Investigating the Relationship Between Lie Acceptability and Self-reported Deceptive Behaviour Tendencies: Gender And Age Differences

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Submission of Thesis and Dissertation

National College of Ireland

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Acknowledgements

I would like to firstly thank my supervisor Fearghal O'Brien for granting me his time and experienced advice throughout the process of conducting and writing up this thesis. Thank you to each participant who allocated their time to take part in this study, without which it wouldn't have been possible. I would also like to thank my wonderful family for their continuous support as I conducted this study, and their patience and understanding.

Abstract

Aims: The current study sought to investigate the relationship between the frequency of deceptive behavior and attitudes towards deception, using a lie acceptability instrument. This study also considered the differences in gender and age on these scores, based upon the research which indicated that females and older aged persons engaged in less lying behaviour, (Glätzle-Rützler and Lergeteporer, 2015; Grosch and Rau, 2017). **Method:** With the use of two validated scales, a questionnaire was administered to 213 participants. Participants were recruited using snowball and target sampling through social media. The questionnaire recorded each participant's lie acceptance score and deceptive behaviour score. These scales were adapted for this study. **Results:** The majority of the sample were female, at 70.9%, with a mean age of 43.6. Scores of lie acceptability significantly predicted a negative relationship with deceptive behaviour scores. Age and lie acceptance were found to significantly, uniquely predict levels of deceptive behaviour. **Conclusion:** Gender differences in deceptive behaviour were discovered in older adults; older males tended to engage in more deceptive hevaiour compared to older women. While males were found to have a consistent lying behaviour over different ages, women tended to lie less as they got older. This indicates that as women age, they engage in less lying behaviour. While males and females engage in similar levels of deception at younger ages.

Keywords; deception, lying, lie acceptability, gender, age, behaviour, attitudes

Contents

Introduction

Understanding Deception

Lying is a part of everyday social interaction, (Halevy, Shalvi, and Verschuere, 2014). It is important to recognise that the literature offers numerous definitions of deception and lying. It is important to distinguish a universally agreed upon definition of the concept. There has been debate surrounding the definition of deception. Mitchell (1986), defines deception as "a false communication that tends to benefit the communicator". This definition is too broad and simplistic, and falsely assumes that a lie may increase the person's gain obtained from the deception. This definition does not distinguish the difference between misleading and deception. Krauss (1981) defines deception as "an act that is intended to foster in another person a belief or understanding which the deceiver considers to be false". This definition fails to clarify whether or not the people who are deceived are aware of the deceiver's intention. Ekman (1992) clarifies this misunderstanding, as they define deception as "a deliberate choice to mislead a target without giving any notification of the intent to do so". However it is Vrij (2001) who implies that this definition is also incorrect and flawed. The reason for their dismissal of Ekman's definition, is due to the fact that deception can fail or be successful. Therefore, deception is defined by Vjij, as a "successful or unsuccessful deliberate attempt, without forewarning, to create in another a belief which the communicator considers to be untrue". This investigation and clarification of a definition of deception was presented firstly by Gneezy (2002).

In regard to developing theories of deceptive behaviours, Dan Ariely proposed a theory of self-concept maintenance, (Mazar, Amir, and Ariely, 2008). This theory suggests that people engage with dishonesty to achieve external benefits, but only to the extent that it allows them to maintain a positive view of themselves. People engage in calculated lies. Similarly, DePaulo, Kashy, Kirkendol, Wyer and Epstein (1996) found, based on students

self-reports, that people are more likely to lie about themselves in contrast to how much they lie about others or impersonal topics. This would demonstrate that lying is personal.

As previously mentioned, deception can be used against others, successfully and unsuccessfully. But, can we deceive ourselves? Self-deception can occur. This idea is a popular form of affective coping, when dealing with difficult situations. Within this context, self-deception occurs by dissociating with reality or an unfavourable outcome and situation, (Lauria, Preissmann & Clement, 2016). By predicting tasks as being less threatening, self-deception can help lower stress levels, (Tomaka, Blascovich & Kelsey, 1992). This ability can lead to a less stressful and more successful outcome. Therefore, self-deception is viewed as a positive and healthy coping mechanism within psychological research.

Research does not suggest that people engage more with deception when lying increases one's own self gain, (Gneezy, 2005). The reason for this observation is suggested to be due to the fact that deception has more than one purpose. (Phillips, Meek, & Vendemia, 2011). Pope and Forsyth (1986) discovered that deception was a multidimensional construct, (Phillips, Meek, & Vendemia, 2011). These four dimensions of deceptive communication were intention, purpose, responsibility, and consequence. As proposed by Talwar and Lee 2008, lying is a part of a developmental model which includes primary lies, secondary lies and tertiary lies. These types of lying range in severity, mental state consideration and maintaining consistency between the initial lie and follow-up statements.

Development of Deceptive Behaviour

Children as young as three years old have been observed as beginning to develop deceptive behaviour tendencies. Studies support the idea that very young child begin learning to mask their emotional expressions and support the role of socialization, (Lewis, Stanger & Sullivan, 1989). Published in 1989, Lewis, Strange and Sullivan conducted a study with 33 children, (with a mean age of 35.4 months) that aimed to investigate deceptive tendencies in very young children. Using verbal and facial responses, the results indicated that young girls

as young as three years old were likely to develop verbal skills of deception, younger than boys were observed to, consistent to other studies using facial expression, (Feldman & White, 1980; Saarni, 1984). Similarly, Evans and Lee (2013) investigated deception in children using a sample of 65 children with a peek and lie procedure, and found that a significant amount of children would lie about their peeking behaviours. This displayed deceptive behaviour tendencies develop at a very young age.

