THE VALIDITY AND RELIABILITY OF THE TURKISH VERSION OF THE SEXUAL SELF-CONSCIOUSNESS SCALE*

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ABSTRACT

The purpose of this study was adapted Sexual Self-consciousness Scale. This study involved 336 married individuals. In scale adaptation study, structure validity was used for examine the validity of the scale. For structure validity, explanatory and confirmatory factor analyze were used. Cronbach’s Alpha formula was used for determine the reliability of the scale. Furthermore, t-test and corrected item-total correlation were used for item analysis. The original two factor structure of the scale was reproduced which showed that the Turkish form is close to the original, explaining 53.58% of the total variance using factor analysis. Confirmatory factor analysis revealed a significant chi-square result ($\chi^2 = 108.13$, df= 53, $p = 0.00$); RMSEA fit indices=0.080; AGFI= 0.85; CFI= 0.92; NNFI= 0.90; GFI= 0.90; and SRMR= 0.079. The internal consistency coefficient for the complete scale is 0.84; for the Sexual Embarrassment subscale 0.83; and for the Sexual Self-focus subscale 0.79. T-test results are significant, which results are related to the difference of lower 27% and upper 27% groups, that established in accordance to the total points of test. In the result of the item analysis, corrected item-total correlations are ranged from a low of 0.46 to a high of 0.70; and T –test values are ranged from a low of 6.49 ($p<.001$) to a high of 21.07 ($p<.001$). Corrected item-total correlations and T –test values are statistically significant at the $p< 0.01$ level. These findings show that the Turkish version of the Sexual Self-consciousness Scale is a valid and reliable instrument.

Key Words: Sexual self-consciousness, sexual embarrassment, sexual self-focus

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ÖZET
Araştırmanın amacı Cinsel Öz-bilinc Ölçeğini Türkçeeye uyarlamaktır. Araştırma 336 evli birey üzerinde yapılmıştır. Ölçeğin uyarlama çalışmasında ölçeğin yapı geçerliği incelemek için açıklamacı ve doğrulayıcı faktör analizi kullanılmıştır. Ölçeğin güvenirlüğünü belirlemek için Cronbach Alpha formülü kullanılmıştır. Ayrıca ölçeğin madde analizi için t-testi ve düzeltilmiş madde-toplam korelasyonu kullanılmıştır. Yapılan Açıklamacı Faktör Analizi sonucu toplam varyansın %53.58'i açıklayan ölçeğin original factor yapısına uygun iki faktörü bir yapı elde edilmiştir. Doktrulayıcı Faktör Analizi sonucu Ki-kare değerinin anlamlı (x²= 108,13 sd= 53, p= 0.00) diğer uyum indeklerinin (RMSEA =0.080; AGFI= 0.85; CFI= 0.92; NNI= 0.90; GFI= 0.90 ve SRMR= 0.079) de kabul edilebilir düzeyde olduğu bulunmuştur. Ölçeğin bütünüğünü için iç tutarlılık katsayısının 0.84, cinsel utangaçlık alt boylu için 0.83, cinsel öz-odaklanma alt boylu için 0.79 olduğu bulunmuştur. Bu bağlamda, ölçeğin iç tutarlılık güvenilir katsaylarının yeterli düzeyde olduğu düşünülebilir. Madde analizi için yapılan t-testi (sd= 174) sonuçları 6.49 (p<.001) ile 21.07 (p<.001) arasında olduğu bulunmuştur. Düzeltilmiş madde-toplam korelasyonlarının ise 0.46 ile 0.70 arasında sıralanmış olduğu bulunmuştur. Madde analizi için incelenen T-testi ve Düzeltilmiş madde-toplam korelasyonu sonuçlarının anlamlı olduğu görülmüştür (p<.001). Ayrıca, madde analizi sonucu elde edilen bulgular ölçeğin madde analizinin ayrıntılı özelliği sahip olduğunu göstermektedir. Araştırma elde edilen bu sonuçlar genel olarak değerlendirildiğinde ölçeğin Türkçe formunun geçerli ve güvenilir bir ölçme aracı olduğunu göstermektedir.

