to subjects. The reason behind could be that subjects consider all these ethically relevant aspects as loading on one important factor, such as a positive self-image. This happens even though the instructions inform subjects that there is no correlation regarding the consequences of the different ethically relevant aspects: Workers in manufacturing do not work in more secure environments or earn more money just because the cotton was organic or recycled instead of conventional.

In a next step, we explore whether fulfilling one ethical dimension when buying a product also has spillovers on other, unrelated ethically relevant contexts later in time. Both effects, the well-known dynamic moral self-licensing as well as the new static moral self-licensing over different ethical facets at the same time, could then exist next to each other. This is exactly what we find. In our study, about half an hour after the main part of the experiment (which focuses on the decision regarding towels), subjects are offered the opportunity to share money with refugees from a local refugee camp. Subjects do not know in advance that they will be confronted with this sharing decision. If fulfilling one ethical criterion when opting for a towel lowers interest in fulfilling another one, it may also be the case that willingness to share money with people in need becomes morally less relevant. This is exactly what

³ In line with Levitt and List (2007), we employ a real item in order to increase outside validity. On the use of laboratory experiments, see also Charness and Fehr (2015) and Falk and Heckman (2009).

⁴ For studies documenting dynamic moral self-licensing, see Monin and Miller (2011), Gneezy et al. (2014) and other work as described in the literature overview.

we find. Thus, fulfilling one ethical criterion when deciding upon a product does not only lower interest in fulfilling another, orthogonal criterion of ethical production at the same point in time – it also reduces moral behavior in a later, completely unrelated context. Potentially, we find these spillovers because for subjects, all these ethical behaviors load on one and the same personality factor, which would be “being an ethical person.”^{5 6}

Knowing about the effects of moral self-licensing when it comes to product decisions could be an important first step in order to discuss social implications. Therefore, we incentivize new, independent subjects to predict the behavior of subjects in our original product choice treatments. Our data shows that these unrelated subjects are completely unaware of the effects of static moral self-licensing! They also underestimate spillover effects on other morally relevant, later contexts, i.e., the well-known dynamic moral self-licensing. Thus, moral self-licensing does not appear to be intuitive to outsiders. Potentially, outsiders follow a different ethical guideline when not in the situation themselves and see the different product facets and contexts over time as they are: unrelated in their ethical consequences. Outsiders fail to anticipate that subjects, when weighing self-interest against something morally relevant, may prefer to find some kind of moral excuse for self-oriented behavior. Being moral at one point, regarding one relevant product facet, seems to be enough for that. Our findings thus indicate that exploring moral self-licensing in its different facets, but also spreading awareness of such effects and the interest of people as appearing as a moral person to themselves, could be of major importance for social and political debate.

The question arises whether self-attribution is important for moral self-licensing, or whether our data indicates a mere concavity in utility arising from ethical improvement in products. Therefore, we run two additional treatments. They are identical to the original product choice treatments, respectively, with one difference: We stress that it is perfectly random whether a subject decides about towels made from conventional or from organic cotton. This way, subjects deciding about organic towels may feel less room in order to attribute the fulfillment of this ethically relevant criterion to themselves. Thus, fulfilling this criterion may not serve as a morally relevant excuse anymore, such that subjects care more about the upgrade to the fair-wear certificate as well as about donating to refugees. Indeed, the data suggests that in these new treatments, effects of moral self-licensing – static as well as dynamic – do not work anymore. This demonstrates that it is not a simple concavity in utility from ethical improvements driving our results. Instead, it is important that subjects can attribute the fulfillment of ethical criteria – at least to some extent – to themselves.

⁵ See also Loewenstein (1999), Bénabou and Tirole (2002), Falk and Szech (2016).

⁶ Thus, acting ethically in one dimension could already suffice to identify as an ethical person. Subjects may derive utility from such a favourable self-image, compare, e.g., Akerlof and Kranton (2000).

We thus find that context matters. Studies of economic institutions in which agents take morally relevant decisions are a pressing and strongly growing field.⁷ Our results indicate that conducting market analyses involving agents who apply moral self-licensing is an important next step for further research.

2. Related Literature

While we explore a *static* decision context, the classical literature on moral self-licensing has focused on *dynamic* effects. It has been documented that ethical behavior in the past serves as a justification to act less ethically later on. Dynamic moral self-licensing was first described by Monin and Miller (2001) in the contexts of racism and sexism in a two-stage experiment. Subjects had to make a hypothetical job decision in a neutrally framed environment. In one treatment group, the best applicant was African-American, while in the other group, the best applicant was white. After making their decision, all subjects were confronted with another hypothetical hiring scenario: A chief of police had to hire a new deputy in a racially charged job environment. All subjects were asked to rate whether the job was better suited for a white or a black person. Subjects with the opportunity to present themselves as non-prejudiced at stage one were significantly more likely to prefer a white person now. Thus, subjects who could demonstrate they were not racist in the first step, tended to prefer the white police applicant later on. A second study yielded similar findings in the field of sexism.

Sachdeva et al. (2009) found that subjects use dynamic moral self-licensing to justify selfish behavior. Subjects who were asked to write positive short stories about their own good past deeds were later on more selfish than others when it came to making a real donation to charity. In a related vein, Mazar and Zhong (2010) demonstrated that subjects who acquire “green” products in a first step in time are more likely to cheat for personal gain and steal later on compared to subjects who could only acquire conventional products in a first step in time.⁸ For more examples of dynamic moral self-licensing, see Merritt et al. (2010).

Another closely related concept from the field of behavioral economics is conscience accounting as proposed in Gneezy et al. (2014). In the first stage of their experiment, subjects could lie in order to increase their own profit at the expense of their fellow players. In stage two, subjects had the opportunity to make a small donation to charity. The authors find that the share of donations is significantly higher among those who lied in stage one than among those who told the truth. This suggests that by donating, subjects atone for past moral norm violations. Furthermore, the share of donations among the liars drops significantly if the time delay between the two stages is increased. A

⁷ Recent contributions are e.g., Sobel (2010), Falk and Szech (2013), Kirchler et al. (2016), Pigors and Rokenbach (2016), Falk and Szech (2017), Rothenhäusler et al. (2018), Kerschbamer et al. (2016), Bartling et al. (2015), Friedrichsen and Engelmann (2018).

⁸ Subjects had a 1 out of 25 chance to actually receive their selected products.

possible explanation is that the memory of one's own unethical behavior fades out over time. Another finding is that subjects are more likely to lie if they know that they have the opportunity to donate at a later point in time. This leads to the conclusion that people set off their future ethical behavior against their current one, and goes well in line with the idea that all kind of moral behavior may load on one aspect of personality, if subjects can attribute those moral improvements to themselves (Loewenstein 1999, Bénabou and Tirole 2002, Falk and Szech 2016). The authors also document that a comparatively cheap future possibility of "compensation" may be enough for subjects to keep a high moral self-image.

What differentiates this approach from ours is that in our study, in the product treatments, subjects take their decisions about the static moral improvement (the upgrade to the fair wear towel at the dispense of different monetary amounts) in a price list. They do not know which of their decisions the computer will randomly select when they decide about donating money to refugees half an hour later and they did not know about the opportunity to make a donation beforehand. This design choice makes it possible to focus on whether deciding about towels made from organic instead of conventional cotton is enough in order to care less about other ethically relevant aspects, static as well as dynamic.

