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RESEARCH ARTICLE

EXPLORING INDIVIDUAL DIFFERENCES AND SIMILARITIES IN ONLINE DISINHIBITION, MORAL DISENGAGEMENT, DISSOCIATIVE EXPERIENCES, AND COMPLIANCE WITHIN THE CONTEXT OF ONLINE DATING FRAUD

***Vernon A. De Maynard**

Kingston University London

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**Corresponding author:*
Vernon A. De Maynard

ABSTRACT

Introduction*:* Online dating fraud, a callous act of deception, manipulation, and exploitation of unsuspecting victims online, continues to pose a significant risk to society. This study examined the role of online disinhibition (ODE), dissociative symptoms (DSS), the propensity to morally disengage (PMD), catfishing (CQ), and compliance (GCS) in online dating fraud. ***Methods****:* Using a web-based survey to collect anonymous data in Qualtrics, 345 respondents (47.1% males and 52.6% females with an average age of 50 years, SD = 17.5) completed the web-based survey. ***Results****:* Perpetrators of online dating fraud reported significantly more ODE, DSS, PMD, CQandGCS than nonvictims or victims. ODE,DSS, and PMD were significantly associated with each other and contributed significantly to the variance in reported catfishing; however, above-average annual incomes, male sex, DSS, and ODE contributed to victimhood. ***Conclusion****:* Both victims and perpetrators of online dating fraud reported significantly more ODE, DSS, PMD, and catfishing than non victims with less inclination to social desirability. However, compliance did not contribute to victimhood. Future research should repeat this study with larger groups of victims and perpetrators and elucidate the phenomena of victims who become perpetrators, further enhancing our understanding of this complex issue.

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INTRODUCTION

Online dating fraud is a substantial problem worldwide. The rise in internet use has not only created a forum where individuals can meet people they might otherwise not meet face-to-face, but it has also increased opportunities for internet fraud (Aimeur *et al*., 2018; City of London Police, 2022). Within online dating, the perpetrator of online dating fraud (perpetrator) persuades the target or potential victim to demonstrate his or her love by making substantial payments or gifts (Coluccia *et al*., 2020; Offei *et al*., 2020). Some victims have even believed they were in a romantic relationship with someone who had subsequently died, only to find that the person never existed and that the relationship was wholly fictitious (Smith *et al*., 2017). Estimations for losses through fake online dating profiles stood at approximately £30 million in 2021, up 73% from 2020, according to the Banks. Action Fraud UK received 8957 dating scam reports in 2021 and suggested that this figure could be much higher (£95.1M), up from over £68 million in 2020 (UK Finance, 2022; Cavaglieri, 2022). 'Savanta' interviewed 2,310 UK adults between 28-30th January 2022 for UK Finance's 'Take Five to Stop Fraud' campaign and found that almost two in five (38%) of people who dated someone online had been asked for money under the pretence of some trumped up emergency, with over half of those (57 per cent) giving or lending the money when asked. The 'Online Dating Association' conducted an online pool of 2,340 of its members between 26thJanuary and 2ndFebruary 2022 and found that 58 per cent of respondents continued to message those demanding money despite their reluctance to meet in person or via video call after the first few conversations (UK Finance, 2022). Much has been written about the criminology and victimology of online dating fraud; however, very little has been written about the differences in individual characteristics ofperpetrators and victimsthat make online dating fraud possible.

Catfish and catfishing: The term "catfish" comes from a 2010 documentary in which a photographer, Nev Schulman, developed a romantic relationship with someone online who used a fake 19-year-old profile named "Megan" (Angela Wesselman) on Facebook. The term "catfishing" is now used to describe individuals who engage in online dating fraud by using fake identities to deceive and exploit others for personal gain (Paat & Markham, 2021). "Catfishing" involves deceiving, manipulating, and exploiting others online using a fake identity (Lauckner *et al*., 2019).

Fraudsters hide behind numerous fake profiles to keep potential victims interested. By creating false identities, catfish gain the trust of unsuspecting victims for malicious purposes, often involving fraud (Donath, 1998; Harris, 2013).

Catfish perpetrator characteristics: According to a study by Mosley *et al*. (2020), both men (38%) and women (23%) engage in deceiving, manipulating, and exploiting unsuspecting others for personal gain, an activity also known as "catfishing." However, Steiner *et al*. (2020) found that men are more likely than women to deceive others for personal gain and to increase their reproductive success. This behaviour should not be surprising given that historically, marrying for financial gain,consolidating wealth, and avoiding poverty have been common, especially in the upper echelons of society (Bailey, 2015; Flynn & Low, 1986; Frances, 2005).The catfish perpetrator claims to be "more than they are," hoping to attract people to their fake identities to exploit them (Hall *et al*., 2010). Drawing on an evolutionary psychology theoretical framework, Lauder and March (2023) argued that deception, manipulation, and exploitation are often seen in nature, such as in cuttlefish, to meet their basic needs for intimacy, love and affection, financial security, sexual reproduction, or some other form of personal gain. Those high in 'Machiavellianism' are likely to cheat and lie their way into someone's affection, creating whole identities with backstories purely to exploit unsuspecting people online without concern for the harm they cause (Dussault *et al*., 2013). However, when Lauder and March (2023) examined the relationship between 'Dark Tetrad' personality traits and catfish perpetration, they found that callous-unemotionality (i.e., psychopathy), brutality (i.e., sadism), and self-importance (i.e., narcissism), not lying and cheating (i.e., Machiavellianism), explained 59.9% of the variance in catfish perpetration after controlling for social desirability and gender.

Catfish victim-survivors and the impact of catfishing: Whitty (2018) found that impulsive, less kind, more trusting, middle-aged (35-54 years old), and well-educated women with a tendency towards addiction were most at risk of 'romance scams or online dating fraud like 'advance fee fraud', where victims were encouraged to advance a small amount of money to release a larger sum for personal gain. Catfish perpetrators would employ a 'foot-in-the-door' sales technique by initially asking for a small sum of money before escalating to larger amounts, with some victims even being persuaded to travel to Ghana to sign documents they were told were necessary to retrieve promised funds within the context of 'advance fee fraud'. In some cases, catfish perpetrators manipulated victims into exposing themselves and performing sexual acts via webcam, which,when recorded,can be used to exploit them (Powell & Henry, 2017). The loss of control over personal and intimate images, as well as the threat of non-consensual dissemination of these images, can be traumatising, leading to mental and physical illness and even suicide (Regehr *et al*., 2022). While some may argue that greed motivated 'advance fee fraud victims to travel to foreign countries to pursue perceived wealth, research indicates that greed is not a significant factor in these exchanges (Whitty, 2018). Many catfish victims felt victimised because they believed they were in a genuine and lasting relationship with the fraudster/catfish and expressed feelings of shame, embarrassment, low self-esteem, depression, and anger at being deceived, manipulated, and exploited (Whitty, 2013). However, it is unclear whether victims of online dating fraud felt compelled to comply with demands for money. Gudjonsson(1989) argued that those susceptible to online dating fraud under pressure from romantic partners as an indication of eagerness to please and avoid confrontation,). Some catfish victims may be in denial and selectively ignore what the perpetrator is doing to them, which puts them at greater risk of revictimisation (Whitty & Buchanan, 2016). Some experience hypervigilance, hyperarousal, and PTSD symptoms, with traumatic experiences intruding into various aspects of their lives, making it challenging to trust others who share characteristics of the deceiver (Regehr *et al*., 2022; Sharp *et al*., 2004).

The Present study and rationale: Fundamental to the experience of online dating fraud and subsequent anxiety-related disorders is the sharing of personal information which might not be shared during face-to-face meetings(i.e., the online disinhibition effect), which can then be used to defraud unsuspecting victims.Similarly, the catfish and the catfished may spend considerable time persuading each other to form and maintain an attachment "good enough" and give up their attention, love, affection, or money for personal gain.However, it is unclear to what extent the fake persona requires imaginative involvement and whether victims and perpetrators differ in expressing this dissociative experience. The perpetrator may set aside moral standards to carry out online fraud. However, it is unclear whether perpetrators differ in the expression of activated cognitive strategies such as advantageous comparisons, diffusion of responsibility, distortion of consequences, objectification of the victim, and misattribution of blame to morally and socially justify creating a fake identity and carry out the deception, whether the personal goal is money or affection (Bandura *et al*. 1996).

Middle-aged (35-54 years), impulsive, less kind, and more trustworthy middle-aged (35-54 years) women with means appear to be most at risk of online dating fraud (Whitty, 2018).The impact of catfishing on unsuspecting online users can be devastating (Whitty & Buchannon, 2016; Lauckner *et al*., 2019; Cross *et al*., 2018; Kassem & Carter, 2023), but the literature is unclear about the interpersonal dynamics between the perpetrator and victim (Campbell & Parker, 2022). Whether the personal gain or the desired outcome is attention, love, affection, or monetary, the catfish perpetrator and the catfish victim appear to invoke online disinhibition, imaginative involvement, and the propensity to disengage to meet their needs morally. Offei *et al*. (2020) found that perpetrators deny causing or accepting responsibility for any injury experienced to justify online dating fraud. According to Carlson *et al*.'s (2018) theory on dissociation and Gudjonson's (1988; 2003) theory on compliance, the perpetrator appears to compartmentalise and creatively embellish the fake identity employed in pursuing an unsuspecting victim who might be willing to comply with his or her demands. According to Ainsworth *et al*. (1956) and Bowlby (1956; 1980), people are motivated to form attachments and anxiously avoid separation and loss of them. Victims may comply with the perpetrator's requests to avoid the emotional pain often experienced with the separation and loss of a loved one, which can be equally devastating (Kassem & Carter, 2023; Whitty, 2018; Whitty & Buchanan, 2016). However, it is unclear whether the pressure of emotional loss and separation is sufficient to compel victims to meet the demands of perpetrators within the context of online dating fraud. Therefore, this study will examine the role online disinhibition, dissociative symptoms, the propensity to disengage morally, catfishing, and compliance play in the

commission and experience of online dating fraud and determine whether individual differences in these factors might make some individuals more susceptible to online dating fraud than others. It was hypothesised that:

Hypothesis 1: There will be a significant difference in the reported online disinhibition, the propensity to morally disengage, dissociative symptoms, and compliance in the sample due to sex (male,female) and disability status (disabled, not-disabled), even after controlling for social desirability response bias.