Anahtar Kelimeler: Cinsel öz-bilinc, cinsel utangaçlık, cinse öz-odaklanma

Introduction
The social psychology literature has extensively authenticated the interaction effects of performance demand and self-focused attention on cognitive task performance (Burgio, Merluzzi, & Pryor, 1986; Panayiotou & Vrana, 1998). In a recent extension of Barlow’s cognitive model of sexual dysfunction, performance demand serves to set high standards of performance, while self-focused attention enhances the individual’s monitoring of the discrepancy between actual and normative levels of functioning (van Lankveld, van den Hout, & Schouten, 2004).

In terms of people’s mental health, it may be important that perception of self-consciousness. It has been suggested that individuals with a high level of self-consciousness have more clear self-schema and more accurate self-knowledge. In other words, people behave according to their potential abilities (Baumeister & Tice, 1988; Carver & Scheier, 1978; Lindwall, 2004). In addition, it is probable that individuals who have a high level of self-consciousness are more likely to act in accordance with their individual characteristics (Baumeister & Trice, 1988; Carver & Scheier, 1978). Moreover, Ingram (1990) found that there is a positive correlation...
between a high level of self-consciousness and depression, anxiety, test anxiety and various psychological disorders.

In the survey carried out by Feningstein, Scheier and Buss (1975), it was found that women have higher levels of general self-consciousness. Some researchers (Goldman & Harlow, 1993; Schieman, 1998; VanOss, Gomez, & Hearst, 1993; found a positive perspective regarding the use of condoms. Meston (2006) concluded that individuals with high levels of self-consciousness get more satisfaction from sexual relationships; being compatible with a partner; and sexual willingness. On the contrary, it was found that individuals with high general self-consciousness felt excessive sexual pain. In this context, the concept of self-consciousness, in addition to being associated with various personality and psychological characteristics, may be related to sexual experiences. For example, individuals having positive sexual self-schemas display characteristics such as clarity and romance, whereas negative sexual self-schemas are defined by conservative attitudes, inexperience, and sexual self-consciousness characteristics (Cyranowski & Andersen, 2000).

It has been suggested that the conceptualization of sexual dissatisfaction is very important when distinguishing normal and abnormal sexual behaviors (Barlow, 1986; Janssen, Everaerd, Spiering, & Janssen, 2000; van den Hout & Barlow, 2000; van Lankveld, Geijen, & Sykora, 2008). Meston (2006) found that individuals with greater private self-consciousness reported better functioning with regard to sexual desire, orgasm, partner compatibility, and sexual satisfaction. In contrast, individuals with higher public self-consciousness reported greater sexual discomfort. In another study, performance demand was found independently to inhibit the genital response. No main effect of self-focus was found. Self-focus inhibited genital response in men scoring high on general and sexual self-consciousness traits, whereas it enhanced penile tumescence in men with low self-consciousness. Inhibition effects were found in both volunteers and patients. No interaction effects of performance demand and self-focus were found. Subjective sexual arousal in sexually functional men was highest in the self-focused condition. In sexually dysfunctional men, subjective sexual response proved to be dependent on the locus of attention as well as presentation order (van Lankveld, van den Hout, & Schouten, 2004).

In sexually dysfunctional men an increase in feelings of embarrassment is consistent with a higher propensity for sexual inhibition that was found in men vulnerable to a decrease in their arousal response (Janssen, Vorst, Finn, & Bancroft, 2002). Van Lankveld et al. (2004), using this scale, found a relationship between a high level of self-consciousness and state self-focus. Van Lankveld, Geijen, & Sykora (2007) found that women's sexual self-consciousness scores were higher than those of men. The results of another study, Bay, Bahrami, Fatehizadeh, Ahmadi, & Etemadi (2012) found that sexual assertiveness and embarrassment mediated the relationship between attachment anxiety and sexual function. Attachment avoidance did not have a direct effect on sexual function, but it had a direct effect on self-focus. Assertiveness links the relationship between embarrassment and sexual function.