3. Design of the Study

We explore the effects of moral self-licensing across different ethical facets in purchase decisions and across different points in time. To this end, we implement a product choice regarding different towels, as well as a later donation situation. In addition to behavior, we study beliefs of outsiders about the behavior of decision-makers in order to analyze whether beliefs of outsiders are in line with real choice behavior, or not. We therefore conduct four treatments: **Product Baseline, Product Organic, Belief Baseline, and Belief Organic.**

In our experiment, we employ towels for the following three reasons. First, the fashion industry is worth trillions of USD (Joint Economic Committee 2016) and employs over 57 million people worldwide (FashionUnited 2016),⁹ making it an important industrial sector. Second, the bulk of the production takes place in developing and newly industrialized countries.¹⁰ The textile industry has often been the focus when it comes to the need for improved production standards. Third, we specifically choose a product that most subjects may find useful, independent of personal characteristics such as gender or taste in fashion. Therefore, we use towels in neutral colors as concrete products to decide upon.

⁹ The fashion industry encompasses a vast variety of companies including textile and apparel brands as well as retailers and more (Joint Economic Committee 2016).

¹⁰ China, India, Vietnam, and Bangladesh are among the countries with the greatest number of employees in the textile and garment sector (International Labour Organization 2014, 2016).

The Product Treatments: In **Product Baseline** and in **Product Organic**, subjects take ethically relevant product decisions. Subjects choose between ethically different yet otherwise comparable towels. In a price list, they weigh money and receiving a more conventionally produced towel against receiving no money and a towel that fulfils more ethical production standards. We let subjects choose between towels in neutral colors, in a standard, medium size of 100 cm x 50 cm, and with a standard surface weight of about 450 g/m².

The Belief Treatments: In **Belief Baseline** and in **Belief Organic**, we elicit in an incentivized way outsiders' beliefs about the behavior of subjects in Product Baseline and in Product Organic, respectively. The Belief treatments inform us about what uninvolved third parties, who do not take the decisions themselves, predict about those involved.

The instructions inform subjects from all treatments that there are separate, ethically relevant dimensions when it comes to producing textiles such as towels. We focus on two important, separate aspects. Firstly, the cotton used can be conventional or certified as “organic.”¹¹ All subjects know from the instructions that cotton certified as organic is produced without the use of agrochemicals, such as synthetic pesticides, herbicides, and fertilizers that are commonly used in conventional production and pollute the soil. Secondly, the manufacturing conditions under which workers have to work when sewing the towel can be certified by the well-established Fair Wear Foundation (FWF), or not.¹² Subjects are informed that under FWF conditions, safety, economic living standards, and political rights of workers are monitored. This is not the case in conventional production.¹³

Subjects further know from the instructions that the production chain in the garment industry is fragmented. The cotton is typically grown in different countries than where the manufacturing takes place. Subjects thus know that these two aspects, growing organic cotton and ensuring FWF controlled manufacturing standards, can be considered separate from each other.

In order to analyze moral self-licensing within product decisions, we elicit the monetary value subjects assign to FWF manufacturing standards, in Product Baseline as well as in Product Organic. In the latter treatment, subjects know that the towel already fulfils another independent, ethically relevant criterion (organic cotton). Decisions are elicited in a price list. Subjects choose between a towel that was manufactured under FWF controlled standards and no additional money versus a towel without FWF controlled manufacturing standards and additional money. Monetary amounts vary from 0.25 to

¹¹ We rely on the well-known Global Organic Textile Standard (GOTS) and the Organic Content Standard (OCS) which certify the organic origin of the cotton.

¹² The FWF is a well-established, independent non-profit organization with the aim of improving labor standards in factories based on the conventions of the International Labour Organisation (ILO).

¹³ Indeed, the textile and garment industry is one of the ethically most frequently discussed industries, compare, e.g., Danzer and Grundke (2016).

12 euro in steps of 25 cents. Subjects know that one of their decisions will be randomly selected at the individual level and implemented.

We define the lowest monetary amount for which subjects still prefer no FWF certificate over the FWF certificate as the willingness to pay for FWF certification. The lower the switch-point, the less a subject cares about FWF certified working standards. In case of multiple switching, we use the mean switch point for our analysis. We will see that the results are robust to multiple switching in Appendix I.

Option A	Your Choice		Option B
organic + 12.00€	<input type="checkbox"/>	<input type="checkbox"/>	organic & fair wear + 0€
organic + 11.75€	<input type="checkbox"/>	<input type="checkbox"/>	organic & fair wear + 0€
organic + 11.50€	<input type="checkbox"/>	<input type="checkbox"/>	organic & fair wear + 0€
.	<input type="checkbox"/>	<input type="checkbox"/>	.
.	<input type="checkbox"/>	<input type="checkbox"/>	.
.	<input type="checkbox"/>	<input type="checkbox"/>	.
organic + 0.50€	<input type="checkbox"/>	<input type="checkbox"/>	organic & fair wear + 0€
organic + 0.25€	<input type="checkbox"/>	<input type="checkbox"/>	organic & fair wear + 0€

Fig. 1: Price list as used in Product Organic. In the Organic Product treatment, subjects choose from a price list between a towel without FWF Certificate and money versus a towel with FWF certificate and no additional money. The FWF certificate ensures controlled manufacturing standards for workers when sewing the towel. For sure, the towel is made from organic cotton.

Figure 1 illustrates how the price list looked like in Product Organic. Product Baseline was similar, except that the cotton involved was conventional.¹⁴ After this main decision, subjects take part in questionnaires about their political preferences, personal characteristics, and socio-economic background. We use standard tests on personality such as the Big Five (Rammstedt and John 2005) and on Machiavellianism (Christie and Geis 1970), as well as the rather new Preference Survey Module (Falk et al. 2016). At the end of the study, about half an hour later, the instructions confront subjects with another ethically relevant decision. Subjects do not know this in advance.¹⁵ Via the computer screen, subjects need to decide whether they want to share their show-up fee (which is 2 euro, i.e., a substantial amount of the total monetary amount subjects can earn in the study) with refugees from a local refugee camp or not. At this point, subjects have not received any feedback on whether they will receive a towel that was produced under FWF or conventional production standards.

In the **Belief treatments**, i.e., in Belief Baseline and in Belief Organic, subjects do not take any ethically relevant product or donation decision themselves. Instead, subjects indicate their expectations how subjects in the respective Product treatments behaved. We incentivize these estimates via

¹⁴ See the Appendix II. for details.

¹⁵ Therefore, in contrast to the study of Gneezy et al. (2014), subjects cannot use the later sharing decisions as a justification for selfish behavior in the towel decision.

quadratic scoring rules.¹⁶ In Belief Baseline, subjects guess the average willingness to pay for controlled manufacturing standards in Product Baseline. Subjects in Belief Baseline know the instructions from the Product Baseline treatment for the towel decision. They thus have the exact same information as subjects in Product Baseline. After indicating their estimate, they also fill out the same questionnaires as subjects in the Product treatments. Then, the instructions confront them with a second estimation task, requiring them to guess what percentage of subjects in Baseline opted to share their show-up fee with refugees. Again, we employ a quadratic scoring rule to incentivize this task.¹⁷

In Belief Organic, subjects accordingly guess the behavior from Product Organic. In total, subjects in Belief Baseline and in Belief Organic can earn up to 10 euro for good estimates, in addition to a show-up fee of 7 euro.

The study took place at the Karlsruhe Decision and Design Laboratory (KD² Lab) at the Karlsruhe Institute of Technology. We used ORSEE (Greiner 2015) in order to recruit 200 subjects in total (50 subjects per treatment). Subjects were placed in separate cubicles each. Instructions regarding the towels were presented on paper, while questionnaires were presented on computer screen, via SoSci Survey (Leiner 2014). See the Appendix II. for details.

