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Research Article

# Through the Inner World: Development of Reclusion Tendency Scale

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#### Abstract

The aim of this study is to develop a valid and reliable scale to determine the reclusion tendency levels in adults. The sample group is consistent with adults between the ages of 18-60 (Mage=26.2 years; age range: 18-33 years). A literature review was performed and existing scales were examined prior to this study. Potential items were formed. Then the data collection using the template scale began. The collected data was used for exploratory and confirmatory factor analysis and for the purpose of testing the structural validity of the scale. As a result of the exploratory factor analysis, a measuring tool of 22 items consisting of four sub-dimensions of internal observation, spirituality, productivity, and autonomy sub-dimensions that explain the 58,51% of the total variations was formed. There is a meaningful positive correlation identified between the Reclusion Tendency Scale and the Preference For Solitude scale (r=.49; p<.001). The total reliability coefficient is calculated .92; .88 for "internal observation", .88 for "spirituality", .66 for "autonomy", and .75 for "productivity" sub-dimensions. The findings from this study suggest that the reclusion tendency scale is a valid and reliable scale when tested in a sample of young adults.

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#### **Keywords:**

Reclusion • internal observation • spirituality • productivity •

autonomy • scale development

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The experience of spending time alone can cause adverse effects on our emotions at certain times as well as we take advantage of its many psychological factors. Despite the difficulty of discussing the concept of reclusion in the 21st century, also called the modern age, there has been a compulsory reclusion and a distance to social life with the threat of the new coronavirus. In addition, since the outbreak of the COVID-19 pandemic, people have faced a greater challenge as they have been obliged to stay at home and main a social distance (Fingerman, Ng, Zhang, et al., 2021). This can exacerbate the adverse effect of loneliness. We mention coronavirus, because it is the current program. However, there can be many different reasons for choosing to spend time alone.

Reclusion means moving away from social circles towards its essence, a journey to its inner world and concurrent spiritual maturity (Tasdelen, 2012). The notion of reclusion is linked to the state of loneliness. To frame the state of solitude in a positive way, it is possible to say that it helps one with the opportunity to understand and feel the meaning of one's life and sources of value, and to reach the source of meaning beyond one's self and be freed from the negative aspects of social existence (Barbour, 2014). At this point, it is important to note the difference between loneliness and the preference for solitude; there already various research is done on the subject (Avan, 2019; Burger, 1995; Erpay, 2017; Long & Averill, 2003; Thomas & Azmitia, 2019). While Fromm (1941) mentions the role of solitude in discovering one's inner resources, Winnicott (1958) mentions the importance of solitude capacity as a sign of one's emotional maturity, autonomy, and psychological health in adulthood. While Maslow (1970), one of the founders of humanist psychology, refers to selfactualized individuals, he describes one that is autonomous, independent from the external environment and is able to prefer solitude at times. Rogers (1980) mentions the necessity of being one's true self through experiences that are both painful and valuable and enduring the restraints of society, as well as the importance of being friends with and listening to our own selves. Looking more closely at the culture of Turkey, the role of preferring loneliness seems important in spiritual education (Demirdaş, 2012; Kızılgeçit, 2012).

The notion of loneliness is presented as a bad experience in some studies (Ernst & Cacioppo, 1999). Burger (1995), who pioneered drawing the distinction between loneliness and preference for solitude, found a positive correlation between the two and interpreted that individuals with a preference for solitude cannot have enough social communication skills while Creamer & Lake (1998) obtained the same results. On the contrary, some studies have shown that the loneliness that individuals experience makes them less lonely and increases their level of well-being (Chua & Koestner, 2008). Another research has shown that optimal voluntary solitude experiences, as opposed to compulsory solitude, positively affect individuals' balance of socializing and solitude, therefore raising levels of happiness and well-being (Ren, Wesselmann

& Williams 2016). Individuals concentrate on their own needs, goals and thoughts and remain present in their own process of getting to know one another (Larson, 1990). The experience of loneliness has different meanings according to its assigned concepts. In research originated in the Western world, the concept of loneliness is associated with concepts that are harmful to one's mental health such as anxiety, hopelessness, and stress while the concept of solitude is considered to be potentially beneficial to the individual (Kızılgeçit, 2012). Interestingly, research shows that people's perceptions of loneliness vary by their cultural characteristics (e.g., immigration and acculturation; Jiang et al., 2019; Pfeifer, Geyer, Storch and Wittmann, 2019). In East Asian cultures, for example, self-reflection and introversion are valued, while North American cultures estimate that they are phased (Jiang et al., 2019). Therefore, loneliness can be perceived as more positive in East Asia than in North America.

