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Abstract

The goal of the current study was to enhance pro-environmental food consumption behavior in daily life. Therefore, the study examined if two sociopsychological interventions can increase the usage intensity of a sustainable grocery shopping app. The app used for this study is called *Inoqo* and enables users to scan their grocery receipts and receive detailed CO₂ scores of their purchase. At the beginning of the app usage, the 131 participants were divided into three groups: a control group, a second group that underwent a social influence intervention, and a third group which received a commitment intervention. After a three-week app-testing phase, the target variable app usage intensity was measured. The latter was operationalized by the number of receipt scans divided by the number of supermarket visits. App usage intensity among the three groups was compared, assuming that the interventions would lead to a higher app usage intensity in the second and the third group, compared to the control group. Interventions based on social influence and commitment have already found effective application in many studies promoting pro-environmental behavior. However, the current study's results showed no significant increase in app usage intensity in the intervention groups, but the usage intensity was very high throughout all three groups. Implications of these findings are discussed.

Keywords: carbon footprint, app usage, social influence, descriptive norm, commitment

Zusammenfassung

Die Idee der vorliegenden Studie war es, umweltfreundliches Konsumverhalten im Alltag zu erhöhen. Dafür wurde untersucht, ob zwei sozialpsychologische Interventionen die Nutzungsintensität einer nachhaltigen Einkaufs-App erhöhen können. Die für diese Studie verwendete App *Inoqo* ermöglicht es Nutzer:innen, ihre Lebensmitteleinkaufsbelege zu scannen und einen detaillierten CO₂-Fußabdruck für ihren Einkauf zu erhalten. Zu Beginn der App-Nutzung wurden die 131 Studienteilnehmer:innen in drei Gruppen unterteilt: eine Kontrollgruppe, eine zweite Gruppe, die eine sozialer Einfluss-Intervention erhielt, und eine dritte Gruppe, die eine Commitment-Intervention erhielt. Nach einer dreiwöchigen App-Testphase wurde die Zielvariable App-Nutzungsintensität gemessen. Letztere wurde operationalisiert durch die Anzahl der gescannten Belege, geteilt durch die Anzahl der Supermarktbesuche. Die App-Nutzungsintensität wurde zwischen den drei Gruppen verglichen, mit der Annahme, dass die Interventionen zu einer höheren App-Nutzungsintensität in der zweiten und dritten Gruppe im Vergleich zur Kontrollgruppe führen würden. Interventionen, die auf sozialem Einfluss und Commitment basieren, wurden bereits in vielen Studien zur Förderung umweltfreundlichen Verhaltens effektiv eingesetzt. Die Ergebnisse der aktuellen Studie zeigten jedoch keinen signifikanten Anstieg der App-Nutzungsintensität in den Interventionsgruppen, sondern die Nutzungsintensität war in allen drei Gruppen sehr hoch. Implikationen dieser Ergebnisse werden diskutiert.

Schlagwörter: ökologischer Fußabdruck, Appnutzung, sozialer Einfluss, deskriptive Norm, Commitment

Introduction

When it comes to environmentalism and sustainability, food systems play a very important role. Food systems cause greenhouse gas emissions, which, in large part, fuel ongoing climate change. In numbers, food production, procession, consumption, and disposal are estimated to be responsible for 21-37% of total global greenhouse gas (GHG) emissions, according to IPCC (Mbow et al., 2019). Agricultural production accounts for approximately 80% to 86% of these food system emissions (Vermeulen et al., 2012). In Austria, a noticeable 16% of GHG emissions are caused by agriculture (Umweltbundesamt GmbH, 2019).

As we know, the fabrication of animal-based food products, in particular, causes a higher GHG impact compared to plant-based products. Meat and dairy products require livestock production which is associated with high nitrogen and GHG emissions (Aleksandrowicz et al., 2016; Herrero et al., 2013). By reducing the consumption of animal-based products, and modifying our diet patterns towards more vegetables, fruit, and cereals we could therefore improve our ecological footprint significantly, as well as our general health (Saari et al., 2021). In Europe, for example, we could theoretically attain a reduction of 25-40% of GHG emissions by cutting our meat, dairy and egg consumption to a half (Westhoek et al., 2014). In the UK alone, GHG emissions could possibly be reduced by 40% by adopting a sustainable diet throughout the population (Green et al., 2015). A study review from the US even predicts a possible reduction impact of 70% of GHG emissions and land use, as well as 50% reduction of water use (Aleksandrowicz et al., 2016). Thus, changing consumer behavior towards more sustainable diet and food shopping habits holds a large potential for a reduction in emissions and to help fight climate change.

However, even as an environmentally involved citizen, it is not always easy to know which food choices are best for the planet, since packaging and labelling are often non-transparent about the origin or the exact composition of a product. Like in many other areas,

mobile apps could be an attractive way to facilitate this process of decision-making by providing information and communicating it in a comprehensible way. Apps can furthermore make this process entertaining by using gamification to keep users motivated, for example. Moreover, for a person who has not yet been aware that his or her food choices affect the environment, an app could be a low-threshold, playful way to get information and raise consciousness in the first place.

The regular usage of a sustainable food shopping app could raise awareness for the impact of a person's consumption patterns and subsequently initiate change. It could be a chance to make sustainable food consumption attractive and easy and, therefore, enhance pro-environmental behavior in daily life in the future.

However, a worldwide statistic shows that the average app retention rate drops from 25,3% on the day of installation to 5,7% on day thirty (Statista, 2021). Depending on the app category, this rate differs. Apps concerning food and drinks industry go from 16,5% on day one to 3,9% on day 30, while lifestyle apps drop from 20,9% to 4,5% in this time (Statista, 2021). Hence, the idea of the current study was to examine if psychological interventions can increase the regular usage of a sustainable food shopping app.

The current study worked with an Austrian app called *Inoqo*. The main purpose of this app is to provide information about the CO₂-impact of a purchase at the grocery store. *Inoqo* users can scan their grocery shopping receipt and receive an overview of the total CO₂-score of the purchase, as well as a specific CO₂-score and detailed information for each product. The CO₂-score includes all emissions that have been released during the production of one product. To calculate this score, *Inoqo* uses manufacturer's data, as well as databases and scientific publications (Inoqo GmbH, 2021). In the app, users can also scroll through a feed with short articles about environment-related topics and obtain a graphic depiction of their

average CO₂-impact throughout the past weeks and months. Users can also join a team with fellow users and monitor the total team score.

In social psychology, we know different, effective ways of influencing behavior. As explained above, the main interest of the current study was to explore if psychological interventions which take place when individuals start using the app, can increase the app usage intensity. To do so, the current study focused on two well-studied psychological mechanisms: normative social influence and commitment.

Normative social influence

Individuals are known to orient themselves by the behavior of others to respond to a situation in a socially appropriate way. This is called normative social influence and is a powerful instrument to provoke compliant and socially desirable behavior (Cialdini & Goldstein, 2004). When we see an advertisement telling us that the shampoo of a certain brand is recommended by 9 out of 10 testers, or that the most ordered dish in a restaurant is their home-made gnocchi, we are getting information about social norms (Goldstein et al., 2008). Especially when individuals find themselves in a situation where they are uncertain about how to react and behave, it is likely that they show conformity with the behavior of the rest of the social environment they are in (Griskevicius et al., 2006). The influential power of social norms on individuals' behavior has been controversial in psychology for a while, but is now well-studied and has been shown in many different areas, such as recycling, littering, energy conservation or alcohol use, to name just a few (Borsari & Carey, 2003; Cialdini et al., 1990; Cialdini & Goldstein, 2004; Goldstein et al., 2008; Jacobson et al., 2011; Kallgren et al., 2000).

The focus theory of normative conduct

The term *norm* can have different meanings. It can, on the one hand, describe what is typically done and on the other hand, refer to what is socially approved or disapproved

(Kallgren et al., 2000). The *focus theory of normative conduct* by Cialdini et al. continues this logic and has refined the explanatory value of social norms by distinguishing *descriptive* and *injunctive norms* (Cialdini et al., 1990). A descriptive norm provides information about the perceived realization of a behavior, of what is seen as “normal”. This could be the perception of how much people litter or recycle, for example. An injunctive norm, in return, is the perceived approval of a behavior, for example the information that society approves recycling and disapproves littering (Cialdini et al., 1990; Jacobson et al., 2011). These two types of normative influences are relevant for different types of motivation and goals. Descriptive norms are important for the individual’s intrapersonal goal of behaving in an appropriate way, whereas injunctive norms are more important for the interpersonal goal of creating and maintaining social relationships (Deutsch & Gerard, 1955; Jacobson et al., 2011). Descriptive and injunctive norms can be present in one situation at the same time. If we stick with the littering/recycling example we can see that, despite the injunctive norm of societal disapproval of littering, the descriptive observation shows us that it is actually quite a common behavior. In this case, the two norms are incongruent, because the descriptive behavior (frequent littering) does not match the injunctive norm (general disapproval of littering). Norms can of course also be congruent, for example if recycling behavior would be both frequent and approved (Jacobson et al., 2011). A second proposition of the theory of normative conduct notes that social norms (for both the descriptive and the injunctive type) are more likely to influence an individual’s behavior if they are salient, meaning in focus, for the individual at the time the behavior takes place (Cialdini & Goldstein, 2004; Kallgren et al., 2000).

The influence of reference groups

Another important point that influences the power of social norms is the reference group. The *social comparison theory* of Festinger (1954) states that individuals often judge

themselves by the comparison to others, especially when those others have similar characteristics to themselves. In congruence with this proposition, individuals are more likely to show compliant behavior when they identify as a member of a social group (for example men, women, student of a certain faculty, etc.) that is salient in the descriptive norm (Chassin et al., 1984; Goldstein et al., 2008; White et al., 1994, 2002). The following study example will illustrate how the mentioned reinforcing factors for the influence of social norms can be realized in a pro-environmental context.

Application for pro-environmental behavior

In the context of environmentally friendly behavior, multiple studies have tested the influence of descriptive and injunctive norms (e.g., Cialdini et al., 1990; Goldstein et al., 2008; Terrier & Marfaing, 2015). One of the most famous and pivotal studies is a field study in a hotel, where Goldstein, Cialdini and Griskevicius (2008) conducted two experiments targeting the effectiveness of descriptive norms. The researchers worked with signs that are typically pinned in a hotel's washroom, which invite the guests to reuse their towels for the sake of the environment. The first of their experiments compared the classic invitation, which only refers to the personal part in protecting the environment, with a second invitation, where they presented the descriptive norm that almost 75% of the guests were already joining the environment program of the hotel by reusing their towels. The results show that the descriptive norm information led to a significantly higher towel reuse than the classic sign (Goldstein et al., 2008). In line with the theory of normative conduct, we can see that its second proposition about salience was fulfilled during this experiment, since the solicited descriptive norm was in focus during the guests' decision whether to reuse their towels or not.

The effect of the reference group was examined in the second experiment of the hotel study (Goldstein et al., 2008). This time, the researchers used five different signs, reusing

both of Experiment 1 and adding three signs with a descriptive norm that referred to different group identities (same room identity, citizen identity, gender identity). The results showed, again, that all four descriptive norm messages scored higher in towel reuse rate than the environment message. Furthermore, the descriptive norm condition which informed that 75% of guests that had stayed in this room have been reusing their towels (“provincial norm”), led to a significantly higher reuse rate than the other descriptive norm conditions (Goldstein et al., 2008). This result is interesting since the information that guests in one particular room reused the towels to a certain percentage is rationally not any more meaningful for the behavior than the other messages. The other three descriptive norms (citizen identity, gender identity, and guest identity already used the first experiment) did not differ from one another in effectiveness (Goldstein et al., 2008). Overall, the hotel study is an example where descriptive norms had an effective influence on people’s pro-environmental behavior, with the behavior of the descriptive norm being in focus during the decision situation and referring to a group the guests identified with.

As mentioned above, the current study intended to use two psychological interventions to increase the app usage intensity of *Inoqo* and reinforce daily pro-environmental behavior. So, next to normative social influence, commitment was targeted as a second mechanism for these interventions.

Commitment

Commitment is a mechanism that can be defined as “a pledging or binding of the individual to behavioral acts” (Kiesler & Sakumura, 1966, p. 349). To incite behavioral change towards desirable, for example pro-environmental, behavior, we can use commitment techniques. Leading people to behave in the desired way once, is a promising technique to change their habits in a long-term perspective (Kiesler & Sakumura, 1966; Rubens et al., 2015). To evoke commitment to an act, different situational factors play a reinforcing role:

the public character of the commitment, repetition of the act, the intrinsic motivation for it and a context where the individuals feel free to choose if they realize the act or not (Cialdini, 2014; Guéguen et al., 2013; Joule et al., 2007; Lokhorst et al., 2013; Rubens et al., 2015; Zbinden et al., 2011). So when individuals freely agree to carry out a specific act, for example by written pledges, it is more likely that they maintain this behavior, even after having fulfilled the first pledge (Wang & Katzev, 1990).

In relation to social psychology, we know that between a behavioral act and the attitude a person holds towards it, cognitive dissonance can arise. So, when we talk about behavioral change through commitment, we also have to take cognitive dissonance into consideration. Therefore, the essential of Festinger's *theory of cognitive dissonance* (1957) and its role for commitment will be explained.