4. Hypotheses

The insights gained from the experiments on moral self-licensing (Monin and Miller 2001, Sachdeva et al. 2009, Mazar and Zhong 2010) and conscience accounting (Gneezy et al. 2014) show that people use acquired moral credentials in order to justify less ethical behavior at a later point in time. In a similar fashion, they morally redeem themselves from unethical behavior in the past by performing subsequent ethical deeds. Even if ethical deeds are quite small and cheap later on, they seem to serve as a good justification for rather selfish behavior at an earlier point in time (Gneezy et al. 2014).¹⁸

Moral cleansing may provoke a reduction of moral behavior in the first place specifically if subjects *know* about the possibility to morally cleanse themselves afterwards (compare Gneezy et al. 2014). Such a mechanism could also exist in the framework of a static decision across different ethically relevant facets of one product. The satisfaction of fulfilling one ethical dimension could lead to a decreased valuation of a second, though unrelated ethical dimension, at the very same point in time. This would imply that it is not necessarily the time dimension that renders moral cleansing relevant. Instead, it is the opportunity of having some kind of “moral excuse.” This logic would be specifically

¹⁶ The estimation for the mean willingness to pay is given in cent and has the following payout: $\max \{500 - \frac{1}{4} (\text{true} - \text{guess})^2, 0\}$ cent.

¹⁷ The payout for the estimated willingness to share is $\max \{5 - \frac{1}{5} (\text{true} - \text{guess})^2, 0\}$ euro. Subjects need to type in integer percentage values.

¹⁸ Gneezy et al. (2014) point out that a similar logic may have been behind the sale of indulgences as practiced by the Catholic Church in medieval times. Yet there, moral redemption often appeared to be quite costly.

attractive if subjects did not care about consequences, but instead considered all these decisions relevant for one specific aspect about themselves, i.e., a positive self-image (Loewenstein 1999, Bénabou and Tirole 2002, Falk and Szech 2016). Our first and main hypothesis is therefore that subjects in Product Organic have a lower willingness to pay (WTP) for controlled manufacturing conditions than subjects in Product Baseline, i.e., static moral self-licensing exists. We therefore expect that

$$WTP_{Product\ Organic} < WTP_{Product\ Baseline}.$$

In addition to the static product decision, subjects later face another unrelated ethical decision by choosing whether to share their show-up fee with local refugees or not. In line with the findings on dynamic moral self-licensing, the certainty of having acquired a product that fulfils (at least) one ethical facet in the first stage should “free” the subjects to behave less ethical afterwards. This leads to our second hypothesis: Subjects in Product Organic are less likely to share their show-up fee than subjects in Product Baseline, i.e., static moral self-licensing and dynamic moral self-licensing can exist next to each other, i.e.,

$$Donation_{Product\ Organic} < Donation_{Product\ Baseline}.$$

Exploratively, we moreover investigate the incentivized beliefs of outsiders about the behavior of subjects in the respective Product treatments. To this purpose, we conduct two Belief treatments, Belief Baseline and Belief Organic. In these treatments, subjects do not face trade-offs between more ethical decisions versus money. Instead, they are incentivized to predict the decisions of other subjects from the respective Product treatment.

It may be that subjects in the Belief treatments predict that moral self-licensing will take place in the Product treatments. This is not so clear, however, for several reasons. First, subjects in the Belief treatments do not face a trade-off between more ethical decisions and money. In the literature, it has been documented that hypothetical questions and real behavior often correlate when it comes to altruistic versus selfish behavior. Yet typically, in real behavior, subjects care much more about their self-interest than when hypothetically asked. Accordingly, the literature on ethical consumption speaks of the famous 30:3 ratio (Cowe and Williams 2000) or attitude behavior gap (Roberts 1996, Carrigan and Attalla 2001) comparing stated intent from questionnaires to real decisions in the market. Furthermore, it has been shown that context can matter drastically for morally relevant judgments (see e.g., O’Fallon and Butterfield 2005, Loe et al. 2000, Bandura 1999, 2016, Falk and Szech 2013, 2016, Bartling et al. 2015, Kirchler et al. 2016).

We therefore expected that

$$Belief_{WTP_Product\ Organic} \leq Belief_{WTP_Product\ Baseline},$$

and accordingly

$$Belief_{Donation_Product\ Organic} \leq Belief_{Donation_Product\ Baseline}.$$

If subjects do not predict moral self-licensing to take place, i.e., if both formulas hold with equality, it may be of specific relevance to emphasize the importance of moral self-licensing in social and public debate.

5. Results

Static Moral Self-Licensing. We hypothesized that static moral self-licensing takes place, i.e., subjects treat orthogonal, ethically relevant aspects as if they were substitutes in product choice. Therefore, we expected that subjects in Product Organic would pay less money to ensure FWF-controlled manufacturing standards than in Product Baseline, as reflected in a lower switch-point in the price list. This is exactly what we find. In Product Baseline, the average switch-point is 5.73 euro.¹⁹ In Product Organic, the average switch-point and therefore willingness to pay is 4.00 euro. This is a highly significant decrease of 30 percent, ($p=0.002$, one-sided t-test).²⁰

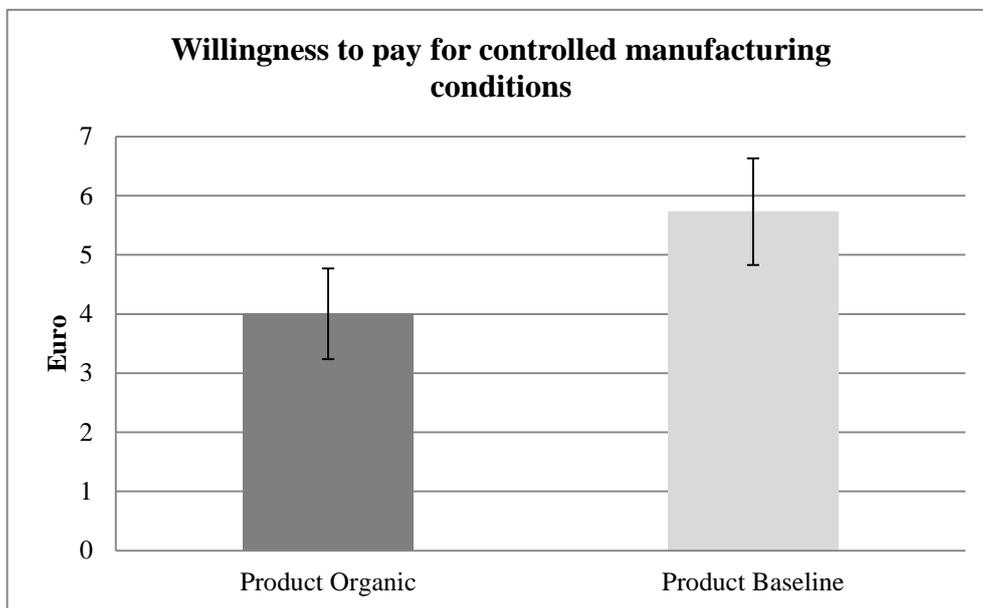


Fig. 2: In Product Organic, subjects pay highly significantly less money to ensure controlled manufacturing standards compared to Product Baseline. Static moral self-licensing thus takes place.

¹⁹ We have seven multiple switchers in the sample. Our findings remain robust if we exclude them or use the first switch point, last switch-point or median switch-point in order to approximate their willingness to pay. See the robustness checks in Appendix I. for details. Our data is available under http://polit.econ.kit.edu/26_592.php.

²⁰ We are referring to findings as “highly significant” if the p-value is below 0.01.

