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The ageing Narcissus: Just a myth? ~~Narcissism and loneliness in older age~~ Narcissism  
moderates the age-loneliness relationship in older age

## Abstract

Objective: Recent research has indicated that sub-clinical narcissism may be related to positive outcomes in respect of mental and physical health, and is positively related to an extended lifespan. Research has also indicated narcissism levels may decline over the lifespan of an individual. The aims of the present study were to investigate these issues, exploring age-related differences in levels and outcomes of narcissism. Specifically, narcissism's relationship with loneliness, a deleterious but pervasive state among older-age individuals, was assessed.

Method: 100 middle-aged ( $M_{AGE} = 48.07$ ;  $SD = 5.27$ ; 53% female) and 100 older-aged participants ( $M_{AGE} = 70.89$ ;  $SD = 5.97$ ; 51% female) completed the 40-item Narcissistic Personality Inventory and the UCLA Loneliness Scale, Version 3.

Results: Older-age participants had significantly lower levels of narcissism, and significantly higher levels of loneliness than middle-aged participants. ~~Age was negatively correlated within the older aged, but not middle aged group.~~ Age and narcissism significantly predicted self-reported loneliness levels, with narcissism moderating the relationship between age and loneliness.

Conclusions: This study supports existing work, indicating that a degree of narcissism supports is of benefit to normal psychological functioning in respect of age-related loneliness, and is found to be a protective factor in mental health.

*Keywords: Narcissism, Loneliness, Age, Mental health, Adaptation*

## 1. Introduction

Sub-clinical narcissism is operationally defined as 'self-admiration that is characterized by tendencies toward grandiose ideas, fantasied talents, exhibitionism, and defensiveness in response to criticism; interpersonal relationships... characterized by feelings of entitlement, exploitativeness, and a lack of empathy' (Raskin & Terry, 1988, p. 896). Some psychologists have considered the trait to be maladaptive (Freud, 1914; Kernberg, 1975; Washburn, McMahon, King, Reinecke, & Silver, 2004), and there are undoubtedly 'costs' associated with the trait. These include difficulty in maintaining relationships (social and romantic) over time (Campbell, Bush, Brunell, & Shelton, 2005; Rauthman, 2012). However, recent evidence has linked narcissism to a number of 'bright' outcomes. Narcissism is related to positive impression formation (Back, Schmuckle, & Egloff, 2010), and an outgoing social style (Holtzman, Vazire, & Mehl, 2010). Other benefits are related to evolutionary 'fitness': increased levels of lifetime sexual partners (Holtzman & Strube, 2012), achieving status in hierarchical environments (Maccoby, 2000; Rosenthal & Pittinsky, 2006), and a longer lifespan with good emotional, psychological and social well-being, and good mental health (Jonason, Baughman, Carter, & Parker, 2015). The present study explores the relationship between narcissism and a specific, deleterious mental state – loneliness – experienced by many in older age, and related to depression and higher levels of suicide (Battegay & Mullejans, 1992; Heisel, Links, Conn, van Reekum, & Flett, 2007; Singh, 2015). Existing evidence suggests narcissism decreases with age (Foster, Campbell & Twenge, 2003); the opposite is true of loneliness (Routasalo, Savikko, Tilvis, Strandberg, & Pitkala, 2006). The relationship between the two, and whether narcissism's evolutionarily beneficial effects extend to 'protect' against loneliness are explored in the present study.

