

# UNDERSTANDING THE SHARING ECONOMY: THE ROLE OF RESPONSE TO NEGATIVE REVIEWS IN THE PEER-TO-PEER ACCOMMODATION SHARING NETWORK

*Complete Research*

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## Abstract

*Recognizing the potentially ruinous effect of negative reviews on the reputation of the hosts as well as a subjective nature of the travel experience judgements, peer-to-peer accommodation sharing platforms, like Airbnb, have readily embraced the “response” option, empowering hosts with the voice to challenge, deny or at least apologize for the subject of critique. However, the effects of different response strategies on trusting beliefs towards the host remain unclear. To fill this gap, this study focuses on understanding the impact of different response strategies and review negativity on trusting beliefs towards the host in peer-to-peer accommodation sharing setting utilizing experimental methods. Examination of two different contexts, varying in the controllability of the subject of complaint, reveals that when the subject of complaint is controllable by a host, such strategies as confession / apology and denial can improve trusting beliefs towards the host. However, when the subject of criticism is beyond the control of the host, denial of the issue does not yield guest’s confidence in the host, whereas confession and excuse have positive influence on trusting beliefs.*

*Keywords: Sharing Economy, Airbnb, Online Reviews, Negative Reviews, Response.*

## 1 Introduction

While ownership has always been at the heart of economic well-being (de Lecaros-Aquise, 2014), the new “sharing economy” is revolutionizing the modern consumption. Indeed, this new approach encourages consumers to enjoy the bonuses of possession while simultaneously minimizing customer responsibility and monetary investments, as well as lowering the “carbon footprint” (Botsman and Rogers, 2010; Hamari et al., 2013). Indeed, numerous marketplaces have mushroomed in recent years, helping to organize “sharing, bartering, lending, trading, renting, gifting, and swapping” of goods and services on the peer-to-peer basis (Botsman and Rogers, 2010, p. 30). Among them, peer-to-peer sharing platforms for apartments and rooms (e.g. Airbnb and 9flats), parking places (ParkatmyHouse), cars (e.g. UBER, Lyft), household devices and appliances (Zilok), and clothes (GirlMeetsDress) have been seen as pioneers in their respective industries, creating customer value on an unprecedented scale (Botsman and Rogers, 2010).

The accomplishments of the “sharing economy” have been particularly remarkable in the hospitality industry, with platforms like Airbnb, 9flats or Roomorama transforming the industry landscape traditionally dominated by hotels. Particularly Airbnb has witnessed the most rampant growth since its launch in 2007, boasting 4 million guests, presence in 190+ countries and 300000 listings in 2013 alone (Airbnb, 2014). However, while the idea of staying in cheaper (than hotels) private apartments when travelling has indisputable advantages, this concept is not without its challenges. Specifically, while hotels are subject to significant regulation with regard to their facilities, equipment, furnishing and additional services, as reflected in their star system, peer-to-peer platforms do not enjoy the same type of information transparency, often leaving guests wondering about the quality and safety of the suggested offerings. As a result, mutual trust between hosts and guests emerges as a centrepiece of these platforms, and is often seen as an invisible “currency” driving consumer decision-making and transactions (Botsman, 2012; Edelman and Luca, 2014; Green, 2012a, 2012b).

Hence, as a part of their trust-promoting strategy, platforms like Airbnb offer users a plethora of trust-enhancing cues, including offline ID verifications, links to social media accounts of hosts and guests, verified photos and videos of the apartments and their owners, as well as an online review system (e.g. Airbnb, 2014). In this environment of cues and hints, particularly *reviews* represent an important component of trust-building efforts, as they have been consistently shown to be the most influential factor in consumer decisions for online marketplaces characterized by information asymmetry (Chatterjee, 2001; McKnight et al., 2002a, 2002b). However, while all types of reviews may affect consumer choices, these are particularly negative reviews which draw potential guests’ attention and are under their constant scrutiny (Bambauer-Sachse and Mangold, 2011) – a phenomenon known as the “negativity bias” (Vaish et al., 2008).

Recognizing the potentially ruinous effect of negative reviews on the reputation of the other party (both a host and a guest) as well as a subjective nature of the travel experience judgements, marketplaces, like Airbnb, have readily embraced the “response” option, empowering the accused party with the voice to challenge, deny or at least apologize for the subject of complaint. Indeed, past research from the areas of crisis communication (e.g. Lee and Song, 2010) and service failure / recovery management (e.g. Munzel et al., 2012) offers some evidence that not only a review but also a response (if available) work to form public opinion, with some response strategies being more beneficial than others (Lee and Song, 2010).

Nonetheless, little is known about the effectiveness of response in peer-to-peer sharing settings in general and on apartment sharing platforms in particular. Gaining an insight into this area is, however, of considerable importance, since these findings can provide actionable recommendations for hosts and guests in their private reputation management, as well as serve the purpose of better education of how to behave in such contexts. Against this background, this study utilizes experimental methods to get the understanding of the impact of review negativity and different response strategies on the trusting beliefs towards the host in peer-to-peer accommodation sharing settings. As such, these findings may enrich a currently scarce body of research on how users interact with trust-enhancing cues in the new “sharing economy”- a novel direction of the human-centred stream of Information Systems research.