Subjects know from the instructions that sewing the towel is a very different production step than growing the cotton, with totally different people involved and different ecological consequences. Nevertheless, they attribute less value to guaranteeing minimum working standards when they know that their towel is made from organic cotton. Potentially, subjects already have a fairly good moral conscience in the latter case, and accordingly care less about the workers in manufacturing. We thus find that static moral self-licensing exists.

Beliefs about Static Moral Self-Licensing. Do uninvolved people expect static moral self-licensing to take place? In order to consciously counter the effects of static moral self-licensing, people must be aware of it. We hypothesized, that for at least three reasons, this may not be the case. Our data from Belief Organic demonstrates that indeed, subjects are not aware of effects of static moral self-licensing. Estimates for switch-points are at any conventional level statistically comparable to those from Belief Baseline (4.39 vs. 4.33, $p=0.89$, two-sided t-test). If anything, there is a (non-significant) tendency that subjects expect decision-makers to pay a little bit more in Product Organic than in Product Baseline, which would be even contradictory to effects of moral self-licensing.

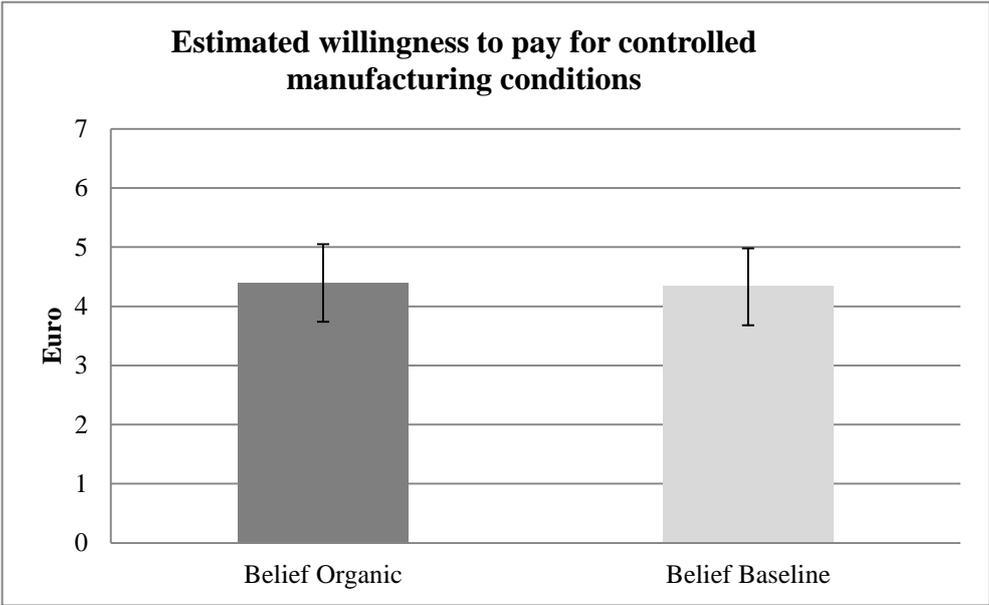


Fig. 3: In the Belief treatments, subjects guess the average willingness to pay for controlled manufacturing in Product Organic, resp. Product Baseline. The data displays no significant difference in estimates at any conventional level. Thus, subjects in Belief Organic are not aware that static moral self-licensing may take place.

Dynamic moral Self-licensing. At the end of the study, about half an hour later, subjects in the Product treatments were asked whether they wanted to share their show-up fee of two euro with refugees from a local refugee camp. Subjects did not know beforehand that they would be confronted with this decision. If static moral self-licensing has spillovers in time, subjects in Product Organic should less frequently share their show-up fee with refugees than subjects in Product Baseline. This is what we find. 72 percent of subjects are willing to share in Product Baseline, while 56 percent of

subjects are willing to share in Product Organic ($p=0.048$, one-sided test of proportions). As subjects in Product Organic could expect to leave with a higher income than subjects in Product Baseline due to the higher costs of organic textiles, they may be even more inclined to donate. The fact that the data displays the opposite effect demonstrates that effects of dynamic moral self-licensing may be stronger than this potential income effect.

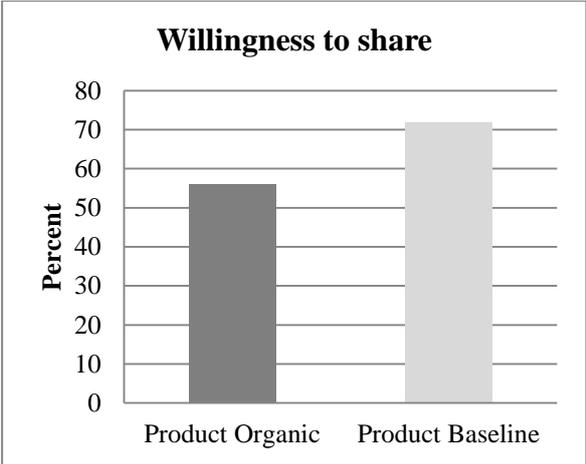


Fig. 4: Subjects in Product Organic are significantly less likely to share their show-up fee of two euro with local refugees than subjects in Product Baseline.

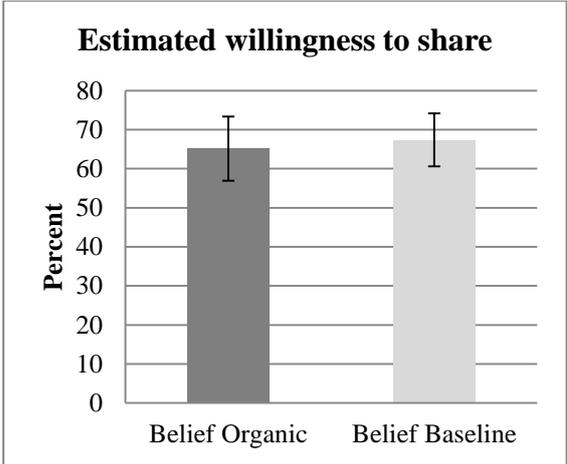


Fig. 5: Estimates from subjects in the Belief treatments for average willingness to share in the respective Product treatment.

Looking into the estimates from the two Belief treatments, there is again no significant difference in estimates of willingness to share with refugees for the two Product treatments (65 percent in Belief Organic vs. 67 percent in Belief Baseline, $p=0.68$, two-sided t-test). Outsiders therefore neither expect static nor dynamic moral self-licensing.

All in all, while effects of moral self-licensing with regard to specific ethical dimensions are pronounced within decisions and over time, uninvolved parties fail to anticipate its effects. This happens even though uninvolved parties were monetarily incentivized, and could earn much more money from making accurate guesses than from the flat payment they received for participating in the study.²¹ Potentially, subjects in the Belief treatments just indicate what they consider morally appropriate, and do not figure in effects of moral self-attribution.²²

²¹ Many subjects' beliefs were rather far from the correct answer such that they did not earn additional money for this task. 27 percent of subjects earned money for their estimates.

²² Subjects in Belief Baseline underestimate the willingness to pay in Product Baseline ($p=0.018$, two-sided t-test), yet they do not underestimate subjects' willingness to donate for refugees.