Historically, approaches to conceptualising and studying narcissism were largely psychodynamic or psychoanalytical (Freud, 1914; Kohut, 1966). Nevertheless, there was a

26 lack of consensus as to a singular, definitive classification of the concept (see Consoling,  
27 1999). Decades of clinical, observational work ultimately led to the inclusion of a definition  
28 of narcissism in the third edition of the Diagnostic and Statistics Manual as a lack of empathy  
29 accompanied by a pervasive pattern of grandiosity (in fantasy or behaviour) and a need for  
30 admiration (American Psychiatric Association, 1980). Narcissism was later classified as a  
31 discrete disorder (a 'Cluster B Personality Disorder') in the DSM-IV, according to the criteria  
32 of possessing a grandiose sense of self-importance; a preoccupation with fantasies of  
33 unlimited success, power, brilliance, beauty, or ideal love; a belief that he or she is 'special'  
34 and 'unique'; a requirement for excessive admiration; and a sense of entitlement. Over a  
35 similar period to these developments, Raskin and Hall (1979) created the Narcissistic  
36 Personality Inventory (NPI). Later refined by Raskin and Terry (1988), the NPI is considered  
37 the genesis of a different approach to the trait. The NPI provided the impetus to view  
38 narcissism from a quantitative, empirical, and social-personality point of view, and to define  
39 and explore a sub-clinical level of the character trait (Miller & Campbell, 2008).

40         Although associated with multiple adverse attitudes and behaviours, evolutionary  
41 psychologists have recently appraised narcissism in respect of the benefits that high levels of  
42 the trait confer, as well as its costs. Holtzman and Strube (2012) suggest the charm, self-  
43 adornment and unrestricted sociosexuality associated with the trait facilitate a successful  
44 short-term mating strategy. Paunonen, Lönnqvist, Verkaslo, Leikas, and Nissinen (2006)  
45 found that the egotism and self-esteem aspects of narcissism were associated with other-rated  
46 leadership potential. Jonason et al. (2015) found that narcissism was related to living longer,  
47 and to feelings of hope, self-esteem and psychological well-being. Jonason et al. argued that  
48 this was an example of the adaptive benefits that narcissism yields; in particular, ~~and that the~~  
49 positive mental health outcomes; ~~in particular~~, were a result of narcissistic individuals'  
50 extraversion and sociability; . This was proposed to partly stemming from ~~their narcissistic~~

51 | [individuals'](#) need for others to admire and lavish attention on them.

52 | *Narcissism and age*

53 | Despite myriad empirical studies exploring the trait's correlates and outcomes, little  
54 | attention has focused on the relationship between narcissism and age. In particular, there is a  
55 | paucity of work on narcissism involving older-age participants: most studies have been  
56 | conducted with student- or early-middle-aged participants. A recent meta-analysis of 355  
57 | studies ( $N = 470,856$ ) reported that the upper end of the age range of participants was 55  
58 | years old (Grijalva et al., 2015). Among the few authors who have reflected on narcissism in  
59 | later life, most have adopted case-study approaches (Jovic, 1986; Becker, 2006). Even the  
60 | Berlin Ageing Study (BASE; Lindenburger, Smith, Mayer, & Baltes, 2010), a large-scale  
61 | study that investigated the mental health and psychological functioning of older-age  
62 | participants (aged 70-100), did not address the issue, despite its focus on sub-diagnostic  
63 | psychopathology, and self and personality concepts.

64 | Where studies have been conducted on this topic, researchers have noted that  
65 | increasing age can affect narcissistic tendencies, relating to typically contemporaneous  
66 | changes to an individual's role in the world (Wheelock, 1997). These changes may  
67 | encompass a lessening of authority and responsibility, and even a loss of independence  
68 | (Danko, Arnaud, & Gely-Nargeot, 2009). Researchers have proposed that this creates  
69 | 'narcissistic injury' (Wheelock) and induces a 'narcissistic crisis' (Teising, 2008). Changes in  
70 | self-perception are particularly deleterious to narcissism, particularly regarding sentiments of  
71 | self-admiration, fantasied talents and exhibitionism. Societal views of the age group to which  
72 | one belongs greatly affects individuals (Danko et al.). Battegay and Mullejans (1992)  
73 | concluded that the elderly have 'less narcissism at their disposal' (p. 293); a view shared by  
74 | Pellerin, Pinquier and Portart (2003), who referred to 'the weakening of narcissism' (p. 89).