## 2 Related Work

Helping to mitigate the feeling of risk and insecurity involved when transacting with geographically distributed and anonymous peers, trust is an unalienable part of the decision-making process in peer-to-peer sharing settings (Edelman and Luca, 2014; Green, 2012a, 2012b). While a variety of mechanisms work to establish and promote trust in online marketplaces characterized by information asymmetry, online reviews remain the most prevalent and influential form for the assessment (Chatterjee, 2001; McKnight et al., 2002a, 2002b). Presented as written evaluations of users’ own experiences, reviews facilitate the selection of the best alternative as they guide consumer through the myriad of offers (Blal and Sturman, 2014). Particularly in the hospitality industry, online reviews are extremely

important, with users preferring feedback from other guests over the information posted by travel agencies (Chen and Xie, 2008; Gretzel and Yoo, 2008).

While the impact of positive reviews is well-documented (Chevalier and Mayzlin, 2006; Clemons et al., 2006), there is solid support for the special role of negative reviews in consumer decisions. Specifically, the effect of negative reviews is leveraged by the so-called “negativity bias” which is defined as “*the propensity to attend to, learn from, and use negative information far more than positive information*” (Vaish et.al., 2008, p. 383). Indeed, research confirms the unfavourable impact of negative online reviews on product attitude and, thereby, on purchasing intentions (Lee et al., 2008; Vermeulen and Seegers, 2009), and, as a consequence, on sales (Liu, 2006; Vermeulen and Seegers, 2009) and revenue (Cabral and Hortaçsu, 2010). Additionally, recent findings have underscored the role of emotional tonality in how the negative review is expressed (e.g. anxious vs. angry) suggesting a complex picture with regard to the effects of negative feedback on consumer perceptions and decisions (Yin et.al. 2014). Particularly for the apartment sharing platforms, like Airbnb or 9flats, the impact of negative reviews might be critical: Since most feedback provided on these platforms is overly positive, negative reviews stand out and, therefore, might be particularly scrutinized by the potential guests (Bambauer-Sachse and Mangold, 2011; Park and Lee, 2009). Hence, considering their potential significance, this paper focuses on the impact of the negative reviews in peer-to-peer accommodation sharing settings.

Recognizing the importance of reviews in ultimate consumer choices, online marketplaces increasingly empower the reviewed party with the “response” option, which may be used as a channel to challenge negative, unfair or otherwise undesirable feedback in the review systems. For example, such platforms as Airbnb, Yelp, and TripAdvisor do not only enable response function but also publish guidelines on how to respond to reviews. Also scholarly research provides some empirical evidence that not only reviews but also response and especially its specific type matter (Munzel et al., 2012). For example, the presence of an accommodative response to a negative review has been shown to have a greater favourable impact on consumers’ evaluation of the company when compared to the defensive response or the absence thereof (Lee and Song, 2010). However, despite the potential importance of response in the case of online review systems, research in this area still remains limited, with existing studies largely drawing on the evidence from related fields, such as crisis communication (e.g. Lee and Song, 2010) and service failure / recovery management (e.g. Munzel et al., 2012).

In this research different approaches to the classification of response strategies have been used. For instance, building on the image restoration theory, Benoit (1997) discusses five major groups of responses – denial, evasion of responsibility, reducing offensiveness of the event, corrective action and mortification. At the same time, Garrett et al. (1989) work with four major response strategies adapted from social accounts literature. Another well-known approach establishes a conceptual link across different responses is their placement along the accommodative-defensive continuum, in which responses range from accepting to denying (Coombs, 1998). Building on this idea, Coombs (2006) proposes and empirically tests the classification of response strategies – deny, diminish and deal - that cluster around the concept of company’s care for victims of the crisis and its responsibility.

In this context, the notion of the attribution of responsibility emerges as particularly relevant, coming across multiple studies on responses to negative eWOM (Lee and Song, 2010), crisis communication (Coombs 1998, 2006) and service recovery/failure (Bitner, 1990). Specifically, an unpleasant incident (the subject of the negative review) can be “*attributed to external causes that are either uncontrollable (“The flight was delayed because of a blinding snowstorm”) or controllable (“The personnel are poorly trained so that boarding takes forever”)*”, with controllable causes being more detrimental (Weiner, 2000, p. 384). Indeed, if individuals believe that the crisis situation in question was controllable, they will be more dissatisfied than in the case of non-controllable incidents (Bitner, 1990). By offering an explanation for the incident (by responding), a company tries to alter attribution perceptions (Coombs and Holladay, 1996). This is also relevant to the context of our study: negative online reviews are examples of expressed dissatisfaction; and responses to negative reviews can be seen in

part as attempts to provide explanations after a complaint. Discussing the role of the attribution theory in consumer behaviour, Weiner (2000) identifies three strategies that a company can use for impression management after a consumer has expressed product dissatisfaction, namely (1) denial, (2) excuse and (3) confession / apology. By relying on the (1) denial strategy a company is trying to refute occurrence of any negative event. At the same time, the use of the (2) excuse strategy implies the provision of explanations about uncontrollable causes of the incident. Finally, (3) confession / apology presume a pardon by an accused party and an offer of restitution. Considering the theoretical relevance, in this study we focus on exploring the role of these three response strategies for guest complaints that focus on issues with a high and a low degree of control by the accused party.