6. Self-attribution and Moral Excuses

Our data indicates that moral self-licensing exists, both static and dynamic. Yet the question arises whether our data results from a mere concavity in utility arising from ethical improvement in products, or whether self-attribution plays an important role. This motivates two additional treatments, Lottery Baseline and Lottery Organic. They are similar to the original product choice treatments, respectively, with one difference: The instructions stress that it is perfectly random whether a subject decides about towels made from conventional or from organic cotton. This way, subjects deciding about organic towels may feel less room in order to attribute the fulfillment of this ethically relevant criterion to themselves. Accordingly, fulfilling this criterion may not serve as a morally relevant excuse any more, such that subjects may care more about the upgrade to the fair-wear certificate as well as about donating to refugees. These two treatments were run 19 months after the original Product treatments.²³

In **Lottery Baseline** and **Lottery Organic**, the randomness is made salient to subjects as follows. Blue and yellow cards are alternatingly handed out to subjects. Then, all subjects within a session receive the same information on the chain of production of textile products, on FWF standards, and on organic cotton production (as in the original Product treatments). Subjects learn that a random coin toss will determine whether they subsequently decide over towels made of conventional or organic cotton, depending on the outcome of the coin toss and the color of their card. Thus, all subjects know that chance decides in which treatment, Lottery Baseline or Lottery Organic, they end up. After the coin toss, they receive their respective price-lists and instructions (see Appendix II for details).

If self-attribution matters, the salience of the randomness in the Lottery treatments should reduce the extent to which subjects in Lottery Organic accredit themselves for the ethical attribute of their towel. Hence, we expect both moral-self licensing effects to be less pronounced in the Lottery treatments. The following simple model describes the approach. We capture the self-attribution from fulfilling the ethically relevant cotton criterion in the Product Organic treatment via α . In Product Baseline, α is assumed to be zero. In the Lottery treatments, we assume that it is $\frac{\alpha}{2}$, as subjects know that fulfilling the organic cotton criterion is random, and comes with a probability of 50 percent.

Assume that utility is separable between the moral and the monetary dimensions, and quasilinear in monetary payments. Utility from receiving a monetary amount m and having a moral value of α is thus given by $u(\alpha) + m$. We assume that u is three times continuously differentiable. The monetary amount $m_*(\alpha)$ that makes the agent indifferent between receiving money or receiving an additional moral value of f is given by $m_*(\alpha) = u(\alpha + f) - u(\alpha)$.

²³ We thank anonymous reviewers for motivating these new treatments.

Writing this as

$$m_*(\alpha) = u(\alpha + f) - u(\alpha) = \int_0^f u'(\alpha + t)dt,$$

we find that

$$m'_*(\alpha) = \int_0^f u''(\alpha + t)dt \quad \text{and} \quad m''_*(\alpha) = \int_0^f u'''(\alpha + t)dt.$$

In particular, under risk aversion, $u'' < 0$, m_* is decreasing in α . Moreover, if the agent is prudent in the sense of Kimball (1990) in the moral dimension, $u''' > 0$, then m_* is convex. Conversely, imprudence, $u''' < 0$ implies concavity of m_* .

Thus, for a prudent agent, we have by Jensen's inequality

$$m_*\left(\frac{\alpha}{2}\right) < \frac{1}{2}m_*(\alpha) + \frac{1}{2}m_*(0)$$

and thus

$$m_*\left(\frac{\alpha}{2}\right) - m_*(\alpha) < m_*(0) - m_*\left(\frac{\alpha}{2}\right),$$

i.e., $m_*\left(\frac{\alpha}{2}\right)$ is closer to $m_*(\alpha)$ than to $m_*(0)$. In the imprudent case, $m_*\left(\frac{\alpha}{2}\right)$ is closer to $m_*(0)$ than to $m_*(\alpha)$.

In the Lottery treatments, self-attribution of the morally relevant organic cotton should amount to the same value $\frac{\alpha}{2}$. Therefore, willingness to pay for a second, morally relevant criterion should be comparable across the two Lottery treatments. Indeed, the data shows that willingness to pay is statistically comparable.

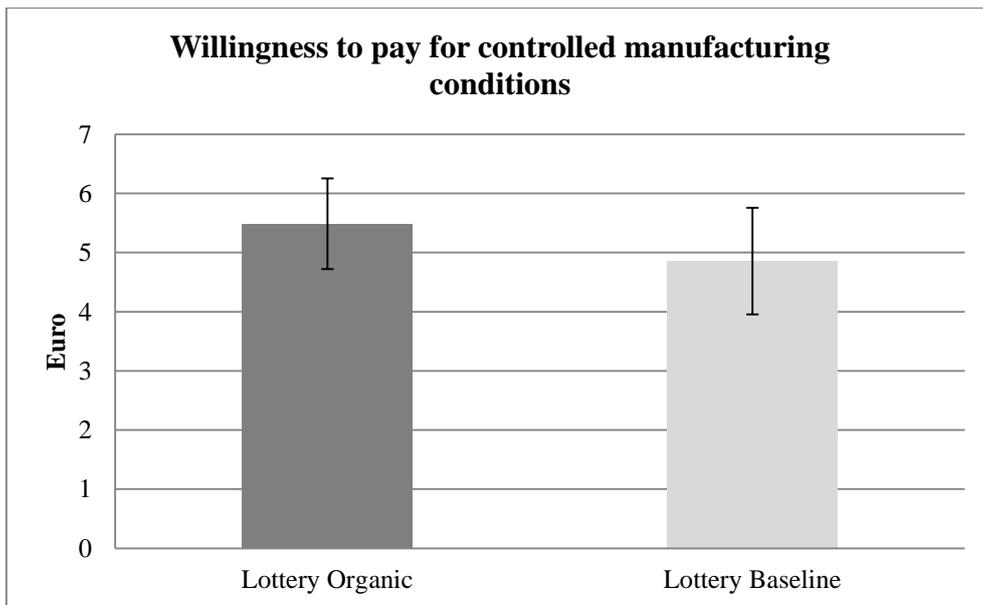


Fig. 6: In the Lottery treatments, the static moral self-licensing effect disappears, as there are no significant differences in the willingness to pay for controlled manufacturing conditions. If anything, the pattern reverses by a tendency.

In Lottery Organic, the average willingness to pay for controlled manufacturing conditions is 5.49 euro, while it is 4.86 euro ($p=0.3$, two-sided t-test) in Lottery Baseline. As hypothesized, the moral self-licensing effect disappears.²⁴

Analogously to the Product treatments, all subjects in the Lottery treatments were offered to share their show-up fee of two euros with local refugees. The share of subjects willing to donate is 66% in Lottery Organic and 62% in Lottery Baseline. In accordance to our hypothesis, the difference is not statistically significant ($p= 0.68$, two sided test of proportions). The results suggest that moral self-attribution is different if the role of randomness in the experiment is emphasized.

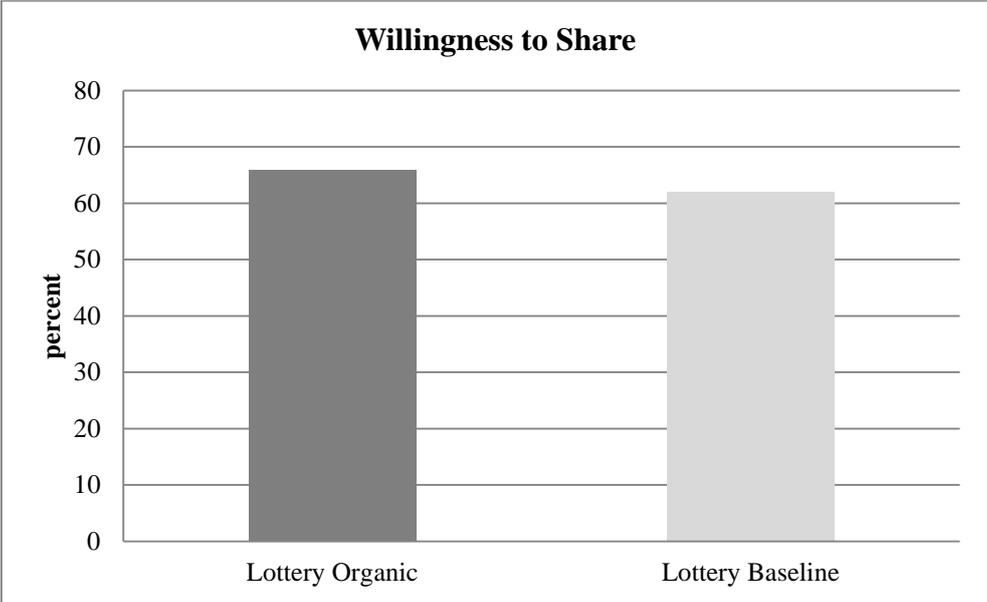


Fig. 7: In contrast to the Product treatments, the share of donations is statistically comparable between subjects in the organic and the baseline treatment. The effects of dynamic moral self-licensing disappear in the Lottery treatments.

