Adolescents’ Reply Intent for Sexual Disclosure in Cyberspace: Gender Differences and Effects of Anonymity and Topic Intimacy

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ABSTRACT

This study examined the effects of anonymity and topic intimacy on adolescents’ reply intent for cyber partners’ sexual disclosure on the Internet. Two hundred thirty-seven Taiwanese adolescents with sexual self-disclosure experiences on the Internet participated in an experimental study. Regardless of anonymity and topic intimacy, male adolescents were more willing than females to respond to cyber friends’ sexual disclosure. The higher the anonymity was, the higher the reply intent for sexual self-disclosure. Participants exhibited higher reply intent when cyber friends self-disclosed sexual topics with higher intimacy. However, the effect of topic intimacy was moderated by anonymity. Topic intimacy displayed prominent influence on adolescents’ reply intent in responding to cyber friends’ sexual disclosure only when their disclosing condition was under moderate and high anonymity. Implications and future directions are discussed.

INTRODUCTION

HUMAN SEXUALITY on the Internet is a growing area of research in social science. Only a few studies have addressed adolescents’ cybersex. The latest research conducted by Chiou and Wan explored gender differences of sexual self-disclosure and the interplay of cyberspace and real life on that among adolescents. However, how adolescents respond to sexual disclosure in cyberspace is still unknown. The present study examined adolescents’ reply intent for sexual self-disclosure on the Internet in terms of gender differences and the effects of anonymity and topic intimacy on their willingness for corresponding self-disclosure.

Gender differences in Internet sexuality are a critical issue in the psychology of the Internet. Previous studies also show gender differences in online sexual activities, sexual exploration, and expression of Internet sexuality. Chiou and Wan proposed that male adolescents appear to be more active in Internet sexuality than females. Investigating the gender differences in sexual self-disclosure may provide insights into adolescents’ sexual attitudes in contemporary cyberspace. Personal identification on the Internet is highly anonymous. Anonymity can produce a deindividuated state that may further bring about disinhibition of antinormative behavior. In cyberspace, individuals might be bolder about engaging in sexual self-disclosure than they are in real life. Therefore, it was predicted that adolescents would be more willing to self-disclose sex-
ual information when their identities on the Internet are highly anonymous. From the perspective of impression management, Wallace pointed out that most people would properly modify their self-presentation on the Internet. When facing cyber partners’ sexual self-disclosure in cyberspace, individuals may present themselves in a liberal or conservative manner in order to obtain further interaction. Adolescents’ corresponding to others’ sexual self-disclosure may provide information about their self-presentation as well as their strategy of impression management on Internet sexuality.

METHODS

Participants and design

The participants consisted of 237 youth and late adolescents from southern Taiwan (122 males; ages 15 to 24 years, $M = 19.63$, $SD = 2.22$) who, according to a screening survey on Internet usage, had sexual self-disclosure experiences in cyberspace. They were submitted to a (gender: male vs. female) $2$ vs. (sexual self-disclosure experiences in cyberspace. They were submitted to a (gender: male vs. female) $2$ (gender: male vs. female) $\times 3$ (anonymity: high vs. medium vs. low anonymity) $\times 3$ (topic intimacy: high vs. medium vs. low) mixed factorial design. Gender was treated as a subject variable, anonymity was manipulated between subjects, and topic intimacy was manipulated within subjects.

Procedure

This study was conducted in small sessions of three participants per session on average. Participants were seated at least one seat apart in order to reduce distraction. The study was coached as an investigation of adolescents’ self-presentation in cyberspace for disguising real purposes. Participants were presented with hypothetical cyber messages. Among these messages, three of them were sexual messages with varying levels of topic intimacy. To minimize demand characteristics, the three sexual messages were incorporated with and interspersed among six messages covering a broad range of popular topics in cyberspace (professional sports, cyber friendship, academic work, recreation, pets, etc.).

Participants were given sufficient time to read the messages. They were then asked to imagine how they would respond to each message through the Internet if they received it from cyber friends under one of three levels of anonymity for their disclosing condition for measuring their reply intent. After that, manipulation check was conducted. Participants rated the perceived intimacy of each topic on a 1 (not at all) to 11 (very high) scale and evaluated how they felt themselves seen or recognized as an identified individual on a 1 (very likely) to 11 (least likely) scale under their assigned disclosing condition.