### 3 Exploratory Pre-Study

In order to understand the landscape of reviews and their respective responses in the peer-to-peer accommodation sharing setting, an exploratory screening of private room listings for two popular touristic destinations was conducted in the context of one popular peer-to-peer accommodation sharing platform. Specifically, 82 listings for New York and 200 listings for Milan and their respective reviews were screened. While the overwhelming majority of reviews were positive, reviews with varying degree of negativity were also observed, ranging from “very minor” complaints: “... *The only thing I could note was that the pillows were too soft for my taste - but I guess that's truly subjective...*”; to “moderate”, e.g. “*The room was not the same as on the pictures, maybe the furniture has been rearranged...*” and to “severe” ones: “*The breakfast was awful and unappetizing I left with nothing...*” or “*I was disappointed that the photos provided did not represent the room that I was given...*” (Airbnb, 2014). In the following step, responses to reviews with “moderate” and “severe” degree of negativity were screened, when available. In line with the classification of Weiner (2000), three categories of responses could be found:

- “confession/apology”, e.g. “*...Sorry you felt that way about the cleaning we will improve I apologize for any issues that affected your trip...*”;
- “denial”, e.g. “*...You did a big mistake, I live on 3th FLOOR not 5th...it's very different without a lift...*”;
- “excuse”, e.g. “*...fortunately and unfortunately Design Week is the biggest event of the year and make difficulties also about parking and confusion...*” (Airbnb, 2014).

Moreover, other approaches to respond to negative feedback that go beyond the classification of Weiner (2000) could also be observed. For example, the following response categories were also visible: corrective action (“*...Now we have updated our booking confirmation...*”), thanking the customer (“*...Many thanks to share your comments...*”) or even being aggressive against the guest (“*...YOU HAVE BOUGHT EXACTLY WHAT WAS WRITTEN, YOU ARE VERY INCORRECT MAN...*”) (Airbnb, 2014). Especially the presence of the latter category is discomforting, emphasizing the importance of user education in this domain. All in all, even though preliminary in nature, our exploratory screening confirms that reviews differ by the amount of negativity expressed as well as by possible reactions of hosts to these censorious remarks. Together, these findings legitimate further exploration in this domain, including the design and execution of our own experiment.

## 4 Hypotheses

### 4.1 Negative Valence of the Review

Negative reviews are known for having a negative impact on consumers’ attitudes (e.g. Lee et al., 2008). In the service failure context, the problem severity has been linked to the lower customer satisfaction and purchase intentions (Conlon and Murray, 1996; Smith et al. 1999). Additionally, the judgment of responsibility may also be positively linked to the severity of the event (Coombs, 2006; Lee, 2005), thus worsening the image perceptions (Coombs, 1998), impression and trust towards the organ-

ization (De Blasio and Veale, 2009; Lee, 2005). Similarly, in the peer-to-peer accommodation sharing settings it is expected that negative reviews will have a negative impact on the perception of trust towards the host. For example, a negative review like: *“I was disappointed that the photos provided did not represent the room that I was given. It was smaller, had bare walls, a small bookshelf, a nightstand, and a small table with a tiny desk chair”* (Airbnb, 2014) is unlikely to promote trusting attitudes towards the host as it may imply a certain level of misrepresentation and, hence, dishonesty – a key component of trusting beliefs (McKnight et al., 2002b). All in all, we hypothesize that:

*H1. The higher the negativity of a review, the lower the trust towards the host.*

## **4.2 Response Strategy: Confession / Apology**

Various studies have shown the effectiveness of apologetic responses in terms of attitudes towards the company in comparison to other less accommodative strategies (e.g. Conlon and Murray, 1996; Lee and Song, 2010). For example, in the context of online complaints it has been demonstrated that accommodative responses, namely a combination of apology and an offer of compensation, result in more positive attitudes towards the company as opposed to a defensive reaction and lack of response (Lee and Song, 2010). This may be partly because of the special role of apology as it transmits *“a good person committed a bad act”* message to the consumers and helps to soften a conflict situation (Weiner, 2000, p. 386). Moreover, based on empirical data, Munzel et al. (2012) argue that is better to apologize even if the company is not responsible for the incident. Taken together, we argue that:

*H2. Compared to the absence of response, apologetic response will have a positive impact on trust perceptions towards the host.*

## **4.3 Response Strategy: Denial**

Based on our pre-study we observe that denial is a used response strategy in the context of peer-to-peer accommodation sharing platforms, with some hosts denying the existence of the issues mentioned in the review either directly by expressing it through *“I do not agree”*, *“It is not true”* or indirectly providing counter-arguments and showing the situation was different from how the guest described it. For example, one guest argued: *“to let information not true, is never correct! my home is far from the metro station " ca granda " only 2/3 minutes walking , and not 10 minutes!”* (Airbnb, 2014). While some studies show a positive impact of this strategy in specific settings (e.g. Van Laer and de Ruyter, 2010), there is a growing body of research refuting this view. For example, De Blasio and Veale (2009) find that denial results in lower scores of the impression of the organization, compared to excuse, no comment, apology and correction strategies. Moreover, Lee and Song (2010) show that exposure to the online critique coupled with a defensive response was more likely to lead observers to the conclusion that the company was responsible for the incident. In a complimentary finding, Lee (2005) reveals that by demonstrating responsibility with the help of the accepting response an organization is eventually blamed less for the crisis. Taken together we argue that:

*H3: Compared to the absence of response, denial has a negative impact on trust perceptions towards the host.*