A direct comparison to the original Product treatments, elicited 19 months earlier, needs to be taken with some caution as, of course, ethical values in the population of interest may change over time. We find that in comparison to the original Product treatments, the average willingness to pay for controlled manufacturing conditions does not change ($p=0.47$, two sided t-test). When looking at the organic treatments only, however, subjects in Lottery Organic are willing to pay significantly more than subjects in Product Organic (5.49 euro vs. 4.00 euro, $p= 0.01$, two sided t-test). This is another indication that subjects care more about additional, ethically relevant facets if it is more difficult to attribute the fulfillment of the ethically relevant criterion regarding organic cotton to themselves.

²⁴ We have twelve multiple switchers in the sample. Our findings remain robust if we exclude them or use the first switch point, last switch-point or median switch-point in order to approximate their willingness to pay. See the robustness checks in Appendix I. for details.

7. Conclusion

Our data documents that people behave as if there existed strong substitutive relations between ethically relevant, non-correlated product dimensions. We thus find that static moral self-licensing exists. Fulfilling one ethical dimension in a product choice further eases moral conscience in a later, unrelated yet morally relevant context. Thus, different aspects of moral self-licensing, static (across morally relevant dimensions at one point in time), and over different points in time, can both exist next to each other.

Outsiders do not infer that moral self-licensing occurs. Even though monetarily incentivized to make accurate estimates, subjects are completely oblivious to effects of moral self-licensing, both, static and dynamic. Therefore, social and political debate needs to be informed about the importance of moral self-licensing, within decisions regarding different ethical dimensions as well as over time.

In future research, market analyses involving customers who apply facets of moral self-licensing should be carried out. It may be that for firms, offering products that fulfill exactly one ethical criterion, e.g., ecological cotton in textile items, is a smart strategy for selling products to customers with easy-to-ease ethical concerns. One could further imagine that leaving moral wiggle room²⁵ and/or room for motivated reasoning (Epley and Gilovich 2016; Gino et al. 2016) could further decrease morally responsible behavior in customers. Such interaction of moral self-licensing and other well-known mechanisms providing moral excuses is left for future research.

It is likely that firms know better about effects of moral self-licensing and other mechanisms of moral excuses than ordinary customers. Providing such excuses to customers may be a profitable approach. If so, political and societal debate should be aware of these mechanisms.

²⁵ See, e.g., Dana et al. (2007); van der Weele (2014); Bartling et al. (2014); Grossman (2014); Grossman and van der Weele (2017); Freddi (2017); Serra-Garcia and Szech (2018). Golman et al. (2017) provide a recent overview.

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I. Robustness

In the following, we study the robustness of our effects. First, we look in detail into the behavior of multi-switchers. Second, we control for income effects. Neither of them affects the results.

When eliciting the willingness to pay with the help of a price list, there is the possibility of subjects giving inconsistent answers, i.e., switching multiple times between the two product options. In order to ensure that those multi-switchers do not affect the results, we test for robustness using different measures of willingness to pay for multi-switchers. We therefore analyze the following specifications in the data for handling multi-switchers as well: excluding multi-switchers from the analysis, using the first switch-point, using the mean switch-point, using the median switch-point, and using the last switch-point.

Switch-point without multi-switchers			
Product Baseline	Product Organic	p-value (one-sided)	n
5.64	3.78	0.0015**	93
First switch-point (including multi-switchers)			
Product Baseline	Product Organic	p-value (one-sided)	n
5.61	3.70	0.0008***	100
Mean switch-point (including multi-switchers)			
Product Baseline	Product Organic	p-value (one-sided)	n
5.73	4.00	0.0021***	100
Median switch-point (including multi-switchers)			
Product Baseline	Product Organic	p-value (one-sided)	n
5.71	3.85	0.0011***	100
Last switch-point (including multi-switchers)			
Product Baseline	Product Organic	p-value (one-sided)	n
5.89	4.29	0.0075***	100

Table 1: Switch-points in the Product treatments, depending on different specifications for multi-switchers; p-values presented are from the t-tests between the treatments. Significance levels marked as follows: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

The differences in willingness to pay between the treatments remain significant for all types of measurement. Thus, the effect is robust to different ways of addressing the case of multiple switchers.

Another important aspect regarding the robustness of the findings is the potential role of disposable income. Willingness to pay for controlled manufacturing conditions could be dependent on the financial background of subjects. As our sample is made up of students, maximizing the payoff from the experiment in order to get by could specifically matter for students with low disposable income. Reassuringly, we do not see any income effects, as there are no significant correlations between the willingness to pay for controlled manufacturing conditions and the monthly money at disposal ($\rho = -$

0.09, $p=0.35$) or the subjects' financial concern ($\rho=-0.0203$, $p=0.84$). We thus find that our results are robust, both to multi-switching and to financial background of subjects.

We analogously examine the data from the Lottery treatments for potential effects of subjects that are switching multiple times between the two product options. The difference in the willingness to pay remains insignificant with respect to different ways of addressing multiple switchers.

Switch-point without multi-switchers			
Lottery Baseline	Lottery Organic	p-value (two sided)	n
4.62	5.23	0.3558	87
First switch-point (including multi-switchers)			
Lottery Baseline	Lottery Organic	p-value (two sided)	n
4.47	5.02	0.3785	99
Mean switch-point (including multi-switchers)			
Lottery Baseline	Lottery Organic	p-value (two sided)	n
4.86	5.49	0.2997	99
Median switch-point (including multi-switchers)			
Lottery Baseline	Lottery Organic	p-value (two sided)	n
4.80	5.24	0.4685	99
Last switch-point (including multi-switchers)			
Lottery Baseline	Lottery Organic	p-value (two sided)	n
5.23	5.94	0.3086	99

Table 2: Switch-points in the Lottery treatments, depending on different specifications for multi-switchers; p-values presented are from the t-tests between the treatments. Significance levels marked as follows: * $p<0.1$, ** $p<0.05$, *** $p<0.01$

Again, reassuringly, we find that there is no significant correlation between the willingness to pay for controlled manufacturing conditions and monthly money at disposal ($\rho=0.0229$, $p=0.82$) or the subjects' financial concern ($\rho=0.0084$, $p=0.934$).

II. Instructions

a. Instructions of the Product treatments

In the following, we present the instructions from Product Baseline and Product Organic. The instructions were presented on paper sheets, including a cover sheet and a prize list on the back of the cover sheet.

Welcome to this Study!

Thank you for participating in an economic study at the Karlsruhe Institute of Technology (KIT).