The notion of loneliness and its negative effects on human psychology, and its difference with the favorite loneliness have been explained. Preference for loneliness and reclusion have a few commonalities. However, the preference for solitude expresses a conscious choice for solitude while reclusion expresses a conscious choice for solitude as well as the goal of achieving spiritual maturity. When individual retreats and withdraws away from people and sources of distraction, the possibility of listening to oneself, focusing on one's inner world, and increasing the gravitation towards spirituality rises (Long & Averill, 2003). The relationship between the experiences that individuals describe as spiritual and their state of solitude is mentioned (Lambert, Stillman & Fincham, 2013). The experience of solitude or reclusion can be very well considered as a need as much as socializing. The ability to be alone can be a valuable resource that fosters and facilitates learning, thinking, productivity, change and increasing self-awareness by returning to our inner world (Storr, 1988). People who are able to prefer solitude are commonly self-sufficient, calm, able to act rationally rather than emotionally, able to handle their problems on their own, in no need of anyone else to spend quality time and are able to control their sexual urges and needs (Brunstein, 1993; Shrapnel & Davie, 2001).

#### **Purpose**

It is important to develop a scale, in the light of the existing literature and research mentioned above, that will evaluate the tendency to reclusion in our own culture. It is a matter of interest what kind of relations will be present between the tendency of reclusion and various psychological traits. This study is intended to fill the gap in the literature regarding the measurement of the tendency to imprisonment. The process of developing the scale starts with the identification of requirements and a thorough review of the documentation. Our research showed us the need for a measurement tool for the subject of imprisonment and we carried out a literature review. There

were no steps with the word reclusion. We regard the Preference For Solitude Scale, developed by Burger (1995) and adapted in Turkish by Erpay & Atik (2019), as a similar scale. The fact that this scale has not been of the Likert type or revised since 1995 has encouraged research on this issue. Cramer & Lake (1998) developed the Preference For Solitude Scale that is consistent with efficiency sub-dimensions concomitant of preference for solitude, enjoying the preference for solitude, and the need for solitude. Nestler, Back & Egloff (2011) conducted a scale development study to measure individual differences in preference for solitude in a way appropriate to German culture. Western sources use the concepts of "loneliness" in a negative way, and loneliness in a rather positive way. The concept of "reclusion" (inziva) was considered an appropriate substitute for loneliness in Oriental culture in terms of structure, meaning and scope. It is important to develop a new measurement tool that considers cultural property with the goal of creating a more comprehensive structure for the incarceration trend. Not only does the research identify the tendency of adults to become reclusive, it can also help respondents improve their self-awareness by promoting a review of their understanding of reclusion. As a result, a prison trend scale has been developed and its validity and reliability are tested on adults.

#### Method

This research is a scale development study. A Reclusion Tendency Scale was developed with the aim of identifying the reclusion tendency in adults. The steps in the process of scale development are explained respectively.

## Sample groups

Exploratory and confirmatory factor analyses are performed in different groups. The target group for the research is determined as adults between the ages of 18-60 (M=26, SS=7.84). The information regarding the groups is explained below.

# Sample group 1

The sample group for the research is consistent with adults between the ages of 18-60. 24% of participants are female and 83% are male. The trial form of the scale is applied to a total of 324 adults. There has not been incomplete or incorrect data as the form was filled via Google Forms. Exploratory factor analysis was performed with this data.

#### Sample group 2

Data has been collected from adults between the ages of 18-60 with the aim of validating the structure of the scale. 229 of the participants are female while 87 of

them are male. Confirmatory factor analysis is performed with the collected data from 316 adults.

