Peer-to-Peer renting community:

the effects of environmental social identity in-group interaction on the sense of belongingness

Applied Social Psychology

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Abstract

This study was conducted in collaboration with an environmentally friendly peer-to-peer renting company Renda. The company was interested in increasing the sense of belongingness among its customer base. This is well reasoned, as previous studies have indicated that belongingness is associated with higher customer retention (Friess & Lam, 2018). Meanwhile, social identities have been shown to be contributing to the sense of belongingness (Tajfel, 1974). There are two complementary schools of thought concerning identity formation, namely, through self-categorisation (top-down process) (Tajfel, 1974) and through operationalisation of an abstract identity (bottom-up process) (Koudenburg et al., 2016). There is reason to expect interaction pleasantness to both mediate or moderate the relationship of social identity on the sense of belongingness.

In the exploration of these topics, a quantitative between-groups experimental design was implemented. The data was attained through snowball sampling and SONA systems. Hypothesis 1, found support to previous studies in regards to the positive association between social identity and the sense of belongingness using the manipulation check as a predictor. Unfortunately, the analysed mediating (H2) and moderating (H3) role of the interaction pleasantness in the relationship of environmental social identity on the sense of belongingness was inconclusive, due to lack of significance and low power. This study successfully provided the groundwork for further exploration of the formulated theoretical hypotheses. Exploring this topic can highlight the importance of online interaction between customers and help businesses regulate the communication environment accordingly. Finally, this study may help businesses attain higher retention in the customer base.

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The current research will be conducted in collaboration with a Finnish company called Renda. Renda is new on the market, its primary mission is to provide an online platform for people to either rent or rent out an object. The company's key concept lies in the Peer-to-Peer renting possibility, allowing one to either earn or save money when engaging with the platform. Renda is offering an environmentally friendly option for the usage of goods, as by renting instead of buying an object one's consumption is lessened (Leismann et al., 2013). This environmentally friendly company is looking to create a sense of belongingness in the community of their customer base, and the current research aims to test two complementary pathways for increasing belongingness.

Belongingness

The sense of belongingness is described as the feeling of connectedness and perceived feeling of importance to others (Rosenberg & McCullough, 1981). As well as, a psychological attachment to a group and coordination with other members of the same group (Koudenburg et al., 2016).

The interest of Renda is well reasoned, as the sense of belongingness has been noted to be an important factor for business. After all, a customer's experience of belongingness to a business leads to loyalty and positive affect (Rosenberg & McCullough, 1981). Research has also associated the sense of belongingness with increased persistence and retention (Friess & Lam, 2018). Previous research describes the sense of belongingness as an attachment to a group one identifies with (Koudenburg et al., 2016). Social identities contribute to creating a sense of support and inclusion in a community (Tajfel, 1974). Consequently, social identity can be seen as an important factor to the sense of belongingness.

Social Identity

Renda can be seen as an environmentally friendly business, therefore, an environmentally friendly identity can be a suitable source for belonging in the case of Renda.

Top-down approaches to identity formation.

The Social Identity theory (SIT) explains one's identity to consist of a personal and social self (Tajfel, 1974). The identity is said to be represented in the individual characteristics, but also has properties representing the social self (Postmes et al., 2005). The social self is internalised through the social identity, making the social identity simultaneously individual perception as well as socially shared and constructed conceptions of the group's fundamental characteristics (Tajfel, 1981; Turner, 1982, 1985). To further illustrate the concept, a person who finds it important to take extra steps to preserve the natural environment is likely to identify with a group that has similar characteristics. One of such groups can be WWF, which attempts to reduce human impact on the environment (WWF, 2022).

Related to the SIT, the self-categorization theory (SCT) posits that the formation of a social identity stems from a top-down process. In other words, an individual self-categorises oneself to a group and does so based on the shared similarities with the group and dissimilarities with an outgroup (Turner, 1982, 1985). Individuals describe self- and other members of the group based on the shared stereotype, which they also use to contrast self from outgroups (e.g., Hogg & Turner, 1987). Identification happens when similarities are larger than the contrasting attributes. In other words, if an individual holds environmentally friendly behaviour as an important value to self and finds another group of people with the same outlook, one may identify with that group. The more commonalities and fewer differences in values and self-perception, the stronger the identification can be expected. However, in the same context, if an individual has a strong attitude against environmentally friendly behaviour, one is unlikely to identify with a group that has an opposing perception. Given, that the person will not perceive the group to be similar to self-characteristics.

