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Exclusion, Extroversion, and Relationship-Related Thought Accessibility

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Exclusion, Extroversion, and Relationship-Related Thought Accessibility

A Thesis

Presented in

Partial Fulfillment of the

Requirements for the Degree of

Master of Science

By

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Department of Psychology

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Thesis Committee

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Biography

Stacey L. Kruse was born in Winfield, Illinois, on July 22, 1993. She graduated from Glenbard North High School, in Carol Stream, Illinois, in 2011. She received her Associate of Arts degree from College of DuPage in 2014 and her Bachelor of Science degree from DePaul University in 2019.

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Abstract

This study sought to examine the relationship between social exclusion and relationship-related thought accessibility together with the potential moderating influence of extroversion. After completing a personality measure, a sample of 250 participants ($M_{\text{age}} = 19.3$ years) were randomly assigned to either a social inclusion or a social exclusion condition and completed the corresponding manipulation. Participants then completed a word fragment completion task to evaluate relationship-related thought accessibility. A moderated regression analysis was conducted to evaluate the main effect of social inclusion/exclusion on relationship-related thought accessibility as well as the interaction effect of social inclusion/exclusion and extroversion on relationship-related thought accessibility. No significant main effect of social inclusion/exclusion on relationship-related thought accessibility was found ($B = 0.10, p = .796$). Additionally, no significant interaction effect between social inclusion/exclusion and extroversion on relationship-related thought accessibility was found ($B = 0.02, p = .881$). Implications, possible explanations, and suggestions for future research are discussed.

Keywords: Exclusion, extroversion, thought accessibility

Exclusion, Extroversion, and Relationship-Related Thought Accessibility

The advantages and disadvantages of social inclusion and exclusion have been extensively researched, with exclusion often being framed as disadvantageous and inclusion as beneficial across multiple domains. Social inclusion has been shown to have many benefits for our health and well-being, with some research suggesting beneficial adaptive psychological and physiological outcomes (Begen & Turner-Cobb, 2015). Additionally, social exclusion and isolation have often been suggested as being beneficial in regards to art and creativity, with many famous artists claiming inspirational drive from isolation. In support of these artists' claims, research into the influence of social factors on creativity has found that social rejection can have a stimulating effect on creativity (Kim et al., 2013).

Previous research has identified two subtypes of creativity: relational and referential. Relational creativity involves detecting associations, considering connections, and forming conceptual relationships among stimuli (Ijzerman et al., 2014; Kray et al., 2006). Referential creativity involves disconnecting from prior knowledge and mental categories; going beyond existing ideas (Ijzerman et al., 2014). In a recent attempt to examine the impact of social inclusion and exclusion on these two subtypes of creativity (Martin & Chackoria, 2021), participants were asked to recall and describe a time in which others went out of their way to either include or exclude them in a social group or activities and then completed a creativity task. The researchers hypothesized that socially included individuals would perform better at a referential creativity task while socially excluded individuals would perform better at a relational creativity task. In support, results found that individuals in the social exclusion condition performed significantly

worse on the referential creativity task ($p = .004$) and significantly better on the relational creativity task ($p = .047$), compared to those in the social inclusion condition. The present research sought to address this result by providing an explanation, proposing that the outcome was a result of thought accessibility. Additionally, we explored the moderating influence of extroversion.

Accessibility of Relationship-Related Thoughts

Accessibility refers to how readily available thoughts are in one's mind. Previous research on accessibility has suggested that when thoughts or constructs are more accessible, they are more likely to be used for interpretation and cognitive and behavioral responses (Bruner, 1957; Bargh et al., 1988). Thoughts with increased accessibility are more retrievable in memory, and in turn more likely to influence thought processes, emotions, and actions. The current study aimed to extend the research on accessibility to include social inclusion/exclusion conditions.