#### **Process**

First, a literature review was conducted and certain steps were planned in order to progress methodically (DeVellis, 2003; Erkuş, 2016). A literature review on the concept of reclusion and associated concepts was conducted. University students were interviewed about the concept of reclusion. The process of composing the items began after the literature reviews and interviews were completed. 63 items that were written to address cognitive, affective, and behavioral fields were examined by two experts with a Ph.D. in the field and the number of items was reduced to 48 after some items were decided to be removed or revised. Then a questionnaire that examines each item regarding whether the item is suitable, needs revision, or should be removed, was filled out by six experts. As a result, a template of 26 items was created. The scale was designed in a five-point Likert type (1-Never 2-Rarely 3-Sometimes 4-Often 5-Always).

#### Measurement

#### Preference For Solitude Scale

The scale of preferring to be alone was developed by Burger (1995). The Turkish validity and reliability study of the scale was carried out by Erpay & Atik (2019). There are 12 items in total on the scale. Each item consists of two options. While one of the two items means preferring to be alone, the other option means to be with other people. Each of the items reflecting the preference for solitude is evaluated as 1 point. The highest 12 points and the lowest 0 points can be taken from the scale. A high score means more preference for solitude (Burger, 1995). The internal-consistency reliability coefficient of the scale is .77 for the whole scale. The test-retest reliability coefficient of the scale was found to be .81 (Erpay & Atik, 2019).

# Reclusion Tendency Scale

he scale was developed to determine the reclusion tendency levels of adult individuals. The scale consists of 23 items and 4 sub-dimensions (internal observation, spirituality, productivity, autonomy). The minimum score that can be obtained from the scale is 23, and the maximum score is 115. An increase in the scores indicated the scale indicates that the level of reclusion tends to increase.

#### **Data collection**

The data for the research is collected online from different provinces of Turkey via Google Forms. Permission from the ethics board was obtained. Individuals participated voluntarily.

# Data analysis

Kasier-Meyer-Olkin (KMO) coefficient and Barlett Sphericity test were performed in order to determine whether the collected data is suitable for factor analysis. Then, exploratory factor analysis (EFA) was performed through Principal Component Analysis and Varimax rotation. Extreme values were checked in order to determine the reliability of the scale and none was identified. Confirmatory factor analysis (CFA) was performed using the data from a total of 316 individuals. In addition to these analyses, Pearson correlation analysis was performed in order to determine the scale validity using a scale that is considered to measure a similar structure.

#### Results

This section explains the psychometric results that are obtained at the end of the process of Reclusion Tendency Scale (RTS) development and its introduction to the field. The findings of the analyses that were performed in the face of the procedures that are observed in the literature for scale development are presented in the table below.

## **Exploratory factor analysis**

Exploratory factor analysis was employed in order to determine the relations of the items in the RTS scale to themselves and to sub-factors if there are any. First, the Kaiser-Meyer-Olkin (KMO) and Bartlett Test of Sphericity values were examined since they are of crucial importance. After the values are proven to be suitable, other procedures of the scale development process were executed.

KMO value is .929. There is an assumption in the literature that KMO value that is close to 1 is perfect, and below 0.50 is unacceptable. Tavşancıl (2010) states 0.90 and above is perfect, 0.80 and above is pretty good, 0.70 and 0.60 are average, 0.50 and above is bad. As seen in the table below, the KMO value obtained in this study (.929) is considered perfect. Similarly, Bartlett's Test of Sphericity results is 4652.27 (p< .000). According to these results, the obtained data is meaningful and the user data has many variables and is in a normal distribution. After the data is proven to be suitable for factor analysis, another analysis is performed to determine the dimensions of the scale. Items 3, 5, 8, and 9 that are loaded in more than one dimension were removed. The information regarding the load of the factors is presented in Table 1.

