Self Discrepancy, Perceived Privacy Rights, and Contribution in Virtual Communities

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Abstract

Virtual communities enable one to pretend to be a different person or to possess a different identity at little or no cost. Despite the ubiquity of such communities, there is limited theoretical and empirical research on how taking on a different identity is associated with one’s contributive behavior in those communities. Drawing on the social psychology literature, we adopt the concept of self-discrepancy rooted in self-identity and derive an index for self-discrepancy by using the differences between actual and virtual self-identities. Next, we link the self-discrepancy with perceived privacy rights and with the quality and quantity of contribution. An analysis of 299 respondents showed that self-discrepancy significantly influenced perceived privacy rights and indirectly reduced quality and quantity of contribution in virtual communities. Furthermore, sub-group analysis revealed that the effects of self-discrepancy varied depending on whether the virtual community was utilitarian or hedonic.

1. Introduction

A virtual community (VC) can sustain itself for as long as it offers shared resources and its members can benefit from those resources. A community’s resources, whether informational or emotional, are collective goods generated by the members’ contributions. Thus, contribution is a key to predicting a VC’s sustainability. Previous studies have focused on understanding the motivations underlying member contributions, including reputation, altruism, reciprocity, community interest, and professional self-expression [15]. We propose a novel perspective to explain the motivation to contribute that highlights one’s perception of privacy rights. People exercise these rights in an anonymous environment where they can easily hide or alter their real identities. Thus, we posit that perceived privacy rights play a significant role in increasing contribution and in guiding behavior by reducing the fear of social evaluation.

In a VC, anonymity and a lack of social cues enable the individual to create an alternate identity in contrast to his or her actual identity. Taking on a different identity makes it possible to spread false rumors and groundless slander. Conversely, people want to break free from their daily personas, and the alternate identity fostered in a virtual space allows them to freely do as they please, without having to conform to social norms or anxiety about social regulations [21]. We posit that alternate identities may have positive or negative repercussions in VCs; however, little research exists that examines which consequences are caused by taking on a different identity in a VC.

Considering the distinct properties of a VC, in which people easily change their identities at little or no cost, it is imperative to explore how taking on a different identity is associated with people’s contributions to their communities. To this end, we employ the concept of self-discrepancy, from the social psychology theory rooted in self-identity, and develop a theoretical model to predict the quality of the contributions of individual members. Such examination may reveal how best to manage or control members’ virtual identities and anonymous statuses in order to stimulate contributions.

While many critical research questions call for an empirical examination with regard to one’s self-identity and contribution in an online space [5, 16, 25], a systematic theory relating discrepancy among actual and virtual identities, perceived privacy rights, and contribution in a VC is lacking. Furthermore, little research has considered whether the mechanisms underlying one’s self-identity and contributions vary depending on the types of VCs. In this study, we raise the following questions:

(1) How does self-discrepancy between actual-self and virtual-self influence perceived privacy rights?
(2) How do perceived privacy rights influence contribution, especially in terms of quality and quantity?
(3) Do the underlying relationships among self-discrepancy, perceived privacy rights, and contribution vary across different types of VCs?
2. Theoretical background

In this study, we use the term “self-discrepancy” to describe instances in a VC where a person has an alternate identity and acts like a different person, creating a virtual self distinct from his or her actual self. Our point of departure is the difference between the real-life identity (“actual identity”) and the alternate identity represented in a virtual setting (“virtual identity”). In the next section, we will discuss the concepts of self-identity and self-discrepancy in order to infer the consequences of assuming an alternate identity.

2.1 Self-identity

Self-identity is “the individual’s self-appraisal of a variety of attributes along the dimensions of physical and cognitive abilities, personal traits and motives, and the multiplicity of social roles” [27]. Markus (1977) argues that self-identity is the sum total of beliefs one has about oneself, which is directly associated with the term “self-concept” [16]. Self-concept is made up of cognitive molecules called self-schemas: beliefs about oneself that guide the processing of information relevant to the self. Researchers explain the self-concept using hierarchical self-schemas [9, 14] that elucidate how we see ourselves. Theorists have hypothesized that the self includes multiple components, with the primary distinction being between the personal self and the social self. The former refers to the properties that constitute an individual’s learning abilities, while the latter refers to the properties that build an individual’s social relationships.