As in all economic studies at KIT, all circumstances described in the following are true. Your decisions will be implemented exactly as described.

We would ask you to keep quiet during the study. If you have questions, please indicate by slightly opening your door. Your questions will then be answered at your cubicle.

Here, please fill in your subject ID.

Subject-ID: _____

Please start reading the two pages inside the cover sheet before attending to the list on the back page.

The production line of the garment industry

In the course of this study, you will choose between two towels, which differ in their way of production.

En route from the cotton plant to the final product ready to sell, a towel passes several production steps. Two essential production steps are the cultivation of cotton and the sewing of the final product. These production steps are often done in regions far away from each other. This is why the conditions of the different production steps often vary widely.

Relating to the production standards in both production steps – cultivation and sewing - there exist established labels.

What does “certified organic cotton” mean?

This label is relevant to the cultivation of cotton. In contrast to conventionally grown cotton, certified organic cotton (organic cotton) is cultivated without chemically produced fertilizers, defoliants, or pesticides. Also the use of genetically modified organisms (GMOs) is prohibited. These conditions must be met in order to become certified and additionally, the soil must have been free from synthetic agrochemicals for three years. In the context of the certification process, the plantations are audited at least once a year from independent institutions.

What does “Fair Wear Foundation” mean?

This label refers to the sewing of the final product. The Fair Wear Foundation (FWF) is an international verification initiative. The affiliated producers in the garment industry commit to the step-by-step implementation of social minimum standards in their manufacturing factories. This is audited by independent parties. Among the labor standards of the FWF are: employment is freely chosen, no discrimination in employment, no exploitation of child labor, freedom of association and the right to collective bargaining, payment of a living wage, no excessive working hours, safe and healthy working conditions, and legally binding employment relationships.

Only subjects in Product Baseline received the following sheet.

Your task

In this study, you will make a choice for a towel. You will receive in any case a towel made of conventional cotton of the size of 100cm x 50cm that will be handed out to you when the study has ended. All the towels in this study have the same grammage of 450g/m² and are held in neutral colors.

Price list and remuneration

On the back of the cover sheet is a list. In each row you will have the choice between Option A and Option B.

Option A: You will receive a towel made of conventional cotton without Fair Wear certification. Additionally, you will receive a monetary amount.

Option B: You will receive a towel made of conventional cotton with Fair Wear certification. You will not receive an additional monetary amount.

The monetary amount in Option A varies over the rows of the table. It starts at 12.00 euro and decreases in every row by 25 cent.

Please make a decision for every row by marking exactly one of the two options in every row.

Afterwards, one of the rows will be randomly selected. The probability is 1 out of 48 for every row. Your decision in the selected row will be exactly implemented as described. That means that you will receive your chosen towel and – depending on the decision – additional money.

Please note: If a row is chosen in which you did not mark exactly one option, you will not receive anything.

For your participation in the study, you will additionally receive 2 euro.

There is a colored piece of paper with your participation number attached to the cover sheet. This piece of paper serves as your coupon with which you can pick up your payout (towel and money) at the KD2 Lab as soon as you have received the respective email. Your remuneration will be bagged so that the person handing it out will not know the content.

Please keep the coupon until your remuneration. Otherwise, you cannot be remunerated.

Take your time to make yourself aware of the differences between the two options.

Only subjects in Product Organic received the following sheet.

Your task

In this study, you will make a choice for a towel. You will receive in any case a towel made of organic cotton of the size of 100cm x 50cm that will be handed out to you when the study has ended. All the towels in this study have the same grammage of 450g/m² and are held in neutral colors.

Price list and remuneration

On the back of the cover sheet is a list. In each row you will have the choice between Option A and Option B.

Option A: You will receive a towel made of organic cotton without Fair Wear certification. Additionally, you will receive a monetary amount.

Option B: You receive a towel made of organic cotton with Fair Wear certification. You will not receive an additional monetary amount.

The monetary amount in Option A varies over the rows of the table. It starts at 12.00 euro and decreases in every row by 25 cent.

Please make a decision for every row by marking exactly one of the two options in every row.

Afterwards, one of the rows will be randomly selected. The probability is 1 out of 48 for every row. Your decision in the selected row will be exactly implemented as described. That means that you will receive your chosen towel and – depending on the decision – additional money.

Please note: If a row is chosen in which you did not mark exactly one option, you will not receive anything.

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Please keep the coupon until your remuneration. Otherwise, you cannot be remunerated.

Take your time to make yourself aware of the differences between the two options.

After the subjects made their choice and filled out the price list, they proceeded to fill out the personality and preference tests on a computer. These included the Big Five Inventory (BFI) (Rammstedt and John 2005), the Mach-IV test for Machiavellianism (Christie and Geis 1970), as well as the Preference Survey Module (Falk et al. 2016), and further questions on social and political preferences.

After completing the questionnaires, subjects from Product Baseline and Product Organic could decide whether they wanted to share their show-up fee with local refugees. They did not know in advance to be confronted with this decision.

Now, you have the opportunity to share your show-up fee of 2 euro in a 1:1 ratio. You keep one half and the other half benefits local refugees.

- Share the show-up fee (keep 1 euro, 1 euro for refugees)
- Don't share the show-up fee (keep 2 euro, 0 euro for refugees)

b. Instructions of the Belief treatments

In each Belief treatment, subjects were asked to guess the behavior of subjects from a Product treatment. Therefore, in addition to the instructions of the respective Product treatment (see Appendix II. a.), subjects in a Belief treatment also received the following, additional instructions. The additional instructions were identical for Belief Baseline and Belief Organic. The footnotes beneath the payout table were part of the instructions.

Welcome to this Study!

Thank you for participating in an economic study at the Karlsruhe Institute of Technology (KIT).

As in all economic studies at KIT, all circumstances described in the following are true. Your decisions will be implemented exactly as described.

We would ask you to keep quiet during the study. If you have questions, please set the wheel on your door to red.

In this study, you will be shown the instructions of subjects of a previous study. These instructions are on the colored sheets.

Please read these instructions carefully. Later, you will be asked to estimate how the subjects of the previous study behaved. This determines a part of your remuneration.

In any case you will receive a show-up fee of 7€ for participating in this study.

Please read the colored sheets first and take a look at the list. Then continue with the sheets on white paper that contain your instructions.

Your task

You had the opportunity to read the instructions for previous subjects. In that study, subjects were asked for their willingness to pay^I for fair manufacturing conditions with the aid of a price list. This willingness to pay could be located within the whole range of the price list.

Please estimate the average willingness to pay among the previous subjects.^{II}

Depending on the accuracy of your estimation, you can earn additional money. The closer you get to the average willingness to pay of the previous subjects, the more additional money you can earn.^{III} This can be seen in detail in the following table.

Payout table

Deviation in cent	Additional money in euro
0	5.00
10	4.75
15	4.44
20	4.00
25	3.44
30	2.75
35	1.94
40	1.00
44	0.16
45 or more	0

^I The willingness to pay is the amount of money for which the subjects of the previous study switched from the right column (Fair Wear without additional money) to the left column (no Fair Wear, additional money).

^{II} The arithmetic mean of the willingness to pay of every subject is calculated. [If a subject has switched multiple times between the columns, we use the arithmetic mean of every willingness to pay. If a subject always preferred a towel without a Fair Wear certification, we define his willingness to pay as 0.25 €. If a subject always preferred the Fair Wear towel, we define his willingness to pay as 12.25 €.]

^{III} Your payout for this estimation amounts to $\max \{500 - \frac{1}{4} (r - x)^2, 0\}$ cent, whereas x is your estimation and r the mean willingness to pay.