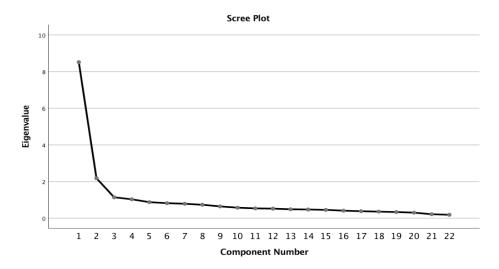
Table 1

| Exploratory Factor Analysis Results Regarding the Scale Items                             | Factor 1 | Factor 2 | Factor 3 | Factor 4 |
|---|----------|----------|----------|----------|
| Experiences of loneliness make people productive.   |          |          |          |          |
| Experiences of loneliness allow me to form more meaningful relationships with others.     |          |          |          |          |
| I need to be alone to be aware of my feelings.  | .64      |          |          |          |
| I discover different sides of myself when I am alone with myself.                         | .64      |          |          |          |
| My awareness of nature increases when I am alone.   | .64      |          |          |          |
| Before making an important decision, I get away from everything and evaluate my thoughts. | .63      |          |          |          |
| Spending time alone makes me mature.  |          |          |          |          |
| Experiencing loneliness makes me act as I am.   |          |          |          |          |
| I think more about the meaning of life when I am alone.                                   |          |          |          |          |
| I focus more easily on my work when I am alone.   |          |          |          |          |
| Reclusion increases my surrender to God.  |          | .88      |          |          |
| When I am in reclusion, I feel closer to God.   |          | .84      |          |          |
| Reclusion increases my gratitude for what I have.   |          | .82      |          |          |
| When I am alone, I realize the blessings that I could not realize in the flow of life.    |          | .62      |          |          |
| I prefer to be alone to think about life after death.                                     |          | .59      |          |          |
| Being away from people allows me to dream.  |          |          | .77      |          |
| I prefer to be alone to review my life.   |          | .75      |          |          |
| When I am alone, I have more opportunities to think.                                      |          |          | .74      |          |
| I prefer to be alone to pray.   |          |          |          | .64      |
| Being alone protects me from social pressure.   |          |          |          | .62      |
| I feel rested when I am alone.  |          |          |          | .54      |
| I like solitude as I have no regrets for what I have said or done.                        |          |          |          | .50      |

The sub-dimensions for the scale are determined as internal observation (10 items), spirituality (5 items), productivity (3 items), and autonomy (4 items), in consistency with the reclusion. The graphic regarding the distribution of the dimensions is in Figure 1.

The graph shows a dramatic decrease after the first factor. This means the scale may have one general factor. The factors that come after the three following factors are seen to have an eigenvalue lower than 1. The scale is then decided to have four dimensions. As a result of the analyses, there are four factors with eigenvalue over 1. The total variation these factors explain regarding the scale is determined as 58,51%.

Figure 1
Eigenvalue Graph Regarding the Reclusion Tendency Scale



# Findings on reliability analysis

It is recommended to perform various reliability analyses when a new measurement tool is developed. An important reliability analysis is checking Cronbach alpha and McDonald's Omega internal consistency coefficient. Kalaycı (2010) states that the consistency of the items in the measurement tool among themselves is important in terms of testing the intended structure. The internal consistency coefficient is accepted to be .70 and above (Kline, 2015; Tabachnick & Fidell, 2013). Internal consistency increases as it gets closer to 1. The internal consistency coefficient analysis results for the Reclusion Tendency Scale are presented in the table below.

 Table 2

 Reliability Coefficients after Factor Analysis

|                         | Factor 1<br>Internal Observation | Factor 2<br>Spirituality | Factor 3<br>Autonomy | Factor 4<br>Productivity | Total |
|-------------------------|----------------------------------|--------------------------|----------------------|--------------------------|-------|
| Cronbach Alpha          | .88                              | .88                      | .66                  | .75                      | .92   |
| Mc. Donald<br>Omega (ω) | .86                              | .85                      | .63                  | .72                      | .89   |

As seen in Table 2, Cronbach alpha internal consistency coefficient is in an acceptable range.

# Confirmatory factor analysis

Confirmatory factor analysis is used to check if the developed measurement tool provides the adaptive value accepted in the literature. Özabacı (2011) explains the RMSEA and SRMR values as root mean error squares and standardized root mean

error squares. It is generally expected that the RMSEA value is under 0.08. It is considered the best if the value is closer to zero as possible. The same applies to SRMR. While it is agreed that CFI value which expresses the comparative adaptation index, should be over 0.90; 0.97 and above indicates the perfect value (Ayyıldız, Cengiz & Ustasüleyman, 2006).