75 | Supporting this, Twenge and Campbell (2008), in a large-scale ( $N = 3,445$ ),

76 geographically and ethnically wide-ranging cross-sectional study, reported that college-aged  
77 members of 'Generation Me' (p. 862) are more narcissistic than post-war 'Baby Boomers' and  
78 their antecedents. Although contested by some (Trzesniewski, Donnellan & Robins, 2008), a  
79 meta-analysis by Twenge, Konrath, Foster, Campbell, and Bushman (2008) showed that NPI  
80 scores were significantly positively correlated with the year of their recording. Other  
81 available evidence (Roberts, Edmonds & Grijalva, 2010) suggests this is accurate, reflecting  
82 the recession of narcissism over age, and that age, rather than cohort belonging, per se, is the  
83 cause of this decline.

84 Extant research thus suggests narcissism decreases with age, simultaneous to a  
85 decrease in libido, self-attention, ego, and, often, socially-conventional standards of beauty  
86 (Battegay & Mullejans, 1992). One of the consequences of the attenuation of narcissism may  
87 be the issues of self-confidence that arise within some elderly individuals. Older adults can  
88 experience self-confidence issues in interpersonal interactions, particularly with unfamiliar  
89 individuals. This extends to uncertainty in novel environments, or situations (Battegay &  
90 Mullejans). The effect, therefore, can be a greater feeling of isolation, and a tendency to  
91 withdraw from such novel people and circumstances, eliminating the social lifestyle that  
92 Jonason et al. (2015) hypothesised was central to narcissism's health benefits. While  
93 Battegay and Mullejans' Swiss study centres on the extreme outcomes these feelings can  
94 result in (i.e., suicide), their data are nonetheless valuable in gaining an insight into a rarely-  
95 studied aspect of the elderly experience. Suicide levels were significantly higher for men over  
96 60 ( $p < 0.05$ ), with sex differences increasing in those over 70 ( $p < 0.01$ ), concurrent with  
97 decreased levels of narcissism (Battegay & Mullejans). The same is true of the findings of  
98 Clark (1993), who suggested that, in certain cases, suicidal tendencies were brought about by  
99 life-changes that relate to age, compounded by decreased levels of narcissism. Even in non-  
100 suicidal elderly individuals, a positive correlation between narcissism and depression has

101 been noted. Importantly, both these relationships remain when controlling for cognitive  
102 functioning (Heisel et al., 2007). These results reflect the 'mixed-benefits' nature of the trait,  
103 but more importantly, the link between narcissism and mental health, which we continue to  
104 explore here.

#### 105 *Narcissism and loneliness*

106 | Narcissism can be conceived, [partially, as an evolved as-protective](#) against [some](#)  
107 | negative psychological states, of which loneliness is [foremostone](#), and from which other  
108 | negative psychological states subsequently stem. Wada (2000) has suggested a degree of  
109 | narcissism may be crucial (and therefore beneficial) to individuals' functioning, no less in old  
110 | age than in earlier life. If narcissism declines to the extent existing literature suggests, that  
111 | would partly explain a predisposition towards the 'psychological vulnerability' (p. 885) often  
112 | manifest in later years. Wada suggests the degradation of narcissism levels in the elderly  
113 | may, in part, be responsible for increased susceptibility to depression, which in turn 'can  
114 | induce various kinds of physical illness' (p. 887). This is supported by Pellerin et al. (2003),  
115 | and Stucke and Sporer (2002): the latter investigated the relationship between narcissism and  
116 | negative mental states, in terms of responses to ego threats, and found lower levels of  
117 | narcissism predicted negative emotionality.

118 | In addition to representing a buffer against negative psychological states, the levels of  
119 | self-esteem and self-confidence associated with narcissism (Zeigler-Hill, Clark, & Pickard,  
120 | 2008) impart a considerable, specific defence against feelings of loneliness. Sedikides,  
121 | Rudich, Gregg, Kumashiro and Rusbult (2004) conducted five studies into the relationship  
122 | between narcissism and psychological health. The second of these found that narcissism was  
123 | inversely related to both daily and dispositional loneliness. Furthermore, in a longitudinal  
124 | study that considered clinical, anecdotal and empirical evidence, Joiner, Petty, Perez, Sachs-  
125 | Ericsson and Rudd (2008) found that the relationship between levels of narcissism and

126 psychological health appears to be linear, and unidirectional.

