

Review

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Psychological science for a responsible sharing economy

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Abstract

The sharing economy is fueled by trust, which allows strangers to cooperate. To share responsibly, one needs to be aware of the various consequences sharing has on interacting and third parties. When transparency about such consequences is lacking, mutual trust among interacting parties may encourage people to cooperate and share, in turn, creating unintended negative impacts. Psychologists have long studied trust and cooperation, yet few insights from psychological science have been used to understand the sharing economy. Here, we propose that evoking trust may paradoxically increase motivated information processing leading people to share irresponsibly by ignoring the negative consequences sharing has on others. We review three conditions under which evoking trust may lead to irresponsible sharing: ethical blind spots, willful ignorance, and misinformation. We propose that transparent information is key to enable and encourage responsible sharing. More psychological research is needed to better understand how this flourishing, trust-based industry can be shaped to encourage safe, cooperative, and responsible sharing.

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Keywords

Platform economy, Willful ignorance, Responsible sharing, Information, Trust.

Psychologists have long studied cooperation and trust in interactions among strangers and peers. Yet, few insights from psychological science have been used to understand the sharing economy, which is based on trust. Commercial sharing economy platforms, such as Airbnb and Uber, are global matchmakers connecting those who seek and provide services and assets. Trust - 'the willingness to accept vulnerability based upon positive expectations about another's behavior' ([1]; p.395) — is a key prerequisite for the sharing economy. After all, when choosing to stay the night at a stranger's house or carpool with another person, both users and service providers must trust the other's intentions. In addition, all participating users, whether they are travelers finding a holiday home on Airbnb or passengers riding in an Uber car, must trust the platform for accepting only wellintended people into the sharing circle. The mutual trust between those who seek and provide services, which is fostered by sharing platforms, as well as competitive prices and improved search algorithms, are key reasons why sharing economy platforms are on the rise, estimated to add up to €572 billion to the global economy by 2025 [2,3]. Whereas psychology is one of the sciences most knowledgeable about trust, its contribution only amounts to $\sim 2\%$ of the current > 2,000 academic papers on the sharing economy [4,5]. Here, we argue that psychological science is uniquely positioned to understand how the encouragement of trust by sharing platforms may cause not only positive but also negative outcomes to third parties.

Responsible sharing — sharing while considering the consequences to the parties directly involved in the transaction, as well as uninvolved third parties [6] — is essential for enjoying the benefits while minimizing the risks of the sharing economy. On one hand, the benefits include access to a wide range of available services for the users, as well as flexible employment for the providers. On the other hand, risks are associated with 'blurring established lines between consumer and provider, employee and self-employed, or the professional and non-professional provision of services', which raises issues regarding applicable legal frameworks and could lead to the evasion of 'rules designed to preserve the

public interest' ([7]; p.2)8. In essence, those problems are associated with sharing economy participants failing to consider how sharing may negatively influence unrelated third parties. Psychological science can inform platforms, users, providers, as well as policymakers regulating the emerging economy on how to maximize the benefits of sharing while minimizing its risks.

Compared with traditional economic transactions, responsible sharing is especially important in the sharing economy because of expectation gaps between participants — gaps that platforms bridge by fostering trust among users. Consider Airbnb who issues a 'verified' status to hosts, after comparing the name and picture they upload on their Airbnb account with those appearing on their official identity documents. While this verification system is designed to bolster trust between users, recent reports confirm that many Airbnb hosts change their profile picture and name after the verification while retaining their original 'verified' status [8,9]. Those accounts are often a coverup for professional key companies or illegal hotel chains with dozens of listings appearing under the same fake host account. This example illustrates how the trust in the provider, which is evoked by the platform, translates into irresponsible sharing. Even users who are concerned with minimizing the negative consequences of their Airbnb stay may find it challenging to share responsibly because it is difficult to know who they are renting from (i.e. a private owner or a hotel company), whether their host conforms with regulations (e.g. against tax evasion and excessive renting), and how renting influences third parties (i.e. neighbors and the broader community). In other words, the way Airbnb fosters trust among users leads users to expect that providers on the platform are authentic individuals, while sometimes, providers are operating an illegal hotel chain. As such, the facilitation of trust by the platform may lead to an excessive number of interactions (i.e. a larger number than what would be a responsible level of sharing), which has negative consequences for the neighborhood in terms of noise and waste.

In this article, we use insights from psychological science to understand how trust fostered by sharing platforms may lead to irresponsible sharing. We review three conditions under which people are most likely to share irresponsibly and propose that transparent information is key to enable and encourage responsible sharing.