Bottom-up approaches to identity formation: Operational identity

On the other hand, literature also discusses the bottom-up process of identity formation. The work of Postmes et al., (2005) provides findings showing a positive association between retention and an operational form of identity. Operational identity is achieved through a simple exchange of viewpoints between in-group members on a relevant topic (Koudenburg et al., 2016). The process of interaction aids the formation of a group (Koudenburg et al., 2016). This communication allows the group members to transform their identity from abstract (prospective identity) to a more concrete form (operational) (Postmes et al., 2005). The transformation happens when the communicating parties discuss aspects of a task related to the identity. The aforementioned allows the abstract characteristics to be translated into tangible situational norms within the specific context (Postmes et al., 2005). Naturally, the consensus among group members allows for an expectation of a common understanding (Postmes et al., 2005). The study of Koudenburg et al., (2016) states that the bottom-up process contributes to the formation of shared reality and therefore perception of we-ness.

Physical Absence

Interestingly, the social identity model of deindividuation effects (SIDE) states that group influence on the activated identity can potentially be even stronger when in a physical absence of other in-group's members, as it makes the internalised social identity more salient (Postmes & Spears, 1998; Spears, 2017, 2021). The salience results from the anonymity perception, due to a lack of information regarding other individuals (Reicher, 1984). This is very relevant to this research as the customers in an online business do not meet each other prior to the actual engagement with the service. Nevertheless, in order to negotiate a meeting place and time to pick up the rentable goods, the participants need to interact. This circumstance allows for a unique opportunity to exchange viewpoints while being in the physical absence of the other ingroup members, which we took advantage of.

The pleasantness of an interaction

Research has shown that a smooth and engaging exchange of viewpoints contributes to

social relations, in addition to the formation of a shared understanding of reality (Koudenburg et al., 2016). Meanwhile, the validation of viewpoints or "grounding" also serves as an implicit notion of shared viewpoints among a collective, indicating the existence of a "we" (Kashima et al., 2007). The aforementioned logic suggests that interaction contributes to the development of a shared identity.

Research on interaction with in-groups covers a wide range of relevant aspects. The theory of self-categorization states that after identification with the group an individual is likely to experience positive affect and alignment with the group´s morale (Tajfel, 1974). Based on the similarity-attraction theory by Byrne (1971), similarly perceived individuals are more likely to be attracted to one another. Consequently, they are likely to enjoy the interaction more. We, therefore, expect more pleasant interactions among members that are clearly categorised to belong to the same social identity or group. Perceiving the communication partner as an ingroup should elicit experiencing more positive affect, further contributing to the pleasantness of an interaction (Rubin & Hewstone, 1998) and consequently, perception of "we".

The aforementioned can be achieved in the present study, as participants are likely to perceive their communication partners as ingroup members when the social identity is made salient through manipulation. The participants will be asked to interact with a person who is said to rent out an object of their interest. In addition, given that the participants will know the role of their communication partner (rentee of the object) prior to the interaction, we speculate that perception of an ingroup would be elicited in both top-down and bottom-up approaches. To further clarify, in the bottom-up process the participants are expected to have and perceive an abstract form of an identity, which will become concrete through the exchange of viewpoints. When this exchange is pleasant, interactants may successfully form an operational identity and increase their sense of belonging. Alternatively, in the top-down process participants are expected to already go through an identification process prior to the interaction, which will include the communication partner as an ingroup.

We thus have a reason to expect that both the availability/salience of a positive social identity (via a top-down process) and the experience of an interaction with an ingroup member (via a bottom-up process) stimulate a sense of belonging (Postmes et al., 2005; Tajfel, 1974). However, we have limited insight into how these two processes interact. The present research aims to fill this gap.

Top-Down process

One possibility is that the top-down process of identity formation will play the dominant role in the creation of belongingness. Consequently, when participants encounter another customer that they believe shares the same environmental identity, they are likely to experience the interaction as more pleasant. The perception would be based on the fact that the communication partner was likely to choose the same business through voluntary action, therefore actions were based on the values of that person which align with the business. Based on the logic of the social identity theory, one is likely to experience a positive affect towards another ingroup (Tajfel, 1974). We derive that the pleasantness of the interaction is contingent upon the availability, or salience, of social identity. The expectation is that the activated environmentally oriented social identity will be mediated by the pleasantness of interaction, by further strengthening the identity and therefore the sense of belongingness.