The role of cognitive dissonance for commitment

When individuals experience an uncomfortable feeling of inconsistency because their actions do not match their beliefs, this can be called cognitive dissonance. Often, this dissonance is not caused in the first place because the individual finds a way to dissolve the inconsistency and, by that, avoid the negative feeling (Festinger, 1957). One of Festinger's examples is smoking: most people are aware that smoking constitutes major health risks. So, when people continue to smoke despite this knowledge, they must find reasons to justify that decision. Such self-justificative thoughts could, for example, be that smoking "isn't even as bad as everyone says" or that they just enjoy it so much that in their opinion it improves their life quality. In this case, the continuing smoking behavior is consistent with one's own cognitions (meaning ideas, opinions, beliefs, or knowledge) about it. But in case a person does not find a suitable justification why he or she is smoking, the inconsistency will persist, and he or she will experience a feeling of psychological discomfort – cognitive dissonance (Festinger, 1957; Morvan & O'Connor, 2017; Tavriss & Aronson, 2020). Another interesting

example of avoiding cognitive dissonance would be the denial of climate change – which is often unrelated to scientific knowledge or education of a person, but is emotionally motivated because people do not want to change their current worldview and lifestyle (Lewandowsky et al., 2013; Lewandowsky & Oberauer, 2016; Tavris & Aronson, 2017).

Festinger's basic hypotheses are 1) that dissonance motivates the person to reduce this dissonance and achieve consonance and 2) that when individuals experience dissonance, they will in addition actively avoid situations and information that would increase the dissonance further (Festinger, 1957). Aronson (1992) continued this reasoning by suggesting that in this process of creating consistency, most individuals strive to preserve a consistent, competent and morally good sense of self. So, the striving for consistency and avoidance of cognitive dissonance can be seen as central factors influencing human motivation (Aronson, 1992; Aronson & Mills, 1959; Cialdini et al., 1995; Lokhorst et al., 2013).

Yet, research has also shown that attitudes do not always predict behavior, so even if individuals hold a positive attitude towards an activity, this does not necessarily imply that they often engage in that activity (Joule et al., 2007; Wallace et al., 2005). Commitment interventions can help to incite a durable change towards the desired behavior. If individuals commit themselves (maybe even publicly) to a behavior and then do not perform, it is likely that cognitive dissonance arises. At the same time, when individuals have committed themselves to a certain act, they will eventually adjust their cognitions and increase their positive attitude and motivation towards it, to be consistent with their voluntarily pledged commitment (Aronson, 1992; Aronson & Mills, 1959; Lokhorst et al., 2013; Pardini & Katzev, 1983). In a pivotal study, public commitment and hypocrisy (which means a commitment step followed by a mindfulness step to make subjects realize past transgressions) conditions were applied to increase condom use among students, for example (Stone et al., 1994). Returning to the subject of the current study, we can see that commitment has also

found various applications in studies that examined options for enhancing pro-environmental behavior (Lokhorst et al., 2013; Rubens et al., 2015).

Application for pro-environmental behavior

While in the study of Stone et al. (1994), the commitment-only condition showed a distinctly smaller effect than the hypocrisy condition, other studies showed that commitment alone can also have a large impact (Lokhorst et al., 2013; Pardini & Katzev, 1983; Rubens et al., 2015; Wang & Katzev, 1990). In a study concerning plastic bag use in a supermarket where Rubens et al. (2015) compared the two conditions, commitment even showed a higher effect than the hypocrisy condition. The researchers induced commitment (signing a public poster to commit to not use plastic bags) or hypocrisy (the commitment condition followed by the prompt to remember past transgressions) at the beginning of the shopping trip. The commitment condition led to a significantly higher rate of the target behavior – non-usage of a plastic bag – than the hypocrisy condition, which the researchers supposed to be due to the delay between the intervention and the moment at the cash desk where the subjects decided whether to take a plastic bag or not (Rubens et al., 2015). During a delay time, induced hypocrisy could lead to justifying thoughts that reduce the aroused cognitive dissonance, and therefore dissolve the need to reducing it by changing one's behavior (Denizeau et al., 2009; Joule & Beauvois, 1997; Leippe & Eisenstadt, 1994; Rubens et al., 2015). Commitment, by contrast, does not elicit such a defensive reaction since there is no inconsistency in commitment itself (Joule & Beauvois, 1997; Rubens et al., 2015).

In another study examining the effectiveness of commitment for pro-environmental behavior change, Wang and Katzev (1990) conducted two experiments testing the impact of induced commitment on paper recycling. In the first experiment, the subjects signed a group commitment pledge for four weeks and by doing so, the rate of recycled paper was increased by 47% and held this level for another four-week follow-up phase after the intervention

period. In the second similar experiment, they compared a group commitment condition, an individual commitment condition and an incentive-only condition. The researchers found that only the individual commitment condition, where subjects signed an individual pledge to participate in the recycling program, led to a voluntary continuation of paper recycling during the follow-up phase (Wang & Katzev, 1990). In the same context of paper recycling, an experiment was conducted that revealed the increase of impact when the subjects signed a written pledge, compared to an only oral commitment (Pardini & Katzev, 1983). Various other studies showed the effectiveness of commitment interventions in the field of pro-environmental behavior, as a meta-analysis based on 19 studies conducted between 1976 and 2010 points out, for example (Lokhorst et al., 2013).

One important implication from those study examples for the current study is that the commitment technique should also work with a delay between the intervention and the performance of the act. Furthermore, we can take note that the effect should be larger when subjects bind themselves individually and with intrinsic motivation, as well as when it's a written pledge that is made public.

Study overview

The goal of the current study was to examine the effects of a social influence intervention and a commitment intervention on the usage intensity of a sustainable food shopping app, namely *Inoqo*. For that reason, the study worked with three participant groups: a control group that received no intervention, a group that received a social influence intervention and a group that received a commitment intervention at the beginning of the app usage. Following that, the subjects used the app during a period of three weeks. After this period, app usage intensity was measured and compared across the three groups. As outlined, the app permits to scan supermarket receipts and then analyses and presents the CO₂ impact

of the products. Thus, the usage intensity of *Inoqo* was operationalized by the number of total receipt scans divided by the number of total supermarket visits throughout the three weeks.

Hypotheses

Based on the mentioned study results that showed a considerable impact of normative social influence interventions on individuals' pro-environmental behavior, I expected a higher scan rate in the group that received a social influence intervention prior to using the app, than in the control group that received no intervention. The used descriptive norm message was making similarity between the participants and the reference group salient by basing the norm on fellow *Inoqo* users, which should have a reinforcing effect of the message (Chassin et al., 1984; Cialdini & Goldstein, 2004; Goldstein et al., 2008; White et al., 1994, 2002).

H1: Inducing social influence increases the app usage intensity in comparison to the control group.

As depicted, commitment has found various successful applications in studies trying to enhance pro-environmental behavior. Therefore, I assumed that subjects who received a commitment intervention before using the app would scan their receipts more frequently than subjects of the control group. The participants were asked to make a written commitment that was later published in the app. Scanning their receipts regularly should create a repetition of the act to which they were committed, and additionally, the pledge was written individually and the participants were free to subsequently perform the behavior or not, which should all be factors increasing the effectiveness of the intervention, according to theory (Guéguen et al., 2013; Pardini & Katzev, 1983; Rubens et al., 2015; Zbinden et al., 2011). In the commitment condition, the subjects had to write down why they thought it was important to consistently scan their receipts in order to consume in a sustainable way. Thus, this intervention did not only cover the criteria mentioned above, but was also tied to a cognitive

effort where the subjects elaborated their intrinsic motivation and positive attitude towards the target behavior, which constitutes another characteristic that has increased the effectiveness of commitment interventions in the past (Guéguen et al., 2013; Pardini & Katzev, 1983)

H2: Inducing commitment increases the app usage intensity in comparison to the control group.

One of the main goals of this study was to compare the effectiveness of the two intervention types to increase pro-environmental consumption behavior, here operationalized with the usage intensity of the sustainable shopping app. To my knowledge, there was only one study comparing a descriptive message intervention and a commitment intervention in the context of environmental behavior. It was a study similar to the hotel study of Goldstein et al. (2008) and it compared the impact of the two intervention types for the reuse of hotel towels (Terrier & Marfaing, 2015). In the study of Terrier and Marfaing (2015), there was no significant difference between the effectiveness of commitment and the descriptive norm. Nevertheless, the context of the current study was different and included a delay between the interventions (on-site at university) and the target behavior (scanning the next grocery shopping receipt) whose duration could not be controlled. This led me to assume that the commitment intervention would be more effective than the social influence intervention, since a delay should not impact the effectiveness of commitment (Joule & Beauvois, 1997; Rubens et al., 2015). On the contrary, a delay could possibly represent a disadvantage for the social influence intervention since the presented norm may not be salient anymore at the time the behavior (scanning receipt) takes place and the intervention could therefore sink in effectiveness (Cialdini & Goldstein, 2004; Kallgren et al., 2000).

H3: App usage intensity is increased more strongly by the commitment condition than by the social influence condition.

Method

Participants

A total sample of 159 participants was recruited online via the Laboratory Administration for Behavioral Sciences (LABS) system at the University of Vienna. Due to technical problems with the download of the app, 8 subjects showed up but could not take part in the study. Two subjects did not show up to the appointment. 15 subjects did not respond to the second survey or used different personal codes in the two surveys so that their data could not be matched and utilized. Three subjects were excluded from the analysis due to major outliers. This resulted in a final sample consisting of 131 subjects (95 female, 36 male, $M_{age} = 22,19$, age range: 18-45). The participants were all enrolled in the psychology bachelor at the University of Vienna and received partial course credit for their participation. A pre-selection criterion was that participants do grocery shopping at the Austrian supermarkets *Billa* and/or *Spar*, or were willing to do so in the three-week app testing phase, because at the time, these were the only two supermarkets whose bills worked with the *Inoqo* app.

Design and procedure

An intervention study was conducted in two steps, using a between-subjects design. Therefore, the participants were divided into three groups at Time 1: two intervention groups and one control group. There were 43 participants in the commitment group, and 44 in the social influence and the control group, respectively. After completing a survey and receiving the interventions as a first step, the subjects tested the app *Inoqo* for three weeks. As a second step, after those three weeks, the app usage intensity of the three groups was measured via a second survey. Subsequently, the app usage intensity was compared to test the hypotheses.

Time 1

The first step was the intervention day. This part of the study took place at the University of Vienna. The subjects came on-site to take part in the instructional phase, in groups of six to thirteen people. We started with a ten-minute presentation where I explained the download and the usage of the app with the help of a PowerPoint presentation (see material in Appendix A). Following this, the subjects had to fill in a twenty-minute online Unipark survey (see Unipark Survey 1 in Appendix A).

The survey asked for standard demographic variables and then guided the participants to generate a personal code, with the purpose to permit the matching of the participants' data from the two survey dates while maintaining anonymity. Following this, three questionnaires were included, to take possible control variables into account: A *German version of the Short Schwartz Value Survey (SSVS-G; Boer, 2014)*, the *Pro-environmental behavior scale (PEBS; Markle, 2013)*, and the *Work Regulatory Focus Scale (WRF; Neubert et al., 2008)*. High scores for prosocial, pro-environmental values in the *SSVS-G*, high scores for pro-environmental behavior in the *PEBS*, as well as high scores for prevention orientation in the *WRF* were seen as potential covariates reinforcing pro-environmental behavior and therefore app usage intensity.

The German version of the *Short Schwartz Value Survey (SSVS-G; Boer, 2014)* consists of ten items assessing ten personal values. For the current study, a slightly simplified version provided by Professor Florack was used (Cronbach's $\alpha = .66$). The subjects had to indicate how important the listed goals and values were for them, using a six-level scale ranging from "not at all important" (1) to "very important" (6). The ten values are *power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security*. *Universalism*, for example, asks for the importance of "broad-

mindedness, social justice, environmental protection, peace” (see Unipark Survey 1, page 3/11, in Appendix A).

The *Pro-environmental behavior scale (PEBS)* (Markle, 2013) measures current conservation behavior (Cronbach’s alpha = .76). The original version of Markle (2013) consists of four subscales: *Conservation* (Cronbach’s alpha = .74), *Environmental citizenship* (Cronbach’s alpha = .65), *Food* (Cronbach’s alpha = .66) and *Transportation* (Cronbach’s alpha = .62). The *Conservation* subscale includes seven items, of which two were excluded¹. The five *Conservation* items that were used ask for how often subjects reduce their heating, air-conditioning, hot water, and lighting consumption (see Unipark Survey 1, page 3/11, in Appendix A). These items use a five-point Likert scale ranging from “never” (1) to “always” (5). The *Environmental citizenship* subscale includes six items, of which one was excluded². Three of the *Environmental citizenship* items ask for memberships in environmental organizations, donations to such organizations and if the subject has increased the consumption of organic products (see Unipark Survey 1, page 4/11, in Appendix A). These three items use the values “no” (1) and “yes” (2) for answers. The other two *Environmental citizenship* items ask for how often subjects watch environment-related media content and how often subjects talk to others about their environmental behavior (see Unipark Survey 1, page 4/11, in Appendix A). These two items use a five-point Likert scale ranging from “never” (1) to “always” (5). The *Food* subscale contains three items asking if participants have reduced their beef, pork, and poultry consumption during the past year (see Unipark Survey 1, page 4/11, in Appendix A). This subscale uses the values “no” (1), “yes” (2) and “I do not eat beef/pork/poultry” (3). The fourth subscale *Transportation* has been excluded in the current study. The items have been translated into German for the study. For data

¹ The items “How often do you turn off the TV when leaving a room?” and “At which temperature do you wash most of your clothes?” were excluded.

² The item “Please answer the following question based on the vehicle you drive most often: approximately how many miles per gallon does the vehicle get?” was excluded.

analysis, the scores of each of the three used subscales have been averaged to allow quantitative analysis on a continuous scale. The *Environmental citizenship* subscale has been split into two parts for the analysis since the levels of the answers differ within the subscale, as explained above. So first, the average score of the three questions with the yes/no answer scheme was calculated and named “PEBS Environment 1”. Then, the average score of the two items using the five-point Likert scale was calculated and named “PEBS Environment 2”.