As reported that very young children display tendencies of deceptive behaviour, it is important to understand the underlying factors that influence these deceptive tendencies. Some reports suggest that different types of lies can be predicted by different personality traits, (Phillips, Meek, & Vendemia, 2011, McLeod & Genereux, 2008). A systematic review of the literature questions whether certain personality traits result in a superior lie production ability. This review mentions that high-risk occupations including lawyers, politicians, and military leaders regularly use deception with their field, suggesting that successful people within those occupational fields, may inhabit similar traits and characteristics, (Semrad, Scott-Parker & Nagel, 2019).

Deceptive behaviours present themselves under different classes of deception and a potential relationship with these lying behaviours and personality has been investigated, (Eswara & Suryarekha, 1974; Goffman, 1974; Kashy and Depaulo, 1996). Philips, Meek and Vendemia (2011) investigated, with a college sample self-reported measures, the relationship between personality and deception. Within this study, a deceptive behaviour scale was employed. The scale that was conducted and adopted for this study identified seven categories of deceptive behaviour. These categorises included avoidance, concealment, gainful-falsification, gainful-misleading, interpersonal-play, social-enhancement, verbal-trickery and variable-malice. This study supported the report that different types of lies can be predicted by exclusive sequences of personality traits, (McLeod & Generux, 2008).

Lie Acceptability

When we discuss attitudes, we are referring to evaluations of judgement, (Ajzen and Cote, 2008). These evaluations of judgement are fundamental and instant reactions to an object of psychological significance, (Zajonc, 1980; Jarvis and Petty, 1996). These evaluations are psychological subject matter based, with a degree of favourableness or unfavourableness, (Eagly and Chaiken, 1993). The values of such subject matter are measurable. In order to conduct a measurement of a certain attitude targeted at an identified subject matter, a person should be asked their opinions on certain questions regarding the subject matter. These opinions and answers will reveal that person's evaluation of judgment, or attitude. It is usually believed that these attitudes hold little value, except when they can predict overt behaviour, (Ajzen, 2005). Recent research that aims to investigate attitudes have found social attitudes are acquired, they are not innate, (Albarracin & Shavitt, 2018). Our experiences, our culture, age, gender and contexts determine our attitudes.

Attitudes are responsible for guiding our behaviour, (Shuman and Johnson, 1976; Ajzen and Cote ,2008). Undertaking a cross sectional study, Cantarero et al. 2017, measured a sample of 1345 (n = 1345) person's attitudes toward lying behaviour. This was conducted using a lie acceptability Likert scale self-report questionnaire. This scale measured four different qualities and environments of deceptive behaviour, these include; egotistic, other orientated, private life and professional domain. This study found that other orientated private life lies were most commonly acceptable, while egotistic private life lies were found as being the least acceptable. These findings predict that context matters in relation to lie acceptability, for example self-centred lie are considered as more acceptable in a professional setting compared to a personal setting, (Preuter, 2021).

Gender and Age

Within the psychological research of deception, there are many identified differences found between male and females. Previously, it was discovered that lies are told in a more self-centred manner in men compared to a more other-oriented manner in women, (Depaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996). In 2004, a study evaluated the acceptability of lying in adolescence to their parents, this study found that males we more accepting of lying to their parents in contrast to females, (Jensen, Arnett, Feldman, & Cauffman, 2004). An explanation given was that at this young age, females were more concerned about creating an area of autonomy from their parents while avoiding conflict. In 2013, Erat developed a study that enabled participants to choose to tell a lie with the use of an agent. A possible avoidance to use deception was found in women as they were more likely to use an agent in telling a lie compared to men. This result was increasingly evident when the harm inflicted by the lie was more intense, (Erat, 2013). Furthermore, the findings in an economic environment have found that men are significantly more likely to lie for a financial profit compared to women, (Dreber and Johannesson, 2008). This study was expanded on the design of Gneezy 2005, in order to investigate gender differences. Similarly, Grosch and Rau (2017) investigated gender differences and social value orientations in relation to lying. Their data suggests that individualistic people are less honest compared to prosocial people. Their results indicated that males were significantly more characterised as being individualistic. However, once a control for social value orientation was employed, the gender differences disappeared.

According to the literature, numerous studies have been conducted which focus on deception detection and deception skills regarding age differences (DePaulo, Jordan, Irvine, and Laser, 1982; Ruffman, Murray, Halberstadt, and Vater, 2012). These studies actively demonstrate that older adults are less likely to detect deception compared to younger adults in a given sample. Lying is an ability that children and adults both exhibit. Glätzle-Rützler and Lergeteporer (2015) explored age differences in “white” and “black” lie behaviours. Their

results, based upon economic experiments, indicated that the propensity to lie decreases significantly with age.