Bottom-up process

Another possibility is that when it comes to the bottom-up identity formation process, the interaction itself would play a larger role. The literature behind operational identity posits that an individual takes an active role in identity formation by changing it from abstract to concrete through the exchange of viewpoints regarding identity-relevant topics (Postmes et al., 2005).

 This phenomenon was also well illustrated in the study by Postmes, Spears, & Lea (2000), where participants developed an identity through online communication in the context of a statistics course. We expect that the pleasantness of interaction can moderate the relationship between identity formation and the sense of belongingness. More precisely, we speculate that the

pleasantness of the interaction will promote the sense of belongingness, while an unpleasant interaction will reduce the sense of belongingness with the other person and their shared social identity. Furthermore, lack of interaction will not allow for operational identity formation.

The present research

One of the aims of this study is to resemble real online shops and Peer-to-Peer renting businesses. Therefore, we manipulated the salience of a social identity and let the participants engage in an interaction. We studied identity formation in the physical absence of other ingroup members, which is commonly the case in online business. In addition, we had taken into account the pleasantness of an interaction that is oftentimes referred to as an essential factor to any service-providing business. Furthermore, interaction is an inevitable feature in the context of Renda's business structure. Therefore, the material used for this study looks similar to the real businesses available on the market, such as Renda itself.

In this study, we are particularly interested in an environmental social identity. Those who possess an environmental social identity, hold beliefs of "nature's high importance", close to their self-concepts (Clayton & Opotow, 2004). Environmental identity has also been found to positively correlate with pro-environmental behaviours (Van der Werff et al., 2013). The activation of the environmental identity is likely to lead one to connect this identity to Renda, and therefore feel more belongingness. Given that this identity will be active without other members being physically present, its salience can only amplify the aforementioned effects (Postmes & Spears, 1998; Spears, 2017, 2021). Hence, our first hypothesis:

Hypothesis 1: We predict that activated environmental identity will positively influence the level of belongingness and identification with Renda.

Furthermore, we expect that the function of having pleasant interaction with other customers could both mediate (H2), or moderate (H3) the effect of an environmental identity on customer belonging. Numerous studies have been conducted on the topic of identity formation through a top-down process. Using the rationale of the social identity theory and the theory of

self-categorisation, the salience of the environmental identity, in itself, should influence the

pleasantness of the interaction (upon meet-ups), which subsequently affects belongingness with

Renda. When both of the parties who meet-up in order to exchange goods, are aware of their

environmental identity, it can lead to above-average attraction between the two parties and

expression of positive affect during the interaction. Such pleasant interaction with a person sharing

the same views is likely to strengthen the environmental identification and belongingness with

Renda. Yet, these effects should not be present if the environmental identity is not activated. Hence,

the customers who will enter the meet-up without an activated environmental identity are less likely

to experience a pleasant interaction or the associated elevated belongingness.

Hypothesis 2: the effects of the environmentally oriented identity on the sense of belongingness will

be mediated through the pleasantness of an interaction.

Another prominent understanding of identity formation is through a bottom-up process.

We know that a sense of belonging can emerge from a pleasant interaction (Koudenburg et al).

However, research on operational identity suggests that this may only occur when an a priori

identity is available (Postmes et al., 2005). As mentioned in the work of Postmes, Spears, & Lea

(2000) an abstract form of identity becomes concrete only through an interaction with an ingroup.

We, therefore, expect a moderation effect, in which the pleasantness of interaction is only linked to

the strengthening of social identity and belonging to that identity when such identity is readily

available.

Based on the above-mentioned rationale we expect participants to enter the chatting

platform with an abstract social identity, and leave with a concrete social identity (operational).