Topic intimacy

The Online Sexual Self-Disclosure Scale for Adolescents (OSSSA), developed by Chiou and Wan, consisted of 15 sexual topics with varying levels of topic intimacy on an 11-point scale. Three different levels of intimacy of sexual topics chosen from the OSSSA were employed in which sexual orientation ($Mdn = 2.0$) was a low-intimacy topic, venereal disease ($Mdn = 5.0$) was a medium-intimacy topic, and paraphilias ($Mdn = 8.0$) was a high-intimacy topic. According to a pilot survey on the chat rooms’ discussions and Web search engine, three sexual messages corresponding to the chosen topics were determined. Each message consisted of three sentences in which were greeting, self-disclosure, and correspondence invitation. Equivalent space of these messages was employed for controlling possible confounding from amount of information. Manipulation check indicated that participants’ perceived paraphilias as the highest intimacy topic ($M = 8.22$, $SD = 1.48$) and sexual orientation as the lowest intimacy topic ($M = 2.64$, $SD = 1.07$), with the perceived intimacy of venereal disease in between ($M = 4.64$, $SD = 1.20$, linear trend $F[1, 236] = 2595.04, p < 0.001, \eta^2 = 0.92$).

Anonymity

According to a preliminary study ($N = 146$) on adolescents’ evaluations on the anonymity of disclosing conditions, three conditions with varying levels of anonymity were chosen: web camera (low), personal photo (medium), and nickname (high). The participants were randomly assigned to one of the three levels of anonymity when they were asked to rate their reply intent for cyber friends’ sexual disclosure. As to manipulation check, a linear trend was obtained, which indicated that perceived anonymity was highest in the nickname condition ($M = 8.30$, $SD = 1.40$) and lowest in the web camera condition ($M = 2.77$, $SD = 1.10$), with the personal photo condition in between ($M = 4.66$, $SD = 1.13$, $F[1, 234] = 816.52, p < 0.001, \eta^2 = 0.76$).

Dependent measure

With respect to participants’ reply intent for sexual disclosure on the Internet, they were asked to rate their willingness for corresponding self-disclosure when they receive cyber friends’ sexual self-disclosure on each topic. Their responses of reply intent were assessed on a 1 (least likely) to 11 (very
likely) scale. Higher scores indicated that participants exhibited higher intent in corresponding to cyber friends’ sexual disclosure. The internal consistency (Cronbach’s α) across the three sexual topics was 0.74 in the present data.

RESULTS

Participants’ data (see Table 1) of reply intent for cyber friends’ sexual self-disclosure were submitted to a mixed factorial ANOVA model in which gender and anonymity were treated as between-subjects factors and topic intimacy was treated as a repeated-measure factor.

A significant main effect of gender ($F[1, 231] = 9.11, p < 0.001, \eta^2 = 0.04$) was found, which indicated that male participants ($M = 4.48, SD = 0.20$) exhibited higher reply intent for corresponding self-disclosure when receiving cyber friends’ sexual self-disclosure than did females ($M = 3.63, SD = 0.20$). Moreover, this tendency was not moderated by anonymity ($F[2, 231] = 1.13, ns$) and topic intimacy ($F[2, 462] = 1.80, ns$).

The main effect of anonymity was significant ($F[2, 231] = 11.00, p < 0.001, \eta^2 = 0.09$). Further trend analysis yielded a significant linear trend indicating that participants’ reply intent for sexual self-disclosure was highest under the high-anonymity condition ($M = 4.68, SD = 0.24$) and lowest under the low-anonymity condition ($M = 3.14, SD = 0.24$), with the moderate-anonymity condition in between ($M = 4.33, SD = 0.25; F[1, 234] = 10.92, p < 0.001, \eta^2 = 0.09$).

ANOVA also revealed a significant main effect of topic intimacy ($F[2, 462] = 17.57, p < 0.001, \eta^2 = 0.07$), and it revealed that topic intimacy influenced participants’ reply intent for sexual disclosure. Furthermore, a linear trend was obtained ($F[1, 236] = 11.72, p < 0.001, \eta^2 = 0.12$), which indicated that participants’ reply intent was highest when cyber friends disclosed a high-intimacy topic ($M = 5.31, SD = 2.90$) and greater than for the topics with medium intimacy ($M = 3.97, SD = 2.39$) and low intimacy ($M = 3.86, SD = 2.73$). More important, a significant interaction of anonymity and topic intimacy was found ($F[4, 462] = 4.28, p < 0.01, \eta^2 = 0.04$). Followup analyses showed that the main effect of topic intimacy was not significant under the low anonymity condition ($F[2, 156] = 0.14, ns$). However, the main effect of topic intimacy were prominent for the medium anonymity condition ($F[2, 156] = 11.69, p < 0.001, \eta^2 = 0.13$) and for the high anonymity condition ($F[2, 156] = 16.03, p < 0.001, \eta^2 = 0.17$) respectively. A three-way interaction was not observed in the present data ($F[4, 462] = 0.98, ns$)