The Current Study

Whether we are depending on a truthful report of information in the distribution of welfare benefits, or a reported testimony of a victim of crime, it is crucial for many different sectors of the state and the public to be aware of peoples aversion to lying, (Cappelen, Sørensen, and Tungodden, 2013). In order for the development of a greater understanding of deceptive behaviour to occur, it is important to look at the predictors of these behaviours. Deceptive behaviour skills can affect and damage social relationships, including familial and romantic, professional and financial position, and our mental health, (Cole 2001; Lauria, Preissmann & Clement, 2016) . In this current study, the predictor variables I will investigate are lie acceptability, gender and age.

This current study aims to contribute to the elimination of a gap in literature. The gap in the research that was discovered presents itself with little to no research in investigating how lie acceptability, gender and age contribute towards deceptive behaviours. This investigation is vital in understanding more about deceptive behaviour, because as the literature suggests, attitudes guide behaviour, (Ajzen and Cote, 2008). The literature also suggests key differences in deceptive tendencies and reasoning between males and females, (Depaulo, et al., 1996; Jensen, Arnett, Feldman, & Cauffman, 2004; Frat, 2013; Grosch and Rau, 2017). This study aims to investigate if gender and age play a role in tendencies of deceptive behaviour.

The present research study has two goals. The first goal will seek out to measure people's attitudes towards deception by the means of a lie acceptability instrument. This instrument will give each participant an individual result that would correlate to a person's attitude. The deceptive behavioural scale will ask participants what their frequencies of deceptive behaviour were. This scale will be used in order to measure people's deceptive

behaviour ability and frequency. These two individual results will be used in order to investigate whether there was a relationship between these two variables. The second goal of this study is to investigate the predictor value that gender and age display in regard to deceptive behaviour. Furthermore, the aim of this current study is to provide a better understanding of the relationship between deceptive behaviour frequencies and lie acceptability, gender and age.

Therefore, this study has three research questions that it will attempt to answer, and a further three corresponding hypotheses.

Research question 1: How does lie acceptability scores corelate with deceptive behaviour scores? Hypothesis for research question 1: Self-reported lie acceptability scores will predict a negative relationship with deceptive behaviour scores. The more positive a person's lie acceptance will be will correlate with a lower frequency of deceptive behaviour.

Research question 2: How does gender affect deceptive behaviour frequency? Hypothesis for research question 2: Gender will predict deceptive behaviour scores. There will be a difference in self-reported frequencies of deceptive behaviour between males and females.

Research question 3: How does age affect deceptive behaviour? Hypothesis for research question 3: Age will predict deceptive behaviour scores. There will be a difference in self-reported frequencies of deceptive behaviour between four different age groups, (18-30, 31-44, 45-59, 60+).

This study was developed from the research that has been previously reported within this psychological field. The variables that will be measured and collected in this study will be the results of a Lying Acceptability Instrument (LAI) and a Deceptive Behaviour Scale (DBS), while demographics such as gender and age will also be collected, (Philips, Meek & Vendemia, 2011; Cantaero, Szarota, Stamkou, Navas & Dominguez Espinosa, 2018;). This

study aims to investigate the possible relationship between these three predictor variables (LAI scores, gender, and age) and one criterion value (DBS scores).

Methodology

Table 1

Descriptive statistics for categorical variables, N = (213)

Variable	Frequency	Valid %
Gender		
Male	61	28.6%
Female	151	70.9%
Prefer not to say	1	0.5%
Age Group		
18 – 30	71	33.3%
31 – 44	28	9.9%
45 – 59	96	45.1%
60+	25	11.7%

Participants. The participants that were included in this study were recruited using snowball sampling techniques through the use of social media platforms (Facebook, Instagram). This recruitment was enabled through the use of sharing the link on Facebook pages and Instagram stories. Individuals were also approached and sent a link to the questionnaire with the knowledge of their ability to share the link with others. There was no incentives used in recruiting participants. As linear multiple regression analysis would be conducted in this study, G*power: Statistical Power Analyses (Faul, Erdfeld & Lang, 2009) was used to determine the sample size needed for a statistically powerful analysis. Reducing

the likelihood of a Type 1 error, there was a 95% chance that the R-squared value would significantly differ from zero with a sample size of 89 or more.

The sample comprised of 213 participants (*n* = 213; 61 males and 151 females). Females comprised of 70.9% of the sample. While only 26.78% and 0.5% of the sample identified as male or prefer not to say, respectively. During the conduction of this study, purposive sampling was used in order to obtain more male participants for a more gender balanced sample. The mean age was 43.67 years (SD = 16.6) with a range of 18 to 94 years. These individuals were sorted into four different age groups, to compare differences observed in regard to age (M = 43.67, SD = 16.6). The age groups included 18-30(33.3%), 31-44(9.9%), 45-59(45.1%) and 60+(11.7%).

Measures and Materials. This study included the use of an online questionnaire. This questionnaire consisted of four different components; an information sheet and informed consent form(see appendix D), a lying acceptability instrument(see appendix B), a deceptive behaviour scale(see appendix C) and a debriefing sheet(see appendix E). This questionnaire was conducted on Google Forms.