Nevertheless, previous literature did not take into account the pleasantness of an interaction that is

necessary for identity formation in the bottom-up process. Our interest lies in the understanding of

its role in this equation. It is currently unknown if a negative interaction will allow for the abstract

identity to be operationalised. If one never achieves the concrete social identity (operational) its

effects on the sense of belongingness should evaporate. In that case, in a negative interaction, the

effects of the environmental identity should produce no difference in the sense of belongingness. However, in a pleasant interaction, a concrete social identity may be achieved and the effects on the sense of belongingness may depend on the extent of the interaction's pleasantness. Consequently, a positive interaction may be permissive and amplifying in the creation of a concrete social identity, which in turn affects the sense of belongingness. Therefore, our third hypothesis:

Hypothesis 3: The effects of the environmentally oriented social identity on the sense of belongingness will be moderated by the pleasantness of an interaction.

Not only will this study allow easier application of findings in the real world of business, but it will also add to the exploration of scientific knowledge regarding the formation of social identities. Previous literature shows many approaches and angles when it comes to identity formation. This study takes a wide view incorporating top-down and bottom-up approaches to social identity. In addition, it will give more light on the role of interaction, when it comes to the sense of belongingness that results from the formation of social identity.

Methods

Participants

This experiment had a total of 52 participants, which were obtained in two ways. A sample of 41 participants was obtained through the snowball sampling technique in various communities around Helsinki (Finland), with no specification on profession or education. The participants received an email and text message as a participation request medium. In addition, 11 participants were recruited through the SONA participant pool, which includes 1st-year students of Psychology at the University of Groningen. The SONA participants signed up for the study online, via the SONA website.

Procedure/Design

In this study, we created a between-groups experimental design. The participants in this study read a story that argues for choosing a renting option as opposed to the purchasing option of acquiring a sleeping bag for a camping trip. The participants were randomly allocated to either of

the two groups: manipulation (social identity salience) vs control. The study was performed in an online environment, provided by Qualtrics. In addition, this study used the Chatplat software to provide means to interact with participants. The participants were matched with a confederate to interact on the topic of the rent, which is an identity-relevant task. Mimicking the real-world situation of an online platform, the participants communicated with the object rentee before receiving the sleeping bag. The confederate was presented as the rentee, while participants were the renters. The chat between the two started with a greeting, after which the rentee showed interest in the sleeping bags' usage intention. Questions such as "For what time interval do you need the bag?; Out of curiosity, where are you going?" were asked during the chat. The rentee also expressed statements such as "I have only used it once, so it should be in a good condition!". The aim of the conversation was to find a fitting place and time to receive the sleeping bag. Once the communication partners came to a conclusion the conversation was complete and the participants could continue with the survey. A timer was set using Qualtrics which allowed moving forward from the conversation after 100 seconds. The top limit for this conversation was set to 10 minutes. All material in this study was made in English. The experiment took around 20 minutes to complete. Finally, all non-SONA participants were granted the possibility to participate in a lottery in order to win a portable speaker to compensate for their participation in the experiment. The SONA participants received SONA credits for their participation that accounts to one of the first-year courses.

Measures

The environmental identity (de Groot & Steg, 2007) was measured using a Likert scale (1 = strongly disagree, 7 = strongly agree) with 3 items (e.g., "Acting environmentally friendly is an important part of who I am"). The reliability of these items was good, indicating Cronbach's Alpha of $\alpha = .869$.

We used 2 items to measure the pleasantness of the interaction (Koudenburg et al., 2013, 2017). Likert scale was incorporated (1 = very unpleasant/awkward, 7 = very pleasant/smooth) to answer the question: "How would you characterise the interaction".

Liking the interaction partner was measured using 1 item scale (1 = strongly disagree, 7 = strongly agree) to indicate one's agreement with a statement: "I really liked my interaction partner".

The sense of belongingness measure was measured with 6 items from The Sense of Belonging Instrument (SOBI) by Hagerty & Patusky (1995) e.g., "When it comes to the Peer-to-Peer renting community …I do not really fit/ …I want to be a part of it" (1 = Completely not true, 5 = completely true). These items showed acceptable reliability values $\alpha < .05$, when it comes to the inter-item association.

Identification was measured with Postmes et al., (2012) single-item measure of social identification (SISI), using a 7-point Likert scale e.g. "I identify with Peer-to-Peer rent's community" (1 = strongly disagree, 5 = strongly agree)).

Intention (to use the service again) was measured based on the Theory of Planned Behaviour (Ajzen, 1991) e.g., "I intend to use the Peer-to-Peer renting service again" (1 = strongly disagree, 5 = strongly agree).

To check whether a participant had an interaction with the item rentee, a question with a binary answer was presented (yes/no) e.g., "Did you have a chat with the renter?"