The third scale that has been included in the Unipark survey is called *Work Regulatory Focus Scale (WRF)*; Neubert et al., 2008). It measures if a person is more promotion or prevention orientated. This scale was included because prevention focus was connected to increased pro-environmental behavior in the past (Gómez-Carmona et al., 2021). The *Work Regulatory Focus Scale* by Neubert et al. (2008) contains 18 items in total which are split into two subscales: the prevention scale (Cronbach’s alpha = .92) and the promotion scale (Cronbach’s alpha = .91). The items are further assigned to subdimensions which are *security*, *oughts*, and *losses* for prevention, and *achievement*, *ideals*, and *gains* for promotion (Neubert et al., 2008). The *security* subdimension of the promotion focus consists of the Items 1, 5 and 7. The Items 2,3 and 4 belong to the subdimension *oughts*. The Items 6, 8 and 9 are assigned to the subdimension *losses*. For example, Item 8 reads: “I focus my attention on avoiding failure at work” (see Unipark Survey 1, page 4/11 and 5/11, in Appendix A). Concerning the promotion focus, Items 10, 11 and 12 are assigned to the promotion subdimension *gains*. Items 13,14 and 15 belong to the subdimension *achievement*. Items 16,17 and 18 are covering the subdimension *ideals*, as Item 18, for example: “At work, I am motivated by my hopes and aspirations” (see Unipark Survey 1, page 5/11, in Appendix A). All *WRF* items use a five-point Likert scale ranging from “strongly disagree” (1) to “strongly agree (5). For the current study, the *WRF* items were given in German. For data

analysis, only the nine items of the prevention scale have been used. As before, the item scores were averaged per subdimension, resulting in one score for *security*, *oughts* and *losses*, respectively.

So, after collecting the demographic data and the answers to the three questionnaires in the Unipark survey, the app introduction started. The app usage was explained again in the Unipark survey. Then the subjects were asked to estimate the number of *Billa/Spar* visits, as well as the number of receipt scans they would perform in the following three weeks, in order to be eventually able to control if the randomization of the groups had succeeded. Then the subjects were randomly assigned to one of the three groups.

The control group did not receive an intervention and only received an entry code and the download instruction as a next step. Via the control group entry code, all participants of the control group were automatically assigned to the “Team Psychologie 1” in the team tab of the app, where they could monitor the total CO₂ impact of the whole control group. The other two groups received an intervention before they got the entry code and the download introduction.

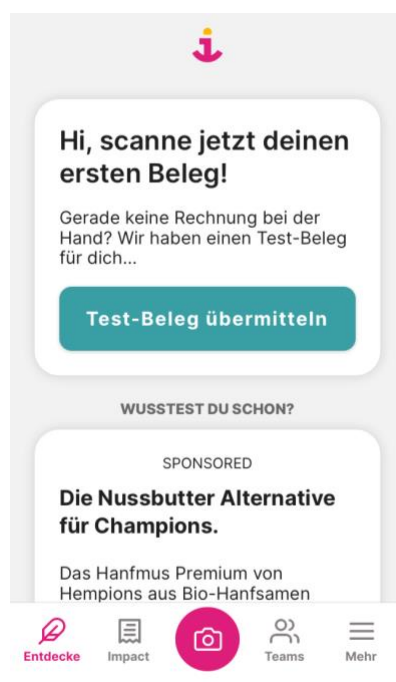


Figure 1. What the *Inoqo* start page looked like for participants.

The normative social influence intervention

The social influence group was led to a page with a descriptive norm message saying “Wusstest du? 96% der Nutzer*innen finden es wichtig, ihre Rechnungen konsequent auszuwerten, um nachhaltiger zu konsumieren.“ („Did you know? 96% of the users think it’s important to consistently evaluate their receipts to consume in a more sustainable way.”)³ (see Unipark Survey 1, page 8/11, in Appendix A). After receiving the normative message in the Unipark survey, the subjects of the normative social influence group received an entry code and the download instructions as well. When they were done registering in the app, this group received the same normative message again as a pop-up in the app. Via the social influence group entry code, all participants of this group were automatically placed in the team “Team Psychologie 2” inside the app.

The commitment intervention

The commitment group was led to a survey page requesting that they briefly think about why they wanted to evaluate their receipts consistently. They were also informed that their statement would be published in alphabetic order in their team feed the next day. First, they needed to type in their name or a nickname and then reply to the open question “Warum findest du es wichtig, deine Rechnungen konsequent auszuwerten, um nachhaltiger zu konsumieren?” (“Why do you think it’s important to consistently evaluate your receipts to consume in a more sustainable way?”). The survey page ended with the information that their statement would be published in their team feed and that they would receive a push notification as soon as the statements would be online (see Unipark Survey 1, page 8/11 and 9/11, in Appendix A). Then, like for the other two groups, they received their entry code which automatically placed them in their “Team Psychologie 3” team with the fellow

³ To figure out this percentage, current *Inoqo* users were asked to answer this question prior to the study, via the poll tool on Instagram on the *Inoqo* Instagram page.

participants of the commitment group. The collected statements were sent to the app responsible each evening after the two intervention days. They then were published the day after in the team feed of the commitment group, accompanied by the push notification for this group.

After the completion of the Unipark survey and the download of the app, the task on-site was completed, and all subjects entered the three-week testing phase. During these three weeks, no further intervention occurred, and the subjects were able to use the app like every other *Inoqo* user.

Since *Inoqo* is an Austrian app and only available in the Austrian app store, a few participants could not download it immediately on-site but had to wait until the country of their app store had been changed (this process partly took up to two days for Android phones). For this reason, the study phase has been extended so that participants who joined in later could also complete the three-week testing phase. Hence in the second Unipark survey at Time 2, two control variables asking for problems with the download and eventual e-mail contact with the researcher to resolve the issue were included.



Figure 2. A click inside the team “Team Psychologie 1”.

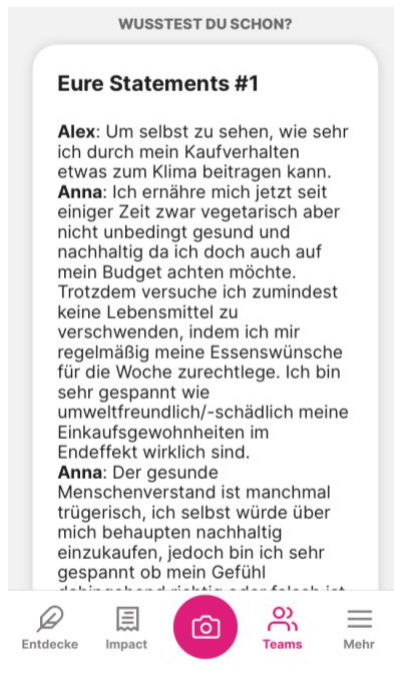


Figure 3. A click inside the team “Team Psychologie 3”, in which, by scrolling down, the commitment statements could be seen.

Time 2

After the three weeks, the participants received an online Unipark survey via e-mail (see Unipark Survey 2 in Appendix A). The main goal of this second, ten-minute survey was to collect data for the target variable app usage intensity. Therefore, the subjects were asked to type in their personal code again and then estimate the number of daily *Billa/Spar* visits in the last three weeks. They then were instructed to type in the exact number of receipt scans which could easily be retrieved from the app. Also, the items of the *food* subscale of the *Pro-environmental behavior scale (PEBS; Markle, 2013)* were given again. These questions were followed by feedback questions about the app usage and optional open questions concerning the app experience.

Data analysis

The software R was used to analyze the data and test the three hypotheses. I used a linear regression with the variable app usage intensity as criterion and the three groups as predictors. The three groups (control, social influence, and commitment) were dummy-

encoded via the R function “as.factor”, using the control group (value 1) as the reference group. Concerning the demographic variables, the following variables were dummy-encoded via the “as.factor” function as well: sex (reference group: value 1 “male”), shopping for several persons (reference group: value 1 “shopping only for me (1 person)”), household situation (reference group: value 1 “living in a shared flat”), income (reference group: value 1 “working full-time 35 hours or more”), education level (reference group: value 5 “high school diploma”, since values 1-4 were not indicated by any participant), and email contact with researcher after problem (reference group: missing value, which means no problem occurred in the first place, since email contact yes/no was a conditional variable in the survey). The aggregation of the questionnaire variables from *SVS*, *PEBS*, and *WRF* is explained above. The target variable “app usage intensity” was operationalized via the total number of receipt scans in the app divided by the estimated number of *Billa/Spar* visits throughout the past three weeks at Time 2. For the exploration, the target variable “further usage intention” was treated as a continuous variable.

Results

Descriptive analysis

The analyses were conducted with $N = 131$. To get an overview of the data, some descriptive analyses were conducted first (see Table 1 and Figure 4). By looking at the numbers, it becomes obvious that the compliance to scan was very high. Precisely, 69 of the 131 subjects indicated that they had scanned 100% of their receipts. 44 subjects scanned less than 100% of their receipts, while for 18 subjects, the number of scans was even higher than the number of their *Billa/Spar* visits.

Table 1

Frequency table for app usage intensity

Group	Number of scans	Number of <i>Billa/Spar</i> visits	App usage intensity in %
Control group	254	275	92.2
Social influence group	276	288	93.7
Commitment group	297	314	95.5
Total	827	877	94.29

Note. App usage intensity is the number of scans divided by the number of *Billa/Spar* visits.

The number of scans was directly copied from the app at Time 2. The number of *Billa/Spar* visits was estimated by the participants at Time 2.

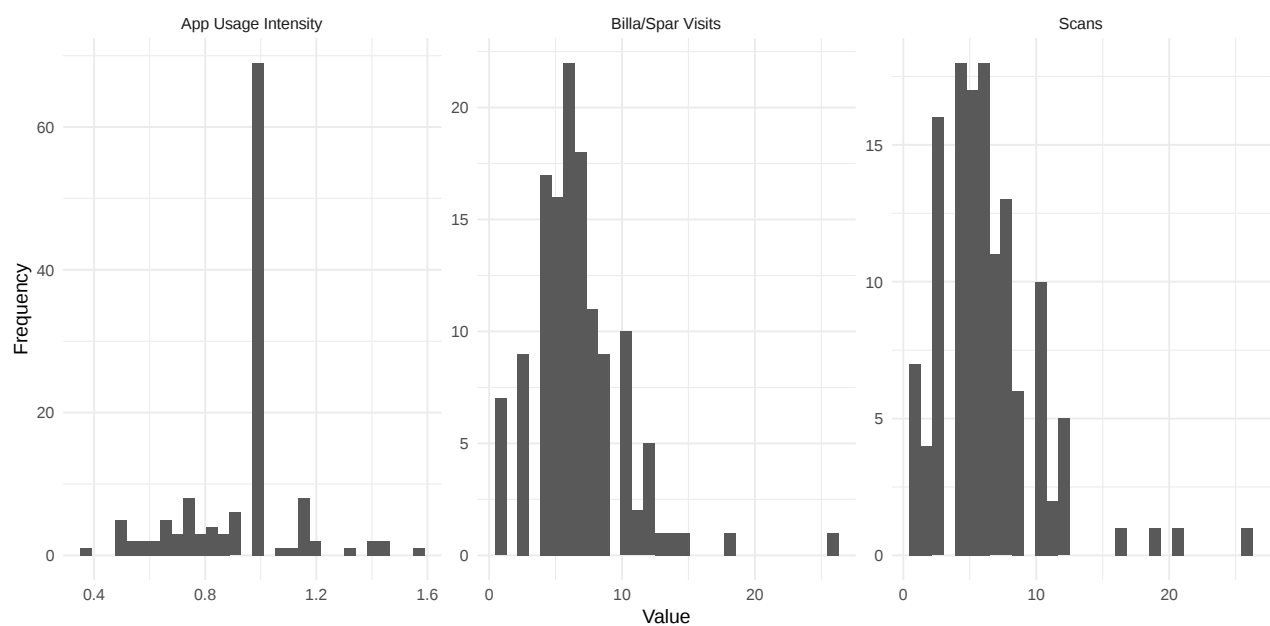


Figure 4. Histogram of app usage intensity (= number of scans divided by *Billa/Spar* visits), number of *Billa/Spar* visits, and number of receipt scans.

Correlations

Three correlation tables were generated. They included the aggregated variables of the three questionnaires (*SVS*, *PEBS*, *WRF*) correlated with the target variable, respectively. The first correlation table shows the correlations of the *Pro-environmental behavior scale (PEBS)* subscales and the target variable app usage intensity (see Table 2). We can see one significant correlation with the subscale “PEBS food” ($r = .25, p < .01$), where high subscale scores indicate that subjects have reduced their meat consumption during the last year or don’t eat meat. Between the prevention focus subscale of the *Work Regulatory Focus Scale (WRF)* and the target variable app usage intensity (Table 3), as well as between the items of the *Schwartz Value Survey (SVS)* and the target variable (Table 4) no notable correlations were found.

Table 2

Means, standard deviations, and correlations with confidence intervals of PEBS subscales and app usage intensity

Variable	<i>M</i>	<i>SD</i>	1	2	3	4
1. App usage intensity	0.94	0.20				
2. PEBS conservation	3.47	0.56	.06 [-.11, .23]			
3. PEBS environment 1	3.06	0.69	-.14 [-.31, .03]	.27** [.10, .42]		
4. PEBS environment 2	1.32	0.26	.03 [-.14, .20]	.14 [-.03, .31]	.26** [.10, .42]	
5. PEBS food	2.22	0.69	.25** [.08, .41]	.21* [.04, .37]	.35** [.19, .49]	.21* [.04, .37]

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. * indicates $p < .05$.

** indicates $p < .01$.

Table 3

Means, standard deviations, and correlations with confidence intervals of the WRF prevention subscale and app usage intensity

Variable	<i>M</i>	<i>SD</i>	1	2	3
1. App usage intensity	0.94	0.20			
2. Prev security	3.61	0.75	.04 [-.13, .21]		
3. Prev oughts	4.27	0.57	.04 [-.13, .21]	.47** [.32, .59]	
4. Prev losses	3.79	0.79	.16 [-.01, .32]	.44** [.29, .57]	.34** [.18, .48]

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. * indicates $p < .05$.