Lying Acceptability Instrument - Adapted. This scale is used to measure an individual's conscious attitude towards lying. This scale includes thirteen different scenarios in which deception takes place. Individuals were asked to select from a seven point Likert scale ranging from acceptable (1) to unacceptable (7). A higher score would indicate a low level of lying acceptance. The Cronbach's alpha coefficient was .823 ($\alpha = .82$) In each individual case, the nature of the deception is identified as any two of the following; other orientated, egotistic, professional domain, or private life. These identifiers allow us to understand the type of deception that takes place in order for us to measure an individual's attitude and acceptance of a certain type of deception. The scores of each type of deception were calculated by the addition of the scores for each scenario where appropriate and then divided by the number scenarios; other orientated(1,2,5,6,8,11 and 13), egotistic(3,4,7,9,10

and 12), professional domain(1,2,3,4,7,8 and 13), and private life(5,6,9,10,11 and 12). This scale was used in full, however the following adjustments were made in order to increase the accessibility and understanding of the scale;

'person A' became 'Alex', 'person B' became Sam, and 'person C' became Olive. These names were chosen as they are gender neutral.

Deceptive Behaviours Scale – Adapted.. This scale was chosen in order to measure an individual's deceptive behaviour frequency. The Cronbach's alpha coefficient was .871, (α = .87). This behavioural scale included twenty five different behaviours of deception that were categorised into six different types of deceptive behaviours; avoidance, concealment, interpersonal-play, gainful-falsification, gainful-misleading, and social enhancement. Four out of the six categories displayed a Cronbach's Alpha over .7, this is quite high given the use of .7 is the typical cut-off for standardised administration of the instrument (Nunnally, 1978). The remaining two displayed Alpha's over .55. Participants were asked to score each behaviour on a four point Likert scale ranging from never (1) to frequently (4). This meant that higher scores would indicate a higher frequency of deceptive behaviour. This scale was adapted for this study. A further two types of deceptive behaviour were eliminated from the questionnaire, these included verbal-malice and verbal-trickery. These items included ten more behaviours which were not included in this study. These items were removed in order to shorten the questionnaire and were found irrelevant to the investigation of this study.

Design and analyses. The current study used a quantitative, cross-sectional research approach, employing survey research at a specific point in time. A between-participants design was used in order to investigate all proposed hypotheses. The identified predictor variables (PV's) were age, gender, and lie acceptability. Deceptive behaviour was the criterion variable (CV). For the analysis, a Pearson's Coefficient will be conducted in order to investigate any relationship between lie acceptability and deceptive behaviour. This analysis will also investigate whether the relationship is positive or negative, small or large (Cohen,

1988). A two way between groups ANOVA will be conducted to explore the impact of age and gender on levels of deceptive behaviour. Within this analysis, participants will be split into four age groups, depending on their identified age. And finally, a multiple regression model will be conducted to investigate the correlations between the PVs and the how well the PV's predict the CV.

Procedure. The data in this study was collected through an online questionnaire, hosted by Google forms. Within this online questionnaire, there were four different components. Firstly, the information and consent form (see appendix D) was shown to individuals who opened the link they were sent or found through social media platforms such as Facebook and Instagram. This sheet conveyed the appropriate information regarding data protection, anonymity and right to withdrawal. Participants were asked twice to give their informed consent, stating that they understood the nature of the study and agreed that they were aged 18 or over. Individuals were also asked to state their identified gender and age in years.

The next two components of the questionnaire consisted of two different Likert scale questionnaires. These questionnaires included a lie acceptability instrument (see appendix B) and a deceptive behaviour scale (see appendix C). These scales were employed to measure the participants lie acceptability and deceptive behaviour. Firstly, during the lie acceptability instrument, participants were asked to rate different scenarios which included deception, on a seven point Likert scale ranging from acceptable to unacceptable. The instrument included thirteen different scenarios. Once completed, the participant would continue on to the deceptive behaviour scale. This scale employed participants to rate different deceptive behaviours on a four point Likert scale ranging from never to frequently. This scale included twenty-five different behaviours.

Finally, once the previous components were completed, participants were shown a debriefing page(see appendix E). This page informed participants about the future of the

current study, contact information and reiterating their inability to withdraw from the study once their results were published.

***Ethical Considerations*.** This current study equipped the use of validated scales and instruments. Participants must have been over the age of 18. This research study was approved by the National College of Ireland's Ethics Committee and is in line with The Psychological Society of Ireland Code of Professional Ethics and the NCI Guidelines and Procedures for Research involving Human Participants.

Results

Descriptive Statistics

The current data is taken from a sample of 213 participants. Descriptive statistics were performed for all the variables included in this study. In table 1, the frequency and validity (%) of all categorical variables are presented. These variables include gender and age group. Females account for 70.9% (n = 151) of the sample, while males accounted for 28.6% (n = 61). A large portion of the sample consisted of participants aged 49 – 50, this accounted for 45.1% (n = 96). A total of 33.3% (n = 71) of participants were aged 18 – 30, 11.7% (n = 25) of participants were aged 60+, while only 9.9% (n = 28) of participants were aged 31 – 44.

In table 2, the Mean (M), Standard Deviations(SD) and the Range were conducted and recorded for the continuous variables which included age, lie acceptability scores (avoidance, concealment, interpersonal play, gainful falsification, gainful misleading, social enhancement, total score), and deceptive behaviour scores (other orientated, professional, egotistic, private life, total score). Preliminary analysis was conducted to indicate that the continuous variables followed assumption of normality.