## **4.4 Response Strategy: Excuse**

Using the excuse strategy, a company introduces uncontrollable causes of the event in question as an explanation for what has happened (Weiner, 2000), thereby distancing itself from the responsibility for the incident or denying its own responsibility when shifting the blame to a third party (Coombs, 2006; Garrett et al., 1989). As an excuse is aimed to limit perceptions of responsibility (Coombs, 2006), and perceptions of responsibility are in turn negatively related to impression and trust to organization (De Blasio and Veal, 2009; Lee, 2005), one can assume that a successful excuse would also have a positive impact on trust perceptions in the context of peer-to-peer accommodation sharing platforms. For example, making use of this strategy in response to a complaint, one Airbnb host has argued: *“It's true,*

that Sunday the whole building was left without central heating for a few hours due to a breakdown of the heater, so it was quite cold!! Although it wasn't our fault, we felt very sorry..." (Airbnb, 2014). In this case a plausible excuse that may work to limit the damage resulting from the negative feedback. Hence, we hypothesize that:

H4. Compared to the absence of response, excuse has a positive impact on trust perceptions towards the host.

## 5 Methodology and Results

### 5.1 Experiment Design and Flow

To determine the impact of different response strategies on trusting beliefs, 2 x 4 x 2 experiment was designed, in which review negativity (moderate vs. strongly negative), response strategy (confession/apology, denial, excuse, no response) and the context ("high control" vs. "low control") were manipulated. Considering a well-established role of control in interpreting complaints in such settings (Coombs, 2007a, 2007b), hypotheses were tested for two contexts that varied with regard to the controllability of the subject of complaint. Specifically, in the "high control" context a negative review about *cleanliness* of the room was provided. The "low control" context focused on the *location* of the apartment – a concern obviously beyond the influence of the host. Treatment conditions were formulated on the basis of existing reviews and responses of the actual guests and hosts identified in the pre-study, and were pre-tested with 16 subjects. Necessary adjustments to improve contrasts were made based on the elicited feedback (see Table 2).

Upon accessing the survey participants were first asked to imagine that they were planning a weekend trip to Milan and were looking for a room in an apartment as a cheaper alternative to a hotel (step 1 of Figure 1). A fake platform name "privateflats.com" was used to avoid any reputation bias with existing market players.

In step 2 (see Figure 1), respondents were presented with a picture and a description of a room offered for rent (including its key attributes) similar to the way it is done on Airbnb.com or 9flats.com. Price and other attributes were chosen on the basis of our exploration of existing room offers for Milan (see section 3). As a result, a median price of 56 Euro per night and per person (including service as well as a cleaning fee) was taken. Further, the icons "kitchen", "heating", "air-condition" and "essentials" (e.g. towels, bed linen, soap and toilet paper) were presented on the profile screen as well, since they were frequently mentioned amenities in our sample. The photos of the apartment were shot privately. Presented with the picture of the accommodation, respondents were asked to express their initial attitude to the apartment (see Table 1), which was subsequently used as a control variable to account for a initial impression of the presented offer.

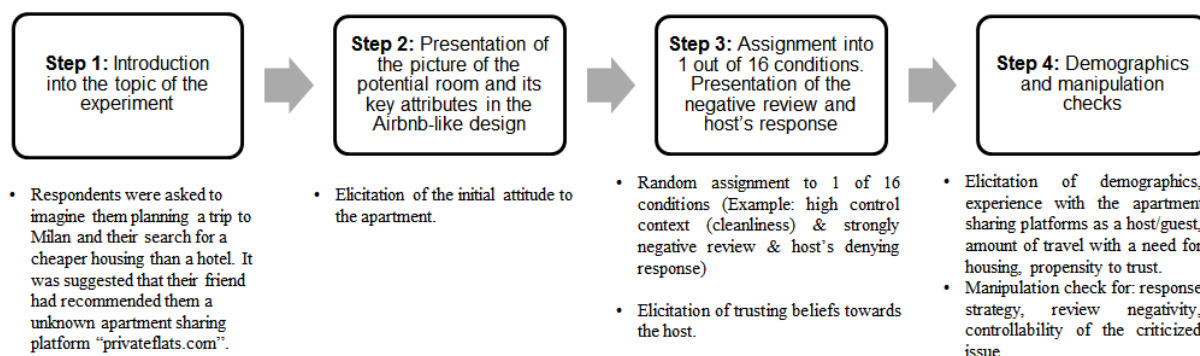


Figure 1. Flow of the experiment.

In step 3 (see Figure 1), participants were randomly assigned into one of 16 treatment conditions (2 contexts: 2 negativity levels x 4 response strategies), i.e. between-subjects design was employed (see Table 2 and an example in Figure 2). Upon viewing the review and the corresponding response in their condition, respondents had to assess their trusting beliefs towards the host (our dependent variable) using the benevolence and integrity dimensions of the McKnight et al. (2002)' trusting belief scale (Table 1). Importantly this scale included an item that measured "perceived honesty" of the host ("I would characterize this host as honest") that was additionally used to test whether users perceive the explanations of the host (for example in the excuse or denial strategies) as truthful and honest. Being a substantial component of trust, perceptions of honesty could provide interesting implications in the context of our study.