** indicates $p < .01$.

Table 4 (page below)

Means, standard deviations, and correlations with confidence intervals of the SVS items and app usage intensity

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. App usage intensity	0.94	0.20										
2. SVS power	3.82	1.05	.03 [-.14, .20]									
3. SVS achievement	4.94	0.92	-.07 [-.24, .10]	.48** [.34, .60]								
4. SVS hedonism	5.44	0.78	-.02 [-.19, .15]	.26** [.09, .41]	.23** [.06, .39]							
5. SVS stimulation	4.71	1.06	-.02 [-.19, .15]	.16 [-.01, .32]	.32** [.16, .47]	.38** [.22, .52]						
6. SVS self-direction	5.30	0.80	.11 [-.07, .27]	.04 [-.13, .21]	.33** [.17, .47]	.26** [.09, .41]	.24** [.07, .39]					
7. SVS universalism	5.44	0.81	.05 [-.12, .22]	-.07 [-.24, .10]	-.06 [-.23, .12]	.20* [.03, .36]	.08 [-.10, .24]	.17 [-.01, .33]				
8. SVS benevolence	5.47	0.83	.12 [-.05, .29]	-.13 [-.29, .04]	.08 [-.10, .25]	.19* [.02, .35]	.12 [-.05, .28]	.30** [.13, .45]	.25** [.09, .41]			
9. SVS tradition	3.12	1.18	.07 [-.11, .23]	.12 [-.06, .28]	.13 [-.04, .30]	-.07 [-.24, .11]	.07 [-.11, .23]	.05 [-.12, .22]	.01 [-.16, .18]	.21* [.04, .37]		
10. SVS conformism	4.49	0.91	-.00 [-.17, .17]	.35** [.19, .49]	.15 [-.02, .32]	.27** [.10, .42]	.15 [-.03, .31]	.06 [-.11, .23]	.08 [-.09, .25]	.20* [.03, .36]	.27** [.10, .42]	
11. SVS security	4.94	1.02	.02 [-.15, .19]	.17 [-.00, .33]	.07 [-.10, .24]	.21* [.04, .37]	.03 [-.14, .20]	.10 [-.08, .26]	.32** [.16, .47]	.28** [.11, .43]	.21* [.04, .37]	.42** [.27, .55]

Note to Table 4. *M* and *SD* are used to represent mean and standard deviation, respectively.

Values in square brackets indicate the 95% confidence interval for each correlation.

* indicates $p < .05$. ** indicates $p < .01$.

Regression analysis

To test the three hypotheses, three regression models were estimated. The minimal, first model (model 1) only used the target variable app usage intensity as the criterion and the three conditions (control, social influence, commitment) as predictors (see Table 5). The second model (model 2) added mainly demographic control variables (see Table 6). In a third step, a model (model 3) that controlled for the variables of the three questionnaires was conducted (Table 7).

Table 5

Regression results of model 1 using app usage intensity as the criterion

Predictor	<i>b</i>	<i>b</i> 95% CI [LL, UL]	<i>SE</i>	<i>p</i>	Fit
(Intercept)	0.92**	[0.86, 0.98]	0.03	< .001	
Social influence	0.02	[-0.07, 0.10]	0.04	.73	
Commitment	0.03	[-0.05, 0.12]	0.04	.45	
					$R^2 = .004$ 95% CI[.00,.04]

Note. *b* represents unstandardized regression weights. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively. *SE* represents the standard error of the unstandardized regression weights *b*. * indicates $p < .05$. ** indicates $p < .01$.

The first two hypotheses assumed that the social influence condition, on the one hand, as well as the commitment condition on the other hand, would increase the app usage intensity compared to the control group. From the first model, we can deduce that neither the social influence intervention ($b = 0.02$, [-0.07,0.10], $p = .73$) nor the commitment intervention ($b = 0.03$, [-0.05,0.12], $p = .45$) led to a significant increase of app usage intensity, compared

to the control group (Table 5). Since there was no significant effect of both interventions, the third hypothesis assuming a higher impact of the commitment intervention, compared to the social influence intervention, could not be demonstrated either. Thus, no significant evidence in favor of the hypotheses could be collected from the first model. Nevertheless, the two further specified models will also be shown in order to gain insight on the effects of the control variables.

The second, further specified model (model 2) comprised demographic control variables as well as the dummies marking the occurrence of issues during app installation and email contact with the researcher after problems (see Table 6). Like the first model, the second regression model neither shows any significant effect for social influence ($b = 0.02$, $[-0.08, 0.11]$, $p = .74$), nor for commitment ($b = 0.03$, $[-0.06, 0.13]$, $p = .46$). Hence also by referring to the second model, no evidence for the hypotheses of the study could be found. But interestingly, by including gender as a control variable, we can see that subjects who identify as female ($b = 0.10$, $[0.02, 0.19]$, $p = .02$) showed a significantly higher app usage intensity than subjects who identify as male (see Table 6).

The third regression model (model 3) included the collected questionnaire control variables (from *Schwartz Value Survey*, *Pro-environmental Behavior Scale* and *Work Regulatory Focus Scale*). The two most important demographic variables, age and sex, were included as well (Table 7). In this third model, we can see again that female participants showed a significantly higher app usage intensity ($b = 0.10$, $[0.00, 0.20]$, $p = .05$) than male participants. Concerning the *Pro-environmental behavior scale (PEBS)*, two predictors showed a significant effect. The first one is called “PEBS environment 1”, consisting of aggregated values of the first part of the *PEBS environmental citizenship* subscale, as explained above.

Table 6

Regression results of model 2 using app usage intensity as the criterion

Predictor	<i>b</i>	<i>b</i> 95% CI [LL, UL]	<i>SE</i>	<i>p</i>	Fit
(Intercept)	0.69**	[0.25, 1.12]	0.22	.002	
Social influence	0.02	[-0.08, 0.11]	0.46	.74	
Commitment	0.03	[-0.06, 0.13]	0.46	.46	
Age	0.01	[-0.00, 0.02]	0.01	.2	
Female	0.10*	[0.02, 0.19]	0.04	.02	
Shopping for more than one	0.00	[-0.09, 0.09]	0.05	.94	
Living with parents	-0.10	[-0.22, 0.01]	0.06	.08	
Living with partner	-0.03	[-0.15, 0.08]	0.06	.58	
Living alone	-0.05	[-0.16, 0.05]	0.06	.33	
Living: other	-0.15	[-0.38, 0.08]	0.12	.21	
Work part-time 15 to 34 hours	0.06	[-0.20, 0.32]	0.13	.65	
Work part-time under 15 hours	0.01	[-0.26, 0.27]	0.13	.96	
Not working	0.01	[-0.26, 0.27]	0.13	.96	
Education level: bachelor	-0.04	[-0.18, 0.10]	0.07	.59	
Education level: master	-0.13	[-0.39, 0.13]	0.13	.32	
No email contact with researcher after problem	0.08	[-0.08, 0.24]	0.08	.34	
Email contact with researcher after problem	-0.04	[-0.16, 0.07]	0.06	.46	
					$R^2 = .135$ 95% CI[.00,.14]

Note. *b* represents unstandardized regression weights. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively. *SE* represents the standard error of the unstandardized regression weights *b*. * indicates $p < .05$. ** indicates $p < .01$.

High scores in “PEBS environment 1” indicate that subjects are currently engaged in an environmental organization, have donated money to such an organization in the past year or have increased their consumption of biological products throughout the past year (see Unipark Survey 1, page 4/11, in Appendix A). *PEBS* items were all assumed to represent possible positively reinforcing factors for the target behavior. Contrary to these assumptions,

the regression coefficient of “PEBS environment 1” in model 3 is negative ($b = -0.07$, $[-0.13, -0.01]$, $p = .03$), which means that higher scores in these items led to a significant decrease in app usage intensity, surprisingly.

Table 7

Regression results of model 3 using app usage intensity as the criterion

Predictor	<i>b</i>	<i>b</i> 95% CI [LL, UL]	<i>SE</i>	<i>p</i>	Fit
(Intercept)	0.72*	[0.17, 1.27]	0.28	.01	
Social influence	0.00	[-0.09, 0.09]	0.05	.99	
Commitment	0.02	[-0.07, 0.12]	0.05	.59	
PEBS conservation	0.01	[-0.06, 0.08]	0.34	.71	
PEBS environment 1	-0.07*	[-0.13, -0.01]	0.03	.03	
PEBS environment 2	0.01	[-0.13, 0.16]	0.07	.86	
PEBS food	0.08**	[0.02, 0.14]	0.03	.01	
Prev security	-0.03	[-0.09, 0.03]	0.03	.33	
Prev oughts	-0.01	[-0.08, 0.06]	0.04	.79	
Prev losses	0.04	[-0.01, 0.10]	0.03	.08	
SVS power	0.05*	[0.01, 0.10]	0.02	.02	
SVS achievement	-0.04	[-0.09, 0.01]	0.03	.16	
SVS hedonism	-0.03	[-0.09, 0.02]	0.03	.28	
SVS stimulation	-0.00	[-0.04, 0.03]	0.02	.83	
SVS self-direction	0.01	[-0.04, 0.06]	0.03	.62	
SVS universalism	0.00	[-0.05, 0.05]	0.00	.94	
SVS benevolence	0.04	[-0.01, 0.10]	0.03	.09	
SVS tradition	-0.00	[-0.04, 0.03]	0.02	.86	
SVS conformism	-0.01	[-0.06, 0.04]	0.02	.74	
SVS security	-0.01	[-0.05, 0.03]	0.02	.59	
Female	0.10*	[0.00, 0.20]	0.05	.05	
Age	0.00	[-0.01, 0.01]	0.26	0.79	
					$R^2 = .233$ 95% CI[.00,.23]

Note. *b* represents unstandardized regression weights. *LL* and *UL* indicate the lower and upper limits of a confidence interval, respectively. *SE* represents the standard error of the unstandardized regression weights *b*. * indicates $p < .05$. ** indicates $p < .01$.

On the other hand, the “PEBS food” subscale was significant as well. This subscale comprises three items asking about meat reduction throughout the past year (see Unipark

Survey 1, page 4/11, in Appendix A). The results in Table 7 suggest that subjects who have reduced their meat consumption or do not eat meat at all showed a significantly higher app usage intensity ($b = 0.08$, $[0.02, 0.14]$, $p = .01$).

No subdimension scores of the prevention subscale of the *WRF* had a significant effect on the target variable. Concerning the *SVS* items, “SVS power” admitted a significant effect. This item asks about the importance of social status, prestige, and authority (see Unipark Survey 1, page 3/11, in Appendix A). The results of the regression model suggest that high scores in the *SVS power* value led to a significant increase in app usage intensity ($b = 0.05$, $[0.01, 0.10]$, $p = .02$). Overall, no evidence in favor of the study’s hypotheses could be collected since no significant effects of the two interventions on app usage intensity could be found in any of the models.

Exploration

At Time 2, participants were asked for the further usage intention of the app (see Unipark Survey 2, page 5/7, in Appendix A). The question was “Wirst du inoqo weiterhin nutzen?” (“Will you keep on using inoqo?”) with a five-level scale for answers ranging from “no” (1) to “yes” (5). An explorative model was conducted in order to examine if the further usage intention could have been influenced by the two interventions. This was of interest for two reasons: First, one of the starting points of the current study was the question of how to increase the app retention rate of an app that promotes sustainable consumption behavior. Second, former research came to the conclusion that commitment interventions could lead to a heightened, durable motivation to continue performing the target behavior after the study phase (Lokhorst et al., 2013; Pardini & Katzev, 1983; Wang & Katzev, 1990). Even if only the intention for further usage was measured, and not the actual further usage behavior, this variable could indicate what the future may look like after the study and if there were any significant influences by the two interventions. Descriptively, 42.75% of the subjects

answered with “yes” or “rather yes” to the question if they will continue using the app. However, 30.53% of the subjects answered with “no” or “rather no”, and 26.72% with “maybe”. To estimate the influence of the interventions on further app usage intention, two further linear regression models were estimated. The first model (model 4) used further app usage intensity as a criterion and the groups as predictors (see Table 8). The results of this model suggest that neither the social influence condition ($b = 0.05$, $[-0.49, 0.58]$, $p = .87$) nor the commitment condition ($b = 0.16$, $[-0.37, 0.70]$, $p = .55$), showed a significant effect on the further usage intention of the app.

Table 8

Regression results of model 4 using further usage intention as the criterion

Predictor	b	b 95% CI [LL, UL]	SE	p	Fit
(Intercept)	3.05**	[2.67, 3.42]	0.19	.002	
Social Influence	0.05	[-0.49, 0.58]	0.27	.87	
Commitment	0.16	[-0.37, 0.70]	0.27	.55	
					$R^2 = .003$ 95% CI[.00,.03]

Note. b represents unstandardized regression weights. LL and UL indicate the lower and upper limits of a confidence interval, respectively. SE represents the standard error of the unstandardized regression weights b . * indicates $p < .05$. ** indicates $p < .01$.

In a second, further specified model (model 5), the variables age and sex, as well as the questionnaire variables (SVS , $PEBS$, WRF), were controlled for (see Table 9).

Interestingly, the control variable age was admitting a significant effect ($b = -0.06$, $[-0.12, -0.01]$, $p = .02$). This result suggests a decreasing further usage intention with increasing age. Furthermore, the prevention subdimension *oughts* of the WRF , as well as the SVS value *stimulation* showed a significant effect. The subdimension *oughts* consists of three items referring to the importance of accomplishing duties and responsibilities (see Unipark Survey

1, page 4/11, in Appendix A) and has a positive coefficient ($b = 0.40$, $[0.00, 0.80]$, $p = 0.05$).