Table 2

Descriptive statistics for continuous variables, N = (213)

Variable	*M* [95% CI]	*SD*	Range
Age	43.67[41.48, 45.85]	16.6	18 – 94
Deceptive Behaviour Scale			
Avoidance	2.51[2.38, 2.64]	.5	1 – 3.75
Concealment	1.54[1.46, 1.62]	.53	1 – 4
Interpersonal play	2.31[2.19, 2.42]	.56	1.25 – 4
Gainful falsification	1.23[1.16, 1.29]	.35	1 – 3.2
Gainful-misleading	1.2[1.14, 1.26]	.4	1 – 3.67
Social enhancement	1.7[1.62, 1.78]	.6	1 – 3.4
Total score	1.75[1.66, 1.83]	.35	1.12 – 2.84
Lie Acceptability Scale			
Other orientated	5.35[5.08, 5.61]	1	2.29 – 7
Professional domain	5.73[5.44, 6]	.96	2.67 - 7
Egotistic	6.61[6.28, 6.94]	.74	2 – 7
Private life	5.75[5.46, 6]	.85	1.83 – 7
Total score	5.73[5.44, 6]	.8	2.15 – 7

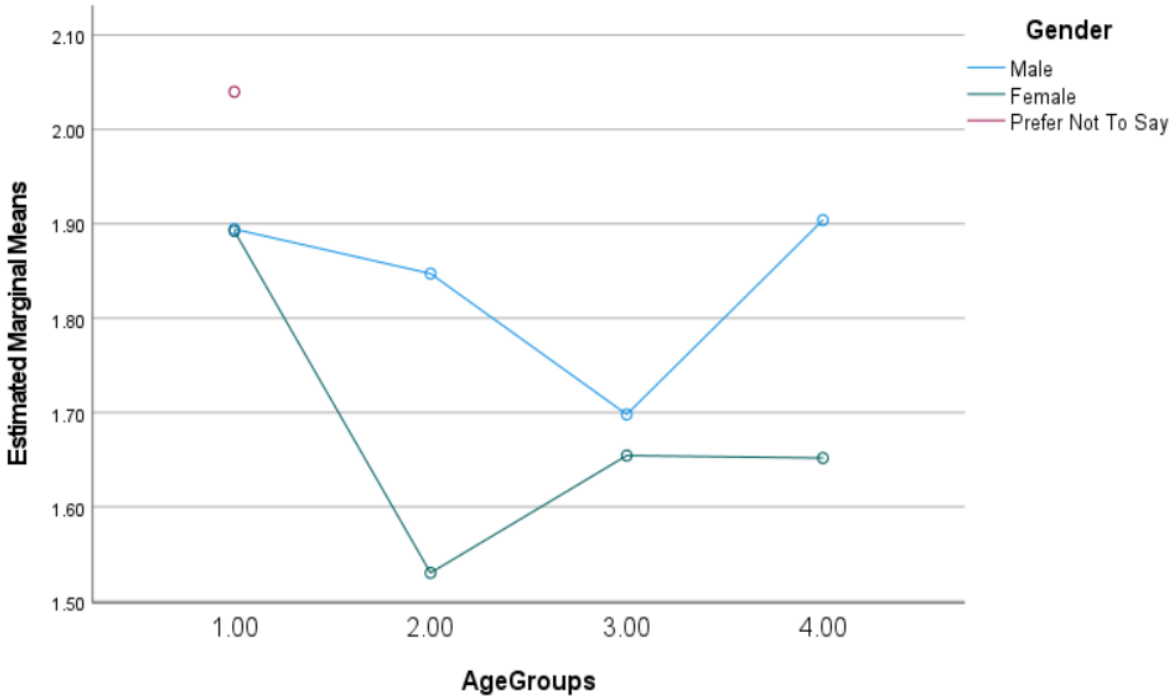
Inferential Statistics

The relationship between lie acceptability and deceptive behaviour was investigated using a Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity, There was a moderate, negative correlation between the two variables (r = -.43 [95% = -.4, -.45], n = 213, p < .001). This indicates that the two variables shared

approximately 18% of the variance in common. Results indicate that higher scores of the LAI are associated with lower scores of the DBS.

Graph 1

Two way between groups ANOVA Estimated marginal means of Deceptive Bebaiours Scale total scores



A two way between groups ANOVA was conducted to explore the impact of age and gender on levels of deceptive behaviour (see graph 1). Participants were divided into four groups depending on their age (group 1 = 18-30; group 2 = 31-44; group 3 = 45–59; group 4 = 60+). Participants were also classified as either male, female or prefer not to say.

The interaction affect between age groups and gender was not significant (F (2, 204), = 1.5, p = .215) There was a statistically significant main effect for age groups, (F (2,204), = 4.83, p = .003) this effect size was medium (partital eta squared = .066) . Levels of deceptive behaviour were higher in age group 1 for females (M = 1.89, SD = .41) compared to age group 4 in females (M = 1.65, SD = .34). Levels of deceptive behaviour were also higher in age group 4 males (M = 1.9, SD = .32) compared to age group 4 females (M = 1.65, SD =

.34). Age group 1 males (M = 1.89, SD = .34) and age group 1 females (M= 1.89, SD = .41) scored very similarly.