Gorraiz (2011) asserted that greater self-objectification and body shame were related to greater body self-consciousness and lower sexual self-esteem, which in turn predicted lower sexual functioning. The relationship between self-objectification, body shame and sexual functioning was partially mediated by body self-consciousness and sexual self-esteem during sex. Schick, Calabrese, Rima, and Zucker (2010) also found that greater dissatisfaction with genital appearance was associated with higher genital image self-consciousness during physical intimacy, which, in turn, was associated with lower sexual esteem, sexual satisfaction, and motivation to avoid risky sexual behavior. Another study indicated that the relationship between body shame and sexual pleasure and problems was mediated by sexual self-consciousness during physical intimacy.
Furthermore, according to the findings related to individuals’ body images, self-consciousness correlated positively with their sexual anxiety and their motivation to become more muscular; but correlated negatively with their sexual esteem, body esteem, and self-rated physical attractiveness (Mc Donagh, Morrison, & McGuire, 2008).

Research studies can contribute significantly to the understanding of this subject and can help to solve individuals’ problems with sexual intercourse. For this reason, in this study, an instrument measuring sexual self-consciousness was translated into Turkish, and its validity and reliability was assessed in order to facilitate research into sexuality in Turkish society and make cross-cultural comparisons.

Method

Participants

Subjects studied in this research consisted of married individuals living in different parts of Istanbul. Of the sample of 336 married individuals, 136 (42%) were teachers, 15 (5%) worked in Maritimelines, 14 (4%) were doctors, nurses, 171 (52%) were housewives and the remainder worked in other occupations. Participants comprised 105 men and 231 women: their ages ranged from 22 to 60 years; and their duration of marriage from 2 to 40 years. The sample included individuals of different educational levels: 118 (35%) were secondary school graduates; 51 (15%) were high school graduates; 143(42%) were university graduates; and 16 (5%) possessed masters degrees. The majority of participants had children: 61 (18%) had no child; 75 (22%) had one child; 136 (40%) two children; 37(11%) three children; 9(3%) four children; 3 (0.9%) five children; and 1(0.3%) had six children.

Instrument

Sexual Self-consciousness Scale (SSCS): The scale was developed by van Lankveld, Geijen, & Sykora (2008) to measure sexual self-consciousness. It consists of 12 Likert-type items that contribute to two subscales: Sexual Embarrassment and Sexual Self-Focus. The first component, Sexual Embarrassment, has six items that represent feelings of inhibition (e.g. “I find it difficult sexually to let myself go in front of the other person’’); and discomfort in sexual situations (e.g. “I feel uncomfortable in sexual situations’’). In other words, The Sexual Embarrassment subscale assesses the negative evaluation of perceived self-information. The second component, Sexual Self-Focus, represents the more affective neutral propensity towards self-consciousness in sexual situations, and has six items relating to aspects of self-conscious behavior. Subscales that represent the two components of Sexual Embarrassment and Sexual Self-focus were calculated by adding the scores of the constituent items assigned to each component.

Items in the scale aimed to represent the private and public aspects of a tendency to self-consciousness in sexual situations, as well as sexual anxiety and discomfort. Items were presented as brief descriptive statements. Subscales that represented the two components of Sexual Embarrassment and Sexual Self-Focus were calculated by adding the scores of the constituent items assigned to each component. Participants rated their level of endorsement on a 5-point Likert type scale; there were no reverse items. Scale interval anchors were: Strongly Disagree= 0; Disagree a Little= 1; Neither Agree or Disagree= 2; Agree a Little= 3; and Strongly Agree= 4.