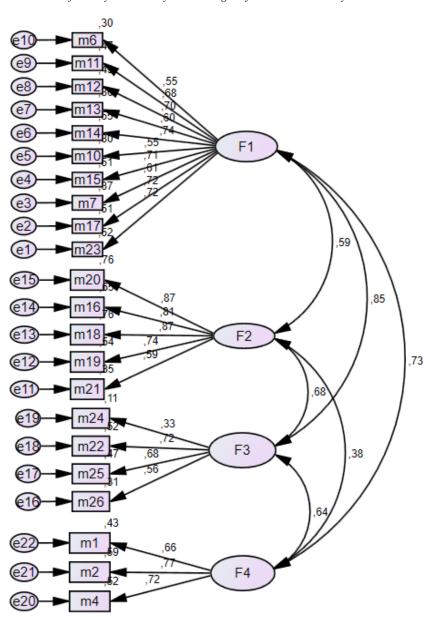


Figure 2
Confirmatory Factor Analysis Path Diagram for Reclusion Tendency Scale

The results of the confirmatory factor analysis are shown in the figure above. It is seen that all the items in Reclusion Tendency Scale are in four different dimensions and have meaningful relations. These results confirm the confirmatory factor analysis and show that all the scale items can be considered components of a structure. In this regard, the 22-item and four-factor structure of the Reclusion Tendency Scale is put to Confirmatory Factor Analysis (CFA) and is confirmed. All item loads seem to be over .50 when CFA analyses are checked. This shows that all the items have a sufficient load.

 Table 3

 Comparison of Standard Adaptation Criterion with Research Data

| Adaptation Measures | Good Adaptation   | Acceptable Adaptation         | Adaptation Values Obtained in the Research |
|---------------------|---|-------------------------------|--|
| c2/df               | 0≤c2≤2df  | 2df≤c2≤3df                    | 2.69                                       |
| RMSEA               | 0≤RMSEA≤0.05  | $0.05 \le RMSEA \le 0.08$     | 0.06                                       |
| SRMR                | $0 \le SRMR \le 0.05$   | $0.05 \le SRMR \le 0.10$      | 0.07                                       |
| IFI                 | 0.95≤IFI≤1.00   | 0.90≤IFI≤0.95                 | 0.92                                       |
| CFI                 | 0.95≤CFI≤1.00   | 0.90\(\left\)CFI\(\left\)0.97 | 0.92                                       |
| GFI                 | 0.90 <gfi<1.00< td=""><td>0.85&lt; GFI &lt;0.90</td><td>0.90</td></gfi<1.00<> | 0.85< GFI <0.90               | 0.90                                       |

Table 3 shows a good range of adaptation for the values obtained from confirmatory factor analysis. Chi-square value is calculated as  $(\chi 2/\text{sd})=2.69$ . RMSEA value is=0.06; SRMR value= 0.07. CFI= 0.92; GFI= 0.90. In light of the obtained results, the data demonstrates that the scale is in an acceptable range.

# Correlation between reclusion tendency scale and preference for solitude scale

It is crucial to apply the scale on similar sample groups with similar scales that are already tested for validity and reliability in order to test the scale that is developed for the first time. Therefore, Reclusion Tendency Scale is compared with the Preference For Solitude Scale in order to test its validity and reliability. The preference For Solitude Scale is chosen for this purpose as it is considered to be similar to Reclusion Tendency Scale. Thus, Reclusion Tendency Scale is analyzed alongside the Preference For Solitude Scale and the results are indicated in the table below.

**Table 4**Reclusion Tendency Scale Total Points and Preference For Solitude Scale Correlation Results

| Variables                     | PFSS | RTS  |
|-------------------------------|------|------|
| Preference For Solitude Scale | 1    | .49* |
| Reclusion Tendency Scale      | .49* | 1    |

Pearson correlation analysis was performed on Reclusion Tendency Scale in order to determine its relation to the Preference For Solitude Scale and the obtained results are as in the table above. Since the Preference For the Solitude Scale is calculated in total points, its total points are included in the analyses alongside Reclusion Tendency Scale total points. Results of the performed analyses demonstrate that the Preference

For the Solitude Scale and Reclusion Tendency Scale have meaningful relations (r=.49; p<.001). The results suggest that Reclusion Tendency Scale demonstrates good relations with similar scales.