Scales and Items	Mean	SD	Cronbach's alpha
<b>Initial attitude to the apartment</b> (partly based on Wang and Sun, 2010); <i>Scale: 1=strongly disagree, 6=strongly agree.</i>			
From what I see, ...			
I like the room.	3.81	1.24	0.836
I think the room is worth considering.	4.11	1.24	
I could imagine staying in this room.	4.20	1.24	
Price-value relationship for the room meets my expectations.	3.47	1.18	
<b>Trusting beliefs towards the host</b> (based on McKnight et al. 2002); <i>Scale: 1=strongly disagree, 6=strongly agree.</i>			
I believe that this host would act in my best interest.	3.37	1.06	0.940
If I required help, this host would do its best to help me.	3.55	1.08	
This host is interested in my well-being, not just its own.	3.38	1.12	
I would characterize this host as honest.	3.54	1.04	
This host would keep its commitments.	3.47	1.02	
This host is sincere and genuine.	3.56	1.05	

Table 1. Operationalization of selected constructs and descriptive statistics.

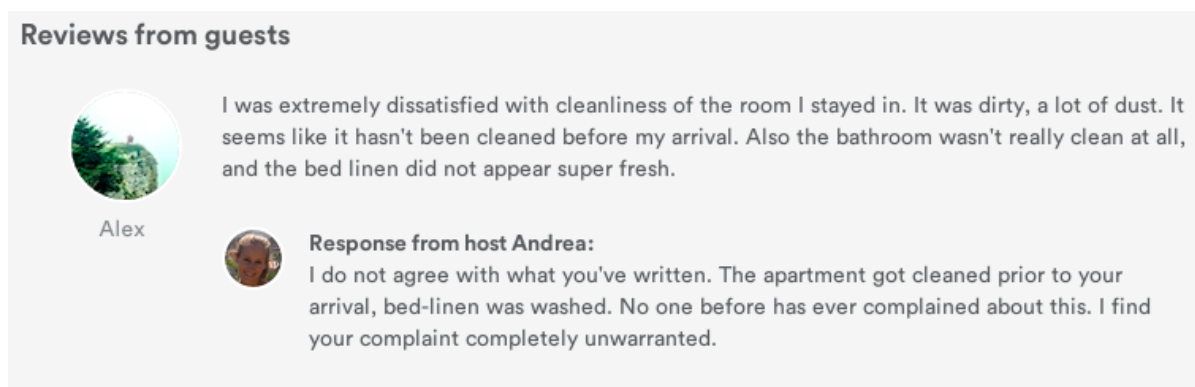


Figure 2. Example of experimental treatment ("high-control" context "cleanness" x strongly negative review x denial as a response strategy).

In step 4 (see Figure 1), control variables such as age, gender, income, experience as a guest, experience as a host on a peer-to-peer platform, amount of travel days with the need for housing per year, and general propensity to trust based on McKnight et al. (2002b) were measured. Finally, a series of

manipulation checks for strategies, review negativity and controllability of the issue were included (see section 5.3 for the exact formulations).

	Level of control x Negativity level of the review			
	Cleanliness (high control)		Location (low control)	
	strong negativity	moderate negativity	strong negativity	moderate negativity
	I was extremely dissatisfied with cleanliness of the room I stayed in. It was dirty, a lot of dust. It seems like it hasn't been cleaned before my arrival. Also the bathroom wasn't really clean at all, and the bed linen did not appear super fresh.	I was a bit dissatisfied with cleanliness of the room I stayed in. The room was ok but not sparkling clean, some dust here and there, I also found some hairs in the bathroom. It seems like it has been cleaned before my arrival, but it could have been done better. I also was not impressed by the bed linen – it seemed ok, but not "crispy" clean.	I was extremely dissatisfied with the location. The apartment is located really badly. It really bothered me that it is too far from the city center and any touristic attractions. Moreover, the connection to the city center by public transport is really bad – it took me very long to get to where I wanted.	I was a bit dissatisfied with the location of the apartment. The location of the apartment is ok, but not perfect. It is a bit far from the center and some touristic attractions. Also, the connection to the city center by public transport works, but could be better.
Response Strategies				
<b>Confession/ Apology</b>	I apologize that you have experienced your stay like this. I have paid close attention to your comments and I will do my best to make sure that the apartment is cleaned just before the arrival of the guest so that no one experiences anything like this again.		I apologize that you have experienced your stay like this. I have paid close attention to your comments and I will do my best to provide guests with a better and clear description how to easily reach the city center and all important sights so that no one experiences anything like this again.	
<b>Excuse</b>	Before your arrival I have hired a new cleaning lady, and she was responsible for keeping the apartment clean. I assume she has not cleaned the apartment properly enough. There was nothing I could have done about this situation.		Usually there is no problem with transportation and one can easily reach the city center by regular public transport. However, during your stay there were strikes in the Italian public transport company, which may have caused these problems. There was nothing I could have done about this situation.	
<b>Denial</b>	I do not agree with what you've written. The apartment got cleaned prior to your arrival, bed-linen was washed. No one before has ever complained about this. I find your complaint completely unwarranted.		I do not agree with what you've written. It is a good location and no one before complained about it. In fact, you can easily reach city center and sights by regular public transport. I find your complaint completely unwarranted.	
<b>No response</b>	No response provided		No response provided	

Table 2. Experimental conditions: 2 levels of review negativity x 2 levels of control x 4 response strategies.

## 5.2 Sampling

Survey participants were recruited through the mailing list of a large German university in Fall 2014. As an incentive, 10 Amazon.de gift cards (5 Euro value) were raffled. A total of 545 respondents accessed our online survey, out of which 371 have completed it. Next, 3 observations with session duration less than 5 minutes were dropped. Finally, several observations did not pass one or several ma-



nipulation checks and, therefore, were also excluded: 33 participants who were assigned to the “strongly negative” review found it “not at all” negative; and 19 participants failed to identify the strategy of the host’s response. Hence, a final net sample of 320 respondents was obtained.