The analysis of the original form of the scale, van Lankveld, Geijen, & Sykora (2008) obtained a structure describing 53.7% of the total variance. The Cronbach’s alpha reliability coefficient for the Sexual Embarrassment subscale was 0.84; for the Self-Focus subscale 0.79; and for the whole scale 0.85. The test-retest reliability coefficient for the Sexual Embarrassment subscale was 0.84; for the Self-Focus subscale 0.79; and for the whole scale 0.83. The analysis
found non-significant or medium size correlation coefficients (0.20 > \( r \) >0.24; \( p <0.05 \)) on the SSCS Sexual Self-focus subscale and the Psychological Distress subscales of the SCL-90. Large-size correlations were found between SSCS Sexual Embarrassment and the Psychological Distress subscales of the SCL-90, varying between \( r = 0.36 \) (SCL-90 Somatic Complaints) and \( r = 0.49 \) (SCL-90 Depression) (van Lankveld, Geijen, & Sykora, 2008).

Data Analysis

E-mail communication was established with the authors of the paper describing the psychometric aspects of the Self-consciousness Scale (van Lankveld, et al., 2007) who granted the necessary permission. In the process of the translation of the Self-consciousness Scale into Turkish, 4 expert translators translated scale items firstly into Turkish, and then back into English again to examine their consistence. Eight experts in counselling and guidance provided suggestions for corrections. The resulting form was then re-examined by three experts in the Turkish language and literature to check the meaning and grammar. Following this, the Turkish version was given to 54 married couples who were asked to identify unclear items.

In scale development studies, assessments are made of the scale’s validity, structure validity, content validity, and compliance validity. Regarding the content validity of the scale, experts were consulted; for structure validity, explanatory and confirmatory factor analyses were used. Furthermore, by using it with other scales, the subject concordance validity can be assessed. To determine the reliability of the scale, Cronbach’s Alpha and the split-half test were used. T-test and a corrected item-total correlation were used for item analysis.

Findings and Comments

Structure Validity

Explanatory Factor Analysis. Explanatory Factor Analysis examined the structure validity of the Sexual Self-consciousness Scale. Firstly, the correlation matrix among all items was calculated to reveal meaningful correlations existed. The Bartlett’s test should be meaningful with a KMO higher than 0.60 to determine whether data are suitable for explanatory factor analysis (Büyüköztürk, 2010). In this analysis, the KMO coefficient was found 0.85; the Bartlett’s test \( \chi^2 \) value was found 1434.74 (\( p<0.001 \)). The first analysis in this research revealed two factors that explained 53.58% of the total variance with a factor eigenvalue of over 1.99. Factor loading of the Sexual Embarrassment sub-dimension ranged between 0.54 and 0.83; factor loading of the Self-focus sub-dimension ranged between 0.55 and 0.73 (Table 1).
Table 1: The Sexual Self-consciousness Scale: Factor Loadings, Eigenvalue, and Percentages of Explained Variance.

<table>
<thead>
<tr>
<th>Items</th>
<th>Sexual Embarrassment</th>
<th>Sexual Self-focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.76</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>.83</td>
<td></td>
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<td>3</td>
<td>.82</td>
<td></td>
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<tr>
<td>4</td>
<td>.62</td>
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<tr>
<td>5</td>
<td>.72</td>
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<td>6</td>
<td>.54</td>
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<td>7</td>
<td></td>
<td>.68</td>
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<td>8</td>
<td></td>
<td>.73</td>
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<tr>
<td>9</td>
<td></td>
<td>.73</td>
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<tr>
<td>10</td>
<td></td>
<td>.63</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>.73</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>.55</td>
</tr>
</tbody>
</table>

| Eigenvalue | 4.44 | 1.99 |
| Sub-dimension’s Variance (%) | 28.68 | 24.89 |
| Total Variance (%) | 53.58 |

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Confirmatory Factor Analysis (CFA). CFA was performed to confirm the two-factor structure found in the original form of the scale for the structure of the Sexual Self-consciousness Scale. The result indicated that, having examined the model’s accordance index, the chi-square value was significant ($\chi^2 = 108.13$, N = 336, df = 53, p = 0.00). Accordance index values were revealed as follows: RMSEA = 0.08; AGFI = 0.85; CFI = 0.92; NNFI = 0.90; GFI = 0.90; and SRMR = 0.07. Factor loadings of the model are shown in Figure 1.