Hypothesis 2: After controlling for social desirability response bias, there is a significant difference in dissociative symptoms between nonvictims, catfish perpetrators and their catfish victims.

Hypothesis 3: After controlling for social desirability response bias, there is a significant difference in the propensity to morally disengage between nonvictims, catfish perpetrators and their catfish victims.

Hypothesis 4: After controlling for social desirability response bias, there is a significant difference in catfishing between nonvictims, catfish perpetrators and their catfish victims.

Hypothesis 5: After controlling for social desirability response bias, there is a significant difference in online disinhibition between nonvictims, catfish perpetrators and their catfish victims.

Hypothesis 6: After controlling for social desirability response bias, there is a significant difference in compliance between nonvictims, catfish perpetrators and their catfish victims.

Hypothesis 7: Online disinhibition is positively associated with reported dissociative symptoms, the propensity to morally disengage, catfishing, and compliance while controlling for social desirability response bias.

Hypothesis 8: Online disinhibition, propensity to morally disengage, and dissociative experiences will significantly contribute to the variance in reported catfishing while controlling for social desirability effects.

Hypothesis 9: Sex, annual income,online disinhibition, dissociative experiences, and compliance will positively contribute to the prediction of victim status, discriminating between victims and nonvictims.

METHODS

Participants: Three hundred and forty-five people between 18 and 91 years (Mean = 50 years, SD = 17.5) replied to the survey; however, the response rate was very low (< .001%). One hundred and sixty-two (47.1%) males, 181 (52.6%) females, and 1 (0.9%) 'rather not say' replied to the survey. Forty-six point three per cent of men and 52.5% of women reported that their gender was the same as that assigned at birth. However, 2 (0.58%) reported being non-binary, 1 (0.29%) reported being 'other', and 1 (0.29%) preferred not to give a gender. One hundred and twenty-seven (36.8%) of those who responded reported being single, 127 (36.8%) married, 24 (6.9%) cohabiting or living together, 8 (2.3% reported being separated, 37 (10.7% divorced, and 22 (6.4%) widowed. Two hundred and thirty-six (68.4%) respondents identified as having a White ethnic background (149 (43.2%) of respondents identified as being of White English descent; 1 (0.3%) identified as white Scottish descent; 2 (0.6) identified as White Welsh descent; 38 (11.0%) as White mainland European; 31 (8.9%) as having any other White descent; 15 (4.3%) identified as being White Irish. Sixty-nine (20%) respondents identified as being of Black ethnic background (52 (15.1%) of respondents reported being of Black African descent; 5 (1.5%) identified as of Black Caribbean descent; 2 (0.6%) identified as of Black British descent; 10 (2.9%) identified as any other Black descent). Ten (2.9%) respondents identified as having a Mixed ethnic background (2 (0.6%) identified as having mixed White and Black African background; 8 (2.3%) identified as having any other mixed background)). Thirteen (3.8%) respondents identified as having Asian (Chinese (2), Indian (4), Pakistani (1), Any other Asian background (5)). One respondent identified as Arab (1), and Seventeen (4.9%) respondents identified as being of any other ethnic background. Seventy-two (20.9%) of respondents reported living with a disability; 3 (0.9%) preferred to say, and 270 (78.3%) did not have a disability. One hundred and twenty-two (35.4%) respondents reported earning less than £27,000 annually. Thirty-seven (10.7% of respondents reported earning between £27,001 and £50,000 annually; Forty (11.6%) of respondents reported earning between £30,001 and £40,000 annually; forty-four (12.8%) reported earning between £40,001 and £50,000 annually, and 102 (29.6%) reported earning over £50,000 annually.

Fifty-nine (17.1%) respondents reported being victims of online dating fraud once, with 20 (5.8%) reporting being victimised more than once. Two hundred and sixty-six respondents (77.1%) reported having never been a victim of online dating fraud. Forty-two (12.2%) respondents reported having committed online dating fraud once, with 6 (1.7%) reporting having committed it more than once. 1 (0.29%) did not respond to this item. Thrity-one (8.9%) reported being both victims and perpetrators of online dating fraud. There was no significant difference between the number of respondents who admitted to committing online dating fraud (Count = 42) and those who scored highly (Count = 45 on the Catfishing Scale (CQ), measured as one SD above the mean, above 11 points on the CQ scale), suggesting that although there may be more catfish perpetrators in the sample than were prepared to admit it, most were honest about it.

MATERIALS

A web-based survey comprised of a demographic component and an outcome component was constructed and published on WWW. The demographic component comprised measures for age in years, biological sex, gender, relationship status, ethnicity, annual income, and disability status prefaced two single-item questions. A single-item question identified those who were victim-survivors of online dating fraud and those who had not. Another single-item question identified those who identified as online dating fraud committers and those who had not. The outcome component comprised measures for dissociative symptoms, online disinhibition, moral disengagement, compliance, catfishing and social desirability to control for response bias. The Dissociative Symptoms Scale – B (Macia *et al*., 2022; Carlson *et al*., 2018) comprises eight items designed to measure clinically relevant dissociative

symptoms across different ethnic groups. The scale differentiates between clinical and nonclinical groups and demonstrates convergent and discriminant validity when compared with standardised measures for dissociation and PTSD| and alcohol use, respectively. Respondents are asked to indicate how often a stated experience has happened to them within the past seven days on a 5-point Likert scale ranging from 0 = 'not at all' to 4 = 'more than once a day'. Two items measure each of the four categories of dissociative symptoms: depersonalisation and derealisation (e.g., 'Things around me seemed strange or unreal'); sensory misperceptions (e.g., 'I saw something that seemed real but was not); gaps in awareness and memory (e.g., 'I suddenly realised that I hadn't been paying attention to what was going on around me'), and cognitive-behavioural re-experiencing (e.g., 'I reacted to people or situations as if I were back in an upsetting time in the past'). However, the items in the scale are summed here to measure the central tendency to dissociate. The scale is reliable, Cronbach's (1951) alpha = .83 (Macia *et al*., 2023). After tests to assess this scale's underlying structure and suitability, a single factor (i.e. catfishing) was retained for analyses. In this study. Cronbach's (1951) alpha = .93.

The Gudjonsson (1989; 1996) Compliance Scale (GCS) consists of 20 items devised to measure the central tendency to comply with requests and obey instructions of others (e.g., "I tend to give in to people who insist that they are right"). The scale was devised to identify those susceptible to committing crimes under peer pressure. In this instance, GCS will be used to identify those susceptible to online dating fraud under pressure from romantic partners as an indication of eagerness to please and avoid confrontation. Respondents are asked to give a true (1) or false (0) answer to statements 1-16 & 20. Items 17-19 are reversed scored. The scores are summed and can range from 0 - 20. Higher scores indicate greater compliance. The scale is internally reliable; Cronbach's (1951) alpha ranges from = .711 to .75 (Gudjonsson, 2003; Ray *et al*., 2013). After tests to assess this scale's underlying structure and suitability, a three-factor structure (i.e. ., 'give in to pressure', 'eager to please', and 'avoid confrontation') were retained for analyses.In this study, Cronbach's alpha, α = .79.
The 'Measure of Moral Disengagement' (Bandura *et al*., 1996) is a 32-item scale used to measure moral disengagement across eight dimensions. However, Moore *et al*. (2012) devised a short 'Propensity to Morally Disengage Scale' (PMD) based on the following eight items (1, 2, 4, 6, 8, 11, 13, 23) from Bandura *et al*.'s original scale. These were used in this study: a) moral justification (e.g., "It is all right to fight to protect your friends"), b) Euphemistic language (e.g., "Slapping and shoving someone is just a way of joking"), c) advantageous comparison, (e.g., "Stealing a little money is not as bad as stealing a lot of money"), d) displacement of responsibility, (e.g., "If children are not disciplined, they should not be blamed for misbehaving"), e) diffusion of responsibility, (e.g., "A kid in a gang should not be blamed for the trouble the gang causes"), f) distorting consequences, (e.g., "Children do not mind being teased because it shows interest in them"), g) attribution of blame, (e.g., "If children fight and misbehave in class, it's their teacher's fault"), and h) dehumanisation, (e.g., "Someone who is obnoxious or unpleasant does not deserve to be treated like a human being"). Each item is measured on a 7-point bilateral Likert scale from -3 = strongly disagree to 3 = strongly agree with neutral = 0 in the middle. The items are summed to give an overall score for moral disengagement, with higher scores indicating high levels of moral disengagement. The scale is reliable, Cronbach's (1951) alpha, α = .76 (Moore *et al*., 2012). After tests to assess this scale's underlying structure and suitability, a single factor (i.e. catfishing) was retained for analyses. In this study, Cronbach's (1951) alpha = .81. The Measure of Online Disinhibition (MOD) (Stuart & Scott, 2021) is a 12-item instrument devised to assess the central tendency to behave differently online than an individual would offline (e.g., "I act tougher on the internet than I do face to face"). Respondents are asked to what extent their statements are like them using a 5-point Likert scale where 1 = not at all like me to 5 = very like me, and scores are summed. Higher scores indicate a tendency for greater disinhibition online. Stuart and Scott (2021) found the measure to be closely correlated with both subscales of Udris' (2014) Online Disinhibition Scale (benign and toxic distribution (*r*s = 0.79 and 0.64, p <.001 respectively). The scale is reliable, Cronbach's (1951) alpha = .95. After tests to assess this scale's underlying structure and suitability, a single factor (i.e. catfishing) was retained for analyses. In this study, Cronbach's (1951) alpha= .92. The Catfishing Questionnaire (CG) (Lauder & March, 2023) comprises 15 items devised to measure the central tendency to commit acts of deception for personal gain (e.g., "I manipulate people online by lying about my identity". Respondents use a 5-point Likert scale ranging from 0 (never) to 4 (always). There are no reverse-scored items. Responses are summed to indicate the frequency of catfishing behaviour, with high scores indicating increased frequency. The scale is reliable; Cronbach (1951) alpha = .94 (Lauder & March, 2023). After tests to assess this scale's underlying structure and suitability, a single factor (i.e. catfishing) was retained for analyses.In this study, Cronbach's (1951) alpha = .95.