Trust may evoke motivated information processing

Encouraging responsible sharing requires understanding the interplay between three factors psychologists have studied for decades, (1) trust, which is a necessary prerequisite for sharing, (2) concerns about the consequences of one's actions for others, and (3) motivated information processing. Figure 1 shows that people would rarely share when trust between users and hosts is low because trust is a necessary condition for a sharing economy transaction. When trust is established and given that the sanctions for sharing irresponsibly are often weak, selfish people are likely to share irresponsibly because they seek the best deal available regardless of the consequences for others. Prosocial people will also share when trust is high, but given that they care about the potential negative consequences of sharing, they will try to share responsibly. In addition, owing to the potential negative consequences of sharing are blurry and often open for interpretation, the encouragement of trust by the platform may lead prosocial people to engage in motivated information processing. That is, people may try to have the cake - by retaining the idea that they care about negative consequences for others - and eat it too - by getting an attractive deal. That is, when trust is encouraged (and thus, high), prosocial users may not request any further information from providers, either because they believe the presented information to be accurate and complete or engage in motivated information processing. As a consequence, high-trust environments can exacerbate irresponsible sharing among prosocial consumers. Consequently, providing transparent information about the potential negative consequences of sharing can assist prosocial people to overcome their motivated information processing tendencies and share responsibly.





Interplay between trust, sharing, motivated information processing, and transparency.

Recent discoveries in psychological and behavioral sciences highlight the conditions under which people are most likely to share and process information in a motivated way when using sharing economy platforms. Those include, but are not restricted to, (1) ethical blind spots — failing to notice relevant information about the potential negative consequences of sharing, (2) willfully ignoring relevant information about the consequence of sharing, and (3) having access to incorrect information.

Ethical blind spots

People's tendency not to notice the ethical consequences of their decisions, which can, in turn, stimulate unethical behavior, is often referred to as an ethical blind spot [10,11]. Sharing economy users are indeed often *ethically bounded* because they do not recognize the ethical dimensions of their actions [12]. For example, sharing economy users may fail to notice accumulating evidence suggesting excessive Airbnb use in a certain area of the city they are about to visit; hosts may fail to notice the ever-changing city regulations indicating when a permit for short-term home-sharing is required; hosts may also not be aware of the risks of implicit racial bias when deciding to accept or reject guests [13].

A well-known example of ethical blind spots comes from the financial domain. When asked to advise others about potential investment options, most people recommend the option with the highest returns. They do so even though the return is too good to be true, a fact they fail to notice. However, when asked instead to identify which option may be problematic, most participants correctly identify the option with the highest returns [14]. Such ethical blind spots can be more common when trust is fostered. Indeed, when people trust each other, they are less suspicious that something is 'too good to be true' [15]. In the context of the sharing economy, those seeking an attractive deal on Airbnb may not realize that the deal is too good to be true, for example, when the low price offered cannot possibly cover costs associated with required safety regulations. Failing to notice suspiciously attractive deals can be exacerbated by the trust such sharing economy platforms promote.

Recent work in behavioral ethics demonstrates that ethical blind spots can be effectively reduced through educational interventions, such as a video explaining self-serving biases in combination with classroom discussion [16]. Furthermore, eye-tracking studies reveal that there is ample heterogeneity in the decision to behave honestly versus be financially tempted to act dishonestly [17] and that ethical blind spots may be reduced by increasing visual saliency of ethical options [18]. Accordingly, a choice architecture highlighting the visual saliency of ethically-related information can prove useful in reducing ethical blind spots also in environments in which trust is encouraged.

Willful ignorance

Willful ignorance is people's tendency towards 'avoiding information about adverse welfare consequences of selfinterested decisions' [[19]; p.173], which may liberate them to act selfishly. Sharing economy users may be likely to engage in willful ignorance and avoid searching for information about the product they are buying and the negative consequences associated with it. For example, users may not inquire about the labor circumstances of delivery employees arriving at their doorstep or the cleaner they hire using platforms such as Deliveroo, Helpling, and Temper.

Laboratory studies have demonstrated that people willfully avoid free but inconvenient information, such as how choices that maximize personal benefits affect other people [20,21]. In a classic experiment, Dana, Weber and Kuang [20] showed that most people were willing to incur a small loss to ensure a fair outcome for all involved parties in a transparent setting. Nonetheless, when given the chance, 44% of subjects avoided learning the consequences of their action, leading to a 37% increase in the level of selfishness in a non-transparent sharing setting. Most importantly, all subjects who exploited the 'moral wiggle room' by avoiding information acted selfishly.

The phenomenon of willful ignorance has been replicated in the lab [19,22], as well as field [23] settings. For example, Exley [24] showed in an online experiment that information on charity performance such as efficiency measures and overhead costs may serve as a selfserving justification not to give. Furthermore, Nyborg [25] theoretically proved that duty-oriented consumers (i.e. individuals who compare their actual behavior against a moral standard and experience guilt when not meeting that standard) are willing to pay to avoid information about responsibilities. Avoiding information can thus lift the burden of moral responsibility. The degree to which people avoid unpleasant information about consequences for others is captured by information preferences. Ho et al. [26] developed and validated survey scale to measure these information preferences and showed that the trait of information preferences is stable over time but may differ across domains (e.g. finance, personal, and health).