Schermelleh-Engel, Moosbrugger & Müller (2003) stated that reasonable fit indices of models range between $2 \leq \chi^2/df \leq 3$ for $\chi^2/df, 0.01 \leq p < 0.05$ for $p$, $0.05 \leq$ RMSEA $\leq 0.08$ for the Root Mean Square Error of Approximation; $0.85 \leq$ AGFI $\leq 0.90$ for the Adjusted Goodness of Fit Index; and $90 \leq$ GFI $\leq 0.95$ for the Goodness of Fit Index; and $0.05 \leq$ SRMR $\leq 0.10$ for the Standardized Root Mean Square Residual. AGFI values typically range between zero and one with larger values indicating a better fit. A rule of thumb for this index is that 0.90 is indicative of a good fit relative to the baseline model, while values greater than 0.85 may be considered as an acceptable fit. Furthermore, Hu and Bentler (1999) gave evidence that 0.90 might not be a reasonable cut-off for all fit indices under all circumstances. They suggested raising the rule of thumb minimum standard for the CFI and the NNFI from 0.90 to 0.95 to reduce the number of severely mis-specified models that are considered acceptable based on the 0.90 criterion. In this regard, the results indicated that this model has acceptable fit indices.
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Reliability

Cronbach’s Alpha internal consistence coefficient and the split-half test were used to examine the reliability of the scale. Its internal consistence reliability coefficient was found to be 0.84 for the whole scale; 0.83 for the Sexual Embarrassment sub-dimension; and 0.79 for the Self-focus sub-dimension. If we consider that the preassumed and required reliability is 0.60 (Büyüköztürk, 2010), the scale’s reliability level is adequate. The split-half test reliability was found to be 0.77 for the Sexual Embarrassment sub-dimension; and 0.70 for the Sexual Self-focus sub-dimension. (Table 2).

Table 2: Results of the Reliability Analysis of the Sexual Self-consciousness Scale

<table>
<thead>
<tr>
<th></th>
<th>Sexual Self-consciousness</th>
<th>Sexual Embarrassment</th>
<th>Sexual Self-focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach’s Alpha</td>
<td>0.84</td>
<td>0.83</td>
<td>0.79</td>
</tr>
<tr>
<td>Split-half</td>
<td>0.58</td>
<td>0.77</td>
<td>0.70</td>
</tr>
</tbody>
</table>

Figure 1: Path Diagram and Factor Loadings Related to the Sexual Self-consciousness Scale

Chi-Square = 108.13, df= 53, P-value = 0.00001, RMSEA = 0.080
Item Analysis

Corrected item-total correlations and t-test results, which for comparison of lower 27% and upper 27% groups were formed according to total scores of the test, were used. It was found that corrected item-total correlations ranged between 0.46 and 0.70, and it was seen that t (df=174) values of the low-high 27% groups ranged between 6.49 (p<0.001) and 21.07 (p<0.001). We can accept that the scale is reliable, according to the result of internal consistency, split-half test, corrected item-total correlation and t-test results (p<0.001) (Table 3).