2.2 Self-discrepancy

Self-discrepancy, however, arises from the mismatch between the ways in which we see ourselves, especially when we perceive that we have different selves. Self-discrepancy theory [11] explains how self-discrepancy can be formed and how it influences an individual’s psychological state. Higgins (1987) argues that people have a psychological structure that helps them understand the different types of negative emotions that they experienced when they hold conflicting beliefs—a discrepancy—about themselves [12]. By applying the notion of self-discrepancy to this study, which attempts to capture the discrepancy between the “actual self” and the “virtual self,” we assume that discrepancy occurs when the attributes associated with one’s self-state (e.g., the actual self) do not correspond with those associated with a different self-state (e.g., the virtual self).

2.3 Perceived privacy rights

Unlike offline community that are based on face-to-face contact, people perceive few status differences, less social pressure, and less fear of retribution in VCs that are based on anonymous computer-mediated communication [7, 24], and this makes it easier for individual members to exercise their privacy rights in VCs. A lack of privacy may negatively affect information sharing processes, and consequently result in a loss of VC members. Research suggests that three types of privacy rights can be exercised under anonymous conditions [21]. More specifically, people perceive possession of privacy rights in a VC when they experience (1) recovery from social injury, (2) catharsis by expressing their emotions freely, and (3) autonomy by trying out new behaviors, engaging in creative activities, or breaking social norms and shedding their inhibitions.

2.4 Contribution

Contribution refers to the extent to which people may be willing to exert themselves on behalf of a community. Almost all VCs rely on voluntary commitment, participation, and contributions; they need visitors to return and members to interact with others in order to maintain the community infrastructure, generate new and updated information, and provide social and emotional support to other members. Regarding member contribution in a VC, research suggests that quantity and quality should be considered equally [22, 26]. As both the quality and quantity of contribution are critical for the sustainability of a VC, neither one should outweigh the other.

3. Research model and hypotheses

We use the concept of self-discrepancy to capture the degree of difference between actual identity and virtual identity. As discussed above, we categorize self-concept into (1) personal self and (2) social self. The former represents the perception of a person’s learning ability (e.g., intelligence, education, expertise), while the latter reflects a person’s social relationships with friends, family, and others (e.g., morality, sociability, and accordance with social norms). Next, we link the two types of self-discrepancy with three dimensions of perceived privacy rights—autonomy, recovery, and catharsis—which are considered
determinants of contribution quality and quantity in our model.

3.1 Antecedents of contribution

Contribution is driven by individual-level calculations of costs and benefits [6]. Writing and posting take time and effort, but they provide benefits, since contributors can conceal personal identities, and confidentiality is maintained through anonymity. Such benefits may cause diverse dysfunctional behaviors, such as humiliation, antagonism, and selfishness, but in the context of a VC, people are more likely to give honest answers or disclose confidential information when they can protect their privacy. Research has suggested that people experience recovery, catharsis, and autonomy as part of their privacy rights [21], and that those privacy rights enable them to focus on the merits of their contribution—as opposed to their status or other social cues—and thus, foster more effective discussion and knowledge contribution [6, 23].

[Hypothesis 1]: Perceived autonomy is positively associated with the quality of contribution.

[Hypothesis 2]: Perceived autonomy is positively associated with the quantity of contribution.

[Hypothesis 3]: Perceived catharsis is positively associated with the quality of contribution.

[Hypothesis 4]: Perceived catharsis is positively associated with the quantity of contribution.

[Hypothesis 5]: Perceived recovery is positively associated with the quality of contribution.

[Hypothesis 6]: Perceived recovery is positively associated with the quantity of contribution.

3.2 Self-discrepancy and perceived privacy rights

The personal self represents the aspects of one’s intelligence, education, and expertise. People alter their identities in VCs. Some pretend to be professionals or gurus, even though they are not fully educated or they have no job in the real world; conversely, some hide their social status or intelligence and act like novices or non-educated people. By taking on a different identity in a VC, one can act freely without the fear of social norms or regulations. Such behaviors allow people to recover from social injury and express their emotions. This is because people usually feel that they can protect themselves from the hurtful remarks of others and recover from negative social experiences by adopting a different persona in a VC. Thus, we derive the following hypotheses:

[Hypothesis 7]: Personal self-discrepancy is positively associated with perceived autonomy.