127         Moreover, Taylor, Lerner, Sherman, Sage and McDowell (2003) presented evidence  
128 that narcissism acts as a defence mechanism - a concomitant of good mental health - and that  
129 the self-esteem and self-enhancement associated with a degree of narcissism is positively  
130 correlated with developing good interpersonal relationships. Taylor and colleagues' results  
131 support Battegay and Mullejans (1992), who recorded a concurrent reduction in narcissism  
132 and self-confidence in the elderly, particularly with regard to experiences involving others.  
133 Avoidance of social interactions likely results in increased feelings of isolation and  
134 loneliness, further exacerbated over time, in the manner of a feedback loop (see also Rainer  
135 & Martin, 2012). Finally, in a series of Finnish studies, Kalliopuska (2008) reported links  
136 between low levels of narcissism and high levels of shyness, leading to feelings of isolation.  
137 This further supports the relationship between social isolation and loneliness. Interpersonal  
138 skills, socialisation patterns, and social support have also been implicated in an individual's  
139 vulnerability to developing, as well as recovery from, depression (Bieling & Alden, 2001;  
140 Billings, Cronkite, & Moos, 1983; Coyne, 1976; Joiner, Alfano, & Metalsky, 1992), in a  
141 similar feedback loop. Other studies have found comparable results, noting that depression -  
142 which, as established, is a greater risk to those with lower levels of narcissism - and other  
143 'hardships originating from ageing' (p. 223), were causally related to loneliness (Routasalo et  
144 al., 2006).

145         Evolutionary psychologists have proposed that individual differences in personality  
146 both 'create' and 'solve' problems (e.g., Buss, 1993). This argument has been made in  
147 respect of narcissism and short-term mating (Holtzman & Strube, 2012); evidence suggests it  
148 may be true of narcissism and loneliness. Through an aversion to several harmful health  
149 behaviours, whether or not the motivation is to maintain attractiveness, narcissism is related  
150 to a comparatively healthy lifestyle and increased longevity (Jonason et al., 2015; Hudek-

151 Knežević, Kardum, & Mehić, 2016). To the extent that older age engenders loneliness,  
152 narcissism may additionally function to ‘solve’ this costly outcome.

153 *The present study*

154 As narcissism declines with age, and loneliness increases, the design of the present  
155 study measures both of these in a targeted sample of middle- and older-age participants. The  
156 selection of tests to be used in the current project was informed by existing literature. The  
157 design required a measure of narcissism, a measure of loneliness, and a screening test to  
158 assess cognitive function in participants, to ensure that inventory items were understood.  
159 Samuel and Widiger (2008) compared five narcissism scales with a range of  
160 conceptualisations of sub-clinical narcissism, and found more empirical support for the NPI  
161 as a measure of sub-clinical narcissism than any other inventory, in accordance with the  
162 theories of Paulhus (2001). NPI items assess extroversion, dominance, independence, self-  
163 esteem, and self-importance (Corry, Merritt, Mrug, & Pamp, 2008). In addition, the NPI is  
164 considered the optimum extant measure for assessing “narcissism as a psychological  
165 construct in the sense of personality variable” (Ritter & Lammers, 2007, p. 55). The UCLA  
166 Loneliness Scale, Version 3 (Russell, 1996) has demonstrated a high internal consistency  
167 (with alpha values ranging from .89 to .94), and strong test-retest reliability ( $r = .73$ , over a  
168 12-month period) (Shaver & Brennan, 1991). It has also been used successfully with elderly  
169 populations (Cutrona, Russell, & Rose, 1986). To screen for shortcomings in cognitive  
170 functions that may result from older age (Crook, Bartus, Ferris, Whitehouse, Cohen, &  
171 Gershon, 1986), the Mini-Cog Test was selected (Borson, Scanlan, Brush, Vitaliano, &  
172 Dokmak, 2000). This test was chosen as it is more sensitive to mild memory-related cognitive  
173 impairments than other screening tests (a sensitivity of 76%, higher than conventional  
174 neuropsychological batteries) and is quick to administer and score (Borson, Scanlan, Chen &  
175 Ganguli, 2003). The primary reason for its inclusion was to ensure that all participants, across