The Marlowe-Crowne Social Desirability Scale – Form C (M-CSD) (Reynolds, 1982) is a 13-item instrument that measures the central tendency to seek social approval (e.g., "On occasion, I have had doubts about my ability to succeed in life"). It is used in this study to control for social desirability. Respondents are asked to indicate the extent to which a statement is true or false, and scores are summed. A high number of socially desirable affirmative responses indicate a socially desirable bias. A low score indicates a low tendency to please or behave in a culturally appropriate manner, and the respondent is more likely to answer survey questions without fear or favour. The scale has been found to possess good discriminant, construct validity, and reliability Cronbach's (1951) alpha = .76 and .73, respectively (Reynolds, 1982; Paulhus, 1984).After tests to assess this scale's underlying structure and suitability, a two-factor structure (i.e., Self-Deception and Impression Management) was retained for analyses. In this study, internal consistency was good, Cronbach's (1951) alpha, α = .90.

Sample: An a priori calculation using G* Power (Faul *et al*., 2007) with power set at 0.95, alpha at .05, and fifteen predictors indicated a minimum total sample size of 199 was needed for sufficient power to detect an effect size of 0.15 on the dependent variable of catfishing and reject the null hypothesis in regression analysis. Conducting a two-way MANOVA (Victimhood: scammed, not scammed; Catfish status: catfish, not catfish) with power (.95 chance) to detect a f^2 = .063 effect size in six outcome measures would require a minimum total sample size of 342. However, using logistic regression to achieve a similar effect size on the binary dependent variable (scammed and not scammed) and a minimum sample size of 284 will be required.

Design & Procedure: Using a cross-sectional design, survey methods using a web-based questionnaire collected anonymised data from a representative sample of the general population. The questionnaire was comprised of demographic and outcome components. Respondents to the survey were English-speaking adults over 18 years who had experience or used internet/online dating sites. A web-based survey created in and hosted on Qualtrics collected data from strategically posted adverts on Reddit, Facebook, SONA systems, and a Qualtrics panel. An information sheet and consent form premised the survey, and respondents needed to respond affirmatively before completing the survey. No payment was offered for participating, but student respondents recruited from the university SONA system were offered course credit. Respondents could withdraw from the survey for up to one week after submitting their data. British Psychological Society (BPS) Code of Human Research Ethics (BPS, 2021) were followed for data collection and management. Kingston University Research Ethics Committee gave this study a favourable ethical opinion.

RESULTS

Descriptive analyses showing trends in outcome measures according to catfish perpetrator status: Tables 1 and 2 show the means, standard deviations and medians of all the outcome variables when the sample was divided by victim status (i.e., never, once, more than once). Interestingly, there appears to be a trend with those respondents who reported having never been a victim of online dating fraud reported less dissociative symptoms, propensity to morally disengage, online disinhibition, catfishing and compliance than those who reported having been victimised once and those who reported having been victimised more than once. However, M-C Social desirability appears to show a negative trend, with those who have never been a victim of online dating fraud reporting higher social desirability response bias than those who had been victimised once and more than once, but the difference is small. Tables 3 and 4 below show the means, standard deviations and medians of all the outcome variables when the sample was divided by catfish perpetrator status (i.e., never, once, more than once). Similarly, there appears to be a trend with those respondents who reported having never committed online dating fraud reported less dissociative symptoms, propensity to morally disengage, online disinhibition, catfishing and compliance than those who reported having committed online dating fraud once and those who reported having committed online dating fraud more than once. However, M-C Social desirability appears to show a negative trend, with those who have never committed online dating fraud reporting higher social desirability response bias than those who had committed online dating fraud once and more than once, but the difference is negligible.

After controlling for social desirability response bias, sex and disability did not significantly affect the combined dependent variable (H1): To avoid inflating Type 1 error rate,a two-way (sex: male, female) x (disability: disabled, not-disabled) MANOVA was conducted to determine whether there were significant differences in online disinhibition, dissociative symptoms, the propensity to morally disengage, compliance, and social desirability between respondents. Preliminary assumption checks indicated the assumption of normality was significantly violated, Shapiro-Wilks = 0.92, $p <$ .001; however, examination of the Q-Q residual plots suggested no violation. Box's *M*-test for homogeneity of variance-covariance matrices was not violated, $\chi^2(45) = 58.8$, $p = .07$, so parametric tests were used. No significant differences were found in the combined dependent variable between male and female respondents, F (1, 339) = 2.06, Wilk's $\lambda = .97$, $p = .07$, or between disabled and non-disabled respondents F (1, 339) = 1.84, Wilk's $\lambda = .97$, $p = .11$. However, independent one-way ANOVA revealed that female respondents (Mean = 10.2, SE = 0.32) were marginally more compliant than male respondents (Mean = 9.3, SE = 0.30) were, Welch's F (1, 340.7) = 4.5, $p = .03$, $\omega^2 = 0.01$. The effect was significant but small. Also, disabled respondents reported significantly more online disinhibition, Mean difference = 3.46, SE = 1.50, F (1, 339) = 5.6 $p = .02$, $\omega^2 = .02$, and dissociative symptoms, Mean difference = 2.17, SE = 0.88, F (1, 339) = 6.1, $p = .17$, $\omega^2 = .02$, than non-disabled respondents did but the effect was small.

After controlling for the effect of social desirability response bias in a one-way ANCOVA with a Bonferroni correction, no statistical difference was found in the outcome. Examining the Q-Q plot indicated that the assumption of normality was not violated. As predicted in Hypothesis 1, however, female respondents (Mean = 10.2, SE = 0.29) reported marginally more compliance than male respondents(Mean = 9.4, SE = 0.31), but the effect was small,F (1, 340) = 2.9, $p = .05$, $\omega^2 = 0.01$. There was a significant medium main effect of social desirability response bias, F (1, 340), 59.9, $p < .001$, $\omega^2 = 0.08$. After controlling for the effect of social desirability response bias in a one-way ANCOVA with a Bonferroni correction, and contrary to Hypothesis 1, disabled respondents (Mean = 7.1, SE = 0.74) no longer reported significantly more dissociative symptoms than non-disabled respondents (Mean = 5.7, SE = 0.39) did, $F = 2.9$, $p = .09$, $\omega^2 = 0.01$. There was a significant medium main effect of social desirability response bias, F (1, 342), 44.2, $p < .001$, $\omega^2 = 0.11$. Similarly, contrary to Hypothesis 1, after controlling for the effect of social desirability response bias in one-way ANCOVA with a Bonferroni correction, disabled respondents (Mean = 24.0, SE = 1.25) no longer reported significantly more online disinhibition than non-disabled respondents (Mean = 21.8, SE = 0.66) did, $F = 2.4$, $p = .12$, $\omega^2 = .01$. There was a significant medium main effect of social desirability response bias, F (1, 342), 49.6, $p < .001$, $\omega^2 = 0.13$,

Victims of online dating fraud reported significantly fewer dissociative symptoms than perpetrators of online dating fraud did (H2): One-way ANCOVA explored between-group differences in reported dissociative symptoms (DSS) after controlling for the social desirability response bias. Preliminary checks indicated that assumptions for homogeneity of error variances and normality in dissociative symptoms between the groups were violated; Levene's test for the equality of error variances for dissociative symptoms was significant, F (3, 341) = 14.7, $p < .001$). Q-Q plot of standardised residuals showed that the assumption of normality was also violated, with the data cluster being close to the slope for the DSS and with some deviation at both ends. So, caution should be considered when evaluating the following results. However, Kruskal-Wallis, $H(3) = 44.1$, $p < .001$, and examination of Dunn's post hoc comparison suggested that using the median in nonparametric tests would not alter the interpretation of the outcome. As predicted in hypothesis 2, a one-way ANCOVA indicated that there were