Please indicate how high was the average willingness to pay of previous subjects (only values between 0.25€ and 12.25€ are technically permissible).

_____ Euro

Your Subject-ID: _____

After the subjects in the Belief treatments completed the personality and preference questionnaires (these were identical to the questionnaires in the Product treatments), they were asked to estimate what percentage of the previous subjects in the respective Product treatment were willing to donate to local refugees. Subjects did not know they would be confronted with this second estimation task beforehand.

In the following, you can see a screenshot of another decision option of previous subjects.

-- Begin Screenshot --

Now, you have the opportunity to share your show-up fee of 2 Euro in a 1:1 ratio. You keep one half and the other half benefits local refugees.

- Share the show-up fee (keep 1 Euro, 1 Euro for refugees)
- Don't share the show-up fee (keep 2 Euro, 0 Euro for refugees)

-- End Screenshot --

Please estimate what percentage of the subjects was willing to share their show-up fee of 2 euro in a 1:1 ratio, thus picking the upper option.

Depending on the accuracy of your estimation, you can earn additional money.*

Payout table	
Deviation in percentage points	Additional money in euro
0	5
1	4.8
2	4.2
3	3.2
4	1.8
5	0

Please indicate what percentage of the previous subjects, in your opinion, was willing to share their show-up fee of 2 Euro in a 1:1 ratio. Please enter the percentage in whole numbers. Values between 0 and 100 percent are technically permissible.

_____ Percent

* Your payout for this estimation amounts to $\max \{5 - \frac{1}{5} (r - x)^2, 0\}$ euro, whereas x is your estimation and r is the percentage of previous subjects that were willing to share their show-up fee.

c. Instructions of the Lottery treatments

In the following, we present the instructions from Lottery. When arriving at the reception in order to register to the experiment, the subjects were in turns given a yellow or a blue card with the comment that the card would become relevant during the course of the experiment. The instructions consisted of two parts: The first part was distributed to all subjects at the beginning of the experiment and consisted of a cover sheet and two more pages.

Welcome to this Study!

Thank you for participating in an economic study at the Karlsruhe Institute of Technology (KIT).

As in all economic studies at KIT, all circumstances described in the following are true. Your decisions will be implemented exactly as described.

We would ask you to keep quiet during the study. If you have questions, please indicate by slightly opening your door. Your questions will then be answered at your cubicle.

Please read the following two pages carefully.

The production line of the garment industry

In the course of this study, you will choose between two towels, which differ in their way of production.

En route from the cotton plant to the final product ready to sell, a towel passes several production steps. Two essential production steps are the cultivation of cotton and the sewing of the final product. These production steps are often done in regions far away from each other. This is why the conditions of the different production steps often vary widely.

Relating to the production standards in both production steps – cultivation and sewing - there exist established labels.

What does “certified organic cotton” mean?

This label is relevant to the cultivation of cotton. In contrast to conventionally grown cotton, certified organic cotton (organic cotton) is cultivated without chemically produced fertilizers, defoliants, or pesticides. Also the use of genetically modified organisms (GMOs) is prohibited. These conditions must be met in order to become certified and additionally, the soil must have been free from synthetic agrochemicals for three years. In the context of the certification process, the plantations are audited at least once a year from independent institutions.

What does “Fair Wear Foundation” mean?

This label refers to the sewing of the final product. The Fair Wear Foundation (FWF) is an international verification initiative. The affiliated producers in the garment industry commit to the step-by-step implementation of social minimum standards in their manufacturing factories. This is audited by independent parties. Among the labor standards of the FWF are: employment is freely chosen, no discrimination in employment, no exploitation of child labor, freedom of association and the right to collective bargaining, payment of a living wage, no excessive working hours, safe and healthy working conditions, and legally binding employment relationships.

Color of the card and decision

Randomness will determine whether you decide between towels made of organic cotton or of conventional cotton.

During the registration you randomly received a blue or a yellow card. After all participants have made themselves familiar with the instructions, the experimenter tosses a coin.

If the coin shows heads, participants with a yellow card will decide over towels made of conventionally grown cotton. Correspondingly, participants with a blue card will decide over towels made of organically grown cotton.

If the coin shows tails, participants with a yellow card will decide over towels made of organically grown cotton. Correspondingly, participants with a blue card will decide over towels made of conventionally grown cotton.

You will soon be informed about the result of the coin toss by a room announcement.

After all subjects had read their instructions, we made the following announcement:

- 1. "Dear participants, the coin will be tossed now."*
- 2. We tossed the coin. The coin toss was audible over the loudspeakers.*
- 3. The coin shows heads (tails), I repeat: The coin shows heads (tails).*
- 4. We will distribute further instructions. Please remain seated.*

Subjects that could decide over a towel made of conventional cotton were handed out the following instructions after the coin toss and the announcement.

Your task

In this study, you will make a choice for a towel. You will receive in any case a towel of the size of 100cm x 50cm that will be handed out to you when the study has ended. By chance you decide due to the color of your card on towels made of conventionally grown cotton. All the towels in this study have the same grammage of 450g/m² and are held in neutral colors.

Price list and remuneration

On the backs of the cover sheet is a list. In each row you will have the choice between Option A and Option B.

Option A: You will receive a towel made of organic cotton without Fair Wear certification. Additionally, you receive a monetary amount.

Option B: You will receive a towel made of organic cotton with Fair Wear certification. You do not receive an additional monetary amount.

The monetary amount in Option A varies over the rows of the table. It starts at 12.00 euro and decreases in every row by 25 cent.

Please make a decision for every row by marking exactly one of the two options in every row.

Afterwards, one of the rows will be randomly selected. The probability is 1 out of 48 for every row. Your decision in the selected row will be exactly implemented as described. That means that you will receive your chosen towel and – depending on the decision – additional money.

Please note: If a row is chosen in which you did not mark exactly one option, you will not receive anything.

For your participation in the study, you will additionally receive 2 euro.

There is a colored piece of paper with your participation number attached to the cover sheet. This piece of paper serves as your coupon with which you can pick up your payout (towel and money) at the KD2 Lab as soon as you have received the respective email. Your remuneration will be bagged so that the person handing it out will not know the content.

Please keep the coupon until your remuneration. Otherwise, you cannot be remunerated.

Take your time to make yourself aware of the differences between the two options.

Subjects that could decide over a towel made of organic cotton were handed out the following instructions after the coin toss and the announcement.

Your task

In this study, you will make a choice for a towel. You will receive in any case a towel of the size of 100cm x 50cm that will be handed out to you when the study has ended. By chance you decide due to the color of your card over towels made of organically grown cotton. All the towels in this study have the same grammage of 450g/m² and are held in neutral colors.

Price list and remuneration

On the backside of the cover sheet is a list. In each row you will have the choice between Option A and Option B.

Option A: You receive a towel made of organic cotton without Fair Wear certification. Additionally, you receive a monetary amount.

Option B: You receive a towel made of organic cotton with Fair Wear certification. You do not receive an additional monetary amount.

The monetary amount in Option A varies over the rows of the table. It starts at 12.00 euro and decreases in every row by 25 cent.

Please make a decision for every row by marking exactly one of the two options in every row.

Afterwards, one of the rows will be randomly selected. The probability is 1 out of 48 for every row. Your decision in the selected row will be exactly implemented as described. That means that you will receive your chosen towel and – depending on the decision – additional money.

Please note: If a row is chosen in which you did not mark exactly one option, you will not receive anything.

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Please keep the coupon until your remuneration. Otherwise, you cannot be remunerated.

Take your time to make yourself aware of the differences between the two options.

III. References (Appendix)

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