176 age groups, had comparable cognitive functioning. This was judged important as assorted  
177 issues (including around focus and confusion) are known to increase in prevalence after the  
178 age of 65 (the mean age of participants in the older group was 70.89).

179 In all cases, selected measures were comparatively concise modifications of earlier  
180 versions. This minimisation of length was considered important, so as not to subject  
181 participants to fatigue and jeopardise response accuracy.

182 In line with theories regarding age-based differences in narcissism, and existing  
183 literature on loneliness, it was anticipated that older-aged participants would report lower  
184 levels of narcissism and higher levels of loneliness than middle-aged participants. Age was  
185 expected to be a negative correlate and predictor of narcissism and a positive correlate and  
186 predictor of loneliness. Narcissism was expected to be a negative predictor of loneliness.  
187 Given evidence regarding narcissism's protective benefits in respect of mental health, it was  
188 expected that narcissism would moderate the relationship between age and loneliness.

## 189 **2. Method**

### 190 *2.1 Participants*

191 Two hundred participants, 100 of whom were middle-aged (35-55 years old) and 100  
192 of whom were older (65-85 years old) were recruited through opportunity sampling in the  
193 local community. Participant age ranged from 35 to 85; the mean age of the middle-aged  
194 group was 48.07 years ( $SD = 5.27$ ); the mean age of the older-age group was 70.89 years ( $SD$   
195  $= 5.97$ ). Participants aged 55-65 years were not targeted as this range is considered a non-  
196 distinct category between late middle age and early older age; the U.K. Census supports this  
197 assertion (Office for National Statistics, 2001). Furthermore, the full onset of older age is not  
198 typically considered to occur in the U.K. until the eligibility to retire, with benefits, which  
199 currently occurs for all U.K. nationals by the age of 65. The middle-aged group comprised 47  
200 male and 53 female participants; the older-aged group comprised 49 males and 51 female

201 participants.

## 202 *2.2 Materials, procedure, and research design*

203         The Mini-Cog Test (Borson et al., 2000) requires participants to remember three  
204 simple words, complete a drawing of a clock set to a specific time (10.45), then recall the  
205 words. Recall of fewer than two words and a drawing error indicates memory impairment. A  
206 positive screening would have resulted in participants' responses being marked for  
207 destruction, however, no participants screened positively for memory impairment.

208         To measure narcissism, participants completed the 40-item Narcissistic Personality  
209 Inventory (Raskin & Terry, 1988). Participants indicate agreement with one of two paired  
210 items – for example, “I am essentially a modest person” (non-narcissistic choice) or  
211 “Modesty does not become me” (narcissistic choice). Scores are created based on the number  
212 of narcissistic choices made. Internal consistency was good ( $\alpha = .89$ ).

213         To measure feelings of loneliness, participants completed the 20-item UCLA  
214 Loneliness Scale, Version 3 (Russell, 1996). Items include ‘How often do you feel you lack  
215 companionship?’; participants indicate the frequency with which they feel such states on  
216 four-point semantic difference (‘never’, ‘rarely’, ‘sometimes’, or ‘always’). Internal consistency  
217 was good ( $\alpha = .89$ ).