Several methods have been suggested to reduce willful ignorance [27]. For example, Grossman showed that willful ignorance is almost completely eliminated when

information acquisition is the default [28]. When information avoidance is costly, even when the cost is negligible, people are much more likely to seek information [19,29] and become more generous [30]. Vice versa, introducing small monetary incentives for information seeking can significantly decrease willful ignorance [31]. Finally, willful ignorance — measured as the fraction of people avoiding payoff information, as well as the number of self-serving choices — rises significantly under time pressure [32], suggesting that encouraging users to take sufficient time when considering their options may reduce willful ignorance.

Misinformation and disinformation

People sometimes base their decisions and preferences on misinformation: 'false, misleading or unsubstantiated information that is believed to be true' [[33]; p.304]. A related concept is a disinformation, which also includes false information, but in addition, is designed to cause public harm or profit, it adds intention [34]. When users are misinformed or disinformed on sharing economy platforms, for example, when hosts lie to guests about the state of an apartment or when a hotel room is presented as if it is private property to evade taxes, the likelihood of irresponsible sharing increases. Another problem is that providers may leave fake positive reviews for themselves or fake negative reviews for their competitors [35]. Because many users are afraid to damage the reputation of what they think is another individual, the reputation system on sharing platforms may further be skewed [36,37]. This issue could be tackled by changing the setup of online reputation systems or educating users about potential misinformation or disinformation. For example, in mixed-role markets, where users can also provide services and service providers can be users, reputation systems may lead to reputational credits that can be spent on future transactions, regardless of the initial role in which the credits were earned [38]. Recent work demonstrates that information presentation, such as the type of questions [39] or the readability of the text [40], may result in different levels of misinformation acceptance and recognition.

One promising way to protect the general public from misinformation and disinformation is by educating people to recognize it and shield it from it. One way to do so is through the social-psychological version of a 'vaccine'. Van der Linden et al. [41] exposed participants to a weakened version of misinformation about climate change, in combination with a forewarning and clear refutation of the claim. The inoculation messages were tested in an experiment, where participants were asked what they believed to be the scientific consensus with regard to climate change. One group in the experiment was confronted with misinformation, which decreased perceived scientific consensus. The results showed that participants who had been exposed to inoculation messages were less likely to respond to misinformation and that these messages were equally effective across the political spectrum. Recent studies have replicated the effectiveness of inoculation messages in pre-registered [42] and longitudinal experiments [43]. Another way to oppose misinformation is to prime accuracy. Pennycook et al. [44] showed that a simple accuracy task (i.e. 'Do you think this headline is accurately describing something that actually happened?) significantly decreased subsequent sharing of misinformation on social media [45].

Transparency based sharing: challenges and paths forward

To encourage responsible sharing, users need access to trustworthy, fact-checked, clearly presented information — an approach we call *transparency-based sharing* [6]. Information quality can be increased by focusing on regulating platforms and/or motivating endusers. Figure 1 shows that transparency may serve to combat motivated information-processing tendencies and can thus lead people to share more responsibly, even when trust is encouraged. On the regulatory level, it is possible to demand transparent information from companies, which has been applied, for example, to wages [46], the nutritional value of food products [47], and the consequences of smoking on people's health [48]. In particular, regulation can help to combat (1) ethical blind spots, by requiring platforms to highlight the 'ethically relevant information', (2) willful ignorance, by making information avoidance hard or costly, and (3) disinformation and misinformation, by increasing the probability of fact-checking and increasing the punishment of spreading disinformation and misinformation. It should be noted that such regulations should be carefully designed to avoid unwanted side effects, such as an extra layer of bureaucracy or negative effects on motivation (such as when transparency about wages of identifiable employees allows people to find out what their peers earn, which seems to decrease motivation [49]).

On the end user level, one could focus on encouraging people to overcome information barriers themselves. For example, home-sharing platforms could show how many nights per year a certain apartment has been rented, as a fraction of allowed nights. Such information would be useful for users to get a better insight into the consequences of their stay for neighbors. Whereas such design interventions may only have modest effects [50–52], modest effect sizes can have a substantial impact when applied to large samples. More work is needed on identifying the type of information that platforms should be asked to present and the way such information sharing is increased.

Conclusion

In conclusion, the sharing economy is rapidly growing and facilitated by fostering trust among strangers. Psychological science has produced useful knowledge about the processes underlying interpersonal trust. Yet, when platforms foster mutual trust, they may weaken users' vigilance for ethically relevant information (i.e. ethical blind spots) and may lead those who are pro-socially motivated to remain willfully ignorant of negative externalities of sharing. Much promise lies in considering transparency as a path forward in designing sharing economy platforms. Transparent information is essential to allow those who want to share to do so responsibly.

Conflict of interest statement

Nothing declared.

Contribution

Shaul Shalvi Conceptualization; Writing - Original Draft; Writing - Review and Editing

Jantsje Mol Conceptualization; Writing - Original Draft; Writing - Review and Editing; Visualization

Linh Vu Conceptualization; Writing - Review and Editing

Margarita Leib Conceptualization; Writing - Review and Editing

Ivan Soraperra Conceptualization; Writing - Review and Editing

Catherine Molho Conceptualization; Writing - Review and Editing

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