Accessibility, specifically increased accessibility of relationship-related thoughts, could provide further understanding about the relationship between feelings of social exclusion and relational and referential creativity. Prior research on social exclusion found that reliving an experience of social exclusion increases desire to form connections (Maner et al., 2007). The current research suggested that recalling situations of social exclusion motivated participants to form relationships to counter the emotions fostered by that experience, therefore increasing the accessibility of relationship-related thoughts in their mind. This increased accessibility then allowed participants in the social exclusion condition to perform better on the relational creativity task. Using this as a possible

explanation for the original research findings, the first hypothesis of the current research is as follows:

Hypothesis 1. Feelings of social exclusion lead to increased accessibility of relationship-related thoughts.

Social Interactions and Extroversion

Previous research on the effects of social inclusion/exclusion has often neglected to include the possible moderating influence of extroversion. Introverted and extroverted individuals approach social situations very differently, with introverts having a “tendency to *withdraw from* social contacts” and extroverts having a “tendency to *make* social contacts” (Freyd, 1924). Prior research on the relationship between introversion and isolation tolerance found that introverted individuals were better able to tolerate isolation (Francis, 1969), while more recent research on depressive symptoms related to COVID-19 protective measures found introversion to be a moderator, with measure stringency having a significant negative effect on depressive symptoms for introverted individuals whereas for extroverted individuals, there was a non-significant positive effect (Wijngaards et al., 2020). Based on these findings, the possible influence of extroversion within social situations is important to consider.

Taking the previous research on introversion and extroversion into consideration, the current research sought to address the possibility that extroversion could moderate how participants experience the effects of social exclusion. Extroverted individuals tend to have a stronger desire to be involved in social situations, and therefore may experience a stronger emotional response to feelings of social exclusion. Alternatively, introverted individuals may not be as significantly impacted by feelings of social exclusion as they

have a stronger preference to withdraw from social situations. The current research suggested extroversion as a moderator between social exclusion and accessibility of relationship-related thoughts, with the second hypothesis as follows:

Hypothesis 2. Extroversion will moderate the relationship between social exclusion and accessibility of relationship-related thoughts, with the effect of social exclusion being stronger for extroverted individuals.

Method

Participants

Undergraduate psychology students at DePaul University in Chicago, IL were recruited through the university subject pool system (SONA). A total of 250 participants ranging in age from 18 to 32 ($M = 19.30$, $SD = 1.75$) were included in analyses for this study, with 69.2% identifying as cisgender woman, 21.6% as cisgender man, 5.2% as nonbinary, 0.4% as transgender woman, and 0.4% as transgender man. 2.0% preferred to self-describe while 1.2% preferred not to say. Racial identities represented in the study included White or Caucasian (55.6%), Hispanic or Latin (27.2%), Asian (12.8%), Black or African American (8.8%), Middle Eastern or North African (4.8%), and American Indian/Native American or Alaska Native (0.4%). Additionally, 1.2% identified as other while 0.4% preferred not to say. A moderated regression model was used to analyze the effects of social inclusion/exclusion on relationship-related thought accessibility among different levels of extroversion. An a priori power analysis for a linear multiple regression (fixed model, R^2 increase) was conducted through G*Power to determine appropriate sample size. For a small effect size ($f^2 = 0.02$) and an alpha of 0.05, a sample size of 652 would be required for a power of 0.95. Based on this analysis, data was to be

collected either until this number of participants was reached, or until the final week of winter quarter 2022-2023. Data collection was completed on March 12, 2023.

Approval from the Institutional Review Board (IRB) was obtained prior to recruitment and data collection. In accordance with IRB requirements, all participants received information on the study procedure and provided informed consent prior to participating. Following the completion of all tasks, participants were debriefed and compensated accordingly per university guidelines.

Procedure

The purpose of the study was described to participants as research on the impact of social interactions on thoughts and perceptions. The entirety of the study was conducted using Qualtrics. Upon providing informed consent, participants were presented with a 20-item personality measure (Donnellan et al., 2006; see Appendix A). After completing the 20 items, participants were randomly assigned to one of two manipulation conditions: inclusion or exclusion. In each case, participants were presented with the corresponding writing prompt along with a text box in which they typed their response. Depending on the assigned condition, participants were asked to recall and briefly describe the last time others went out of their way to either include or exclude them in a group or activities (see Appendix B). Following the manipulation, participants completed a word fragment completion task in which they were presented with words that had letters missing and a text box in which they were asked to respond with the first completed word that came to their mind; this served as the measure of relationship-related thought accessibility.