[Hypothesis 8]: Personal self-discrepancy is positively associated with perceived recovery.

[Hypothesis 9]: Personal self-discrepancy is positively associated with perceived catharsis.

On the other hand, the social self reflects a person’s morality, sociability, and sensitivity to social norms. By changing these aspects in a VC, one is more likely to be honest and to reveal one’s less polished sides due to the lack of restraint by social norms or regulations; this online environment fosters effective discussion [6]. People try out new behaviors and engage in creative activities in their VCs or break social norms and shed their inhibitions. Thus, the greater the extent to which people perceive the discrepancy between their actual and virtual identities, the greater the perception of privacy rights in their VCs.

[Hypothesis 10]: Social self-discrepancy is positively associated with perceived autonomy.

[Hypothesis 11]: Social self-discrepancy is positively associated with perceived recovery.

[Hypothesis 12]: Social self-discrepancy is positively associated with perceived catharsis.

3.3 VC type

Researchers classify VCs into different categories according to their underlying principles or focus. For example, Hargel and Armstrong (1997) [10] indicate that online communities meet four types of participants’ needs: (1) interest, (2) relationship building, (3) transaction, and (4) fantasy. More broadly, needs are commonly classified into two types: utilitarian and hedonic [3]. Utilitarian needs are related to obtaining information, whereas hedonic needs are related to fun, enjoyment, and pleasure [20, 26]. Accordingly, we classify VCs into the two categories: utilitarian VC and hedonic VC. The online community of book reviewers and consumers on Amazon serves as an example of utilitarian VC. Community members have common interests in particular books and are interdependent because the members who consume...
rely on reviewers to post reviews that can inform their purchase decisions, while the members who review rely on other members for peer recognition in the form of helpful votes.

Game communities in the Secondlife serve as an example of hedonic VCs, where people seek more fun and fantasy. For example, these VCs allow users to meet, chat, play games and meet their recreational needs. The two types of community users have different needs; therefore, the underlying mechanisms that operate for user contribution in the different types of VCs should be different. Thus, we derive the following hypothesis:

[Hypothesis 13]: The relationships among self-discrepancy, perceived privacy rights, and contribution vary along with the types of VCs.

4. Method

To test the proposed research model, we adopted the cross-sectional survey method for data collection and examined our hypotheses by applying the partial least squares (PLS) method to the collected data. We chose PLS from several other tools (e.g., AMOS, LISREL) because it is more suitable when the objective is causal predictive testing in situations of low theoretical information, as opposed to testing an entire theory, and because it is appropriate for the early stages of theory development [1, 2]. Given that this study is an early attempt to develop a theoretical model that predicts the influence of multi-identity on one’s psychological state and contribution behavior, PLS is appropriate. The individual is the unit of analysis for this study.

4.1 Measurement

Based on the theoretical framework presented above, new measures of self-discrepancy and perceived privacy rights were developed. To measure self-discrepancy, we adapted and modified items from Marsh et al.’s Tennessee Self-Concept Scale (TSCS) and Marsh et al.’s Self-Description Questionnaire (SDQ) [17, 18]. Based on these two methods, we derived several scales to measure specific aspects regarding self-concept. First, using seven items to measure self-concept, we asked the respondents to answer the question, “Who are you in the real world?” Second, we asked, “Who are you in your VC?” To capture the discrepancy between actual-self and virtual-self, we derived a numerical index representing self-discrepancy by calculating the difference between actual-self and virtual-self.

For the measurement of perceived privacy rights, we used the privacy function factors proposed by Pedersen [21]. The function factors for perceived privacy rights are categorized into three sub-dimensions: recovery, catharsis, and autonomy. The responses to the questions in these categories were assigned scores from one to five. To measure the quality of contribution, items were adapted from Chiu et al.’s quality of knowledge scale [3]. To measure the quantity of contribution, we asked the respondents how often they made postings and replied to others’ postings. The measurement items are shown in Table 1.