Social identity manipulation

Before the interaction with the rentee, participants read a story regarding a camping trip with friends. Participants were asked to read from a first-person perspective. The story took participants through an argued thought process that led to the Peer-to-Peer renting website, as opposed to a typical buying website. The Peer-to-Peer renting website's banner was manipulated to make the environmental social identity salient. The manipulation group saw a banner that indicated the website's ecological orientation, as shown in Figure 1. The manipulation factors of the banner: a green colour text stating "Consume less" prior to the rest of the text "with Peer-to-Peer rent, save

and earn money"; a picture of a globe with the text "save our planet" (on the right side of the text). In contrast, the control condition had only "save and earn money, with Peer-to-Peer rent" text written in black and grey, with no other images being present. In order to attract participants' focus on the banner itself, the participants were told to pay extra attention to the website outlook, stating that it will be relevant for the upcoming questions in the study.

Figure 1. Environmental identity. Manipulation condition banner

Analysis

The analysis used the manipulated environmental identity as the independent variable. Furthermore, the same analysis will be presented using the manipulation check as an independent variable.

H1: The effect of environmental identity (IV) on the sense of belongingness (DV), is assessed by comparing the means of the two independent variables. Using the software Statistical Package for Social Sciences (SPSS, v26), an independent sample t-test was performed.

H2: In the interest of investigating whether the interaction pleasantness (M) mediates the relation between environmental identity (IV) and sense of belongingness (DV), the research model was

tested by the means of regression analysis with bootstrapping, using the SPSS macro PROCESS (Hayes, 2017). Model 4 was applied to verify the research hypothesis (simple mediation).

H3: Regression analysis with bootstrapping, using the SPSS macro PROCESS (Hayes, 2017), was also used to infer the third hypothesis. The sense of belongingness (DV) was set as an outcome variable, environmental identity (IV) as a predictor and the interaction pleasantness (M) as a moderator. Model 1 was applied to verify the research hypothesis (simple moderation).

Results

Manipulation checks

The manipulation check for the environmental social identity was analysed using an independent sample t-test. Out of 7-point Likert scale the average response on environmental identity was lower ($M = 5.16$, $SD = 0.93$) for the control group than for the manipulation group ($M = 5.39$, $SD = 0.95$). However, the results were found to be not significant $\beta = .233$, $t(51) = -.899$, $p = .373$, $R^2 = .016$.

Hypothesis testing

Before proceeding to the main analyses, we looked at means and standard deviations. In addition, we examined the correlations within the model, as shown in Table 1. On a general level, participants reported a medium level of sense of belongingness ($M = 3.54$, $SD = .74$). Higher levels of belongingness indicate a sense of community and membership in the peer-to-peer business. Moderately high levels of interaction pleasantness ($M = 5.72$, $SD = 1.14$) and moderately high levels of liking the interaction partner ($M = 5.51$, $SD = 1.23$).

Table 1

Correlation Coefficients for the Study Variables

Variable	1.	2.	3.	4.	5.	6.
1. Identity Salience						
2. Env. Social Identity	.125					
3. Pleasantness	.198	-.014				
4. Liking	.394**	.205	.664**			
5. Belongingness	.226	.334*	.201	.350*		
6. Identification	.111	.321*	.062	.186	.723**	
7. Intention	.224	.218	.140	.267	.579**	.602**

**. $p > 0.01$ (2-tailed); *. $p > 0.05$; $N = 52$; *Note*: Identity Salience represents

the manipulated environmental social identity variable; Env. Social Identity

represents the manipulation check of the environmental social identity;

Pleasantness represents the pleasantness of an interaction with a rentee; Liking

represents liking the interaction partner; Belongingness represents the sense of

belongingness to the Peer-to-Peer renting community; Identification represents

the identification with the Peer-to-Peer renting community; Intention represents

the intention to use the Peer-to-Peer renting website services again.

        We conducted regression analyses to test our hypotheses. The effect of the manipulated

environmental social identity on the sense of belongingness (Hypothesis 1), the mediating

(Hypothesis 2) and moderating (Hypothesis 3) role of interaction were performed using the Hayes

PROCESS macro version 3.3 in SPSS (Hayes, 2017). Furthermore, the exact same analysis was

performed using the manipulation check variable of environmental social identity as a predictor.