Materials

Extroversion. The Mini International Personality Item Pool (Mini-IPIP; Donnellan et al., 2006) was for the extroversion measure. The directions and full questionnaire can be found in Appendix A. The Mini-IPIP was derived from the 50-item International Personality Item Pool, a personality trait evaluation with five dimensions: extroversion, agreeableness, conscientiousness, openness, and neuroticism (Goldberg, 1992). Participants were presented with 20 statements describing behaviors (e.g., Talk to a lot of different people at parties), presented in random order. For each, they indicated how accurately the statement described them by selecting a number on the following scale: 1 (*Very Inaccurate*), 2 (*Moderately Inaccurate*), 3 (*Neither Inaccurate nor Accurate*), 4 (*Moderately Accurate*), 5 (*Very Accurate*).

Social Inclusion/Exclusion. The two prompts that were used for the inclusion/exclusion manipulation can be found in Appendix B. Because the current study was a follow-up study looking to provide an explanation for the findings in a prior study, the prompts were taken directly from the prior study (Martin & Chackoria, 2021). Participants were randomly assigned to one of two conditions (inclusion, exclusion) and responded to the corresponding prompt. Following the response, participants completed a manipulation check in which they were asked to rate their feelings of social inclusion or exclusion on a scale: 1 (*Very Excluded*), 2 (*Excluded*), 3 (*Neutral*), 4 (*Included*), 5 (*Very Included*).

Accessibility of Relationship-Related Thoughts. The directions and the 30 word fragments that were used for the accessibility of relationship-related thoughts measure can be found in Appendix C. The fragmented words were compiled by searching for

synonyms of words (i.e., group, relationship, family) and identifying words that could be fragmented and completed also as non relationship-related words. After being presented with the directions, participants were presented with the fragmented words one at a time, one word per page, to minimize the possibility of participants noticing a possible theme among word fragments. A text box in which participants were asked to respond by typing their completed word in full was located below each word. Each of the word fragments had a possible relationship-related completion along with other non-relationship possibilities (e.g., C O _ _ E C T can be completed as either *connect* or *correct*).

Analysis and Results

Pre-Processing

Social Inclusion/Exclusion. Eighteen participants were removed from the analysis due to insufficient completion of the manipulation (i.e., “I cannot recall”). Verification of equal assignment of participants to each condition revealed that the inclusion condition included 141 participants while the exclusion condition included 109 participants. This discrepancy is likely due to the random assignment algorithm in Qualtrics. The manipulation check referred to in the materials section was used to compute mean inclusion scores across each condition and to confirm that the inclusion and exclusion manipulations were successful. Participants in the exclusion condition ($M = 3.18$, $SD = 1.06$) reported significantly lower levels of inclusion and higher levels of exclusion compared to participants in the inclusion condition ($M = 3.50$, $SD = 0.97$), $t(248) = 2.49$, $p = .007$, Cohen’s $d = 1.01$, suggesting that the inclusion and exclusion manipulations were effective.

Extroversion. Only items 1, 6, 11, and 16 in the Mini-IPIP are used for computing the extroversion score. An exploratory factor analysis (EFA) was conducted on the four relevant items using SPSS to evaluate factor structure. EFA revealed a single factor which explained 57.1% of the total variance in the data. Factor loadings (ranging from 0.73 to 0.78) showed that all four of the items loaded onto a single factor, suggesting that they represent a single construct. Results of the EFA suggest that the four items are valid measures of extroversion. Additionally, reliability analyses were conducted. Within the sample, mean extroversion score was 11.58 ($SD = 1.97$) and inter-item correlations ranged from 0.38 to 0.52. Coefficient alpha was 0.75 (95% CI [0.69, 0.79]) and coefficient omega was 0.74 (95% CI [0.69, 0.79]). Results of the reliability analyses suggest good internal consistency of the extroversion measure.