Table 1. Means, standard deviations and medians of all the M-C Social Desirability, Dissociative Symptoms and Propensity to Morally Disengage the sample according to victim status (i.e., never, once, more than once)

	Victim status	M-C Social desirability			Dissociative Symptoms			Moral Engagement		
N		Mean	SD	Median	Mean	SD	Median	Mean	SD	Median
266	Never	21.3	2.9	21.0	4.8	5.5	3.0	-9.7	7.7	-11.0
59	Once	20.6	2.9	20.0	9.2	7.6	8.0	-7.4	9.0	-7.0
20	More than once	19.5	2.6	19.0	12.6	11.6	7.5	2.05	16.7	0.0
	range	13-26			0-32			-24-24		

Table 2. Means, standard deviations and medians of all the Catfishing (CQ), Online Disinhibition (MOD), and Compliance (GCS) in the sample according to victim status (i.e., never, once, more than once)

	Victim status	Catfishing			Online Disinhibition			Compliance		
N		Mean	SD	Median	Mean	SD	Median	Mean	SD	Median
266	Never	4.9	7.4	3	20.3	9.8	16	9.6	4.1	9
59	Once	11.3	13.1	5	26.3	13.1	24	9.6	4.1	10
20	More than once	23.6	22.9	10.5	37.2	15.4	34.5	13.1	12	14
	range	0-60			0-60			0-20		

Table 3. Means, standard deviations and medians of all the M-C Social Desirability, Dissociative Symptoms and Propensity to Morally Disengage the sample according to Catfish perpetrator status (i.e., never, once, more than once)

	Catfish status	M-C Social desirability			Dissociative Symptoms			Moral Engagement		
N		Mean	SD	Median	Mean	SD	Median	Mean	SD	Median
297	Never	21.3	2.9	21.0	4.9	5.6	3	-9.7	8.1	-11.0
42	Once	19.7	2.4	20.0	13.1	8.4	15	-2.8	10.1	-4.0
6	More than once	17.3	1.4	17.5	22.0	11.3	25	12.7	15.1	18.5
	range	0-26			0-32			0-48		

Table 4. Means, standard deviations and medians of all the Catfishing (CQ), Online Disinhibition (MOD), and Compliance (GCS) in the sample according to victim status (i.e., never, once, more than once)

	Catfish status	Catfishing			Online Disinhibition			Compliance		
N		Mean	SD	Median	Mean	SD	Median	Mean	SD	Median
297	Never	4.8	6.9	3.0	20.6	9.9	17.0	9.5	4.1	9
42	Once	21.5	16.9	22.0	33.0	14.4	33.0	11.2	3.3	11
6	More than once	42.3	21.6	51.5	50.0	11.9	54.5	15.5	2.4	16.5
	range	0-60			0-60			0-20		

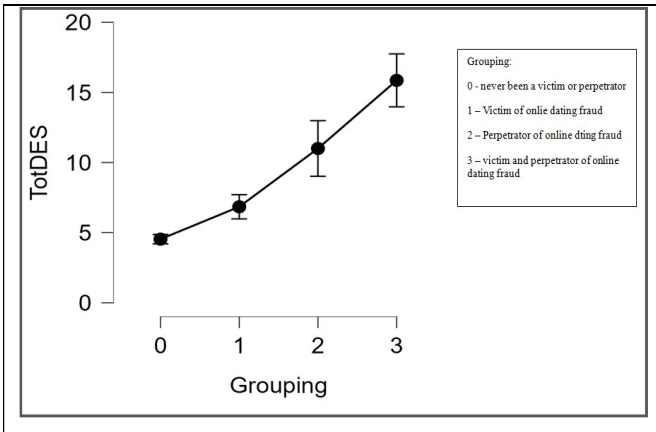

Figure 1. A graph showing a trend in reported dissociative symptoms per group

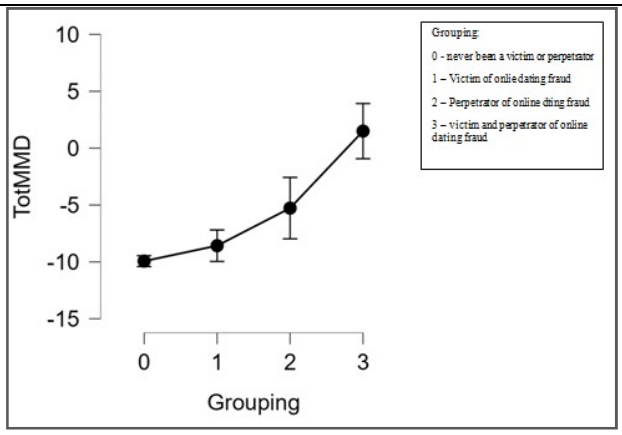

Figure 2. A graph showing reported propensity to morally disengage (MMD) per group

still significant differences in dissociative symptoms between nonvictims, victims and perpetrators after adjusting for social desirability response bias, F (3, 340) = 23.9, $p < .001$, ω^2 = 0.15,95% CI [0.09, 0.22]. There is a significant medium main effect of social desirability on reported dissociative symptoms when controlling for the effect of group membership, F (1, 340) = 31.7, $p < .001$, $\omega^2 = 0.06$, 95% CI [0.03, 0.13]. Post hoc comparisons with a Bonferroni correction indicated that respondents who had never been a victim or perpetrator of online dating fraud (Mean = 4.71, SE = 0.37) reported significantly fewer dissociative symptoms than perpetrators of online dating fraud (Mean = 8.96, SE = 1.46), F (341) = 8.0, Cohen's d = -0.73, p = .03),and respondents who have been both victims and perpetrators of online dating fraud (Mean = 13.9, SE = 1.06), F (340) = 66.7 Cohen's d = -1.59, $p < .008$). Victims of online dating fraud (Mean = 6.73, SE = 0.83) reported significantly fewer dissociative symptoms than those who have been both victims and perpetrators of online dating

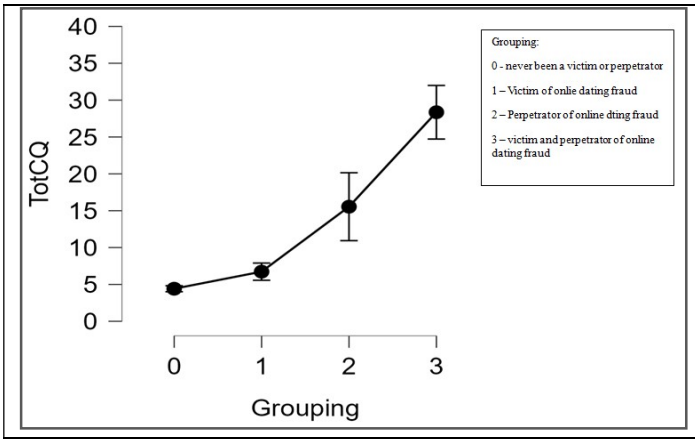

Figure 3. A graph showing reported 'acts of deception for personal gain' (catfishing (TotCQ))

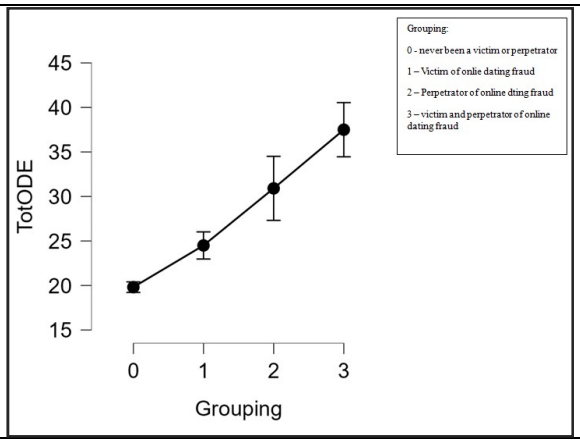

Figure 4. A graph showing reported online disinhibition (totODE) per group

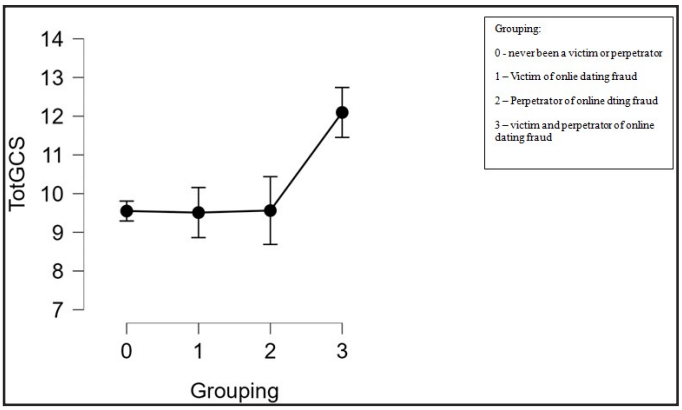

Figure 5. A graph showing reported compliance (totGCS) across the groups

	DSS	MOD	PMD	CQ	Means	SD
DSS	-				6.01	6.79
MOD	.424***	-	-	-	22.31	0.71
PMD	.426***	.439***	-	-	-8.65	0.78
CQ	.563***	.675***	.517***	-	7.06	11.58
GCS	.135*	.260***	.070	.141**	9.77	4.12

Note: * < .05; ** < .01; *** < .001 DSS = Dissociative symptoms; MOD = Online Disinhibition; PMD = Propensity to morally disengage; CQ = Catfishing Questionnaire; GCS = Compliance

fraud (Mean = 13.9, SE = 1.06), F (340) = 28.5, Cohen's d = -1.24, p < .001. Perpetrators of online dating fraud (Mean = 8.96, SE = 1.46) reported significantly fewer dissociative symptoms than those who have been both victims and perpetrators of online dating fraud (Mean = 13.9, SE = 1.06), F (340) = 7.7, Cohen's d = -0.85, p =.04).However, bootstrapping based on 1000 replicates indicated that those who had never been victims or perpetrators of online dating fraud did not significantly differ in reported dissociative symptoms from victims of online dating fraud (Mean difference = -2.01, SE = 0.91, p = .16). Victims of online fraud dating did not significantly differ in dissociative symptoms from perpetrators of online dating fraud (Mean difference = -2.15 SE = 1.43, p = .70). Figure 1 shows that respondents who had never been victims or perpetrators of online dating fraud reported fewer dissociative symptoms than victims of online dating fraud, who reported fewer dissociative symptoms than perpetrators of online dating reported fewer dissociative symptoms than respondents who had been both victims and perpetrators of online dating fraud.