218         Due to the age of many participants, internet administration was not felt to be prudent.  
219 Particularly when working with older-aged participants, in-person administration has been  
220 recommended (Lindenburger et al., 2010), as has the use of traditional pen-and-paper  
221 methods (Foster et al., 2003). Participants were supplied with a letter of introduction,  
222 encompassing briefing information and a consent form. This information reminded  
223 participants of their right to decline participation, and to withdraw at any point, in which case  
224 any data would be destroyed. To enable withdrawal from the study, after completion of the  
225 questionnaire, participants were asked to create an anonymous code and provided with the

226 experimenter's contact details to request this. Questions were then invited, before informed  
227 consent was obtained. Following consent, the experimenter administered the Mini-Cog test.  
228 Participants were given printed versions of NPI and UCLA Loneliness Scale to complete.  
229 Written instructions were provided for each measure; no participants required additional  
230 explanation, or assistance with writing their answers. Participants completed their forms in  
231 private. In keeping with the nature of items comprising the NPI and UCLA Loneliness Scale,  
232 particular consideration was given to participants' privacy. Participants detached consent  
233 forms, and placed them in a marked envelope. Following their completion of the test  
234 inventories, participants placed answer sheets in a separate envelope.

### 235 **3. Results**

236 All participants passed the Mini-Cog test. Descriptive statistics for participants' age,  
237 NPI and UCLA Loneliness Scale scores are presented in Table 1.

238

To assess differences between samples, t-tests were conducted on NPI and UCLA Loneliness scores between groups. Older-aged participants reported significantly lower levels of narcissism [ $t(198) = 7.7, p < .001$ ] and significantly higher levels of loneliness than middle-aged participants [ $t(198) = 5.09, p < .001$ ]. For both groups, males reported significantly higher narcissism scores than females (middle-aged,  $p < .05$ ; older-aged,  $p < .01$ ), in keeping with the majority of previous studies (Grijalva et al., 2015).

In order to test whether narcissism moderated the relationship between age and loneliness, a hierarchical linear regression was performed, first testing for the predictive utility of age alone, then age with narcissism, followed by an age-by-narcissism interaction (Aiken, West, & Reno, 1991; Pedhazur, 1997). Narcissism scores were centred before the interaction term was computed in order to control for multicollinearity of the interaction term, which otherwise would have exceeded a VIF value of 10 (O'Brien, 1987). Due to the significant difference in narcissism scores found between male and female participants, sex was entered in the first step. All of the data met conservative measures of normality.

239 The hierarchical regression revealed that at stage one, age contributed significantly to  
240 the regression model,  $F(1, 198) = 25.947, p < 0.001$  and accounted for 11.1% of the variance  
241 in loneliness scores. Introducing narcissism explained 14.0% of the variance in loneliness,  
242 which was significant,  $F(2, 197) = 17.149, p < 0.001$ . When the interaction term between age  
243 and narcissism was entered into the model, a total of 19.2% of the variance was explained,  
244 which was significant,  $F(3, 196) = 16.761, p < 0.001$ . Sex did not significantly contribute to  
245 the model at any stage and was therefore excluded from the analysis. The results suggest that  
246 narcissism moderates the relationship between age and loneliness; a graphical representation  
247 of the interaction can be found in Figure 1.

248 To explore the moderating effect of narcissism further, and to better understand the  
249 interaction between narcissism and age, correlation analyses of age and loneliness

250 relationship were conducted. Firstly, the full sample was tested. A significant positive  
251 correlation was found between age and loneliness  $r(198) = .35, p < .001$ . That is, older  
252 participants tended to have higher loneliness scores. Next, the correlation was re-tested,  
253 controlling for narcissism. It remained significant (positive)  $r(198) = .23, p < .001$ , but  
254 decreased in strength.

255 Finally, the correlation was tested within each participant group, controlling for  
256 narcissism in both cases. For the middle-aged group, the correlation was not significant  $r(98)$   
257  $= .02, p = .832$ . For the older-age group, the correlation was also not significant  $r(98) = .01, p$   
258  $= .947$ . Narcissism thus moderated the negative relationship between age and loneliness in  
259 | both middle-aged and older-age participants. Within groups, results did not differ  
260 significantly by sex.