The two steps to computing extroversion scores are as follows: (1) Reverse scoring for items 6 and 16, (2) Add the scores for items 1, 6r, 11, & 16r. Possible scores range between 4 and 20, with higher scores indicating higher extroversion. Participant extroversion scores ranged from 4 to 20 ($M = 11.72$, $SD = 3.54$).

Accessibility of Relationship-Related Thoughts. A compliance check to assure that participants completed all 30 of the word fragments was conducted, and 9 participants were removed from analysis for lack of completion. 87 (34.8%) participants did not complete the word fragment as a full word (i.e., responded “NN” instead of “Connect”), so for analysis purposes these responses were manually changed to the complete word. Score was calculated based on the number of words the participant completed as relationship-related words in the word fragment completion task. Number of words was summed with scores ranging between 0 and 30. Higher numbers indicate

higher accessibility of relationship-related thoughts. Participant accessibility scores ranged from 5 to 23 ($M = 12.03$, $SD = 3.07$).

Analytic Design and Statistical Analysis

For analysis purposes, responses for the word fragment completion task were coded as 0 (non-relationship related word) or 1 (target relationship-related word). IBM SPSS Statistics (Version 28) was used to analyze the data using a moderated regression model to evaluate the main effect of the predictor variable (Inclusion/Exclusion) on the criterion variable (Relationship-Related Thought Accessibility) as well as the interaction effect of the predictor variable and the moderator variable (Extroversion) on the criterion variable. The assumptions of normality, linearity, homoscedasticity, and absence of multicollinearity for linear regression were confirmed to have been met.

Results

Preliminary analyses revealed that the average score for Relationship-Related Thought Accessibility for participants in the Inclusion condition was 11.99 ($SD = 2.98$) while the average score for participants in the Exclusion condition was 12.07 ($SD = 3.19$). The moderated regression analysis yielded no significant effects due to the manipulation of the independent variables. The main effect of Inclusion/Exclusion on Relationship-Related Thought Accessibility was not significant ($B = 0.10$, $SE = 0.39$, $t(246) = 0.26$, $p = .796$). No significant main effect of Extroversion on Relationship-Related Thought Accessibility was found ($B = 0.04$, $SE = 0.08$, $t(246) = 0.52$, $p = .600$). Additionally, the interaction between Inclusion/Exclusion and Extroversion on Relationship-Related Thought Accessibility was also not significant ($B = 0.02$, $SE = 0.11$, $t(246) = 0.15$, $p = .881$). The overall model did not explain a significant amount of

variance in Relationship-Related Thought Accessibility, $F(3) = 0.27$, $p = .850$, $R^2 = 0.003$.

Discussion

The current study sought to examine the relationship between social inclusion/exclusion and relationship-related thought accessibility, as well as the potential moderating influence of extroversion. Inconsistent with our hypotheses, results of the moderated regression analysis failed to yield a significant main effect of inclusion/exclusion on relationship-related thought accessibility or a significant interaction effect of inclusion/exclusion and extroversion on relationship-related thought accessibility. While we failed to find an explanation for the results of the previous study, the results of the current study still contribute to the research on social exclusion and can provide insight into the relationship between social exclusion, extroversion, and relationship-related thoughts.

Despite the lack of findings in the current study, a relationship between social exclusion, extroversion, and relationship-related thought accessibility may still exist. The effects of social exclusion on cognition have been extensively shown. Social exclusion has consistently been found to influence cognitive processes, with some research even suggesting reduced cognitive performance in response to social exclusion (Baumeister et al., 2002). The current study was unable to find support for social exclusion increasing relationship-related thoughts, however, other research has found that reliving an instance of social exclusion, as participants in the current study were prompted to do, increases desire to form connections (Maner et al., 2007). While the current research is not in line with previous findings, it is worthwhile to explore potential explanations as to why.