4.2 Data collection

A web survey was conducted to test the proposed model proposed above. The sample population for this study comprised of panel members of an Internet survey company. E-mail messages were sent to the people selected by a stratified sampling method. They were solicited to visit a website for the survey. To filter the proper respondents, we first used the filtering question, “Are you now a member of a virtual community?” If a respondent answered “no,” then the survey did not proceed. We asked the respondents to select one VC in which they were engaged as an active member. Next, we asked questions to measure perceived self-identity, perceived privacy rights, and behaviors associated with contribution in their VCs. To test our hypotheses, we used 299 questionnaires from 378 respondents who started to answer the survey. According to the results of the survey, 171 respondents answered that their VCs are related to games and socializing; thus, we categorized them as hedonic VC users. The remaining 128 respondents are members of VCs related to information sharing or business-related VCs; thus, we categorized them as utilitarian VC users. Table 2 provides an overview of the respondents’ characteristics. The results of independent sample t-test indicate that there are no significant differences attributed to gender, age, education, duration of membership, and usage hours per day between the two types of virtual communities (VCs).

5. Results

5.1 Measurement model

Internal consistency was examined using the composite scale reliability index developed by Fornell and Larcker [8], which is a measure similar to Cronbach’s alpha. All reliability measures were 0.8 or higher, which is well above the recommended level of 0.7, indicating adequate internal consistency. Discriminant validity was assessed by comparing the correlation between the two constructs and the
respective Average Variance Extracted (AVE). For each construct, the square root of the average variance extracted should exceed the construct’s correlation with every other construct. This condition of discriminant validity is upheld in our study, as shown in Table 3.

As shown in Table 4, we identified two different sub-dimensions of self-discrepancy. This categorization is consistent with the theory of self-concept rooted in social psychology. The measurement items DIS 3, 4, 5 are related to a person’s personal learning ability (e.g., intelligence, education, expertise). On the other hand, DIS 1, 2, 6 refer to a person’s social aspects (e.g., morality, sociability, and social norms). DIS 7 (social status) was not included in our final analysis because of its low loading value. We also eliminated one item from the catharsis scale (CAT3) because of low loading value. Table 3 shows the final items and loadings analyzed by factor analysis.

To measure the discrepancy between actual-self and virtual-self, we adapted and modified items from the Tennessee Self-Concept Scale (TSCS) and Self-Description Questionnaire (SDQ). In the final analysis, we derived the numerical index representing self-discrepancy by calculating the difference between actual-self and virtual-self. All items are answered with a 5-point Likert Scale. The scale used for each item measures “Strongly Disagree” to “Strongly Agree” unless otherwise indicated in the above table. (*): deleted item in the final analysis.
Table 2. Results of Testing Discriminant Validity Using AVE