#### 4. Discussion

The results of the current study supported the hypotheses. Narcissism was lower in older-aged participants compared with middle-aged participants. Age was negatively correlated with, and negatively predicted narcissism, but was positively correlated with, and positively predicted loneliness. Narcissism was a negative correlate and predictor of loneliness. Narcissism also moderated the relationship between age and loneliness.

A lower level of narcissism in older individuals is in line with the conclusions of the limited number of studies that have previously explored this issue (Twenge & Campbell, 2008; Danko et al., 2009). The present study therefore reinforces existing evidence contradicting case studies that associate later life with increased narcissism (e.g., Peruchon, 2004). With regard to the potential effect of cohort (i.e., generational) membership (Trzesniewski et al, 2008; Roberts et al., 2010), correlation results bear scrutiny. Within 35-55 year olds (the middle-aged group), there was no significant relationship between narcissism and age, indicating no decline in narcissism across these years. However, 65 appears to be a threshold at which this relationship becomes significant. It therefore seems cohort membership is important, but only in so far as it reflects chronological age. This may be an effect of the substantial change in individuals' lives and roles that typically occur after retirement (Wheelock, 1997; Danko et al., 2009). However, in respect of narcissism in relation to generational belonging, recent evidence from the Berlin Ageing Study (Hülür et al., 2016) has indicated that the BASE II cohort, studied 2013-2014, reported significantly lower levels of loneliness than the 1990-1993 cohort. If Roberts and colleagues' (2010) assertion is correct in that each generation is "more narcissistic than their elders" (p. 97), this may be reflected in the findings of the BASE results (Hülür et al.) and the current study. BASE does not presently record narcissism levels; this could be considered in the future.

A higher level of loneliness in older individuals is also in keeping with existing

literature (Routasalo et al., 2006). In contrast to the negative relationship between age and narcissism, age and loneliness are positively related in older-aged individuals. As with narcissism, this finding indicates that levels of loneliness remain relatively stable over middle-age, suggesting that loneliness is not a typical experience for this age group. Beyond 65, however, individuals are increasingly likely to feel lonely. This may be explained by the often decreased levels of socialising on the part of many older individuals (Kalliopuska, 2008), and the possible loss of close friends and even spouses (Teising, 2008). Higher levels of narcissism may provide one of several buffers against loneliness, in that individuals with higher levels of the trait are likely to continue to seek social interaction (Holtzman et al., 2010), even if only to seek attention.

That narcissism significantly moderated the relationship between age and loneliness in older-aged participants supports previous research on the protective effects that narcissism can impart (Hudek-Knežević, et al., 2016; Jonason et al., 2015), including in later life (Taylor et al., 2003; Zeigler-Hill et al., 2008). Higher levels of narcissism do impart a defence against certain negative mental states – implying that a degree of narcissism should indeed be seen as beneficial in this respect, and a contributing factor to good psychological health (Jonason et al., 2015). Additionally, narcissism is associated with multiple reasons to form friendships (Jonason & Schmitt, 2012), in turn increasing the likelihood of being able to draw on valuable social support (e.g., Cohen & Wills, 1985), offsetting loneliness, stress, and other negative mental states.

#### *Limitations and future research*

While the current study does extend knowledge regarding narcissism's relationship with age, it is cross-sectional. Longitudinal research would enhance comprehension of this relationship, especially in respect of the importance of age as compared with generational belonging. In addition, the present study depends on self-report data, which is another

limitation. -We hope the present study may act as a catalyst for ~~such~~-additional work to be undertaken. Some preliminary work of ~~this~~-a longitudinal nature has been undertaken with a younger sample (Carlson & Gjerde, 2009), but no such study has yet been presented including participants of middle- or older-age.

Future work could also consider other variables that may account for the association between narcissism and loneliness – such as self-esteem, extraversion, sociability and neuroticism. Whilst the NPI does tap these most of these traits (bar neuroticism; Miller et al., 2008), inclusion of explicit measures to assess them may be enlightening. It is also important that the research investigate the importance of such factors in predicting loneliness in older age. Given the distinction between aloneness and loneliness, there are likely to be complex interactions of factors contributing to this relationship. This research represents only a first step in exploring this issue.