The absence of significant results in this study may be attributable to several factors. First, it is likely that the sample size ($N = 250$) was not large enough to detect significant relationships between our variables. Because we were unable to obtain a sample size of 652 as suggested by a priori power analyses, it is probable that our sample size was insufficient. Second, issues with our implicit measure for the accessibility of relationship-related thoughts may have interfered with its' validity. The failure of 34.8% of participants to type the completed word fragment as a full word resulted in multiple “nonsense word” responses which limited the data (i.e., “Vovolve” in response to “_ _ V O L V E”). Additionally, implicit measures can be easily influenced by outside sources and word fragment completion tasks are not immune to this. Individual differences in personality traits related to upbringing, culture, identity, and personal experiences contribute to cognition and thought accessibility. Additionally, context, such as the location in which the participant completed the study, any additional emotions experienced on the day of the study, as well as any other salient thoughts can contribute to thought accessibility along with the inclusion/exclusion manipulation.

Koopman et al. (2013) suggested that word fragment completion tasks have several advantages over other implicit measures, however, they also outline some common issues with word fragment completion tasks that may have decreased the validity of the one used for this study. First, Koopman et al. (2013) advises to avoid creating word fragments that produce too high of a response rate as well as those that require increased cognitive capacity for a response. These issues are present among a number of our word fragments. For example, the responses for “L E A _ _ _” had 39 different completions while “_ E P E N _” yielded 12 “N/A” responses, suggesting that it

may have required too much cognitive deliberation. Additionally, Koopman et al. (2013) suggests ensuring that non-target and target words have comparable frequencies. Word frequency analyses for the word fragments used in the current study suggest that incomparable frequencies may have been an issue. Relative word frequencies are presented in Table 1. Some of the words used in our word fragment completion task may have been more salient and more used by college students than others, which also could have influenced responses. If this study were to be repeated, the quality of the items used for the word fragment completion task should be re-evaluated. Further, consideration and implementation of Koopman et al.'s (2013) suggestions may increase its validity and utility.

Additionally, there are numerous factors not accounted for in this study that may provide more insight into the relationship among inclusion/exclusion, extroversion, and relationship-related thought accessibility. For example, many factors can influence how individuals experience and respond to being socially excluded. While the current study examined how extroversion influences experiences of social exclusion, other individual differences in reactions and responses to social exclusion are likely important for understanding our results. One factor for future research to consider is the influence of gender and socialization. Men and women are typically socialized differently when it comes to relationships, with men generally being socialized to hold agentic goals while women generally are socialized to hold communal goals (Wang & Tu, 2015). Agentic goals are typically self-focused and associated with assertiveness and control whereas communal goals are typically focused on social and interpersonal relationships and harmony (Wang & Tu, 2015). Differences in agentic and communal goals likely

influence responses to social exclusion. In line with this, Wang & Tu (2015) found that men and women respond significantly differently to social exclusion. Future research should include gender and socialization alongside extroversion.

Another factor that should be taken into consideration in understanding our results is the influence of cultural orientation on responses to social exclusion. Research by Pfundmair et al. (2015) found that individuals with collectivist orientations respond to exclusion differently than those with individualistic orientations, with individualism being associated with more antisocial behavioral intentions following experiences of exclusion. This research suggests that individuals with an individualistic orientation may potentially be less likely to desire forming a relationship after an instance of social exclusion, given the antisocial intentions. Future research on the influences of social exclusion may benefit from including cultural orientation.

Overall, although the present study did not produce any significant findings, it does provide some insight into the complexities of the relationship between social exclusion, extroversion, and relationship-related thought accessibility. Consideration of our results suggests the presence of additional variables to be considered within this relationship. Future research would benefit from continued examination of the relationship between social exclusion, extroversion, and relationship-related thoughts with larger sample sizes, re-evaluation and restructuring of implicit measures, and attention to the potential influences of additional confounding variables. Social interactions and feelings fostered from social exclusion are universally experienced, making continued research pertinent for further understanding of the effects of social exclusion and extroversion on thought accessibility and human cognition.