<table>
<thead>
<tr>
<th>Item</th>
<th>Category</th>
<th>Total Sample</th>
<th>Utilitarian VC</th>
<th>Hedonic VC</th>
<th>T-test between Two Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Frequency</td>
<td>Ratio</td>
<td>Frequency</td>
<td>Ratio</td>
</tr>
<tr>
<td>Gender</td>
<td>1. Male</td>
<td>158</td>
<td>53%</td>
<td>54</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td>2. Female</td>
<td>141</td>
<td>47%</td>
<td>74</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>299</td>
<td>100%</td>
<td>128</td>
<td>100%</td>
</tr>
<tr>
<td>Age</td>
<td>1. &lt;20</td>
<td>12</td>
<td>4%</td>
<td>6</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>2. 20-29</td>
<td>75</td>
<td>25%</td>
<td>42</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>3. 30-39</td>
<td>80</td>
<td>27%</td>
<td>37</td>
<td>29%</td>
</tr>
<tr>
<td></td>
<td>4. 40-49</td>
<td>80</td>
<td>27%</td>
<td>24</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>5. &gt;50</td>
<td>52</td>
<td>17%</td>
<td>19</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>299</td>
<td>100%</td>
<td>128</td>
<td>100%</td>
</tr>
<tr>
<td>Education Level</td>
<td>1. Primary</td>
<td>3</td>
<td>1%</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>2. Secondary</td>
<td>9</td>
<td>3%</td>
<td>3</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>3. College (2 year)</td>
<td>64</td>
<td>21%</td>
<td>32</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>4. University (4 year)</td>
<td>191</td>
<td>64%</td>
<td>81</td>
<td>63%</td>
</tr>
<tr>
<td></td>
<td>5. Graduate School</td>
<td>32</td>
<td>11%</td>
<td>10</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>299</td>
<td>100%</td>
<td>128</td>
<td>100%</td>
</tr>
<tr>
<td>Duration of Membership</td>
<td>1. &lt;1 month</td>
<td>11</td>
<td>4%</td>
<td>6</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>2. 1-3 months</td>
<td>39</td>
<td>13%</td>
<td>17</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>3. 6-12 months</td>
<td>41</td>
<td>14%</td>
<td>20</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>4. &gt;12 months</td>
<td>208</td>
<td>70%</td>
<td>85</td>
<td>66%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>299</td>
<td>100%</td>
<td>128</td>
<td>100%</td>
</tr>
<tr>
<td>Usage of VC per day</td>
<td>1. &lt;10 minutes</td>
<td>31</td>
<td>10%</td>
<td>14</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>2. 10-30 minutes</td>
<td>116</td>
<td>39%</td>
<td>54</td>
<td>42%</td>
</tr>
<tr>
<td></td>
<td>3. 0.5-1 hour</td>
<td>75</td>
<td>25%</td>
<td>27</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>4. 1.5-5 hours</td>
<td>29</td>
<td>10%</td>
<td>12</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>5. 1.5-2 hours</td>
<td>20</td>
<td>7%</td>
<td>7</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>6. &gt;2 hours</td>
<td>28</td>
<td>9%</td>
<td>14</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>299</td>
<td>100%</td>
<td>128</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 3. Results of Testing Discriminant Validity Using AVE

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Mean</th>
<th>S.D.</th>
<th>C.R</th>
<th>AVE</th>
<th>Correlations</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Personal Self-discrepancy</td>
<td>0.365</td>
<td>0.693</td>
<td>0.825</td>
<td>0.767</td>
<td>0.876</td>
</tr>
<tr>
<td>Social Self-discrepancy</td>
<td>0.495</td>
<td>0.757</td>
<td>0.778</td>
<td>0.717</td>
<td>0.494</td>
</tr>
<tr>
<td>Recovery</td>
<td>2.978</td>
<td>0.757</td>
<td>0.908</td>
<td>0.703</td>
<td>-0.297</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3.215</td>
<td>0.703</td>
<td>0.856</td>
<td>0.764</td>
<td>-0.214</td>
</tr>
<tr>
<td>Catharsis</td>
<td>3.513</td>
<td>0.670</td>
<td>0.869</td>
<td>0.862</td>
<td>0.084</td>
</tr>
<tr>
<td>Quality of Contribution</td>
<td>3.196</td>
<td>1.230</td>
<td>0.906</td>
<td>0.803</td>
<td>0.034</td>
</tr>
<tr>
<td>Quantity of Contribution</td>
<td>3.485</td>
<td>0.600</td>
<td>0.942</td>
<td>0.764</td>
<td>-0.182</td>
</tr>
<tr>
<td>Hedonic VC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Personal Self-discrepancy</td>
<td>0.316</td>
<td>0.699</td>
<td>0.703</td>
<td>0.922</td>
<td>0.960</td>
</tr>
<tr>
<td>Social Self-discrepancy</td>
<td>0.447</td>
<td>0.680</td>
<td>0.942</td>
<td>0.764</td>
<td>0.389</td>
</tr>
<tr>
<td>Recovery</td>
<td>3.068</td>
<td>0.726</td>
<td>0.825</td>
<td>0.767</td>
<td>-0.369</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3.309</td>
<td>0.596</td>
<td>0.873</td>
<td>0.800</td>
<td>-0.23</td>
</tr>
<tr>
<td>Catharsis</td>
<td>3.493</td>
<td>0.648</td>
<td>0.927</td>
<td>0.875</td>
<td>0.07</td>
</tr>
<tr>
<td>Quality of Contribution</td>
<td>3.466</td>
<td>0.597</td>
<td>0.920</td>
<td>0.949</td>
<td>0.117</td>
</tr>
<tr>
<td>Quantity of Contribution</td>
<td>3.249</td>
<td>1.202</td>
<td>0.915</td>
<td>0.798</td>
<td>-0.098</td>
</tr>
</tbody>
</table>