Victims of online dating fraud reported significantly less propensity to disengage morally than perpetrators of online dating fraud did (H3): One-way ANCOVA was conducted to explore between-group differences in reported propensity to morally disengage (PMD). Preliminary checks indicated that the assumption for homogeneity of error variances in PMD between the groups was violated; Levene's test for the equality of error variances for dissociative symptoms was significant, F (3, 341) = 8.97, p< .001). However, examination of the Q-Q plot of standardised residuals indicated that the assumption of normality was not violated, with the data cluster being close to the slope for the PMD and with slight deviation at the ends. As predicted in

Hypothesis 3, there was a significant difference in the propensity to morally disengage between the groups after adjusting for social desirability response bias, F (3, 340) = 13.5, p< .001, ω^2 = 0.09, 95% CI[0.04, 0.15]. There is a significant main effect of social desirability on the reported propensity to morally disengage between the groups when controlling for the effect of group membership.

Table 6. Hierarchical Multiple Regression predicts reported Catfishing (CQ)

Measure	B	*Se B*	*B*
Model 0			
Intercept	-4.63	3.60	
M-CSD	0.06	0.14	0.02
DSS	0.47	0.07	0.29
PMD	0.22	0.05	0.18
ODE	0.49	0.04	0.49
GCS	-0.04	-0.03	-0.04
Model 1			
Intercept	-5.83	3.39	
M-CSD	.08	.14	.02
DES	.47	.07	.29***
MMD	.22	.05	.19***
ODE	.43	.04	.48***
Model 2			
Intecept	-3.91	1.33	
DES	.46	.07	.28***
PMD	.23	.05	.19***
ODE	.46	.04	.48***

However, the effect was small, F (1, 340) = 13.7, p< .001, ω^2 = 0.03, %95 CI [0.006, 0.08]. Post hoc comparisons with a Bonferroni correction indicated that respondents who had never been a victim or perpetrator (Mean = -10.1 SE = 0.45) reported significantly less propensity to morally disengage than perpetrators of online dating fraud (Mean = -3.5, SE = 2.59, F (340) = 8.5, Cohen's d = 0.80, p= .01), and respondents who have been both victims and perpetrators of online dating fraud (Mean = -0.62, SD = 2.32) did, F (340) = 33.9, Cohen's d = 1.25, p < .001). Victims of online dating fraud (Mean = -8.6, SE = 1.46) reported significantly less propensity to morally disengage than respondents who had been both victims and perpetrators of online dating fraud (Mean = 0.62, SE = 2.32) did, F (340) = 17.0, Cohen's d = -.096, p< .001.However, there was no significant difference in the propensity to morally disengage between respondents who had never been either victims or perpetrators and victims of online dating fraud(p = .84) or between victims and perpetrators of online dating fraud (p = .19) or between perpetrators and respondents who had been victims and perpetrators of online dating fraud (p= .86). Figure 2 shows that respondents who had never been victims or perpetrators of online dating fraud reported less propensity to morally disengage than victims of online dating fraud reported less propensity to morally disengage than perpetrators of online dating reported less propensity to morally disengage than respondents who had been both victims and perpetrators of online dating fraud.

Victims of online dating fraud reported significantly fewer acts of deception (catfishing) than perpetrators of online dating fraud did (H4): One-way ANCOVA explored between-group differences in reported 'acts of deception for personal gain' (Catfishing (CQ)) after controlling for social desirability response bias. Preliminary checks indicated that assumptions for homogeneity of error variances and normality in reported catfishing between the groups were violated; Levene's test for the equality of error variances for dissociative symptoms was significant, F (3, 341) =75.6, p< .001). An examination of the Q-Q plot of standardised residuals indicated that the data points snake around the slope for the CQ with some deviation at the ends. So, caution should be considered when evaluating the following results. However, Kruskal-Wallis, H (3) = 54.00, p< .001, and examination of Dunn's post hoc comparisons suggested that using the median in nonparametric tests would not alter the interpretation of the outcome. As predicted in Hypothesis 4,there were still significant differences in propensity to morally disengage between the groups, F (3, 340) = 69.4, p< .001, ω^2 = 0.36, 95% CI [0.28, 0.43). There is a significant main effect of social desirability on the reported propensity to morally disengage between the groups when controlling for the effect of group membership. However, the effect was small, F (1, 340) = 18.15, p= .005, ω^2 = 0.03).

Post hoc comparisons with a Bonferroni correction indicated that respondents who had never been a victim or perpetrator of online dating fraud (Mean = 4.2, SE = 0.33) reported significantly less catfishing than perpetrators of online dating fraud (Mean = 18.3, SE = 4.34) did, F (340) =42.3, Cohen's d = -1.68, p < .001), andrespondents who have been both victims and perpetrators of online dating fraud (Mean = 25.9, SE = 3.30) did, F (340) = 179.6, Cohen's d = 2.61, p< .001). Victims of online dating fraud (Mean = 6.1, SE = 1.16) reported significantly less catfishing than perpetrators of online dating fraud (Mean = 18.3, SE = 4.34) did, F (341) = 25.4, Cohen's d = -1.45, p< .001, and those who have been both victims and perpetrators of online dating fraud (Mean = 25.9, SD = 3.30) did, F (340) = 106.1, Cohen's d = 2.38, p< .001). Perpetrators of online dating fraud (Mean = 18.3, SE = 4.34) reported significantly less catfishing than those who have been both victims and perpetrators of online dating fraud (Mean = 25.9, SD = 3.30) did, F (340) = 9.0, Cohen's d = -0.92, p= .02). Figure 3 shows that respondents who had never been victims or perpetrators of online dating fraud reported less catfishing than victims of online dating fraud reported less catfishing than perpetrators of online dating reported less catfishing than respondents who had been both victims and perpetrators of online dating fraud.

Victims of online dating fraud reported significantly less online disinhibition than perpetrators of online dating fraud did H5): One-way ANCOVA explored between-group differences in reported online disinhibition (MOD). Preliminary checks indicated that the assumption for homogeneity of error variances and normality in reported online disinhibition between the groups was violated; Levene's test for the equality of error variances for dissociative symptoms was significant, F (3, 341) =10.5, p< .001). Examination of the Q-Q plot of standardised residuals indicated that the data cluster was close to the slope for online disinhibition, with little deviation at the end. So, caution should be considered when evaluating the following results. However, Kruskal-Wallis, H (3) = 54.5, p< .001, and examination of Dunn's post hoc comparisons suggested that using the median in nonparametric tests would not alter the interpretation of the outcome. As predicted in Hypothesis 5, there were still significant differences in online disinhibition between the groupsafter adjusting for social desirability response bias, F (3, 340) = 30.2p< .001, ω^2 = 0.19). There is a significant main effect of social desirability on the reported online disinhibition between the groups when controlling for the effect of group membership. However, the effect was medium, F (1, 340) = 36.4, p< .001, ω^2 = 0.08). After controlling for response bias, Post hoc comparisons with a Bonferroni correction indicated that respondents who had never been a victim or perpetrator (Mean = 19.7, SE = 0.6) reported significantly less online disinhibition than victims of online dating fraud (Mean = 24.1, SE = 1.5) did, F (340) = 8.5,

Table 7. Regression coefficients, wald statistics and odd ratios of predictors discriminating victim status

					Wald Test			95% Confidence interval	
	B	Standard Error	Odds Ratio	z	Wald Statistic	df	p	Lower bound	Upper bound
(Intercept)	-2.33	1.45	0.1	-1.6	2.57	1	0.11	-5.17	0.52
Sex (2)	-1.01	0.33	0.36	-3.09	9.56	1	.0001	-1.65	-0.37
AICats (2)	1.06	0.4	2.89	2.64	6.99	1	.008	0.27	1.85
AICats (3)	0.83	0.4	2.29	2.08	4.33	1	0.04	0.05	1.61
Marital Status (2)	-1.27	0.39	0.28	-3.26	10.63	1	.001	-2.03	-0.51
TotDES	0.08	0.03	1.09	3.26	10.62	1	.001	0.03	0.13
TotODE	0.04	0.02	1.04	2.59	6.71	1	.009	0.01	0.07
TotGCS	0.01	0.04	1.01	0.29	0.08	1	0.77	-0.07	0.09

Note: * p< .05 level (2-tailed); **p< .01 level (2-tailed) ***p< .001 level (2-tailed); Sex (2) = male; AICat (2) = between £30,001 and £50,000 per annum; AICat (3) = above £50,000; Marital status (2) = married; TotDES = Dissociative symptoms; TotODE = Online disinhibition; Tot GCS = compliance status.