71% of the respondents in our sample are female; 30% of participants had experience as a guest when using peer-to-peer accommodation services, but only 3.8% have tried themselves in the role of a host. Based on median values, an average respondent is 24 years old (mean =24.9) with an income of 600-800 Euro per month, and has spent most time of his or her life in Germany. The sample consists to 89% of students, 52.5% have completed secondary education and 32.81% already have a bachelor degree. The most popular fields of study among respondents are languages and culture (28.75%), economics (12.5%), law (4.4%), computer science (3.1%), mathematics (2.8%) and history (2.8%).

### 5.3 Results

Since responses for two contexts were evaluated independently, the effectiveness of random assignment across “high control” (cleanliness) and “low control” (location) treatments has been verified. Mann-Whitney tests revealed that the level of education ( $z = -1.178$ , Prob  $>|z| = 0.2390$ ), study field ( $z = 1.157$ , Prob  $>|z| = 0.2474$ ), occupational status ( $z = 0.574$ , Prob  $>|z| = 0.5658$ ), income ( $z = -0.535$ , Prob  $>|z| = 0.5926$ ), country of living ( $z = -1.353$ , Prob  $>|z| = 0.1760$ ), gender ( $z = -0.158$ , Prob  $>|z| = 0.8744$ ), Airbnb experience as a guest ( $z = -1.124$ , Prob  $>|z| = 0.2609$ ) and as a host ( $z = -0.498$ , Prob  $>|z| = 0.6185$ ) did not differ significantly across two contexts. Further, ANOVA tests have rendered no significant differences between respondents with respect to their initial attitude to the apartment (Prob  $>F = 0.9290$ ), and trust propensity (Prob  $>F = 0.9290$ ). Taken together, the random assignment of subjects to the “high control” and “low control” treatments can be deemed as effective.

To ensure the validity of further analysis, several manipulation checks were performed (Zikmund et al., 2012). First, to test the effectiveness of strategies’ manipulation participants were asked to answer the following questions on a 6-point scale (1=not at all; 6= very much): “In the response to the review, the host tries to ...deny that any issues exist” for the denial strategy; “... blame someone/something else for the situation” for the excuse; and “...apologize for the situation” for the confession / apology strategy. For those who were assigned into “no response” strategy, this question bloc was omitted. Because of the ordinary nature of dependent variable, non-parametric Kruskal-Wallis tests were performed. The results indicate statistically significant difference in answers between strategies for the denial ( $p = 0.0001$ ); confession / apology ( $p = 0.0001$ ) and excuse ( $p = 0.0001$ ) conditions. Thus, for example, respondents assigned to the “denial” condition had stronger beliefs that the host was trying to “deny that any issues exist” than in other conditions. All in all, this suggests that participants perceived treatment condition correctly.

Next, participants’ perception of the context controllability was verified with the help of two statements: “The cause of the incident was in the control of the host” and “The cause of the incident could have been prevented by the host”, measured on a 6-point scale (1=strongly disagree, 6=strongly agree). Results of non-parametric Kruskal-Wallis test indicate that respondents perceived cleanliness issues to be more controllable ( $p = 0.0001$ ) and preventable ( $p = 0.0001$ ), suggesting the effectiveness of this manipulation.

Finally, the manipulation of review negativity was tested by asking on a 5-point scale whether the review was “not at all negative”, “somewhat negative”, “moderately negative”, “very negative” or “extremely negative. Results yielded a significant effect of negativity manipulation ( $p = 0.0001$ ). Taken together, respondents were able to distinguish between moderate and strongly negative review as well as between various strategies, and consider cleanliness issues to be more in host’s control than location, suggesting that the relationships of interest could be further examined.

The results of Shapiro-Wilk W test did not reject that the dependent variable “trusting beliefs” is normally distributed for full sample ( $P > z = 0.43410$ ) and for both “Cleanliness” ( $P > z = 0.62807$ ) and “Location” ( $P > z = 0.98247$ ) contexts. Hence, as part of the data exploration, t-tests were performed to

determine if trust perceptions differ for each strategy, by checking each possible combination of responses for 2 contexts separately (see Table 3).

We found that in “high control” (cleanliness) context the response type of ‘confession / apology’ results in significantly higher levels of trusting beliefs (mean= 3.99) in comparison to all other response strategies. In contrast, in the “low control” (location) context, confession / apology leads to significantly higher levels of trust (mean=4.24) compared to no response (mean= 3.43) and denial (mean=3.30) strategies only. Interesting, however, in this “low control” context, confession / apology strategy is not significantly superior in terms of its impact on trust in comparison to excuse strategy (mean= 3.89).

Strategies		“High control”(cleanliness)			“Low control” (location)		
		t	df	Pr( T  >  t )	t	df	Pr( T  >  t )
confession /apology	no response	5.150	78	0.000	5.1791	69	0.000
	deny	3.358	75	0.001	5.8959	75	0.000
	excuse	5.724	82	0.000	1.884	75	0.063
no response	deny	1.500	83	0.138	-0.7718	72	0.443
	excuse	-1.472	90	0.145	2.4823	72	0.015
deny	excuse	2.701	87	0.008	-3.198	78	0.002

Table 3. Results of t-tests for pair-wise mean comparisons for trusting beliefs towards the host across 4 strategies in 2 contexts.