This was done, given the failed manipulation check performed for the manipulated environmental social identity variable. We hope that by providing a second predictor, the analysis can have a larger view of the phenomenon. Nevertheless, causality interpretations should be taken with caution in the given circumstances.

The performed regression analysis for Hypothesis 1 indicated no significant main effect of the manipulated environmental social identity on the sense of belongingness $\beta = .226$, $t(50) = 1.654$, $p = 0.104$, $R^2 = 0.051$. Therefore, no evidence for the support of Hypothesis 1 was observed.

When the same analysis was done using the manipulation check variable, a significant main effect was observed. The results indicate a positive effect of the environmental social identity manipulation check variable on the sense of belongingness $\beta = .334$, $t(50) = 2.526$, $p < 0.05$, $R^2 = 0.111$. This output entails that higher levels of environmental social identity positively relate to the sense of belongingness.

Meanwhile, due to the small sample size, there was only limited power to test Hypothesis 2 and 3, but the analyses were still performed to get an indication of the direction of the effect. However, the results should be interpreted with caution. In the analysis, the Bootstrap was set at 5,000 resamples to establish 95% confidence intervals (CIs) for direct, indirect, and total effects.

When exploring the indirect effect of the pleasantness of interaction on the relationship between the environmentally oriented social identity and the sense of belongingness, a mediation analysis (H2) was performed using Process (Hayes, 2017). Model number 4 was used for the analysis of PROCESS (Hayes, 2017). The outcome variable for the analysis was the sense of belongingness (DV). The predictor variable for the analysis was the manipulated environmental identity (IV). The same analysis was later performed again using the environmental social identity manipulation check variable (IV). The mediating variable for the analysis was the pleasantness of an interaction (M). The overall model of the mediation analysis using the manipulated environmental social identity resulted to be not significant $F(2,50) = 2.064$, $p = .138$, explaining $R^2 = .076$ of the effect on the dependent variable. The indirect effect was found to be statistically not

significant, as the confidence interval contained zero, β = .047, *BootSE* = .053, *95%* CI [-.041, .172]. No support for hypothesis 2 was found with this predictor.

Meanwhile, the overall model of the mediation analysis using the manipulation check variable environmental social identity was significant $F(2,50)$ = 4.530, $p < 0.05$, explaining R^2 = .153 of the effect on the dependent variable. However, the indirect effect was found to be statistically not significant, as the confidence interval contained zero, β = -.002, *BootSE* = .025, 95% CI [-.050, .056]. Therefore, no support was found for the indirect effect on Hypothesis 2, with either of the predictors.

In order to investigate whether the effects of the environmentally oriented social identity on the sense of belongingness are moderated by the pleasantness of an interaction (H3), a simple moderator analysis was performed using Process (Hayes, 2017). Given the goal of the analysis, Model 1 of PROCESS (Hayes, 2017) was chosen for this instance. The outcome variable for the analysis was the sense of belongingness (DV). The predictor variable for the analysis was the manipulated environmental identity (IV). The same analysis was repeated using the environmental social identity manipulation check variable (IV) as a predictor. The moderating variable for the analysis was the pleasantness of an interaction (M). The moderation analysis using the manipulated environmental social identity revealed an overall model which was not significant $F(3,49)$ = 1.793, p = .161, explaining R^2 = .0989 of the effect on the dependent variable. The moderation effect was found not significant β = 0.377, *SE* = .114, 95%, CI [-.191, .266], t = .331. No support was found for the moderation effect when testing Hypothesis 3 using the manipulated environmental social identity as a predictor.

The same analysis was performed using the environmental social identity manipulation check variable. The overall model was significant $F(3,49)$ = 3.00, $p < .05$, explaining R^2 = .156 of the effect on the dependent variable. The moderation effect was found not significant as the confidence interval contained zero, β = 0.038, *SE* = .053, 95%, CI [-.153, .059], t = -.892. No support for the moderation effect in Hypothesis 3 was observed with either of the predictors.

Discussion

This study was set to explore how social identity can influence the sense of belongingness. This study's collaborating Peer-to-Peer renting company was interested in increasing the sense of belongingness, given its positive association with customer retention (Friess & Lam, 2018). A significant positive correlation was found between the sense of belongingness and the intention to use the renting services again. Therefore, supporting the assumption of an association between the sense of belongingness and customers' return to the business. In cooperation with a Peer-to-Peer online renting platform, the study mimicked the businesses' framework to get the best real-world use case analogy. These businesses oftentimes necessitate customer interaction either with the representatives or other customers. The goal of the study also lies in the understanding of the direct and indirect effects of the pleasantness of an interaction.