The value *stimulation* of the SVS asks for the importance of a challenging, exciting life (see Unipark Survey 1, page 4/11, in Appendix A) and is also admitting a positive effect on further usage intention ($b = 0.24$, $[0.04, 0.45]$, $p = 0.02$).

Table 9

Regression results of model 5 using further usage intention as the criterion

Predictor	b	b 95% CI [LL, UL]	SE	p	Fit
(Intercept)	-2.42	[-5.46, 0.63]	1.54	.12	
Social Influence	0.27	[-0.23, 0.77]	0.25	.28	
Commitment	0.10	[-0.41, 0.60]	0.25	.71	
PEBS conservation	-0.04	[-0.42, 0.34]	0.19	.85	
PEBS environment 1	0.26	[-0.06, 0.59]	0.17	.11	
PEBS environment 2	0.58	[-0.22, 1.39]	0.41	.15	
PEBS food	0.31	[-0.02, 0.64]	0.17	.07	
Prev security	-0.01	[-0.36, 0.34]	0.18	.97	
Prev oughts	0.40*	[0.00, 0.80]	0.20	.05	
Prev losses	0.02	[-0.26, 0.31]	0.14	.86	
SVS power	-0.01	[-0.26, 0.24]	0.12	.93	
SVS achievement	-0.29	[-0.58, 0.00]	0.15	.05	
SVS hedonism	0.05	[-0.26, 0.36]	0.16	.75	
SVS stimulation	0.24*	[0.04, 0.45]	0.10	.02	
SVS self-direction	0.04	[-0.24, 0.31]	0.14	.80	
SVS universalism	0.26	[-0.02, 0.53]	0.14	.07	
SVS benevolence	0.21	[-0.07, 0.50]	0.14	.14	
SVS tradition	-0.05	[-0.23, 0.13]	0.09	.14	
SVS conformism	0.19	[-0.07, 0.46]	0.14	.16	
SVS security	-0.07	[-0.31, 0.17]	0.12	.57	
Female	-0.24	[-0.78, 0.30]	0.27	.38	
Age	-0.06*	[-0.12, -0.01]	0.03	.02	
					$R^2 = .389^{**}$ 95% CI[.13,.41]

Note. b represents unstandardized regression weights. LL and UL indicate the lower and upper limits of a confidence interval, respectively. SE represents the standard error of the unstandardized regression weights b . * indicates $p < .05$. ** indicates $p < .01$.

However, the results do again not show a significant effect for the social influence (b

= 0.27, [-0.23, 0.77], $p = .12$) or commitment ($b = 0.10$, [-0.41, 0.60], $p = .71$) interventions.

For this reason, it cannot be assumed that subjects who received an intervention will use the app more frequently in the future than subjects of the control group.

Discussion

The main interest of the current study was to examine if two sociopsychological interventions can increase the usage intensity of a sustainable grocery shopping app, namely *Inoqo*. One intervention worked with a descriptive norm, and the second intervention with a public commitment in order to motivate the participants to consistently scan their grocery shopping receipts in the app. The target variable was defined as app usage intensity, operationalized by the number of receipt scans divided by the number of *Billa/Spar* visits. The app usage intensity of the two intervention groups was compared with one another, as well as with a control group, respectively. The overarching idea of this study was to raise awareness and increase pro-environmental food consumption behavior, since food systems contribute, in large part, to the ongoing climate change (Aleksandrowicz et al., 2016; Green et al., 2015; Mbow et al., 2019; Saari et al., 2021; Westhoek et al., 2014). Social influence and commitment interventions have already found application in various studies promoting pro-environmental behavior and showed significant effects (Goldstein et al., 2008; Lokhorst et al., 2013; Pardini & Katzev, 1983; Rubens et al., 2015). However, contrary to the study assumptions, neither the social influence intervention nor the commitment intervention led to a significant increase in app usage intensity in comparison to the control group.

One main point that was preventing the possibility to detect any effects of the interventions was the high compliance throughout all groups. As mentioned above in the descriptive analysis, over half (69) of the 131 subjects scanned 100% of their receipts. 18 persons even indicated a higher number of scanned receipts than number of *Billa/Spar* visits, where we could speculate that they have been additionally scanning older receipts or receipts

from friends and family, for example. Due to this high scan rate throughout all groups, there was very little variance in the target variable. This made it basically impossible, from the start of the analysis, to find any significant differences. So, the data acquired in this study was not sufficiently variant to enable a proper testing of the hypotheses. For this reason, it would be interesting to know if the results would have been different in case of a longer study period, for example six weeks instead of three. Descriptively, we could observe the assumed differences in the groups, that were not statistically significant though. Maybe these small motivational differences would have deepened after more time.

Furthermore, a reason for the high usage motivation could lie in the procedure of the study itself. In retrospective, the whole procedure at Time 1 could be interpreted as a sort of commitment intervention already. The participants were recruited via the University of Vienna's LABS system and received credits, but of course chose voluntarily to participate in this very study. For this reason, we could see the recruitment procedure as commitment-evoking already, because the participants had the motivation and interest for the subject beforehand. An indicator for high interest from the beginning on could, for example, be found in the answers of the SVS *universalism* item, including the value of conservation, at Time 1 (see Unipark survey 1, page 3/11, in Appendix A). To this item asking for the importance of open-mindedness, social justice, conservation, and peace, 59.54% of the subjects answered with "very important", 26.72% with „important“, and 12.98% with "rather important". In total, this results in over 99% of the subjects judging these values as important to them, before the interventions or app testing phase had even started. Considering this, the motivation for the participation and the performance of the target behavior was probably in a large part internal, which has also previously shown to increase the likelihood to show the relevant target behavior (Cialdini, 2014; Lokhorst et al., 2013; Pardini & Katzev, 1983). Furthermore, referring to commitment literature, the reinforcing factor of perceived free

choice would have been fulfilled since participants voluntarily took part in the study (Cialdini, 2014; Guéguen et al., 2013; Lokhorst et al., 2013).

In addition, participants had to make the effort to come to the university in times of digital teaching, and, therefore, had to get tested for Covid-19 prior. To bring these accomplished efforts in line with their cognitions, the positive attitude and motivation for the participation could have risen further, according to the logic of striving for consonance in our behavior and attitudes (Aronson, 1992; Aronson & Mills, 1959; Cialdini, 2014; Festinger, 1957; Lokhorst et al., 2013).

Ultimately, we could also suppose an activation of a group norm by the procedure of the introduction phase at Time 1. The participants sat in a room with a group of people, who had all registered voluntarily for this study working with a sustainable grocery shopping app. Therefore, a social norm telling them that everybody here is invested and interested in pro-environmental behavior could have been created. Moreover, this room was full of people that, for most of the subjects, had very similar characteristics to themselves. This does not only concern age ($M_{age} = 22.19$, $SD = 4.07$) or gender (72.52% female), but also the fact that everyone was enrolled in psychology, which automatically placed all participants in the social group of bachelor psychology students at the University of Vienna. We have seen in literature that individuals are more likely to show compliant behavior if they identify as a member of a certain group (Chassin et al., 1984; Festinger, 1954; Goldstein et al., 2008; White et al., 1994, 2002). This feeling of identification with the social group could have been created by the study setting. Therefore, ahead of the planned social influence intervention, there could already have been created an additional normative social influence effect, enhancing the motivation for behavior that was compliant with the study tasks. Thus, the study setting as a whole could have increased the motivation to show the target behavior and

be, at least partly, responsible for the high compliance and concomitant high app usage intensity throughout all three groups.

Consequently, we can recognize the homogenous sample as a limitation of the current study. For future research, it would be interesting to work with a sample that is more diverse concerning age, gender, as well as employment or study backgrounds. This could lead to greater variety in preexisting motivation, and the enlarged representativity would subsequently allow to extend conclusions on the potential effectiveness of such interventions to a larger target group.

As mentioned above, a further limitation was the study period of three weeks. For this reason, an extended app testing phase over more weeks, or even months, would be an implication for further research to identify possible intervention effects. Another idea, regardless of the study period, would be to implement a follow-up phase, to detect eventual long-term effects.

The current study was applied research in the field, which is, on the one hand, an advantage, but also leads to a few unsteady factors concerning the interventions. One main point is that how much delay there was between the intervention and the first occasion to perform the target behavior, could not be controlled. Concretely, I didn't know if a participant left the university building and went grocery shopping immediately after, or if he or she would wait another four days until the next purchase, for example. In previous research, a delay between a commitment intervention and the target behavior has been assumed to not weaken the intervention's effectiveness (Joule & Beauvois, 1997; Rubens et al., 2015). So, for the commitment group we can suppose there was no negative effect in case a bigger delay occurred. Additionally, the commitment group was reminded by the push notification they received when the commitment statements got published. However, for the social influence intervention, a delay could represent a limitation, since one of the premises

of the effectiveness of descriptive norms is that the norm is salient during the behavior (Cialdini & Goldstein, 2004; Kallgren et al., 2000). This was, for example, the case in the hotel study where the solicited descriptive norm was salient in the situation where the guests decided whether to reuse a towel or not (Goldstein et al., 2008). Yet, in the current study, it is possible that several days passed between the situation where participants read the norm and the situation where they really conducted the behavior and scanned their receipt. Until the next grocery store visit, the norm was probably not in focus anymore, depending on the length of the gap between intervention and behavior. So, this is a factor one could try to control to a larger extent, which is difficult in the current study setting, however.

Ultimately, in the current study, female participants showed a significantly higher app usage intensity than male participants. For the future goal to motivate individuals to use sustainable apps for improving their carbon footprint, one could, therefore, explore what kind of interventions or nudges lead to a higher motivation, especially for male subjects.

So, in comparison to former sociopsychological research, the current study could not replicate significant results deriving from commitment and descriptive norm interventions. However, the current study showed interesting results concerning the generally high commitment throughout all groups. As elucidated above, the high app usage intensity could be due to participants' high interest beforehand, as well as to the recruitment procedure that was possibly creating commitment and social influence effects itself. But additionally, former research suggests that individuals are more likely to hold on to a certain commitment if they consider the behavior as fun and enjoy it (Lokhorst et al., 2013; Sansone et al., 1992). So, the high interest and compliance could also be an indicator that individuals are open for new ways to monitor and ameliorate the CO₂ impact they cause. Considering the sample of the current study, this conclusion could especially concern young university students and as mentioned above, it would be interesting to work with a more varied sample. Also, the

optional qualitative feedback from the participants in the second survey was very positive. Thus, the current study could be an indicator that a playful measure, like the use of an app, can be an effective way to engage citizens in their consumption responsibility and raise awareness for climate concerns, which opens possibilities in psychological research that should be explored further on.

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APPENDICES

APPENDIX A: Material

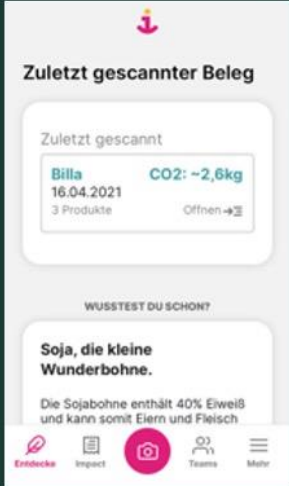
A1: Powerpoint Presentation



INOQO

- Fotografieren von Billa- & Spar-Rechnungen
- CO₂-Impact eures Einkaufs wird innerhalb 24 Stunden ausgewertet





Zuletzt gescannter Beleg

Zuletzt gescannt

Billa CO₂: ~2,6kg
16.04.2021
3 Produkte [Öffnen →](#)

WUSSTEST DU SCHON?

Soja, die kleine Wunderbohne.

Die Sojabohne enthält 40% Eiweiß und kann somit Eiern und Fleisch

Erdecke Impact Teams Mehr

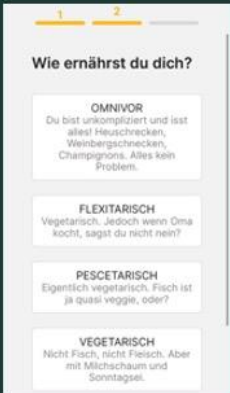
Einstieg in die App



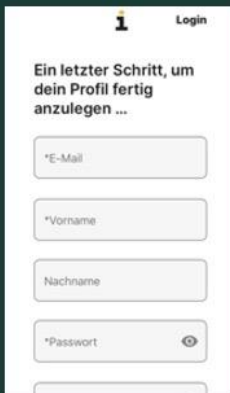




Einstieg in die App





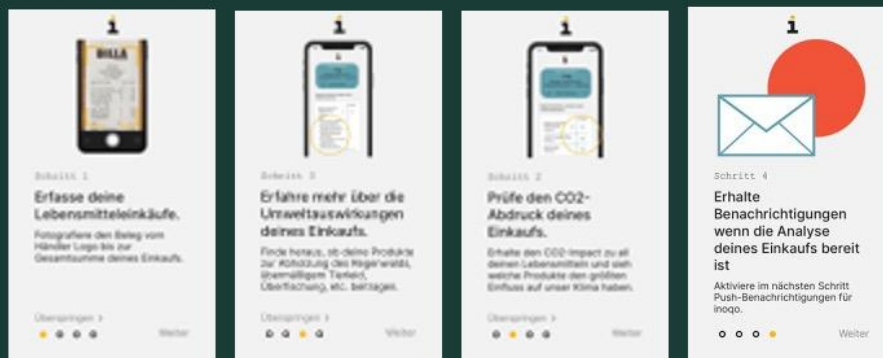


Einstieg in die App

- Registrierung bestätigen
- Bestätigungslink an angegebene Emailadresse
- Die Bestätigung des Links muss am Smartphone erfolgen (in Email-App etc.)
- Ihr seid ANONYM in der App, keine Rückschlüsse auf eure Person möglich
- Empfehlung: private Emailadresse verwenden



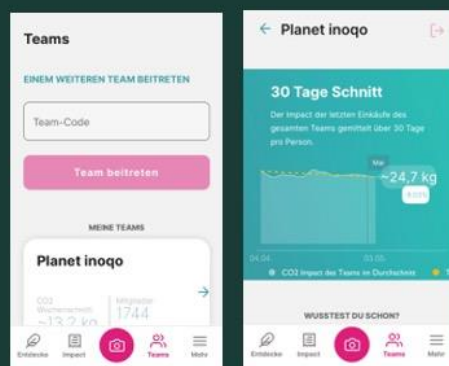
Einstieg in die App: “Los gehts!”