Moreover, further testing confirmed that no significant differences exist for the average level of trust when no response is provided (mean=3.10) compared to any other response type, i.e. denial (mean=3.37) and excuse (mean=2.81), tested for the “high control” (cleanliness) condition. However, in the “low control” (location) treatment, trusting beliefs associated with the “no response” strategy are significantly lower than those based on excuse only, but not on denial. Finally, “denial” strategy (mean =3.37) produces a significantly higher level of trust than excuse in the “high control” scenario. Conversely, in the “low control” setting denial decreases the level of trust when compared to “excuse”.

To evaluate the relative contribution of different strategies to trusting beliefs, OLS regressions were estimated for two corresponding contexts (see Table 4). We find that the review negativity influences trusting beliefs significantly only in the “high control” (cleanliness) context ( $\beta = -0.67, p < 0.001$ ) (H1 partly supported). In terms of strategies, confession significantly enhances trusting beliefs in the “high control” treatment ( $\beta = 0.98, p < 0.001$ ) and in “low control” treatment ( $\beta = 0.76, p < 0.001$ ) (H2 fully supported). At the same time, excuse has a positive significant influence only in the “low control” scenario ( $\beta = 0.55, p = 0.001$ ) (H4 partly supported), while denial relates to trusting beliefs positively in the “high control” context ( $\beta = 0.44, p = 0.014$ ) (H3 rejected, association in the reverse direction).

As an extension of our results, we additionally analyse the relationship between the strategies and the perception of the host as honest, thereby verifying if the respondents were “buying” the excuse or the denial presented by the host. Measured with the following statement: “I would characterize this host as honest” on a 6-point scale (1=strongly disagree; 6=strongly agree), this variable was transformed for the purpose of instantiation. Specifically, a binary variable was constructed that indicates whether a host was perceived as honest (4-6 points) or dishonest (1-3 points). To check for relationship between a type of response and belief in host’s honesty Chi-square test was conducted revealing significant differences (Table 5).

Dependent Variable: Trusting Beliefs	“High control”(cleanliness), N=165		“Low control” (location), N=144	
	Beta (β)	Beta standardized (b)	Beta (β)	Beta standardized (b)
Negativity of the review	<b>-0.67***</b>	-0.35	-0.12	-0.08
Confession / Apology	<b>0.98***</b>	0.42	<b>0.76***</b>	0.4
Denial	<b>0.44**</b>	0.19	-0.08	-0.04
Excuse	-0.17	-0.08	<b>0.55***</b>	0.3
Initial attitude to the apartment	<b>0.24***</b>	0.27	<b>0.18***</b>	0.21
Propensity to trust	0.01	0.01	<b>0.17**</b>	0.17
Airbnb experience as a guest	<b>-0.31**</b>	-0.15	0.15	0.09
Airbnb experience as a host	0.43	0.08	0.45	0.11
Income	0.04	0.11	0.01	0.02
Amount of travel with a need for housing	-0.05	-0.06	<b>-0.12**</b>	-0.18
Male	0.003	0.001	-0.02	-0.01
Age	-0.03*	-0.14	0.01	0.07
Country	0.16	0.05	0.12	0.04
	R-squared=0.4232		R-squared=0.3539	
	Adj R-squared= 0.3736		Adj R-squared=0.2892	

Table 4. Regression results with trusting beliefs towards the host as a dependent variable. Note: significant at \*\*\* <0.001; \*\*<0.05; \*<0.1 level.

As illustrated in Table 5 and Figure 3, when faced with apologetic response, the overwhelming majority of respondents (69% for “high control” treatment, 84% for “low control” treatment) consider a host to be honest. In the “high control” situation, the denial of a problem makes observers confused, so that half of respondents believe a host and another half does not. Furthermore, excuse strategy appears to be the worst regarding its effect on the perception of honesty in the “high control” setting, as only 25% of respondents agreed with the statement. This suggests that respondents were not “buying” the excuse in this setting. On the contrary, responding to complaints for events with “low controllability”, excuse is interpreted as more plausible, with 70% of participants characterizing the host as honest in this scenario. On the other hand, denying an incident of “low controllability” does not appear to work for the benefit of the host, with 60% evaluating the host as “dishonest”.

Strategy	“High control”(cleanliness)			“Low control” (location)		
	Perception of a host as “honest”		Total	Perception of a host as “honest”		Total
No	Yes	No		Yes		
Confession / Apology	11 (31%)	25 (69%)	36	6 (16%)	31 (84%)	37
Denial	20 (49%)	21 (51%)	41	24 (60%)	16 (40%)	40
Excuse	36 (75%)	12 (25%)	48	12 (30%)	28 (70%)	40
No response	30 (68%)	14 (32%)	44	19 (56%)	15(44%)	34
Total	97	72	169	61	90	151
Chi-square test	Pearson chi2(3) =20.027 Pr = 0.000			Pearson chi2(3) =20.551 Pr = 0.000		

Table 5. Perception of a host as honest depending on the strategy in 2 contexts.