The results of the collected data and performed analysis were not significant on all three hypotheses when using the manipulated environmental social identity variable as a predictor. Nevertheless, when the environmental social identity manipulation check variable was used for the analysis, a significant effect was observed on hypothesis 1, but not on hypotheses 2 and 3. The interpretation of the manipulation check's use as a predictor has been advised by research literature to be purely correlational (Hauser et al., 2018). Meanwhile, not significant findings in the analysis can be accounted for by chance. Therefore, based on the aforementioned circumstances the reader is advised to refrain from making any concrete conclusions. Results of the analysis indicated a positive relationship between the environmental social identity and the sense of belongingness when using the manipulation check as a predictor. The interpretation of the direction of the effect can be illustrated as higher identification with the environmental social identity relating to a higher sense of belongingness. This understanding is aligned with the considerable amount of supporting evidence that has higher reliability than was produced with the sample of this study. Previous research aligns with the notion that the relationship between social identity and the sense of belongingness is positive (Koudenburg et al., 2016). The manipulated environmental social identity

variable did not produce a significant result. This outcome was potentially due to chance or due to a failed manipulation. A possible reason for the failure of the manipulation is the extent to which the stimulus was salient to the research participants. Furthermore, both manipulation and control conditions had read the same story regarding the benefits of using the Peer-to-Peer renting option as opposed to purchasing an item. This story in itself could have positively affected the environmental social identity, producing less differentiation between the two conditions.

Two processes of identity formation are bottom-up and top-down processes. The analysis was performed using manipulated environmental social identity and manipulation check of the environmental social identity as a predictor. Both of the predictors resulted in the same outcome interpretation. In the investigation of the mediating role of the pleasantness of an interaction, we did not find evidence for the support of the hypothesis (H2). Furthermore, in the exploration of a moderating effect between the environmental social identity and the sense of belongingness no supporting evidence for the hypothesis (H3) was observed either. The aforementioned outcomes do not support, nor disprove the hypotheses. Despite refuting the analytical findings for lack of concrete evidence, the research has brought new ideas into consideration.

It has been noted that in the self-categorization theory (Turner, 1982) the individual formulating a social identity is believed to be knowledgeable of the attributes relating to the ingroup as well as the outgroup members. This allows for the individual to do a comparative judgement that may lead to the self-categorisation. This knowledge gives more certainty in the underlying features accounted for the social identity. It is possible that the comparative judgement of outgroup and ingroup makes the ingroup interactions less necessary and therefore, less influential. This thinking aligns with the minimal group paradigm, whereby a social identity has been suggested to form even in the complete absence of interaction.

Meanwhile, in the process of identity operationalisation, the individual is said to change the abstract view (less knowledgeable) of the identity into concrete (more knowledgeable) through the process of interaction. Therefore, when entering an interaction the pleasantness of interaction may

be used as a piece of information about the identity itself. This approach to the bottom-up view of identity formation changes the perception of interaction from operationalisation (acting out the abstract identity to achieve the concrete one) to an information attainment process, that would later allow for self-categorisation. Therefore, highlighting the importance of the exchanged information during the interaction with an in-group member. In this study, participants discussed identity-related tasks, such as meeting time and place. These topics can be considered to give an implicit inference on the social identity itself, but they do not explicitly characterise the ingroup members. It is possible that lack of explicit discussion regarding the social identity itself as opposed to functional parts related to it, may lead to failure of operationalisation. Consequently, the level of explicitness of the social identity' attributes may play a large role in the operationalisation process. Further research should be conducted to find more basis for this speculation.

Nevertheless, in the present research, the participants potentially had an understanding of the environmentally friendly social identity on a concrete level prior to the interaction in this study. It can be speculated that most participants had an understanding of the environmental social identity prior to the study and might have already even discussed it with their friends and families in the past. The outcome of this could have led to a confounding effect on the moderation hypothesis. Perhaps a social identity solely relating to the Peer-to-Peer website can provide a better differentiation for the hypotheses in question, as it would allow for higher chances to be forming a completely new social identity.