Table 3

Correlations between variables included in the model

Variable	1	2	3	4
1. Deceptive behaviour	-			
2. Lie Acceptability	-.43***	-		
3. Gender	-.12*	.19**	-	
4. Age	-.28***	.37***	.18**	-

Note: $*p < .05$; $**p < .01$; $***p < .001$

Multiple regression analysis was performed to determine how well deceptive behaviour levels could be explained by three variables including gender, age, and lie acceptability.

Preliminary analyses was conducted to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. The correlations between the predictor variables and the criterion variable included in this study were examined (see Table 3 for full details). Three of the three variables were significantly correlated with the criterion variables, and these significant effects ranged from r = -.43 (lie acceptability), r = -.12 (gender) to r = -.28 (age). Tests for multicollinearity also indicated that all Tolerance and VIF values were in an acceptable range. These results indicate that there was no violation of the assumptions of multicollinearity and that the data was suitable for examination through multiple linear regression analysis.

Since no a priori hypotheses had been made to determine the order of entry of predictor variables, a direct method was used for the analysis. The three predictor variables explained 21.3% of the variance in DBS levels. Two of the three variables were found to

uniquely predict deceptive behaviour levels to a statistically significant level: age (β = -2.06, p = .04), and lie acceptability (β = -5.6, p < .001), (see Table 4 for full details).

Table 4

Multiple regression model predicting Deceptive Behaviour scores

Variable	R^2	B	SE	β	*t*	*p*
Model	**.213*** **					
Gender		-.02	.04	-.024	-.38	.7
Age		-.003	.001	-.14	-2.06	.04
Lie Acceptability total score		-.16	.03	-.38	-5.6	<.001

*Note: ***p* <.001

It can be predicted that LAI scores have a significant negative relationship with DBS scores.

Discussion

The current study aimed to investigate the relationship between lie acceptability and deceptive behaviour. It also aimed to discover if there were any gender differences and age differences in frequencies of deceptive behaviour. Previous findings have displayed gender differences in factors of deception such as tendencies benefiting financial profit and frequencies of developmental onset of behaviours, (Lewis, Stanger & Sullivan, 1989; Dreber and Johannesson, 2008). Furthermore, findings in relation to age differences have displayed a lower level ability to detect deception in older adults compared to younger adults. Through these findings, three hypotheses were created and investigated within this study.

The first hypothesis to address is that lie acceptability instrument (LAI) scores would negatively predict deceptive behaviour scale (DBS) scores. Based upon the research surrounding the theory of self-concept maintenance (Mazar, Amir, and Ariely, 2008), people would engage in deception for personal benefits which would also allow them to maintain a

positive view of themselves. This research formulated this hypothesis, which meant that those people who would engage more frequently in deception would hold higher levels of acceptance of lying. In regard to the results, this was the case. With the use of a Pearson's correlation analysis, this study reported that there was a significant negative relationship between LAI and DBS scores. This actively demonstrates that a lower acceptance of lying would equate a lower frequency of deceptive behaviour, as higher LAI scores indicate a low acceptance of lying and lower DBS scores indicate a low frequency of deceptive behaviour. This study was, to the best of my knowledge, the first to compare lie acceptance with deceptive behaviour.

In order to investigate the second and third hypotheses, a two way between groups ANOVA was conducted to explore the impact of age and gender on levels of deceptive behaviour. The findings indicated some differences in deception detection between genders and different age groups. However, this study investigated these demographics in relation to behaviors. The results of the two way between groups ANOVA indicated that there was a statistically significant moderate effect for age groups. In regard to males, there was no significant effect on age. However, levels of deceptive behaviour were significantly higher in age group 1 (18-30) for females compared to age group 4 (60+) in females. This indicated age differences of deceptive behaviour in females, which was consisstant with the findings of Glätzle-Rützler and Lergeteporer (2015), whose study found a decrease in lying as people age. Similarly, levels of deception were significantly higher in age group 4 males compared to age group 4 females. This indicated a gender difference in older adults, that was not present in younger adults. Grosch and Rau (2017) suggests that the particular reason males tend to engage in more lies was due to social value orientation. Males tend to identify more with individualistic tendencies. These results were consistent to findings of age and gender differences in deception, (Depaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996; Ruffman,

Murray, Halberstadt, and Vater, 2012). Based on these findings, hypotheses 1, 2, and 3 can be accepted.

A multiple regression model was conducted. This investigated the correlations between three different predictor variables; gender, age and lie acceptability. Within this analysis, it was shown that three predictor variables explained 21.3% of the variance in deceptive behaviour levels. Two of the three variables were found to uniquely predict deceptive behaviour levels to a statistically significant level: age ($\beta = -2.06$, $p = .04$), and lie acceptability ($\beta = -5.6$, $p < .001$). Therefore, we can accept that age and lie acceptance are possible predictors of deceptive behavior.