#### **Discussion**

The goal of this research was to develop a valid and reliable scale for determining incarceration patterns in adults. The extended scale is of the Likert type. A fourdimensioned measurement tool explaining 58.51% of the total change resulting from exploratory factor analysis (EFA) was obtained. The coefficient of internal coherence is calculated as follows: 92; 88 for "internal observation", 88 for "spirituality", 66 for "autonomy" and . 75 for subcomponents "productivity". Each of the 22 items that form the scale has high factor loads in their own factors while having low factor loads in other factors, which is considered a sign of the independence of these factors. Cronbach's alpha internal coherence coefficient is calculated to be 0.92. Along with exploratory factor analysis, confirmatory factor analysis shows that all article load values are exceeded. 50 and the ladder elements have sufficient loading. Confirmation factor analysis demonstrated that the RMSEA and SRMR values are within an acceptable adaptation range. The factor structure in exploratory factor analysis is therefore confirmed by confirmatory factor analysis. Validity analyses of the scale showed a positive correlation of 0.49 between the prison tendency scale and the loneliness preference scale. The incarceration trend scale is thus presented in the literature as a valid and reliable scale. The search lacks test-retest confidence. It is recommended to include this type of trust in future searches. Its relationship to social isolation and social retirement may be investigated in the future.

The notion of incarceration is explained in four sub-components. The first relates to internal observation. Internal observation is one of the constituent elements of the concept of awareness (Siegel et al. 2009). In reclusion, the person can find the opportunity to explore different aspects and reflect on the meaning of life. On the scale "I discover different sides of myself when I am alone with myself." "I think more about the meaning of life when I am alone." the items describe this dimension. The second is spirituality, which is the transcending connection that is established with the universe (Kelly, 1995). Reclusion can bring awareness to spirituality. On the scale of "Reclusion increases my surrender to God." "When I am in reclusion, I feel closer to God." the items explain the spiritual dimension. The third is productivity, that is, the implementation of something new. "Being away from people allows me to dream." the items explain the productivity dimension. The last one is autonomy, which literally means self-regulation (Ryan & Deci, 2006). "I feel rested when I am alone." "Being alone protects me from social pressure." the items explain the autonomy dimension.

The scale development process begins with the identification of requirements and a thorough literature review. Our research showed us the need for a measuring tool for the subject of imprisonment and we conducted a literature review. It is essential to emphasize the importance of retirement and socializing. The positive effects of balancing socialization with withdrawal on psychological well-being are proven by research (Ren, Wesselmann & Williams 2016). Experiencing solitude is expected to contribute to a person's well-being and benefit the individual when internally motivated (Chua & Koestner, 2008; Coplan, Ooi & Nocita, 2015; Nguyen, Ryan & Deci, 2018). When looking at the preference for loneliness in the relationship between loneliness and depression, the preference for loneliness in an individual significantly diminishes this relationship. (Coplan, Hipson, Archbell, Ooi, Baldwin & Bowker, 2019). If time spent alone does not hinder subjective well-being, it even reinforces positive affectivity according to another research (Toyoshima & Sato, 2019). In research aimed at understanding the reasons for preference forw solitude, it is seen that individuals who are excluded from their social circles come to have higher levels of preference for being alone (Ren, Wesselmann & Van Beest, 2020).

This study which is based on self-actualization and fully functioning human theories, mainly argues for shedding light on the subject of reclusion tendency subject which has been ignored for a long while. We find it very valuable to touch upon the subject of reclusion that allows one to slow down without wearing ourselves down and turn inwards in our current cycle of movement and speed, and eventually motivate people to inner voyages.

Reclusion Tendency Scale can be applied to many different groups such as students, adults, married individuals, working individuals, etc. and the effects of reclusion Tendency on psychological well-being, peace, and happiness can be examined. The data are collected from adults aged 18 to 60 and validity and reliability tests are applied. It may be beneficial if this structure was researched in adolescents or different groups. It also may be beneficial for the literature to research its relations to concepts that seem to be similar from afar such as social isolation and social retreating.

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Ethical Approval. The study named "Through the Inner World: Development of Reclusion Tendency Scale" and approval numbered 07-23 was examined by the Marmara University Institute of Educational Sciences Research and Publication Ethics Committee and it was decided

that the research was ethically appropriate.

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