* self-discrepancy = the value of actual-self minus the value of virtual-self, the minimum value of self-discrepancy is -2 and maximum value is 3.33
5.2 Test of Structural Model

Figure 2 shows the results of the test of the hypothesized structural model for the total sample (n=299). The results of the PLS suggest that three dimensions of Perceived Privacy Rights we suggested in this study have significant effects on Quality and Quantity of Contribution. Autonomy and Recovery positively influence Quality and Quantity of Contribution, supporting H1, H2, H3 and H4. Contrary to our expectation, Catharsis negatively influences Quality of Contribution and has no significant effect on Quantity of Contribution, rejecting H5 and H6. On the other hand, the results show that both Personal Self-discrepancy and Social Self-discrepancy negatively influence Autonomy and Recovery while they do not have any significant influence on Catharsis.

In this study, the VC type was used as a global moderator. To increase understanding of the moderating role that the VC type might play, the base model for subgroups of the sample (i.e., utilitarian vs. hedonic VC) were analyzed. Figure 3 shows the results of the test of the hypothesized structural model for utilitarian VC users (n=128) and hedonic VC users (n=171). In utilitarian VC, the results of analysis show that Personal Self-discrepancy negatively influence Recovery, which positively increases Quantity of Contribution. Catharsis negatively influences Quality of Contribution. By contrast, in hedonic VCs, the results show that Recovery increases Quality of Contribution while Autonomy increases Quantity of Contribution. Consistent with utilitarian VCs, Catharsis negatively influences Quality of Contribution. On the other hand, Personal Self-discrepancy negatively influences Recovery, while Social Self-discrepancy negatively influences Autonomy and Recovery. However, it is notable that these relationships are weak (p<0.1).
6. Discussion, implications and limitations

Relatively little attention has been paid to the role of self-identity in a VC. The objective of this study was to add to the understanding of self-identity and the influences of identity discrepancy between actual-self and virtual-self on one’s perceived privacy rights and contributive behavior in a VC. Accordingly, we set out to develop a theory-driven multi-dimensional measure of self-discrepancy and perceived privacy rights that included the full breadth of the construct. The results of the empirical study reveal that the degree of self-discrepancy between actual-self and virtual-self negatively influences perceived privacy rights. The major findings of this research are follows. First, among the three dimensions of perceived privacy rights, we found that autonomy and recovery enhanced not only the quality of contribution but also the quantity of contribution. The result implies that the more people feel that they can recover from social injury and can try out new behaviors, engage in creative activities, or break social norms and shed their inhibitions in their VCs, the more they will contribute themselves to their VCs in terms of quality and quantity. However, it is surprising that catharsis reduces the quality of contribution. This result implies that the more people express their emotions freely, the less relevant and accurate information or knowledge they contribute to their VCs. Second, social self-discrepancy, which represents the difference between actual-self and virtual-self in terms of morality, sociability, and social norms, exerts a significant negative influence on recovery and autonomy in the total sample, while it does not have a significant influence on autonomy in utilitarian VCs. Conventional wisdom tells us that people perceive a higher level of privacy rights in VCs when engaging in social behaviors without any constraints (e.g., social norms, moral pressure, and regulations). Surprisingly, the results of this study indicate that the participants did not perceive a high level of privacy rights reflecting catharsis, recovery, or autonomy, even though they created different selves and engaged in socially undesirable behaviors in a VC. The results imply that people who pretend to be different from their actual selves by engaging in socially undesirable behaviors under their alternative identities are more likely to suffer lower levels of psychological wellbeing and thus experience lower levels of perceived privacy rights (especially recovery) than others. Based on the results of this analysis, we can explain the dysfunctions of social self-discrepancy in VCs.

Third, personal self-discrepancy significantly decreases the levels of perceived recovery and autonomy in total sample. The negative relationship between personal self-discrepancy and autonomy is disappeared in hedonic VCs. This result implies that those who pretend to be a different people in terms of intelligence, education, or expertise also indirectly debase the quality and quantity of their contribution by decreasing perceived recovery.