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Table 1
Relative Word Frequencies for the Word Fragment Completion Task

Word Fragment	Target Word	Target Word Responses	Word Frequencies
1. C O _ _ E C T	Connect	41 (16.4%)	Collect (64.8%) Correct (18.0%) Connect (16.4%)
2. S _ A R E D	Shared	28 (11.2%)	Scared (80.0%) Shared (11.2%) Stared (4.4%)
3. B _ N D	Bond	70 (28.0%)	Bond (28.0%) Band (26.4%) Bend (23.6%)
4. R E _ A T E	Relate	219 (87.6%)	Relate (87.6%) Rebate (5.2%) Rerate (1.6%)
5. _ I N K	Link	89 (35.6%)	Pink (44.0%) Link (35.6%) Sink (12.4%)
6. _ N I O N	Union	145 (58.0%)	Union (58.0%) Onion (38.0%) Anion (2.8%)
7. C O _ _ A C T	Contact	223 (89.2%)	Contact (89.2%) Compact (4.8%) Collact (1.6%)
8. _ U N C T I O N	Junction	20 (8.0%)	Function (92.0%) Junction (8.0%)
9. _ _ E N D	Blend	52 (20.8%)	Trend (29.6%) Blend (20.8%) Spend (20.4%)

Table 1 Continued

Word Fragment	Target Word	Target Word Responses	Word Frequencies
10. E N _ A G E	Engage	238 (95.2%)	Engage (95.2%) Enrage (3.2%) Enlage (0.8%)
11. P _ _ P L E	People	146 (58.4%)	People (58.4%) Purple (35.2%) Pimple (5.2%)
12. G R O _ _	Group	74 (29.6%)	Group (29.6%) Grown (22.0%) Gross (20.4%)
13. _ E P E N _	Depend	134 (53.6%)	Depend (53.6%) Repent (29.2%) N/A (4.8%)
14. _ I N	Kin	17 (6.8%)	Sin (18.8%) Pin (18.4%) Tin (16.0%)
15. K I _	Kin	53 (21.2%)	Kid (42.8%) Kit (23.6%) Kin (21.2%)
16. _ A T H E R	Gather	60 (24.0%)	Father (62.0%) Gather (24.0%) Lather (7.2%)
17. _ O V E	Love	230 (92.0%)	Love (92.0%) Dove (4.8%) Cove (1.6%)
18. M E _ T	Meet	126 (50.4%)	Meet (50.4%) Melt (29.6%) Meat (18.0%)

Table 1 Continued

Word Fragment	Target Word	Target Word Responses	Word Frequencies
19. _ E A M	Team	176 (70.4%)	Team (70.4%) Beam (20.4%) Seam (6.0%)
20. T E _ _	Team	98 (39.2%)	Team (39.2%) Tell (14.8%) Tear (8.8%)
21. S Q U _ D	Squad	107 (42.8%)	Squid (56.8%) Squad (42.8%) Squard (0.4%)
22. P A _ E N T	Parent	135 (54.0%)	Parent (54.0%) Patent (40.4%) Paient (2.8%)
23. _ _ V O L V E	Involve	122 (48.8%)	Involve (48.8%) Revolve (30.4%) Devolve (6.8%)
24. _ _ R G E	Merge	22 (8.8%)	Large (26.0%) Purge (20.0%) Merge (8.8%)
25. U N _ _ E	Unite	129 (51.6%)	Unite (51.6%) Uncle (22.8%) Untie (9.2%)
26. L E A _ _ _	League	4 (1.6%)	Leader (28.0%) Leaves (27.6%) Learns (9.2%)
27. B _ N C H	Bunch	125 (50.0%)	Bunch (50.0%) Bench (46.8%) Binch (1.2%)

Table 1 Continued

Word Fragment	Target Word	Target Word Responses	Word Frequencies
28. _ U D D L E	Huddle	5 (2.0%)	Cuddle (72.8%) Puddle (21.6%) Muddle (2.8%)
29. C L O _ _	Close	61 (24.4%)	Close (24.4%) Clown (22.4%) Cloud (21.6%)
30. P E _ R	Peer	59 (23.6%)	Poor (55.6%) Peer (23.6%) Pour (8.4%)

Appendix A: Mini-IPIP

Directions: Below are 20 phrases describing people's behaviors. Please use the rating scale below to describe how accurately each statement describes you. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. Please read each statement carefully, and indicate a number from 1 to 5 to describe how accurately the statement describes you.