Cohen's d = -0.46, p =.02, and perpetrators of online dating fraud (Mean = 33.7, SE = 3.12), F (340) = 32.0, Cohen's d = -1.47, p < .001, and those who have been both victims and perpetrators of online dating fraud (Mean = 34.8, SE = 2.70) did, F (340) = 64.6, Cohen's d = 1.56, p< .001. Similarly, victims of online dating fraud (Mean = 24.1, SE = 0.58) reported significantly less online disinhibition than perpetrators of online dating fraud (Mean = 33.7 SE = 3.12), F (340) = 12.3, Cohen's d = 1.01, p= .003, and respondents who have been both victims and perpetrators of online dating fraud (Mean = 34.7, SE = 2.70) did, F (340) = 22.8, Cohen's d = 1.11,p< .001. Perpetrators of online dating fraud (Mean = 33.7, SE = 3.12) did not report significantly less online disinhibition than those who have been both victims and perpetrators of online dating fraud (Mean = 34.7, SE = 2.70) did, F (340) = 0.10,p = .99. Figure 4 shows that respondents who had never been victims or perpetrators of online dating fraud reported less online disinhibition than victims of online dating fraud who reported less catfishing than perpetrators of online dating who reported less online disinhibition than respondents who had been both victims and perpetrators of online dating fraud.

Victims of online dating fraud did not report significantly less compliance than perpetrators of online dating fraud did (H6): One-way ANCOVA explored between-group differences in compliance (GCS). Preliminary checks indicated that the assumption for homogeneity of error variances and normality in reported compliance between the groups was not violated; Levene's test for the equality of error variances for compliance was significant, F (3, 341) = 1.51, p = .21).Examination of the Q-Q plot of standardised residuals indicated that the data cluster was close to the slope for compliance, with slight deviation at the lower end. There is a small significant difference in compliance between the groups, F (3, 341) = 4.68, p = .003, ω^2 = 0.03).

After adjusting for social desirability response bias, however, there wereno significant differences in compliance between the groups, F (3, 340) = 2.08, p = .10, ω^2 = 0.008, 95% CI [0.00, 0.03]. There was a significant medium main effect of social desirability on the reported online disinhibition between the groups when controlling for the effect of group membership, F (1, 340) = 25.9, p< .001, ω^2 = 0.07, 95% CI [0.025, 0.12]. Post hoc comparisons with a Bonferroni correction indicated that there was a significant difference in reported compliance between respondents who had never been a victim or perpetrator of online dating fraud (M = 9.6, SE = 0.26) and respondents who had been both victims and perpetrators (M = 12.1, SE 0.73), F (340) = 10.8, p= .007, Cohen's d = -0.63, 95% CI [-1.14, -0.12].

There was a significant difference in reported compliance between victims of online dating fraud (M = 9.5, SE = 0.58) and respondents who had been both victims and perpetrators (M = 12.1, SE 0.73), F (340) = 7.7, p = .04, Cohen's d = -0.64, 95% CI [-1.25, -0.24]. However, contrary to Hypothesis 6, after controlling for social desirability response bias, there were no significant differences in compliance between respondents who had never been a victim or perpetrator of online dating fraud (Mean = 9.7, SE = 0.25), victims of online dating fraud (Mean = 9.5, SE = 0.56), perpetrators (Mean = 9.2, SE = 0981), and respondents who had been both victim and perpetrator of online dating fraud (Mean = 11.4, SE = 0.72), p = ns.

Figure 5 shows that respondents who had never been victims or perpetrators of online dating fraud reported similar compliance rates to victims and perpetrators of online dating fraud. However, respondents who were both victims and perpetrators of online dating fraud were much more compliant. Table 5 shows means standard deviations and correlations between the outcome variables while controlling for social desirability response bias. Pearson's partial correlation analyses were conducted to determine whether online disinhibition (MOD) is positively associated with reported dissociative symptoms (DSS), the propensity to morally disengage (PMD), catfishing Questionnaire (CQ), compliance (GCS) while controlling for the effect of social desirability (GCS). Preliminary analyses ensured no violation of the normality, linearity and homoscedasticity assumption. As predicted in Hypothesis 7, significant positive correlations between reported online disinhibition, dissociative symptoms, the propensity to morally disengage, catfishing, and compliance even after controlling for social desirability. Strong partial correlations were found between reported dissociative symptoms and online disinhibition, r = .424, n = 345, p<. 001, the propensity to morally disengage, r = .426, n = 345, p< .001, and Ccatfishing, r = .563, n = 345, p< .001. However, the positive correlation between dissociative symptoms and compliance is much smaller, r = .135, n =345, p = .012. Significant strong partial correlations were found between reported online disinhibition and the propensity to morally disengage, r = .439, n = 345, p< .001, and Catfishing, r = .675, n = 345, p < .001. However, the positive correlation between online disinhibition and compliance is much smaller, r = .260, n =345, p = .012. A significant strong partial correlation was found between the reported propensity to morally disengage and catfishing, r = .517, n = 345, p< .001. However, the positive correlation between the propensity to morally disengageis now not significant, r = .070, n =345, p = .194.

There was a small but significant positive partial correlation between catfishing and compliance, r = .141, n = 345, p = .009.

Online disinhibition, propensity to morally disengage, and dissociative symptoms significantly contributed to the variance in reported catfishing: Hierarchical Multiple Regression analyses were conducted to determine whether online disinhibition, moral disengagement, dissociative symptoms and compliance contributed significantly to the variance in reported catfishing while controlling for social desirability. Preliminary analyses ensured the effect of any violation of the assumption of normality, multicollinearity, linearity and homoscedasticity, and independence of residuals were minimised. Durbin-Watson statistic = 1.99, p = .92 was between 1 and 3 as required, indicating no significant correlations between residuals. There were no cases where Cook's distance was > 1. Tolerance was > 0.1, and VIF (Variance Inflation Factor) did not exceed 10. The average VIF was slightly >1 at 1.47, but the average Tolerance was above 0.2 at (0.68) was acceptable. The solution of the regression equation:

Catfishing (CQ) = -3.91 + (0.46 * DSS) + (0.23 * MMD) + (0.46*ODE)

Table 6 shows that as the least significantly contributing predictors are removed statistically, we end up with a model with three significant predictor regression coefficients. As predicted in Hypothesis 8, Online disinhibition,β= 0.48, p< .001, the propensity to morally disengage, β = 0.19, p< .001, and dissociative symptoms,β = 0.28, p< .001, significantly contributed to 61.4% variance in reported catfishing. The Backward forced predictor entry method, removing the effect of social desirability first, resulted in a highly significant model at Model 0, F (5,344) = 108.6, p< .001, accounting for 61.6% of the variance in catfishing in the sample, adjusted R^2 = .61. Model 1, F (4,344) = 136.0, p< .001, accounting for 61.5% of the variance in catfishing in the sample, adjusted R^2 = .61.1. After removing the effect of social desirability in Model1, there was no further change in the variance of catfishing, R^2 change = -0.00,F-change= -.1, p = .99.Compliance (GCS) made no significant contribution to the variance in catfishing when online disinhibition (MOD), the propensity to morally disengage (PMD) and dissociative symptoms (DSS) were included in Model 2. Model 2 was significantly better than chance for explaining the variance in catfishing, F (3,344) = 180.9, p< .001, accounting for 61.4% variance in reported catfishing.

Online disinhibition and dissociative symptoms but not compliance significantly predicted victim status: Logistic regression analysis determined which online disinhibition, dissociative symptoms and compliance significantly predicted victim status. Several categorical factors (i.e., sex, gender, marital status, above-average annual income, and disability) are associated with victimhood in online dating fraud (Whitty, 2018), and these were included in the model McFadden's R^2 = 0.22, which is between 0.2 to 0.4, indicates a good model fit. The model was significant, χ^2 (328, N = 342) = 83.8, p< .001, indicating,as predicted in hypothesis 9, that the model could distinguish between victims and nonvictims of online dating fraud. The model explained between 21% (Cox & Snell R^2) and 32% (Nagelkerke R^2) of the variance in predicted victim status and correctly classified 81% of cases.

Table 7 shows the Regression coefficients, wald statistics and odd ratios of predictors discriminating victims. Sensitivity was 33%, and specificity was 95%. The strongest predictors were male sex (odds ratio = 0.36), Annual income between £30,000 and £50,000 (odds ratio = 2.89), Annual income above £50,000 (odds ratio = 2.29), Married status (odds ratio = 0.28, online disinhibition (0dds ratio = 1.04), and dissociative symptoms (odds ratio = 1.09). This indicated that male respondents were 0.36 times less likely to be online dating victims than nonvictims. Respondents earning between £3,001 and £50,000 per annum were 2.89 times more likely to be victims of online dating fraud than nonvictims. Respondents earning above £50,000 per annum were 2.29 times more likely to be victims of online dating fraud than nonvictims. Married respondents were 0.28 times less likely to be victims of online dating fraud than nonvictims. Respondents reporting dissociative symptoms were 1.09 times more likely to be victims of online dating fraud than nonvictims. Respondents reporting online disinhibition were 1.04 times more likely to be victims of online dating fraud than nonvictims. The hypothesis was only partially as predicted. Compliance did not significantly discriminate between victims and nonvictims of online dating (Wald statistic = 0.08, p =.77).