In addition, the measurement inventories selected for the current study's questionnaire are not without fault. Miller and Campbell (2008) have suggested that there are problems within the current conceptualisation of sub-clinical narcissism as measured by the NPI. Namely, these are that it primarily captures the antagonistic, conscientious and extraverted components of the trait, but functions less well in capturing neurotic facets. Moreover, several items on Raskin and Terry's (1988) NPI are explicitly future-oriented. These include 'I will be a success', 'I want to amount to something in the eyes of the world', and 'I am going to be a great person'. These may be inherently difficult for older-age individuals to endorse. The average lifespan in the United Kingdom is 77.2 years for males and 81.6 years for females (U.N. World Population Prospects Revision, 2007). Moreover, as these statements are in the future tense, these statements may cause a comparison between one's present self and one's future or ideal self. Research has shown that older adults perceive less discrepancy between their actual and ideal selves (Ryff, 1991). Moreover, in comparison with young and

middle-aged adults, they perceive more stability in their personality across their past, present, and future selves (Ryff). This implies that they do not envisage changes in, for instance, ‘successfulness’ in the future, and therefore may prevent them from endorsing these statements, which make up 10% of the NPI. In addition, they may have already achieved major life goals, and may consider themselves to have reached peak success, which would further hinder their ability to endorse these statements. Therefore, assessing narcissistic tendencies in individuals of or over these ages with such times may be flawed.

Increasingly, psychometric research is utilising item-response theory analyses, such as Mokken analysis (Mokken, 1971), to assess personality tests as participants respond to them. Some research has already been undertaken on a short narcissism subscale of a popular measure that assesses the Dark Triad of narcissism, Machiavellianism and psychopathy (Paulhus & Williams, 2002; Carter, Campbell, Muncer, & Carter, 2015). Similar scrutiny should be applied to the NPI, and other measures, especially where the study of individuals of substantially different ages is desirable. Items may need to be revised to ensure parity in item perception and response likelihood.

Relatedly, the independent yet overlapping traits comprising the Dark Triad share multiple correlates. Although they differ in respect of positive health and mental-health related outcomes (Jonason et al., 2015; Hudek-Knežević, 2016), measuring all three traits simultaneously increases confidence that conclusions regarding any of the traits are best attributed to that, and not another component of the Dark Triad (Furnham, Richards, Rangel, & Jones, 2014).

### *Conclusion*

The evidence from this study supports existing work indicating that a degree of narcissism supports normal psychological functioning. To this extent, narcissism appears to both ‘create’ and ‘solve’ at least some issues related to longevity. Increasing levels of

narcissism in subsequent generations may be an on-going adaptive response to the longer lives that each generation, at least in many countries, can expect to have. The issue of changing levels of narcissism across the lifespan is undoubtedly complex; further research is needed to better understand the issue, and how it affects individuals in later life. Evidence has shown that narcissism is important to mental health, including loneliness, which has in turn been linked to other psychological issues, including an increased rate of suicide in the older-aged. Even in non-suicidal older-age individuals, a positive correlation between narcissism and depression has been noted. It is, therefore, extremely critical for the mental health of a large portion of the population that this issue is better-understood. In order to accurately assess narcissism in order age, revisions to existing inventories may be needed. In conclusion, this study increases the weight of evidence that recognises the importance of narcissism as a protective factor in mental health and adds to calls for the relationship between age and narcissism to come under greater scrutiny – it is a long overdue reflection.

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Table 1

*Age, Narcissistic Personality Inventory and UCLA Loneliness Scale scores*

	Minimum		Maximum		Mean ( <i>SD</i> )	
	Middle- age	Older- age	Middle- age	Older- age	Middle-age	Older-age
Age (years)	35	65	55	83	48.07 (5.27)	70.89 (5.97)
NPI score	6	0	30	23	15.92 (5.13)	10.09 (5.57)
UCLA score	24	28	54	68	39.80 (7.64)	46.20 (9.97)