Push-Benachrichtigungen bitte aktivieren!

Team-Funktion

- Während Studie: in Team eingeteilt (Code und Team-Name in Fragebogen)
- Falls nicht automatisch im Team: mit App-Zugangscode extra einsteigen
- Dann kann es losgehen! 😊



https://ww3.unipark.de/uc/Masterseminar_Sozialpsychologie/08bb/

Danke für eure Teilnahme! 😊

A2: Unipark Survey 1

Fragebogen

1 Willkommen

Liebe Teilnehmerin, lieber Teilnehmer,

Herzlichen Dank für deine Bereitschaft, an dieser Interventionsstudie im Rahmen meiner Masterarbeit teilzunehmen. Die Bearbeitungszeit der ersten Umfrage beträgt in etwa 20 Minuten.

Die Studie wird vom Institut für Arbeits-, Wirtschafts- und Sozialpsychologie der Universität Wien durchgeführt. Ich beschäftige mich darin damit, wodurch die Bereitschaft zur Nutzung einer nachhaltigen Einkaufs-App beeinflusst werden kann.

Es ist für mich wichtig, dass du alle Fragen beantwortest. Wenn du dir bei einer Frage nicht ganz sicher bist, kreuze einfach das Feld an, das am ehesten zutrifft. In der Studie interessiert mich deine persönliche Meinung, es gibt keine richtigen oder falschen Antworten.

Die Studie dient ausschließlich wissenschaftlichen Zwecken. Alle Informationen, die ich von dir erhalte, werden vertraulich behandelt und anonymisiert ausgewertet, sodass keine Rückschlüsse auf deine Person möglich sind. Bei einer Veröffentlichung der Studienergebnisse gehen alle Daten anonymisiert ein. Ich versichere, dass alle deine erhobenen Daten entsprechend dem Datenschutzgesetz geschützt werden.

Nach dieser Umfrage testest du während 3 Wochen eine App und beantwortest im Anschluss erneut einen kurzen Fragebogen zu deinem Nutzungserlebnis.

Die Teilnahme an der Studie ist freiwillig und kann jederzeit ohne der Angabe von Gründen beendet werden.

Bei weiteren Fragen zu dieser Studie und deiner Teilnahme kannst du dich gerne per Email bei a01508016@unet.univie.ac.at melden.

Mit dem Klicken des "Weiter"-Buttons bestätigst du, die Einleitung gelesen zu haben, und willigst ein, an dieser Studie teilzunehmen.

Herzlichen Dank für die Teilnahme an dieser Studie!

1.1 Demographie

Wie alt bist du?

(Bitte gib dein Alter in Jahren an)

Welches Geschlecht hast du?

- ☐ männlich
- ☐ weiblich
- ☐ divers

Welche Staatsangehörigkeit hast du?

- ☐ Österreich
- ☐ Deutsch
- ☐ Schweiz
- ☐ andere EU
- ☐ andere nicht-EU

Bitte gib an, wie sich dein Haushalt zusammensetzt.

- ☐ Ich wohne mit einem/einer Mitbewohnerin oder mehreren Mitbewohner*innen zusammen
- ☐ Ich wohne bei meinen Eltern
- ☐ Ich wohne mit meinem Partner/meiner Partnerin zusammen
- ☐ Ich wohne allein
- ☐ Anderes

1.2 Demographie2

Bist du zurzeit erwerbstätig?

Unter Erwerbstätigkeit wird jede bezahlte bzw. mit einem Einkommen verbundene Tätigkeit verstanden, egal welchen zeitlichen Umfang sie hat. Was aus dieser Liste trifft auf dich zu?

- ☐ Ich bin Vollzeit-erwerbstätig mit einer wöchentlichen Arbeitszeit von 35 Stunden und mehr
- ☐ Ich bin Teilzeit-erwerbstätig mit einer wöchentlichen Arbeitszeit von 15 bis 34 Stunden
- ☐ Ich bin Teilzeit- oder stundenweise erwerbstätig mit einer wöchentlichen Arbeitszeit unter 15 Stunden
- ☐ Ich bin in Mutterschafts-/Erziehungsurlaub oder in sonstiger Beurlaubung
- ☐ Ich bin zurzeit nicht erwerbstätig

Was ist dein höchster Bildungsabschluss?

- ☐ Ich bin ohne Abschluss von der Schule abgegangen
- ☐ Ich habe einen Abschluss einer Pflichtschule (z.B. Mittelschule/Hauptschule oder entsprechende Stufe einer anderen Schulform)
- ☐ Ich habe einen Realschulabschluss oder einen vergleichbaren Abschluss
- ☐ Ich habe einen Abschluss einer Fachschule oder berufsbildenden Schule
- ☐ Ich habe die allgemeine oder fachgebundene Hochschulreife / Abitur / Matura oder die Fachhochschulreife
- ☐ Ich habe einen Universitäts- oder Fachhochschulabschluss (Bachelor)
- ☐ Ich habe einen Universitäts- oder Fachhochschulabschluss (Master, Diplom, Magister, Lizentiat, Staatsexamen)
- ☐ Ich habe einen Universitäts- oder Fachhochschulabschluss (Promotion, Habilitation oder andere)

2 Personencode

Erstelle dir einen anonymen Personencode.

Jetzt erstellst du dir bitte **anhand der Anleitung** einen **anonymen Personencode**. Damit wird sichergestellt, dass die erhobenen Daten der beiden Messzeitpunkte verknüpft werden können, ohne deine persönlichen Daten anzugeben.

Für die Erstellung gehe bitte folgendermaßen vor:

1. Die letzten 2 Buchstaben deines Nachnamens
2. Der Geburtstag deiner Mutter (nur der Tag, ohne Jahr & Monat)
3. Die letzten beiden Buchstaben des Vornamens deiner Mutter
4. Dein Geburtstag (nur der Tag, ohne Jahr & Monat)

Beispiel:

Mein Nachname ist Brucker
Meine Mutter hat am 05. März Geburtstag
Der Vorname meiner Mutter ist Gertrude
Ich habe am 19. September Geburtstag
Username = ER05DE19

Wichtig! Du brauchst diesen Personencode in 3 Wochen bei der 2. Umfrage wieder. Um Fehler zu vermeiden, schicke dir z.B. selbst eine Mail/SMS mit dem Code, speichere ihn am Handy ab oder mache einen Screenshot.

Persönlicher Code:

Was war die Hausnummer deiner ersten Wohnadresse in Wien?

Falls du keine Adresse in Wien hattest/hast, alternativ: was war die Hausnummer deiner allerersten Wohnadresse (z.B. Elternhaus)?

Diese zweite Frage dient nur als Sicherheitsfrage, damit wir bei eventuellen Code-Tippfehlern trotzdem die Daten von Erhebungszeitpunkt 1 und 2 (anonym) verbinden können.

Bsp.: Als ich nach Wien gezogen bin, wohnte ich in der Mustergasse 12 --> Ich gebe unten im Feld "12" ein.

Hausnummer:

2.1 Info Fragen

Bevor wir zur Anleitung der App-Testung übergehen, folgen jetzt noch einige Fragen. Beantworte diese bitte ehrlich und intuitiv, also ohne lange nachzudenken.

3 SVS

Wie wichtig sind dir die folgenden Ziele und Werte?

Gib auf einer Skala von 1 (überhaupt nicht wichtig) bis 5 (sehr wichtig) an, wie wichtig dir die folgenden Ziele und Werte sind.

	überhaupt nicht wichtig	nicht wichtig	eher nicht wichtig	eher wichtig	wichtig	sehr wichtig
Sozialer Status, Prestige und Autorität	☐	☐	☐	☐	☐	☐
Erfolg, Kompetenz und Ehrgeiz	☐	☐	☐	☐	☐	☐
Vergnügen und das Leben genießen	☐	☐	☐	☐	☐	☐
Aufregendes Leben, Reiz des Neuen und Herausforderungen im Leben	☐	☐	☐	☐	☐	☐
Unabhängigkeit, Eigenständigkeit, Kreativität, Neugier	☐	☐	☐	☐	☐	☐
Weltoffenheit, soziale Gerechtigkeit, Umweltschutz, Frieden	☐	☐	☐	☐	☐	☐
Hilfsbereitschaft, Verantwortungsbewusstsein, Ehrlichkeit	☐	☐	☐	☐	☐	☐
Respekt vor der Tradition, Brauchtum und Religion	☐	☐	☐	☐	☐	☐
Höflichkeit, Selbstdisziplin, Achtung von Eltern und Älteren	☐	☐	☐	☐	☐	☐
Schutz, Harmonie und Stabilität der Gesellschaft, soziale Sicherheit	☐	☐	☐	☐	☐	☐

4 PEBS

Es folgen einige Fragen zu deinem Umweltverhalten. Bitte beantworte sie ehrlich und intuitiv. Wenn du dir nicht sicher bist, antworte das, was am ehesten auf dich zutrifft.

Gib von 1 (nie) bis 5 (immer) an, wie oft du die untenstehenden Handlungen ausführst.

	nie	selten	manchmal	meistens	immer
Wie oft schaltest du das Licht aus, wenn du einen Raum verlässt?	☐	☐	☐	☐	☐
Wie oft schaltest du den Standby-Modus von elektronischen Geräten aus?	☐	☐	☐	☐	☐
Wie oft drosselst du die Heizung oder Klimaanlage, um den Energieverbrauch zu begrenzen?	☐	☐	☐	☐	☐
Wie oft beschränkst du die Zeit unter der Dusche, um Wasser zu sparen?	☐	☐	☐	☐	☐
Wie oft wartest du mit dem Einschalten der Waschmaschine oder des Geschirrspülers, bis sie voll sind?	☐	☐	☐	☐	☐

Gib mit Ja oder Nein an, ob die folgenden Aussagen auf dich zutreffen.

	Nein	Ja
Bist du derzeit Mitglied in einer Umweltschutz-, Naturschutz- oder Tierschutzgruppe?	☐	☐
Hast du im vergangenen Jahr Geld an eine Umweltschutz-, Naturschutz- oder Wildtierschutzgruppe gespendet?	☐	☐
Hast du im letzten Jahr die Menge an biologisch angebautem Obst und Gemüse, die du konsumierst, erhöht?	☐	☐

Beantworte die untenstehenden Fragen von 1 (nie) bis 5 (ständig).

	nie	selten	manchmal	oft	ständig
Wie oft siehst du dir Fernsehsendungen, Filme oder Internetvideos zu Umweltthemen an?	☐	☐	☐	☐	☐
Wie oft sprichst du mit anderen über dein Umweltverhalten?	☐	☐	☐	☐	☐

Gib an, ob die untenstehenden Aussagen auf dich zutreffen.

	Nein	Ja	Ich esse kein Rindfleisch/Schweinefleisch/Geflügel
Hast du im letzten Jahr den Verzehr von Rindfleisch reduziert?	☐	☐	☐
Hast du im letzten Jahr den Verzehr von Schweinefleisch reduziert?	☐	☐	☐
Hast du im letzten Jahr den Verzehr von Geflügel reduziert?	☐	☐	☐

5 WRF

Die folgenden Items beziehen sich auf den Arbeitskontext.

Wähle für jede der folgenden 18 Aussagen aus, wie sehr sie auf dich zutrifft.

Wenn du noch nie gearbeitet hast (d.h. erwerbstätig gewesen bist), versuche dir vorzustellen, wie eine Aussage auf dich im Arbeitskontext am ehesten zutreffen *könnte* oder denke an eine andere Art von Arbeit, die du geleistet hast (z.B. für das Studium).

	Stimme überhaupt nicht zu	Stimme eher nicht zu	Stimme teilweise zu, teilweise nicht	Stimme eher zu	Stimme voll und ganz zu
1. Ich konzentriere mich darauf, meine Arbeitsaufgaben korrekt zu erledigen, um meine Arbeitsplatzsicherheit zu erhöhen.	☐	☐	☐	☐	☐
2. Bei der Arbeit liegt der Fokus meiner Aufmerksamkeit darauf, die mir zugewiesenen Aufgaben zu erfüllen.	☐	☐	☐	☐	☐
3. Die Erfüllung meiner Arbeitsaufgaben ist sehr wichtig für mich.	☐	☐	☐	☐	☐
4. Bei der Arbeit strebe ich danach, den Verpflichtungen und Aufgaben, die mir Andere übertragen, nachzukommen.	☐	☐	☐	☐	☐
5. Bei der Arbeit bin ich oft darauf fokussiert, Aufgaben zu erfüllen, die mein Bedürfnis nach Sicherheit unterstützen werden.	☐	☐	☐	☐	☐
6. Ich tue alles, was ich kann, um bei der	☐	☐	☐	☐	☐

Arbeit einen Verlust zu vermeiden.