DISCUSSION

Whitty (2013) and Buchanan and Whitty (2014) outlined the steps perpetrators of online dating fraud go through to deprive their victims of their assets. However, very little is known about the interplay between the victim-survivor and perpetrator of online acting fraud (Campbell & Parker, 2022) or the extent to which they are both similar and different in the cognitive strategies at play as each party attempts to meet the needs of the other(Jonason & Webster, 2012). After all, doesn't everyone lie online? (Drouin *et al*., 2016). This study attempted to understand something about theinterpersonal by examining how nonvictims, victims, and perpetrators of online dating fraud differed in reported online disinhibition, dissociative symptoms, and the propensity to morally disengage, catfishing, and compliance after controlling for social desirability response bias. Confidence in catfish self-identification was assured because those identifying as a catfish also scored highly on the Catfishing questionnaire.It was hypothesised that there would be individual differences in reported online disinhibition dissociative symptoms, the propensity to disengage morally, catfishing, and compliance in online dating fraud; however, it was not hypothesised where these differences would occur. While perpetrators report significantly more online disinhibition, dissociative symptoms, the propensity to disengage morally, and catfishing than victims of online dating fraud did, victims reported these traits significantly more than respondents who had never been victims or perpetrators of online dating fraud did. There was a continuum of increasing expression of these characteristics between nonvictims to people who identified as both victims and perpetrators of online dating fraud. There has been some debate in the literature as to whether social desirability response bias should be controlled (Barger, 2002; Costa & McCrae, 1983; Ziegler *et al*., 2012; Perinelli & Gremigni, 2016); however, social desirability did impact how respondents answered the questions, albeit with modest effects. Social desirability in the form of impression management and self-deception was highest in those who had never been victims or perpetrators of online dating fraud,

inferring that victims and perpetrators were not more inclined to present a favourable impression to the researcher than those who had never been victims or perpetrators of online dating fraud. The number of victims and perpetrators of online dating fraud who participated in this study was not as large as it could have been, and therefore, the results should be treated with caution. However, response bias did not affect the validity of responses from those who participatedsubstantially. Some victims of online dating fraud may have found some of the questions difficult to answer or may have even been offended by them, and this may explain the number of uncompleted questionnaires (59), but this should be no reason not to ask direct questions. Only those interested in the study were likely to respond, but this would be the case in any study. Those who responded did so without fear or favour, which was appreciated. Although not reported here, the number of people who identified as victims and perpetrators of online dating fraud was unexpected. Despite the negative effect online dating fraud can have on victim-survivors (Sharp *et al*., 2004; Whitty & Buchanan, 2016), victim-survivors have also been identified as perpetrators of online dating fraud; some admitting to having committed online dating fraud more than once. Perhaps we should not be surprised, given the number of examples of victims also adopting a fake ID for personal gain online on numerous episodes of Catfish: The TV Show (Paat & Markham, 2021). Even so, the ability of individuals to adopt the strategies of catfish perpetrators would suggest that victims and perpetrators of online dating fraud might not be as different as some would have us believe. Granted, online disinhibition, dissociative symptoms, and the propensity to disengage morally explained 61% of reported catfishing, but online disinhibition and dissociative symptoms also contributed to victimhood, albeit at a lower level. There may be a conceptual overlap between the dissociative elements of online disinhibition and dissociative symptoms. However, online disinhibition and dissociative symptoms were found to be two moderately correlated separate factors. Stuart and Scott (2021) found that psychopathy, sadism and narcissism contributed to the variance of 61% catfishing in their study. It would be interesting to determine whether online disinhibition, moral disengagement, and dissociative symptoms measure the same thing. Commensurate with Whitty (2018), victims of online dating fraud were wealthy, older, and female individuals, but in this study, male respondents were 0.28 times more likely to report victimhood than female respondents. Interestingly, compliance was not an important factor in victims of online dating fraud relinquishing their assets. Victims seem to comply with the requests/demands of catfish perpetrators, but it appears that this is not against their will. In compartmentalising the transactions and separating them from everyday experience(Bandura *et al*., 1996), victims and nonvictims of online dating fraud appeared to display greater moral agency than perpetrators did. However, further consideration should also be given to the type of online disinhibition activated in online dating fraud. Perpetrators and victims may report significantly more online disinhibition than people who have never been victims or perpetrators of online dating fraud (Suler, 2004). However, can it be called benign or toxic disinhibition if what is disclosed is wholly fictitious? It's not toxic disinhibition in the sense that people are mean online, such as "flaming' (i.e., purposefully setting out to damage another's or one's own image) or 'trolling' (i.e., malicious, almost stalking online behaviour intended to annoy, aggravate, or disrupt others). Nor is it benign disinhibition because the effect can be devastating (Whitty & Buchanan, 2016). Perhaps there should be some distinction between factual disinhibition (i.e., the sharing of personal information that is factual) and fictional disinhibition (i.e., information that is not genuine, economic with the truth, or wholly untrustworthy).

Implications: Given the disproportionate number of nonvictims responding, these results should be treated cautiously; however, users of online dating sites are likely to utilise online disinhibition, dissociative symptoms, the propensity to morally disengage and catfishing and only differ in the extent to which they activate these characteristics in the pursuit of attention, love, affection or some other form of personal gain. In protecting potential victims, it might be advised that users of online dating sites minimise imaginative involvement, online disinhibition, and the propensity to morally disengage and beware of those who appear "too good to be true" online. Although there are some dissociative factors within the concept of online disinhibition (Suler, 2004), these appear to be different from the dissociative symptoms described by Carlson *et al*. (2018). Further study should tease these distinctions out in a larger sample with equal groups of respondents who have never been a victim or perpetrator victims and perpetrators of online dating fraud.

CONCLUSION

Online dating fraud continues to be a scourge worldwide, depriving unsuspecting victims of money and other material assets (UK Finance, 2022), self-respect, and self-esteem (Cavaglieri, 2022; Kassem, 2023). Somethingsare known about how perpetrators deprive their victims of their assets (Whitty& Buchanan, 2016); however, little is known about the social interaction between victims and perpetrators that makes online dating fraud possible. There appears to be a continuum of increasing online disinhibition, dissociative symptoms, propensity to morally disengage, catfishing morally, and compliance from those who have never been victims of online dating to victims, perpetrators, and those who identified ashaving been both victims and perpetrators of online dating fraud. After controlling for social desirability responding, perpetrators of online dating fraud reported significantly more online disinhibition, dissociative symptoms, propensity to morally disengage, catfishing, and compliance than victims and those who had never been victims or perpetrators of online dating fraud. However, victims were not found to be significantly more compliant than respondents who had never been victims of online dating fraud. This suggests that eagerness to please and avoid confrontation might not be why victims release money to perpetrators of online dating fraud. Future studies should further elucidate these findings in a different sample of online dating site users and expand on the phenomenon of those victims who become perpetrators of online dating fraud, sometimes more than once.

REFERENCES

Ainsworth, M., Boston, M., Bowlby, J., & Rosenbluth, D. (1956). The effects of mother-child separation: a follow-up study. *The British journal of medical psychology*, *29*(3-4), 211–247. https://doi.org/10.1111/j.2044-8341.1956. tb0 0915.x

Aimeur, E., Hage, H., & Amri, S. (2018). The scourge of online deception in social networks. *2018 International*

Conference on Computational Science and Computational Intelligence (CSCI), 1266–1271. https://doi.org/10.1109/CSCI46756.2018.00244

American Psychiatric Association. (2013). *DSM-V. Diagnostic and statistical manual of mental disorders (5th ed.)*. Arlington, VA: APA Publishing.

Bandura, A. (1990). Selective activation and disengagement of moral control. *Journal of Social Issues, 46*(1), 27–46. https://doi.org/10.1111/j.1540-4560.1990.tb00270.x

Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Mechanisms of moral disengagement in the exercise of moral agency. *Journal of Personality and Social Psychology, 71*(2), 364–374. https://doi.org/10.1037/0022-3514.71.2.364

Bowlby, J. (1956). Mother-child separation. In K. Soddy (Ed.), *Mental health and infant development. Vol. 1. Papers and discussions* (pp. 117–112). Basic Books, Inc.