1 (*Very Inaccurate*) 2 (*Moderately Inaccurate*) 3 (*Neither Inaccurate or Accurate*)

4 (*Moderately Accurate*) 5 (*Very Accurate*)

1. Am the life of the party
2. Sympathize with others' feelings
3. Get chores done right away
4. Have frequent mood swings
5. Have a vivid imagination
6. Don't talk a lot
7. Am not interested in other people's problems
8. Often forget to put things back in their proper place
9. Am relaxed most of the time
10. Am not interested in abstract ideas
11. Talk to a lot of different people at parties
12. Feel others' emotions
13. Like order
14. Get upset easily
15. Have difficulty understanding abstract ideas
16. Keep in the background
17. Am not really interested in others
18. Make a mess of things
19. Seldom feel blue
20. Do not have a good imagination

Appendix B: Social Inclusion/Exclusion Manipulation

Inclusion

Please recall and briefly describe the last time in your life when others went out of their way to include you in a group or activities. What were your feelings and reactions at the time? Please write in full sentences and provide as much detail as possible – really try and relive the experience.

Exclusion

Please recall and briefly describe the last time in your life when others went out of their way to exclude you from a group or activities. What were your feelings and reactions at the time? Please write in full sentences and provide as much detail as possible – really try and relive the experience.

Manipulation Check

Please rate your feelings of social inclusion or exclusion on the scale below;

1 (*Very Excluded*) 2 (*Excluded*) 3 (*Neutral*) 4 (*Included*) 5 (*Very Included*)

Appendix C: Accessibility of Relationship-Related Thoughts Measure

Directions: You will now complete a word fragment completion task. You will be presented with a series of words with letters missing. Please complete the word fragments as quickly as possible and type your response as the full word. After typing your response, click the arrow. There are 30 words in total.

- | | |
|--|---|
| 1. C O _ _ E C T (Connect, Collect) | 16. _ A T H E R (Gather, Rather) |
| 2. S _ A R E D (Shared, Scared) | 17. _ O V E (Love, Move, Dove) |
| 3. B _ N D (Bond, Band, Bend) | 18. M E _ T (Meet, Meat) |
| 4. R E _ A T E (Relate, Rebate) | 19. _ E A M (Team, Beam) |
| 5. _ I N K (Link, Mink, Sink) | 20. T E _ _ (Team, Term) |
| 6. _ N I O N (Union, Onion) | 21. S Q U _ D (Squad, Squid) |
| 7. C O _ _ A C T (Contact,
Compact) | 22. P A _ E N T (Parent, Patent) |
| 8. _ U N C T I O N (Junction,
Function) | 23. _ _ V O L V E (Involve,
Revolve) |
| 9. _ _ E N D (Blend, Trend) | 24. _ _ R G E (Merge, Purge) |
| 10. E N _ A G E (Engage, Enrage) | 25. U N _ _ E (Unite, Untie) |
| 11. P _ _ P L E (People, Purple) | 26. L E A _ _ _ (League, Leaves) |
| 12. G R O _ _ (Group, Growl) | 27. B _ N C H (Bunch, Bench) |
| 13. _ E P E N _ (Depend, Repent) | 28. _ U D D L E (Huddle, Cuddle,
Puddle) |
| 14. _ I N (Kin, Sin) | 29. C L O _ _ (Close, Cloth) |
| 15. K I _ (Kin, Kit) | 30. P E _ R (Peer, Pear) |