Evaluations of judgment are only valuable when they can predict overt behaviour, (Ajzen, 2005). As the results indicate, lie acceptance or attitudes towards deception, can significantly predict a positive relationship with behaviours of deception. This is consistent with findings of attitudes and behaviour prediction, (Shuman and Johnson, 1976; Ajzen and Cote ,2008). The more unacceptable a person believes lying to be, the less likely they are to engage in those types of behaviours. This allows people to remain in a positive view of themselves and avoid cognitive dissonance, (Mazar, Amir, and Ariely, 2008). This emphasizes that people don't usually engage in behaviours they disagree with. This does not include self-deception. This study used scales measuring external behaviours of deception and not internal. Findings suggest that self-deception is a healthy form of coping with unfavourable circumstances and results, (Tomaka, Blascovich & Kelsey, 1992; Lauria, Preissmann & Clement, 2016). This is an area of research that may be investigated further; our attitudes towards self-deception and self-deceptive behaviours.

The results of the two way between groups ANOVA indicated age differences of deceptive behaviours in females. Furthermore, there were similarities found in the scores of both genders of young adults aged 18 to 30. These similar scores indicate a lack of a gender difference in deceptive behaviours of younger people. A significant gender difference was

found in older adults aged 60+. These scores indicated that older males engage with more deceptive behaviours compared to older females. The findings in research suggested that there were significant gender differences in deceptive behaviour in a financial environment, (Dreber and Johannesson, 2008). These findings indicated that males were more likely to engage in financial profit deception. These findings were consistent with research that suggested that men told more self-centred lies compared to women, who told more other-cantered lies. (Depaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996). These results and findings display differences in deceptive behaviour preferences in genders.

Strengths and Limitations

The primary analysed data which was included in this study, was retrieved using two validated scales. These scales were used in order to collect accurate data regarding participants lie acceptability and deceptive behaviour tendencies. Although this study was able to request and obtain informed consent from all participants, the questionnaire conducted did not request any sensitive information. The primary data collected was obtained through a well-designed selection process of a mix of snowball sampling and target sampling. The participants were only requested to share their gender and age. A strength of this study was its sample size. Before the questionnaire was conducted, this study prepared a G*power: Statistical Power Analyses (Faul, Erdfeld & Lang, 2009) to determine the sample size needed for a statistically powerful analysis. There was a 95% chance that the R-squared value would significantly differ from zero with a sample size of 89 or more. This study employed 213 participants, more than double the recommended size. Furthermore, this study employed a large age sample. This study, which investigated age differences, categorised participants into four different age groups; these included 18-30 (33.3%), 31-44 (9.9%), 45-59 (45.1%), and 60+ (11.7%). However, a limitation of this study involved a skewed gender imbalance, as males only accounted for 28.6% (n = 61) of the sample. This study employed target sampling

in order to obtain more male participants. This would allow for a limitation of sampling bias, as the sample is less generalisable to the population of adults living in Ireland.

This current study also managed to produce clear and consistent conversation of understandable contexts and ideals. As this was a small scale study, conduction and publication were manged over a short period of time (September 2020 to Arpil 2021).

Although this study equipped the use of validated scales, both with Cronbach Alphas of over .7 (LAI = .82, DBS = .87), these measurements relied entirely on self-report. This was a limitation of the current study. Some participants may have not felt comfortable being honest about their deceitful behaviour tendencies, out of fear of embarrassment or self-denial. This measurement also comes with another bias presented by the participants, of answering questions depending on their current circumstances at the time of completing the questionnaire. They may have felt the need to complete the questionnaire quickly or without much consideration. Perhaps an experimental study could resolve this issue. Rather than self-reported measures, participants actions or reactions could be explored in a deceptive or non-deceptive consideration. This would allow for a more innate and natural reaction and observation. Furthermore, in this current study participants were encouraged to respond honestly, by the security of anonymity.

Implications and Future Research

This study was comprised with primary data of a sample of 213 (n = 213), and while little to no significant differences were found in younger adults (18-30) engaging in deceptive behaviour, it found that older males were more likely to engage in deceptive behaviours compared to older women. These results indicate that females engage with less deceptive behaviours as they age, unlike males. Future research may investigate certain reasonings behind this result.

The key contribution of this work is the solution it provides for future research regarding deceptive behaviour. This investigation of the predictor value of attitudes and

deceptive behaviours should be continued with further research. Future research may including variables relating to different economic environments and occupations.

This study should encourage future research to investigate different predictor variables in regard to deceptive behaviour. It would also encourage future research to repeat this study in a different setting and culture, such as outside of Ireland. This would focus on any culture differences in regard to lie acceptability and deceptive behaviour. The limitations of this study should be addressed in further research. The employment of experimental designs would benefit the reliability and generalisability of the study, in contrast to self-reported measures.

Conclusion

To sum up everything that have been previously stated, there is consistent evidence to support that lie acceptability can significantly predict frequencies of deceptive behaviour. This activity demonstrates that a greater lie acceptability level predicts a greater level of deceptive behaviour tendencies. This study was also able to observe a higher frequency of deceptive behaviour engagements in older males compared to older females, displaying gender differences of deceptive behaviour. This study believes that these results make a valuable contribution to understanding the predictor factors of lying and deceptive behaviour and offers new avenues for research on this subject. The overt implications of this study are acknowledging age and lie acceptance as predictors of deception. This may aid in investigating reports of insurance claims and the distribution of welfare benefits, (Cappelen, Sørensen, and Tungodden, 2013).

References

Ajzen, I. (2005). *Attitudes, personality, and behavior*. McGraw-Hill Education (UK).