Bowlby, J. (1980). *Loss: Sadness and depression. Attachment and loss* (Vol. 3); (International psycho-analytical library, no.109). London: Hogarth Press

Campbell, K., & Parker, M. L. (2022). Catfish: Exploring the Individual Predictors and Interpersonal Characteristics of Deceptive Online Romantic Relationships. *Contemporary Family Therapy,* 44, 422–435. https://doi.org/10.1007/s10591-022-09646-5

Carlson, E. B., Waelde, L. C., Palmieri, P. A., Macia, K. S., Smith, S. R., & McDade-Montez, E. (2018). Development and Validation of the Dissociative Symptoms Scale. *Assessment*, 25(1), 84-98. https://doi.org/10.1177/1073191116645904

Carter, E. (2021). Distort, extort, deceive exploit: Exploring the inner workings of romance fraud. The *British Journal of Criminology*, 61(2), 283–302. https://doi.org/10.1093/bjc/azaa072

Cavaglieri, C.. (2022, June 13). Romance fraud losses soar by 73%, but many scam victims stay silent, warns Which? Retrieved 21st February, 2024, from https://www.which.co.uk/news/article/romance-fraud-losses-soar-by-73-but-many-scam-victims-stay-silent-warns-which-a14ql7b9miCp

City of London Police. (2022). Written evidence (FDF0031) for House of Lords Fraud Act 2006 and Digital Fraud Committee HL Paper 87 Fighting Fraud: Breaking the Chain. https://committees.parliament.uk/ writtenevidence/ 108031/html/

Coluccia, A., Pozza, A., Ferretti, F., Carabellese, F., Masti, A., & Gualtieri, G. (2020). Online Romance Scams: Relational Dynamics and Psychological Characteristics of the Victims and Scammers. A Scoping Review. *Clinical practice and epidemiology in mental health*, 16, 24–35. https://doi.org/10.2174/1745017902016010024

Cross, C., Dragiewiz, M., & Richards, K. (2018). Understanding romance fraud: insights from domestic violence research. *The British Journal of Criminology*, 58(6) 1303-1322. https://doi.org/10.1093/bjc/azy005

Drouin, M., Miller, D., Wehle, S. M., & Hernandez, E. (2016). Why do people lie online? "Because everyone lies on the internet. *Computers in Human Behavior*, *64*, 134–142. https://doi.org/10.1016/j.chb.2016.06.052

Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G*Power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175–191. https://doi.org/10.3758/bf03193146

Gudjonsson, G. H. (1984). Interrogative suggestibility: comparison between 'false confessors' and 'deniers' in criminal trials. *Medicine, science, and the law*, *24*(1), 56–60. https://doi.org/10.1177/002580248402400109

Gudjonsson, G. H. (1989). Compliance in an interrogative situation: A new scale. *Personality and Individual Differences*, 10(5), 535–540. https://doi.org/10.1016/0191-8869(89)90035-4

Gudjonsson, G. H. (1990). The relationship of intellectual skills to suggestibility, compliance and acquiescence. *Personality and Individual Differences, 11*(3), 227–231. https://doi.org/10.1016/0191-8869(90)90236-K

Gudjonsson, G. H. (2003). *The psychology of interrogations and confessions: A handbook.* Chichester: John Wiley.

Gudjonsson, G. H., & Clark, N. K. (1986). Suggestibility in police interrogation: A social psychological model. *Social Behaviour*, 1(2), 83–104.

Hall, J. A., Park, N., Song, H., & Cody, M. J. (2010). Strategic misrepresentation in online dating: The effects of gender, self-monitoring, and personality traits. *Journal of Social and Personal Relationships, 27*(1), 117–135. https://doi.org/10.1177/0265407509349633

Haselton, M. G., Buss, D. M., Oubaid, V., & Angleitner, A. (2005). Sex, lies, and strategic interference: The psychology of deception between the sexes. *Personality and Social Psychology Bulletin*, 31(1), 3–23. https://doi.org/10.1177/0146167204271303

Horan, S. M., & Booth-Butterfield, M. (2013). Understanding the Routine Expression of Deceptive Affection in Romantic Relationships. *Communication Quarterly*, *61*(2), 195–216. https://doi.org/10.1080/01463373.2012.751435

Joinson, A. (1998). Causes and implications of disinhibited behavior on the Internet. In J. Gackenbach (Ed*.), Psychology and the Internet: Intrapersonal, interpersonal, and transpersonal implications* (pp. 43–60). Academic Press.

Joinson, A. N. (2001). Self-disclosure in computer-mediated communication: The role of self-awareness and visual anonymity. *European Journal of Social Psychology*, 31, 177–192. https://doi.org/10.1002/ejsp.36

Jonason, P. K., & Webster, G. D. (2012). A protean approach to social influence: Dark Triad personalities and social influence tactics. *Personality and Individual Differences*, 52(4), 521–526. https://doi.org/10.1016/j.paid.2011.11.023

Kassem, R. (2023). How fraud impacts individuals' wellbeing – academic insights and gaps. *Journal of Financial Crime*, Vol. ahead-of-print No. ahead-of-print. https:// doi.org/10.1108/JFC-08-2023-0215

Kassem, R., & Carter, E. (2023). Mapping romance fraud research – a systematic review. *Journal of Financial Crime*, vol. ahead-of-print. https://doi.org/10.1108/JFC-06-2023-0160

Lauckner, C., Truszczynski, N., Lambert, D., Kottamasu, V., Meherally, S., Schipani-Mclaughlin, A. M., Taylor, E., & Hansen, N. (2019). Catfishing," cyberbullying, and coercion: An exploration of the risks associated with dating app use among rural sexual minority males. *Journal of Gay & Lesbian Mental Health,* 23(3), 289–306. https://doi.org/10.1080/19359705.2019.1587729

Macia, K. S., Carlson, E. B., Palmieri, P. A., Smith, S. R., Anglin, D. M., Ghosh Ippen, C., Lieberman, A. F., Wong, E. C., Schell, T. L., & Waelde, L. C. (2023). Development of a Brief Version of the Dissociative Symptoms Scale and the Reliability and Validity of DSS-B Scores in Diverse

Clinical and Community Samples. *Assessment*, 30(7), 2058–2073. https://doi.org/10.1177/10731911221133317

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*(4), 370–396. https://doi.org/10.1037/h0054346

Offei, M., Andoh-Baidoo, F. K., Ayaburi, E. W., Asamoah, D. (2020). How Do Individuals Justify and Rationalise their Criminal Behaviors in Online Romance Fraud? *Information Systems Frontiers*, 24 (1), 475–491. https://doi.org/10.1007/s10796-020-10051-2

Paat, Y-F., & Markham, C. (2021). Digital crime, trauma, and abuse: Internet safety and cyber risks for adolescents and emerging adults in the 21st century. *Social Work in Mental Health*, 19(1), 18–40. https://doi.org/10.1080/ 15332985. 2020.1845281

Paulhus, D. L. (1984). Two-component models of socially desirable responding. *Journal of Personality and Social Psychology, 46*(3), 598–609. https://doi.org/10.1037/0022-3514.46.3.598

Putnam, F. W., Carlson, E. B., Ross, C. A., Anderson, G., Clark, P., Torem, M., Bowman, E. S., Coons, P., Chu, J. A., Dill, D. L., Loewenstein, R. J., & Braun, B. G. (1996). Patterns of dissociation in clinical and nonclinical samples. *The Journal of nervous and mental disease*, *184*(11), 673–679. https://doi.org/10.1097/ 00005 053-199611000-00004

Ray, J. V., Hall, J., Rivera-Hudson, N., Poythress, N. G., Lilienfeld, S. O., & Morano, M. (2013). The relation between self-reported psychopathic traits and distorted response styles: a meta-analytic review. *Personality disorders,* 4(1), 1–14. https://doi.org/10.1037/a0026482

Salisbury, J. (2024, 24th January). South London romance fraudsters tricked elderly victims into sending thousands of pounds. *Evening Standard*. https://www. standard. co.uk/ news/crime/romance-fraud-south-london-ghana-gold-ibrahim-moro-b1134456.html

Sharp, T., Shreve-Neiger, A., Fremouw, W., Kane, J., & Hutton, S. (2004). Exploring the psychological and somatic impact of identity theft. *Journal of Forensic Sciences*, 49(1), 131–136

Smith, L. R., Smith, K. D., & Blazka, M. (2017). Follow me, what's the harm? Considerations of catfishing and utilising fake online personas on social media. *Journal of Legal Aspects of Sport*, 27(1), 32–45. https://doi.org/ 10.1123/jlas.2016-0020

Stuart, J., & Scott, R. (2021). The Measure of Online Disinhibition (MOD): Assessing perceptions of reductions in restraint in the online environment. Computers in Human Behavior, 114, Article 106534. https://doi.org/10.1016/j.chb.2020.106534

Suler, J. R. (2004). The Online Disinhibition Effect. *Cyberpsychology & Behavior*, 7(3), 321-326. Https://doi.org/10.1089/1094931041291295

Toma, C. L., Hancock, J. T., & Ellison, N. B. (2008). Separating fact from fiction: an examination of deceptive self-presentation in online dating profiles. *Personality & Social Psychology Bulletin*, *34*(8), 1023–1036. https:// doi.org/10.1177/0146167208318067

Tyler, J. M., & Feldman, R. S. (2004). Truth, lies, and self-presentation: How gender and anticipated future interaction relate to deceptive behaviour. *Journal of Applied Social Psychology*, 34(12), 2602–2615. https://doi.org/ 10. 1111/j.1559-1816.2004. tb01994.x

UK Finance (2021). Nearly 40% of people looking for love online were asked for money. (2023). UK Finance. Retrieved 21st February, 2024, from https://www.ukfinance.org.uk/press/press-releases/nearly-40-cent-people-looking-love-online-were-asked-money

Whitty M. T. (2018). Do You Love Me? Psychological Characteristics of Romance Scam Victims. *Cyberpsychology, behavior and social networking,* 21(2), 105–109. https://doi.org/10.1089/cyber.2016.0729

Whitty, M. T., & Buchanan, T. (2012). The online romance scam: a serious cybercrime. *Cyberpsychology, behavior and social networking*, *15*(3), 181–183. https://doi. org/ 10.1089/cyber.2011.0352

Whitty, M. T., & Buchanan, T. (2016). The online dating romance scam: The psychological impact on victims – both financial and non-financial. *Criminology and Criminal Justice,* 16(2), 176–194. https://doi.org/10.1177/1 74889 5815603773

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