7. Arbeitsplatzsicherheit spielt für mich eine wichtige Rolle bei der Jobsuche.

8. Bei der Arbeit bin ich darauf fokussiert, Misserfolge zu vermeiden.

9. Ich bin darauf bedacht zu vermeiden, mich bei der Arbeit der Gefahr möglicher Verluste auszusetzen.

	Stimme überhaupt nicht zu	Stimme eher nicht zu	Stimme teilweise zu, teilweise nicht	Stimme eher zu	Stimme voll und ganz zu
10. Bei der Arbeit bin ich bereit, Risiken einzugehen, um meine Aufstiegsmöglichkeiten zu maximieren.	☐	☐	☐	☐	☐
11. Bei der Arbeit neige ich dazu, Risiken einzugehen, um Erfolge zu erzielen.	☐	☐	☐	☐	☐
12. Wenn ich die Chance hätte, an einem risikoreichen, aber vielversprechenden Projekt teilzunehmen, würde ich in jedem Fall zusagen.	☐	☐	☐	☐	☐
13. Gäbe es in meinem Job keine Aufstiegsmöglichkeiten, würde ich mir höchstwahrscheinlich einen neuen suchen.	☐	☐	☐	☐	☐
14. Die Chance auf persönliches Wachstum ist für mich ein wichtiger Faktor, wenn ich nach einem Job suche.	☐	☐	☐	☐	☐
15. Ich bin darauf fokussiert, Arbeitsaufgaben zu erfüllen, die meine Weiterentwicklung vorantreiben.	☐	☐	☐	☐	☐
16. Ich verbringe einen großen Teil meiner Zeit damit, mir vorzustellen, wie ich meine Wünsche erfüllen kann.	☐	☐	☐	☐	☐
17. Bei der Arbeit sind meine Prioritäten von einer klaren Vorstellung dessen beeinflusst, was ich anstrebe, zu sein.	☐	☐	☐	☐	☐
18. Bei der Arbeit motivieren mich meine Hoffnungen und Ambitionen.	☐	☐	☐	☐	☐

6 Einleitung App

Danke für das Beantworten der Fragen!

Nun kommen wir zum aktiven Teil der Studie.
Du wirst für 3 Wochen die App inoqo testen.

Bitte lies dir die folgende Information aufmerksam durch:

inoqo – dein nachhaltiger Begleiter

inoqo ist dein nachhaltiger Einkaufsratgeber, der dich dabei unterstützt deinen ökologischen Fußabdruck auszuwerten und zu verstehen was hinter den Produkten steckt, um auf Basis von transparenten Informationen besser im Einklang mit den eigenen Werten einkaufen zu können.

Es ist eine neue App, mit der du ganz einfach deine Spar- und Billa-Rechnungen scannen kannst. Nach kurzer Zeit bekommst du dann eine Auswertung des CO₂-Fußabdrucks der einzelnen Produkte und deines gesamten Einkaufs.

Inoqo erstellt dir auch eine Übersicht, mit der du deinen CO₂-Durchschnitt über die Zeit vergleichen kannst. Die App macht es dir also leicht, deinen CO₂-Impact im Auge zu behalten und deinen Lebensmittelkonsum nachhaltiger zu gestalten. Außerdem kannst du in der App zum Beispiel interessante Fakten auf der Entdecke-Seite lesen. Bei der Anmeldung kannst du deine Ernährungsgewohnheiten (z.B. vegetarisch) und Präferenzen (z.B. Freiland-Eier) einstellen.



App-Vorschau:



Schätze jetzt bitte, wie viele Male du Billa und/oder Spar in den kommenden 3 Wochen (heute + die darauffolgenden 21 Tage) für einen Lebensmitteleinkauf besuchen wirst.

Trage die geschätzten Billa-/Spar-Besuche pro Tag von 07.05. bis 28.05. ein. Wenn du an einem Tag wahrscheinlich nicht dort einkaufen wirst, trage bitte 0 ein. Wenn du denkst, dass du an einem Tag mehrmals dort einkaufen wirst, kannst du natürlich auch mehr als 1 eingeben.



Mai 2021						
Montag	Dienstag	Mittwoch	Donnerstag	Freitag	Samstag	Sonntag
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Freitag, 07.05.

Samstag,

08.05.

Sonntag,
09.05.

Montag, 10.05.

Dienstag,
11.05.

Mittwoch,
12.05.

Donnerstag,
13.05.

Freitag, 14.05.

Samstag,
15.05.

Sonntag,
16.05.

Montag, 17.05.

Dienstag,
18.05.

Mittwoch,
19.05.

Donnerstag,
20.05.

Freitag, 21.05.

Samstag,
22.05.

Sonntag,
23.05.

Montag, 24.05.

Dienstag,
25.05.

Mittwoch,
26.05.

Donnerstag,
27.05.

Freitag, 28.05.

Schätze jetzt bitte, wie viele Billa- und/oder Spar-Rechnungen du in der Zeitspanne von heute, 07.05., bis 28.05. scannen wirst.

Gib hier die Anzahl ein:

Für wie viele Personen kaufst du normalerweise Lebensmittel ein?

☐ nur für mich (1 Person)

- ☐ oft auch für mehrere Personen

7.1 Filter mehrere Personen

Für wie viele Personen kaufst du zusätzlich ein?

Bsp.: Ich kaufe oft für mich und meine Mitbewohnerin ein --> Antwort: 1 Person.

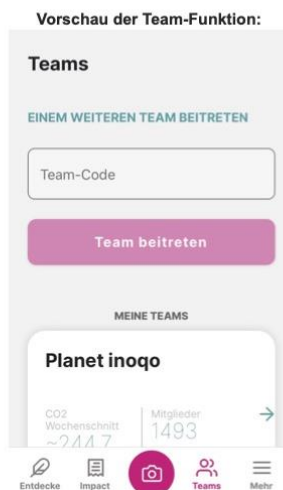
- ☐ 1 Person
- ☐ 2 Personen
- ☐ 3 Personen
- ☐ 4 oder mehr Personen

8 Inoqo Teams

Bevor wir zum Download-Anleitung der App übergehen, bitte beachte folgendes:

Für die Studie wirst du **mit anderen Teilnehmer*innen zufällig in ein Team** eingeteilt. In der App siehst du den **Namen des Teams, die Anzahl der Mitglieder und den gesamten CO₂-Wochendurchschnitt** des Teams.

Persönliche Profil-Daten scheinen nirgends auf.



Bitte bleibe für die Dauer der Studie in deinem Team, nach Abschluss der Studie kannst du das Team natürlich verlassen.

9.1 Sozialer Einfluss Nudge

Wusstest du?

96% der Nutzer*innen finden es wichtig, ihre Rechnungen konsequent auszuwerten, um nachhaltiger zu konsumieren.

10.1 Team 3 Statement

Bevor du den Download der App startest, überlege bitte kurz, **warum du deine Rechnungen konsequent auswerten möchtest.**

Dein eingegebenes Statement wird morgen mit den anderen Statements in deinem Team-Feed veröffentlicht (in alphabetischer Reihenfolge).

Gib hier den Namen ein, unter dem dein Statement aufscheinen soll (z.B. dein Vorname oder ein Nickname):

Name:

Warum findest du es wichtig, deine Rechnungen konsequent auszuwerten, um nachhaltiger zu konsumieren?

Statement:

Die Statements scheinen am Donnerstag Vormittag in deinem Team-Feed auf. Wenn es soweit ist, bekommst du eine Push-Nachricht.

11 Einstieg in App

Download Anleitung

Als nächsten Schritt nimm dein Smartphone zur Hand, suche im App Store nach "inoqo" und lade die App herunter. Sie ist für Apple und Android verfügbar.

Bitte beachten:

1) Bitte aktiviere für die Dauer der Studie die Push-Nachrichten!

Diese informieren dich unter anderem darüber, wann die Berechnung des Impacts eines Einkaufs abgeschlossen und einsehbar ist.

2) Wichtig!

Es können **zu keinem Zeitpunkt** deine eingegebenen persönlichen Daten eingesehen oder zu dir zurückverfolgt werden.

Du bleibst also anonym und kannst bedenkenlos deine echten Daten und deine E-Mail-Adresse für die Registrierung verwenden.

Solltest du dich dabei dennoch unwohl fühlen, kannst du dir für die Anmeldung eine temporäre E-Mail-Adresse erstellen. Das geht zum Beispiel über temp-mail.org (die Seite müsstest du allerdings auf deinem Handy-Browser besuchen, da du die Registrierungsmail immer auf deinem Handy bestätigen musst).

Im nächsten Schritt bekommst du deinen App Zugangscode.

Klicke auf weiter, wenn du die Information gelesen hast.

12.1 Code Gruppe 1 Kontroll

Dein Zugangscode zur App lautet: x75sz

Wenn du die App **fertig heruntergeladen** hast, steige mit dem Zugangscode ein. Nach der Code-Eingabe poppt ein **Fragefenster auf, klicke hier bitte auf Akzeptieren**, damit du Push-Benachrichtigungen bekommen kannst.

Erstelle ein Profil. Du musst deine Registrierung mit einem Link, den du per Mail bekommst, bestätigen. Merke dir dein persönliches Passwort gut, du musst es nach der Bestätigung erneut eingeben.

Die Registrierung kann kurz dauern, nimm dir Zeit und melde dich, wenn du Fragen hast.

Ist die deine Registrierung abgeschlossen, checke bitte:

Du solltest jetzt unter dem Register „Teams“ im Team „Planet inoqo“ (alle inoqo-Nutzer*innen) und in deinem zugeteilten Team Psychologie 1 sein.

Solltest du aus irgendeinem Grund noch nicht in deinem Team sein, trete bitte in der Registerkarte „Teams“ oben über das Eingabefeld **nochmal extra mit dem obigen App-Zugangscode** bei oder kontaktiere bei Problemen die Versuchsleiterin.

Mit dem Kamera-Button kannst du deine Rechnungen hochladen und unter „Impact“ siehst du deine CO2-Outputs. Unter „Entdecke“ findest du verschiedene Infos.

Checkliste, bevor du fortfährst:

1. Du bist mit dem Code x75sz in die App eingestiegen
2. Deine Registrierung ist abgeschlossen und per Mail-Link bestätigt.
3. Du befindest dich in der App in den Teams "planet inoqo" und "Psychologie 1".
4. Du hast die Push-Benachrichtigungen aktiviert.

Sollte etwas davon nicht zutreffen oder du Probleme haben, kontaktiere bitte jetzt die Versuchsleiterin.

Wenn alle 3 Punkte erfüllt sind und du die App normal benutzen kannst, klicke auf weiter.

13.1 Code Sozialer Einfluss 2

Dein Zugangscode zur App lautet: y29bc

Wenn du die App **fertig heruntergeladen** hast, steige mit dem Zugangscode ein. Nach der Code-Eingabe poppt ein Fragefenster auf, **klicke hier bitte auf Akzeptieren**, damit du Push-Benachrichtigungen bekommen kannst.

Du musst deine Registrierung mit einem Link, den du per Mail bekommst, bestätigen. Merke dir dein persönliches Passwort gut, du musst es nach der Bestätigung erneut eingeben.

Die Registrierung kann kurz dauern, nimm dir Zeit und melde dich, wenn du Fragen hast.

Ist die deine Registrierung abgeschlossen, checke bitte:

Du solltest jetzt unter dem Register „Teams“ im Team „Planet inoqo“ (alle inoqo-Nutzer*innen) und in deinem zugewiesenen Team Psychologie 2 sein.

Solltest du aus irgendeinem Grund noch **nicht in deinem Team** sein, trete bitte in der Registerkarte „Teams“ oben über das Eingabefeld **nochmal extra mit dem obigen App-Zugangscode** bei oder kontaktiere bei Problemen die Versuchsleiterin.

Mit dem Kamera-Button kannst du deine Rechnungen hochladen und unter „Impact“ siehst du deine CO2-Outputs. Unter „Entdecke“ findest du verschiedene Infos.

Checkliste, bevor du fortfährst:

1. Du bist mit dem Code y29bc in die App eingestiegen
2. Deine Registrierung ist abgeschlossen und per Mail-Link bestätigt.
3. Du befindest dich in der App in den Teams "planet inoqo" und "Psychologie 2".
4. Du hast die Push-Benachrichtigungen aktiviert.

Sollte etwas davon nicht zutreffen oder du Probleme haben, kontaktiere bitte jetzt die Versuchsleiterin.

Wenn alle 3 Punkte erfüllt sind und du die App normal benutzen kannst, klicke auf weiter.

14.1 Code Gruppe 3 Commitment

Dein Zugangscode zur App lautet: z41rv

Wenn du die App **fertig heruntergeladen** hast, steige mit dem Zugangscode ein. Nach der Code-Eingabe poppt ein Fragefenster auf, **klicke hier bitte auf Akzeptieren**, damit du Push-Benachrichtigungen bekommen kannst.

Du musst deine Registrierung mit einem Link, den du per Mail bekommst, bestätigen. Merke dir dein persönliches Passwort gut, du musst es nach der Bestätigung erneut eingeben.

Die Registrierung kann kurz dauern, nimm dir Zeit und melde dich, wenn du Fragen hast.

Ist die deine Registrierung abgeschlossen, checke bitte:

Du solltest jetzt unter dem Register „Teams“ im Team „Planet inoqo“ (alle inoqo-Nutzer*innen) und in deinem zugeteilten Team Psychologie 3 sein.

Solltest du aus irgendeinem Grund noch **nicht in deinem Team** sein, trete bitte in der Registerkarte „Teams“ oben über das Eingabefeld **nochmal extra mit dem obigen App-Zugangscode** bei oder kontaktiere bei Problemen die Versuchsleiterin.

Mit dem Kamera-Button kannst du deine Rechnungen hochladen und unter „Impact“ siehst du deine CO2-Outputs. Unter „Entdecke“ findest du verschiedene Infos.

Checkliste, bevor du fortfährst:

1. Du bist mit dem Code z41rv in die App eingestiegen
2. Deine Registrierung ist abgeschlossen und per Mail-Link bestätigt.
3. Du befindest dich in der App in den Teams "planet inoqo" und "Psychologie 3".
4. Du hast die Push-Benachrichtigungen aktiviert.