DISCUSSION

The present study found that male adolescents were more likely than females to respond to cyber friends’ sexual disclosure, which was in accordance with the previous findings related to the gender difference of sexuality. Moreover, gender differences in reply intent for sexual disclosure were not contingent upon anonymity or topic intimacy. Previous studies found that compared to males, females are more willing to offer deeper self-exposure, particularly about intimate topics. Data in the present study showed that, on the contrary, male adolescents’ self-disclosed sexuality in a more liberal manner than females. In other words, male adolescents appear to be more active than females in exchanging sexual self-disclosure with cyber friends. Compared to male adolescents, females tend to be more constrained or repressed regarding their sexuality even in the anonymous and private cyberspace.

<table>
<thead>
<tr>
<th>Table 1. Reply Intent Scores by Gender, Anonymity and Topic Intimacy</th>
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<tr>
<td><strong>Gender by anonymity</strong></td>
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<tr>
<td></td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Low anonymity ($n = 38$)</td>
</tr>
<tr>
<td>Medium anonymity ($n = 45$)</td>
</tr>
<tr>
<td>High anonymity ($n = 39$)</td>
</tr>
<tr>
<td>Female</td>
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<tr>
<td>Low anonymity ($n = 41$)</td>
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<tr>
<td>Medium anonymity ($n = 34$)</td>
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<tr>
<td>High anonymity ($n = 40$)</td>
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Participants’ reply intent was rated on an 11-point scale.
The present study found out that adolescents exhibited higher reply intent for sexual disclosure as anonymous level increased. The finding was congruent with the previous arguments regarding the effect of anonymity on users’ self-presentation in cyberspace, and it also indicated that deindividuation effect would play an important role in adolescents’ sexual self-disclosure on the Internet. The finding about topic intimacy showed that adolescents’ reply intent for sexual disclosure increased as the intimacy of partners’ topics of sexual disclosure increased. From the perspective of impression management in social psychology, it seemed to reveal that adolescents tend to adopt a reciprocal strategy in responding to cyber friends’ sexual disclosure. However, an interaction of anonymity by topic intimacy was found. The results indicated that adolescents appear to adopt a conservative strategy in responding to cyber friends’ sexual disclosure when their identification could be recognized. A reciprocal strategy would be employed only when adolescents felt they could not be seen or recognized as an identified individual in cyberspace.

It should be noted that there are limitations to the present study. The participants are Taiwanese adolescents. Culture relativity in the development of sexual attitudes and practices may exist across countries. Any attempt to apply or generalize the present findings should take culture differences of sexual concepts and values into consideration. In addition, caution is needed when considering cohort or generation effect. The research sample consisted of a particular cohort, which might limit the generalizability of the results.

As to future directions, gender differences of adolescents’ exchanging sexual self-disclosure with cyber friends were found in the present study. In order to understand where gender differences come from, future studies may further explore how socialization factors (e.g., gender roles, sex stereotypes, sexual repression, religiosity, sexist attitudes) affect adolescents’ sexual interaction in cyberspace. The findings also indicated that anonymity impacts adolescents’ reply intent for sexual disclosure in cyberspace. In any attempt to examine the effect of intervention toward online sexual activities or pathological online sexuality (e.g., sexual transaction, sexual abuse, or sexual crimes), deindividuation effect is critically important. Finally, future research may explore the impact of interactive gender on adolescents’ reply intent for sexual disclosure and examine whether or not pair relationships of different gender display different features with regard to impression management.

In conclusion, male adolescents were more likely than females to reply to cyber friends’ sexual self-disclosure through the Internet. High anonymous condition and low topic intimacy would facilitate adolescents’ willingness in exchanging sexual self-disclosure with cyber friends. Anonymity and topic intimacy might interact to play as crucial mediators of adolescents’ engagement in Internet sexuality. The government and Web site administrators should cooperate in promoting a grading system of sex Web sites by adopting authentication of topic intimacy, which would prevent pathological engagement as well as protect adolescents from receiving inappropriate information in Internet sexuality.

REFERENCES


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