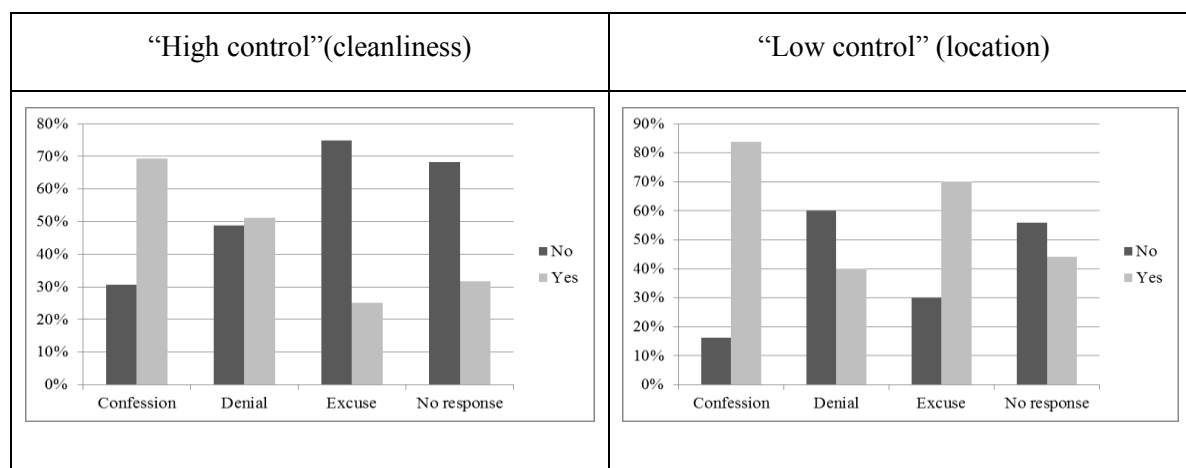


Figure 3. Perception of a host as honest for "high control" and "low control" treatments.

## 6 Discussion and Managerial Implications

This study focused on trusting beliefs of potential consumers of the sharing economy, resulting in a number of interesting findings and potentially substantive implications for online communication activities. In the case of hospitality platforms like Airbnb or 9flats.com this approach may be especially relevant, since their functioning is rooted in the trust between a host and a guest (Lee and Song, 2010, p.1079).

Contrary to the existing literature that reports significant influence of review negativity (Lee et al., 2008; Vermeulen and Seegers, 2009), our study finds only partial support for this claim, providing evidence for the trust-damaging impact of higher review negativity only when the subject of criticism is controllable by a host ( $b=-0.35, p<0.001$ ), e.g. cleanliness of a room, and revealing no significant impact in the case of non-controllable subjects like location. In other words, the degree of the review negativity does not matter in such scenarios: moderate and strongly negative reviews criticizing location were treated similarly with respect to trusting beliefs in our study.

Regression analysis showed that in order to enhance trusting beliefs of a potential customer who is intending to rent a room and faces a review that contains negative information about cleanliness, a confession/ apology or a deny strategy can work. According to standardized beta coefficients, the impact of confession strategy will be nearly twice higher than that of denial ( $b=0.42, p<0.001$  vs.  $b=0.19, p=0.014$ ), both compared to the case when complaint is left without any response. Taking into account the defensiveness of the deny response and that the attempt to promote a "no crisis" attitude may fail (Coombs, 1998, 2006; Weiner, 2000), a confession/ apology is still more advisable. At the same time, if the host applies the excuse strategy and blames others for the unclean room he rents out, no statistically significant effect on trusting beliefs is revealed ( $p=0.305$ ), although the coefficient has a negative sign. One possible reason for this finding could be the fact that respondents perceive the situation in general as controllable by the host and do not believe in the excuse. Experience with peer-to-peer accommodation services and age negatively influences trust meaning that older and more experienced respondents are more suspicious towards the host.

However, when the subject of criticism is beyond the control of the host, e.g. location in our experiment, our analysis suggests that denial of the issue does not yield trust, while confession or excuse with attributing responsibility to a third party increases consumers' trust. Interestingly, the impact of confession strategy ( $b=0.40, p<0.001$ ) is only a little higher than that of excuse ( $b=0.30, p=0.001$ ). This strong positive effect of the excuse which is originally considered to be a defensive strategy

(Coombs, 1998, 2006) on trusting beliefs could be explained by the fact that when the situation is perceived as non-controllable by host, justifications about third parties fault are more readily accepted.

## **7 Limitations**

Considering their preliminary nature, our findings should be interpreted with caution and are subject to several limitations. First, the sample size can be enlarged and diversified. Indeed, consisting mainly of students, opinions of other categories of population are not captured in our study. Second, in this study we have explored the impact of only four main response strategies, including a “no response” option. At the same time, as revealed in the pre-study, hosts may utilize a plethora of other strategies when responding to negative feedback and sometimes a combination of strategies is used within a response. Hence, future studies should explore mixed strategies when, for instance, a formal apology is present, but the responsibility is not admitted. Third, in our experiment all responses were written in a rather neutral tone. Considering recent insights into the effects of discrete emotions, such as anxiety and anger, on the review helpfulness (Yin et al., 2014), one could suggest that a tone of the host’s response, for example, more aggressive vs. neutral, might have an impact on consumer perceptions and decisions. Finally, our experiment presented only one review and one respective response to the respondent. In reality, consumers scan several reviews. As a result, the agreement or disagreement between reviewers can significantly influence their beliefs (Lee and Song, 2010; Lee and Cranage, 2012). Hence, future studies are advised to incorporate a “consensus” factor to extend the current research and to make the experimental setting more realistic.

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