Theoretical Implications

As we refrain from making concrete conclusions based on our findings the theoretical implications can only be based on reasoned speculations. The implications of the research question can be implemented in the areas of e-commerce. We believe that this study will allow real online businesses to take advantage of our exploration. Results of the study can be used for the development of online businesses, by expanding the understanding of identity creation during the interaction with and on the website. New information may place the right amount of importance on

customer interaction not only with the business representatives but also between the customers themselves. Knowledge regarding the moderating or mediating effect of the pleasantness of interaction can accentuate the need for e-commerce businesses to regulate the online environment accordingly. The study will provide further insights regarding the attainment of a sense of belongingness, by taking into account specific scenarios and providing a close to real-world example. However, one should not limit the scope of possible applications. The same principles could be applied in a variety of settings apart from sales-related instances. By increasing the salience of a social identity one may potentially increase the opportunity for a stronger sense of belongingness which in turn has been noticed to associate with longer customer retention (Friess & Lam, 2018).

Limitations

There are several things to point out when it comes to the limitations of this study. The study acquired fewer participants than expected. In addition, the research was performed in an online environment, which crashed several times during the study. Resulting in fewer participants as some were unable to finish the study. The lower number of participants negatively affects the statistical power of the analysis. Furthermore, when the chatplat platform showed lagging or other technical issues, it could have resulted in a conversational flow disruption through the caused delay. The study of Koudenburg et al. (2013) on this topic showed that smooth conversation flow, as opposed to disrupted, can positively influence the sense of belongingness. The disruption of flow in our study could have potentially led to participants being frustrated by this event and therefore, spill over their emotional reactions into the questionnaire part of the study.

The study was done in English, however, participants were collected from different countries in Europe who do not speak English as their first language. Consequently, some of the texts could have been misinterpreted.

It is possible that the social identity manipulation was weak because some participants might have not internalised the presented information, despite the nudges. The mean values for social

identity were above the middle score (5/7), leading to the following considerations. In the social identity manipulation, one factor could have played a larger role than expected. When the participants read the story that argues for the environmentally friendly choice (renting), it is possible it already had an effect on the salience of this identity. In this scenario, the difference between the control and manipulation groups could be less significant. The same result may be attributed to societal trends to be environmentally friendly, consequently, making it a socially desirable characteristic (Emmert, 2021).

Given the list of limitations and insignificant results of this study, we abstain from advising the use of these findings in an intervention. We believe that if this study is recreated taking into account previous limitations, more concrete findings could be inferred and possibly implemented for interventional use.

Future Directions

Based on the revision of our study several things came to our attention. It has been noted that the manipulation of the environmental social identity did not produce the desired effect. Perhaps future research should use a different type of manipulation, or provide a stronger nudge. Alternatively, in the control condition, the participants could be provided with solely monetary arguments for the choice of the environmental option, to avoid the activation of the environmental social identity in both conditions. Furthermore, the theoretical framework can be tested with a different identity, perhaps a more specific identity that can be directly attributed to the group/community to disentangle the effects of the environmental social identity and related factors, such as social desirability and societal trends. In addition, the novelty of the provided social identity may help at isolating the effects of the experiment's manipulation from previous life experiences and preconceptions. We also believe that in the case of replication it is really important to fill the power criteria, by collecting a higher sample size for the study. Based on the arisen considerations from this study, future research may investigate the explicitness of the interaction content when attaining the operationalised identity.

Conclusion

Research on social identities has proved to be a fruitful topic. Nevertheless, a lot of research questions are still unanswered or debated in the scientific literature of psychology. This study was set out to confirm previous findings regarding the positive relationship between social identity and the sense of belongingness as well as explore the mediating or moderating role of the pleasantness of an interaction. This study found support for the previous findings regarding the positive association between social identity and the sense of belongingness, however only through the use of a manipulation check variable as a predictor. Unfortunately, the rest of the results were not significant, allowing no conclusions to be drawn from the performed analysis. Yet, this study was successful at providing new insights on methodological considerations to test these formulated theoretical hypotheses. Details of this study's conduction and consideration for future research can be of aid for future explorations on the topic. In addition, it was one of the first attempts at integrating the theoretical conceptualisation of the social identities in e-commerce with an aim for the development of customer retention through a sense of belongingness.

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