Table 3: The Items of the Sexual Self-consciousness Scale, Corrected Item-total Correlations, and T-test Results

<table>
<thead>
<tr>
<th>Items</th>
<th>Corrected Item-Total Correlation</th>
<th>T-test</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Sexual Embarrassment</td>
<td>Sexual Self-focus</td>
</tr>
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<td>1</td>
<td>.60</td>
<td></td>
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<tr>
<td>2</td>
<td>.70</td>
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<td>3</td>
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<td>.52</td>
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<td>11</td>
<td>.59</td>
<td></td>
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<tr>
<td>12</td>
<td>.46</td>
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</tbody>
</table>

**p<0.001, *p<0.01

Discussion

The literature reveals very little research about this subject, therefore scales must be developed in order to conduct research. These scales also must be adapted to other cultures. For example, the Sexual Self-consciousness Scale has been used to study attachment, sexual function and sexual assertiveness (Bay, Bahrami, Fatehizadeh, Ahmadi, & Etemadi 2012); sexual arousal (Meston, 2006); state and trait aspects of self-focused attention on genital (van Lankveld & Bergh, 2008); and performance demand (van Lankveld, van den Hout, & Schouten, 2004).

Bay et al. (2012) indicated that sexual assertiveness and embarrassment mediated the relationship between attachment anxiety and sexual function. The interaction of state and trait aspects of self-focus were examined by Meston (2006); van Lankveld & Bergh (2008) found that an increase in state self-focus did not affect subjective sexual arousal, but participants with a high level of trait sexual self-focus reported stronger subjective arousal, compared with those with low trait level. Likewise, van Lankveld at al. (2004) found that subjective sexual arousal in sexually functional men was highest in the self-focus condition. In another study, one effect of gender was found on the Sexual Embarrassment subscale, with female participants scoring higher than male. Compared with sexually functional participants, sexually dysfunctional participants scored higher...
on the Sexual Embarrassment and Sexual Self-Focus scales (van Lankveld, Geijen, & Sykora 2008).

The aim of the present study was to adapt the scale to Turkish and produce a new questionnaire for the assessment of the dispositional propensity for self-consciousness within sexual contexts. It is seen that, as a result of exploratory factor analysis of the Turkish version of the Sexual Self-consciousness Scale, 53.58% of total variance is explained and a two factor structure has evolved as the original form of scale. If we accept that 30% total variance is suitable for a scale development and adaption study, we see that there is structure validity (Büyüköztürk, 2010; Çokluk, Şekercioğlu, & Büyüköztürk, 2010). Furthermore, the accordance index from the confirmatory factor analysis is consistent with both the goal level, and the original form.

Analysis of the scale reliability; internal consistence; split-half test; item total correlation; and t-test results are high and meaningful which indicates that the scale is reliable. If we assume that the reliability level of scales used in research is 0.70 (Büyüköztürk, 2010; Çokluk, Şekercioğlu, & Büyüköztürk, 2010; Spahi, Yurtkoru, & Çinko, 2008), then the reliability level of this scale is adequate. In this context, satisfactory to good internal consistency reliability levels of the scale were found for the total score and subscale scores.

Some suggestions may be made as a result of validity and reliability studies. Applying this scale to different individuals with different characteristics can contribute to the validity and reliability of the scale. Using this scale may create possibilities for further research to improve and increase the sexual self-consciousness of family individuals. It can also be used to collect data from individuals who may have problems with their marriages and relationships in order to help them. It can be used for psychological guidance and counselling to improve individuals’ marital lives. Finally, studies that use this scale may contribute to measurements of the scale’s effectiveness.

It is thought that, in the field of family counselling, studies of the development of self-consciousness may prevent unintended pregnancies and sexually transmitted diseases; and the use of methods of protection during sexual intercourse will make possible the prevention of some diseases. Group guidance, and psychological counselling are intended to improve individuals’ sexual self-consciousness characteristics, and may contribute to the field of family counseling.

The measurement of individual differences regarding their tendency to sexual self-consciousness, sexual self-focus, and sexual embarrassment by using the Sexual Self Consciousness Scale appears feasible, valid and reliable, given the satisfactory psychometric characteristics of this 12-item questionnaire. Further study is possible, using this instrument to clarify the role of sexual self-consciousness tendencies in the origin and treatment of sexual dysfunction, and to elucidate the causal pathways involved.

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