Sollte etwas davon nicht zutreffen oder du Probleme haben, kontaktiere bitte jetzt die Versuchsleiterin.

Wenn alle 3 Punkte erfüllt sind und du die App normal benutzen kannst, klicke auf weiter.

15 Nächste Schritte

Wie geht es weiter?

In drei Wochen bekommst du an deine angegebene Mailadresse einen Fragebogen zugeschickt, den du bitte **gleich an dem Tag, an dem du ihn bekommst**, ausfüllst.

Die Testphase soll genau drei Wochen sein.

Je nach deinem Einstiegstag bekommst du daher den **Fragebogen zwischen 25.05. und 28.05. per Mail**. Nach diesen Tagen läuft der Link ab.

Falls du am 07.05. in die Studie einsteigst, bitte gib der Versuchsleiterin per Mail Bescheid.

Am besten du machst dir eine Erinnerung im Kalender oder einen Reminder am Handy.

Falls du nichts bekommst, kontrolliere auch deinen Spamordner oder kontaktiere die Versuchsleiterin!

Der zweite Fragebogen wird 5-10 Minuten dauern.

!Wichtig!

Erst wenn die zweite Umfrage in 3 Wochen abgeschlossen ist, gilt die Teilnahme als vollständig und kann für die Studie verwertet werden.

Wenn du über das LABS-System teilnimmst, bekommst du erst nach dem Abschließen der 2. Umfrage deine Credits.

Bitte sei darum verlässlich! :-)

16 Endseite

Die erste Erhebung der Studie ist nun beendet.

Benutze jetzt bitte für 3 Wochen die App inoqo.

In 3 Wochen bekommst du die 2. Umfrage per Mail zugeschickt.

Falls du während der Durchführung der Studie weitere Fragen hast, wende dich bitte an die Versuchsleiterin (Miriam Pichler, a01508016@unet.univie.ac.at).

Vielen Dank für die Teilnahme und viel Freude mit der Nutzung der App! :-)

A3: Unipark Survey 2

Fragebogen

1 Willkommen

Hier platzieren Sie den Text für Ihre Frage.

Hier erläutern Sie, wie die Frage ausgefüllt werden soll (optional).

Liebe Teilnehmerin, lieber Teilnehmer,

Herzlich Willkommen zur 2. Umfrage der Masterarbeitsstudie SozPsych_21SS_Appstudie.

Die Bearbeitungszeit der zweiten Umfrage beträgt **5-10 Minuten**.

Beantworte alle Fragen bitte ehrlich und intuitiv.

Mich interessiert deine persönliche Meinung und Erfahrung, es gibt keine richtigen oder falschen Antworten.

1.1 Demographie

Wie alt bist du?

(Bitte gib dein Alter in Jahren an)

Welches Geschlecht hast du?

☐ männlich

☐ weiblich

☐ divers

2 Personencode

Gib hier bitte deinen Personencode ein.

Bei der ersten Umfrage vor 3 Wochen wurdest du gebeten, einen **anonymen Personencode** zu erstellen. **Wenn du ihn gespeichert und abrufbereit hast, schaue bitte nach und setze ihn direkt ein, um sicherzustellen, dass er gleich ist.** Solltest du ihn nicht zur Hand haben, benutze die untenstehende Anleitung um ihn erneut zu generieren.

Zusammensetzung deines anonymen Codes:

1. Die letzten 2 Buchstaben deines Nachnamens
2. Der Geburtstag deiner Mutter (nur der Tag, ohne Jahr & Monat)
3. Die letzten beiden Buchstaben des Vornamens deiner Mutter
4. Dein Geburtstag (nur der Tag, ohne Jahr & Monat)

Beispiel:

Mein Nachname ist Brucker
Meine Mutter hat am 05. März Geburtstag
Der Vorname meiner Mutter ist Gertrude
Ich habe am 19. September Geburtstag
Personencode = ER05DE19

Personencode:

Was war die Hausnummer deiner ersten Wohnadresse in Wien?

Falls du keine Adresse in Wien hattest/hast, alternativ: was war die Hausnummer deiner allerersten Wohnadresse (z.B. Elternhaus)?

Diese zweite Frage dient nur als Sicherheitsfrage, damit wir bei eventuellen Code-Tippfehlern trotzdem die Daten von Erhebungszeitpunkt 1 und 2 (anonym) verbinden können.

Bsp.: Als ich nach Wien gezogen bin, wohnte ich in der Mustergasse 12 --> Ich gebe unten im Feld 12 ein.

Hausnummer:

3 Info Nutzungsfragen

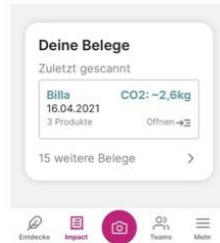
Es folgen nun ein paar Fragen zu deiner Nutzung von inoqo. Bitte beantworte diese ehrlich.

4 Anzahl Scans & Einkäufe (AV)

Öffne jetzt bitte die inoqo-App und schreibe die Anzahl deiner hochgeladenen Belege ab.

Klicke dafür auf das Register "Impact" in der App. Dort siehst du deinen zuletzt gescannten Beleg und darunter steht "X weitere Belege". Die Gesamtanzahl deiner Belege ist also die **Anzahl der weiteren Belege + zuletzt gescannter Beleg**.

In dem Beispiel auf dem Bild wären es z.B. 16 Belege.



Anzahl gescannter Belege:

Schätze jetzt bitte, wie viele Male du Billa und/oder Spar in den vergangenen 3 Wochen (07.05.-28.05.) für einen Lebensmitteleinkauf besucht hast.

Trage die geschätzten Billa-/Spar-Besuche pro Tag von 07.05. bis 28.05. ein. Wenn du an einem Tag wahrscheinlich nicht dort einkaufen warst, trage bitte 0 ein. Wenn du an einem Tag in deiner Erinnerung mehrmals dort einkaufen warst, kannst du natürlich auch mehr als 1 eingeben.

MAI 2021						
Montag	Dienstag	Mittwoch	Donnerstag	Freitag	Samstag	Sonntag
26	27	28	29	30	1	2
3	4	5	6	7 Tag der Arbeit	8	9
10	11	12	13 Christi Himmelfahrt	14	15	16
17	18	19	20	21	22	23
24 Regenwetter	25	26	27	28	29	30
31	1	2	3	4	5	6

Freitag, 07.05.

Samstag,
08.05.

Sonntag,
09.05.

Montag, 10.05.

Dienstag,
11.05.

Mittwoch,
12.05.

Donnerstag,
13.05.

Freitag, 14.05.

Samstag,
15.05.

Sonntag, 16.05.	
Montag, 17.05.	
Dienstag, 18.05.	
Mittwoch, 19.05.	
Donnerstag, 20.05.	
Freitag, 21.05.	
Samstag, 22.05.	
Sonntag, 23.05.	
Montag, 24.05.	
Dienstag, 25.05.	
Mittwoch, 26.05.	
Donnerstag, 27.05.	
Freitag, 28.05.	

Wenn du bei Billa und/oder Spar einkaufen warst, wie häufig hast du deinen Einkaufsbeleg gescannt?

Schätze die Häufigkeit von 1 (nie) bis 5 (immer) ab.

- ☐ nie
- ☐ selten
- ☐ manchmal
- ☐ oft
- ☐ immer

Wie oft gehst du durchschnittlich pro Woche Lebensmittel einkaufen?

- ☐ weniger als einmal pro Woche
- ☐ einmal pro Woche
- ☐ ein- bis zweimal pro Woche
- ☐ zwei- bis viermal pro Woche
- ☐ vier- bis sechsmal pro Woche
- ☐ siebenmal pro Woche oder öfter

5 Technische Probleme

Hattest du beim Installieren der App Probleme?

z.B. App schien nicht im App Store auf, Probleme beim Bestätigen der Mail oder ähnliches

- ☐ Nein
- ☐ Ja

6.1 Problem ja

Welche Art von Problem hattest du?

- ☐ Mein App Store/Play Store war nicht auf Österreich eingestellt.

- ☐ Die Registrierung mit der Bestätigungsmail funktionierte nicht und ich musste es mehr als einmal probieren (z.B. mit verschiedenen Mail-Adressen).
- ☐ anderes

Falls du ein anderes Problem hattest, das oben nicht genannt wurde, kannst du es hier eingeben.

Problem:

Hattest du aufgrund eines Problems mit der App E-Mail-Kontakt mit der Versuchsleiterin?

- ☐ Nein
- ☐ Ja

7 Inoqo Nutzungserlebnis sonstiges

Wie oft hast du die App abgesehen vom Rechnung scannen benutzt?

Gib an, wie oft du die App für andere Dinge als Rechnung scannen benutzt hast, z.B. Infos auf der Entdecke-Seite lesen, Impact ansehen, Team-Funktion öffnen, App einfach ohne bestimmten Grund öffnen,...

- ☐ nie
- ☐ selten
- ☐ ab und zu
- ☐ oft
- ☐ ständig

8.1 Wofür sonst benutzt?

Wofür hast du die App abgesehen vom Rechnung scannen benutzt?

(Mehrfachauswahl möglich)

- ☐ Informationen auf der Entdecke-Seite gelesen
- ☐ CO2-Impact angesehen
- ☐ die Team-Funktion besucht
- ☐ ohne bestimmten Grund geöffnet/durchgeschaut
- ☐ anderes

9 Konsumverhalten Änderung

Hat sich dein Lebensmittelkonsum in den vergangenen 3 Wochen verändert?

- ☐ Nein
- ☐ Eher nein
- ☐ Weiß nicht
- ☐ Eher ja
- ☐ Ja

Wenn ja, inwiefern hat sich dein Lebensmittelkonsum verändert?

Hast du in den vergangenen drei Wochen mehr als davor über deinen Lebensmittelkonsum nachgedacht, z.B. was Nachhaltigkeit betrifft?

- ☐ Nein
- ☐

- ☐ Eher nein
- ☐ Weiß nicht
- ☐ Eher ja
- ☐ Ja

Wie wichtig ist dir der Gesundheits-/Fitness-Aspekt von Lebensmitteln?

- ☐ Nicht wichtig
- ☐ Eher nicht wichtig
- ☐ Mittelwichtig
- ☐ Eher wichtig
- ☐ Wichtig

Sind dir Informationen zu Produkten und informative Artikel über gesunde Ernährung wichtig?

- ☐ Nein
- ☐ Eher nein
- ☐ Weiß nicht
- ☐ Eher ja
- ☐ Ja

Welches Produkt spricht dich mehr an?

- ☐ Produkt mit gutem Klima-Impact aber tut mäßig bis wenig für deine Gesundheit
- ☐ Produkt mit mäßigem Klima-Impact aber tut mehr für deine Gesundheit

10 Inoqo Gefallen

Findest du die App inoqo allgemein nützlich?

- ☐ Nein
- ☐ Eher nein
- ☐ Weiß nicht
- ☐ Eher ja
- ☐ Ja

Wirst du inoqo weiterhin nutzen?

- ☐ Nein
- ☐ Eher nein
- ☐ Vielleicht
- ☐ Eher ja
- ☐ Ja

Warum?

Hier kannst du optional eingeben, warum du die App weiterhin nutzen oder warum du sie nicht weiter benutzen wirst.

11 Inoqo Präferenzen

Es folgen nun einige optionale Fragen zu deinem inoqo-Erlebnis.

Wir freuen uns, wenn du sie beantwortest und so einen Teil zur Verbesserung der App beiträgst!

Welcher Content, den dir die App passend zu deiner Rechnung anbietet, wäre dir am wichtigsten?

- ☐ Informative Artikel
- ☐ Rezepte
- ☐ Gutscheine

Was hat dich in der Nutzung der App gestört, behindert oder geärgert?

Was hat dir besonders gut gefallen?

Hattest du einen "Aha-Moment"? Hast du etwas neues gelernt?

Welche Verbesserungsvorschläge hast du, die dich am ehesten motivieren würden, die App längerfristig zu nutzen?

12 Kontaktperson werden?

Du möchtest inoqo aktiv helfen, die App weiterzuentwickeln?

Wenn ja, trage unten deine Kontaktdaten ein oder teile diese der Versuchsleiterin per Mail mit (Miriam Pichler: a01508016@unet.univie.ac.at). Du erhältst dann die Möglichkeit, in weiteren Workshops direkt mit inoqo zusammenzuarbeiten.

Hier ist Platz für deine Mailadresse und/oder Telefonnummer, falls inoqo sich mit dir in Verbindung setzen soll.

Emailadresse:

Telefonnummer:

13 Anmerkungen

Hast du noch sonstige Anmerkungen zur Studie insgesamt?

Anmerkungen:

14 Endseite

Die Erhebung ist nun beendet.

Bitte schreibe der Versuchsleiterin eine Mail, dass du den zweiten Fragebogen fertig erledigt hast, damit du deine Credits angerechnet bekommst:

Miriam Pichler, a01508016@unet.univie.ac.at

Falls du noch offene Fragen hast, wende dich bitte an die Versuchsleiterin.

Vielen Dank für die Teilnahme!

APPENDIX B: Curriculum vitae**Persönliches**

Name:	Miriam Anna Pichler
Geboren:	14.07.1996 in Linz
Staatsbürgerschaft	Österreich

Bildungsweg

2006 – 2014	Stiftsgymnasium Wilhering
Sept. 2014 – Juni 2015	Gap year in Frankreich
Okt. 2015 – Feb. 2019	Bachelorstudium Psychologie (Universität Wien)
Okt. 2015 – Mai 2019	Bachelorstudium Romanistik (Universität Wien)
Seit März 2019	Masterstudium Psychologie mit Schwerpunkt Arbeit, Wirtschaft und Gesellschaft (Universität Wien & Auslandssemester WS 19/20 an der Université catholique de Lyon)
Seit März 2020	Masterstudium Romanistik (Universität Wien)