These findings should be interpreted in light of the study’s limitations. The first limitation is related to the self-reported, perception-based measure that was employed for capturing actual and virtual identities. Future research may pursue an alternative route to the conceptualization and operationalization of multi-identity. Second, it should be mentioned that in this
study, the quality of contribution is conceptualized as a latent construct with reflective indicators. Although our view of the quality of contribution appears reasonable and consistent with past IS research, the results of our study should be compared carefully with those based on objective data [e.g., 20]. Finally, we did not include the aspect of self-attributes such as confidence, belief, and trust. We suggest that future research consider those aspects to examine the effects of multi-identity on a VC. Such aspects may be related to self-esteem, which has been suggested as a critical aspect of the self. An examination of the relationship between multi-identity and self-esteem would be a worthwhile research endeavor.

This study holds several implications for the academic world. First, the concept of self-discrepancy studied in offline environments was applied to an online setting. Furthermore, its impact on one’s perceived privacy rights which represent one’s psychological state in a VC, was empirically examined. Although many researchers have raised issues related to identity in virtual spaces [14], little research has quantified the concept and investigated it using a large sample.

Second, we extend the self-concept to the virtual self by applying the conventional self-discrepancy theory to the VC context. The results of this study empirically show that self-discrepancy between actual and virtual identities significantly reduces autonomy and recovery as part of perceived privacy rights, which are critical stimulators of the quality and quantity of contribution. This understanding of the dysfunctions of self-discrepancy in a VC can potentially shed light on collaboration among virtual teams or communities of practice.

Third, this research contributes to the development of VC research by corroborating the fact that the three dimensions of perceived privacy rights—recovery, catharsis, and autonomy—work in tandem to influence the quality and quantity of contribution. Even though several scholars have argued the importance of individual members’ psychological states and motivations to contribute, there is a lack of empirical evidence to support this. Our findings on the important effects of self-discrepancy on perceived privacy rights and contribution in VCs open up rich and exciting opportunities for theoretical extensions of the present model and practical development of new VC features. The fundamental motivation for an individual to create different identities in online settings merits further investigation.

From the pragmatic perspective, business organizations are trying to generate value by extensively investing their resources in developing the infrastructure for VCs. For example, organizations rely on customer-based communities to increase loyalty and to allow the customers to participate in product development. In some cases, organizations are eager to facilitate knowledge sharing among employees and foster new ideas and innovations [4].

The results of this study offer several key implications for practice. First, our findings offer insight into the facilitators and inhibitors of contribution, showing that each sub-dimension of perceived privacy rights has a different effect on the quantity and quality of contribution. In particular, it is notable that catharsis has a negative influence on the quality of contribution. In this regard, we suggest that VC moderators should monitor whether members let their feelings dissipate without any controls, while facilitating members to perceive higher levels of autonomy and recovery.

Second, the results point to the self-discrepancy between actual-self and virtual-self as a significant factor that has implications for individuals’ contribution in VCs. The ability to assume a different identity is one of the most common features of VCs, and the important pragmatic guidelines regarding this matter remain unclear. We suggest that community design supporting effective identity verification and the control of identity change will lead to the success of VCs.

Finally, we point out the implications of our results for VC managers. This research shows that the self concept consists of two sub-aspects: personal and social selves. Currently, many VCs have a compensation mechanism for personal aspects, such as expertise or skill. However, compensation for the ratings in terms of social self has not been emphasized. Thus, we propose that a device that can assess an individual’s morality, sociability, social norms and compensation mechanisms for a positive social self must be developed. Through such a device, individuals can form a positive virtual self and ultimately contribute to improving the quality and quantity of contribution.

7. Conclusion

Our knowledge of multi-identity in VCs is severely limited compared with what we know about the dynamics of VCs. This study presents a conceptual framework that highlights the concept of self-discrepancy between actual and virtual identities, assuming that they may influence individuals’ psychological states and contribution quality in VCs. Our findings help resolve the conflicting views on the effects of multi-identity in a VC. Furthermore, the results suggest that VC managers should pay more
attention to the negative influences exerted by multi-identity on the quality of contribution, thereby controlling the need to create alternative identities in VCs. We hope that more research will be conducted on this underexplored area of multi-identity and that our theoretical framework will serve as a useful conceptual tool for such endeavors.

8. References