Ajzen, I., & Cote, N. G. (2008). Attitudes and the prediction of behavior. *Attitudes and attitude change*, 289-311.

Albarracin, D., & Shavitt, S. (2018). Attitudes and attitude change. *Annual review of psychology*, *69*, 299-327.

Cappelen, A. W., Sørensen, E. Ø., & Tungodden, B. (2013). When do we lie?. *Journal of Economic Behavior & Organization*, *93*, 258-265.

Cantarero, K., Szarota, P., Stamkou, E., Navas, M., & Dominguez Espinosa, A. d. C. (2018). Lying Acceptability Instrument [Database record]. Retrieved from PsycTESTS. doi: https://dx.doi.org/10.1037/t66323-000

Cantarero, K., Szarota, P., Stamkou, E., Navas, M., & Dominguez Espinosa, A. D. C. (2018). When is a lie acceptable? Work and private life lying acceptance depends on its beneficiary. *The Journal of social psychology*, *158*(2), 220-235.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences. Lawrence Erlbaum Assoc., Hillsdale, NJ. *Statistical power analysis for the behavioral sciences. 2nd ed. Lawrence Erlbaum Assoc., Hillsdale, NJ.*

Cole, T. (2001). Lying to the one you love: The use of deception in romantic relationships. *Journal of Social and Personal Relationships*, *18*(1), 107-129.

DePaulo, B. M., Kashy, D. A., Kirkendol, S. E., Wyer, M. M., & Epstein, J. A. (1996). Lying in everyday life. *Journal of personality and social psychology*, *70*(5), 979.

Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt brace Jovanovich college publishers.

Ekman, P. (1992) Telling Lies: Clues to Deceit in the Marketplace, Politics, and Marriage. Norton, New York.

Erat, S. (2013). Avoiding lying: The case of delegated deception. *Journal of Economic Behavior & Organization*, *93*, 273-278.

Eswara, H. S., & Suryarekha, A. (1974). The relationship between lie scores and anxiety scores on taylor's manifest anxiety scale. *J Psychol Res*, *18*, 88-90.

Evans, A. D., & Lee, K. (2013). Emergence of lying in very young children. *Developmental psychology*, *49*(10), 1958.

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*, 175-191.

Feldman, R. S., & White, J. B. (1980). Detecting deception in children. *Journal of communication*, *30*(2), 121-128.

Gneezy, U. (2005). Deception: The role of consequences. *American Economic Review*, *95*(1), 384-394.

Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Harvard University Press.

Grosch, K., & Rau, H. A. (2017). Gender differences in honesty: The role of social value orientation. *Journal of Economic Psychology*, *62*, 258-267.

Glätzle-Rützler, D., & Lergetporer, P. (2015). Lying and age: An experimental study. *Journal of Economic Psychology*, *46*, 12-25.

Gneezy, U. (2005). Deception: The role of consequences. *American Economic Review*, *95*(1), 384-394.

Halevy, R., Shalvi, S., & Verschuere, B. (2014). Being honest about dishonesty: Correlating self-reports and actual lying. *Human Communication Research*, *40*(1), 54-72.

Jarvis, W. B. G., & Petty, R. E. (1996). The need to evaluate. *Journal of personality and social psychology*, *70*(1), 172.

Jensen, L. A., Arnett, J. J., Feldman, S. S., & Cauffman, E. (2004). The right to do wrong: Lying to parents among adolescents and emerging adults. *Journal of youth and adolescence*, *33*(2), 101-112.

Kashy, D. A., & DePaulo, B. M. (1996). Who lies?. *Journal of Personality and Social Psychology*, *70*(5), 1037.

Krauss (1981) "Impression formation, impression management, and nonverbal behaviors." In E.T. Higgins, C.P. Herman, and M.P. Zanna (eds.), Social cognition: the Ontario Symposium. Vol.1. 323-341, Erlbaum, Hillsdale, NJ.

Lauria, F., Preissmann, D., & Clément, F. (2016). Self-deception as affective coping. An empirical perspective on philosophical issues. *Consciousness and cognition*, *41*, 119-134.

Lewis, M., Stanger, C., & Sullivan, M. W. (1989). Deception in 3-year-olds. *Developmental psychology*, *25*(3), 439.

McLeod, B. A., & Genereux, R. L. (2008). Predicting the acceptability and likelihood of lying: The interaction of personality with type of lie. *Personality and individual differences*, *45*(7), 591-596.

Mitchell, R.W. (1986) "A framework for discussing deception." In R.W. Mitchell and N.S. Mogdil (eds.), Deception: perspectives on human and nonhuman deceit. State University of New York Press, Albany.

Ruffman, T., Murray, J., Halberstadt, J., & Vater, T. (2012). Age-related differences in deception. *Psychology and aging*, *27*(3), 543.

Phillips, M. C., Meek, S. W., & Vendemia, J. M.C. (2011). Deceptive Behaviors Scale [Database record]. Retrieved from PsycTESTS. doi: https://dx.doi.org/10.1037/t10129-000

Phillips, M. C., Meek, S. W., & Vendemia, J. M. (2011). Understanding the underlying structure of deceptive behaviors. *Personality and Individual Differences*, *50*(6), 783-789.

Pope, W. R., & Forsyth, D. R. (1986). Judgments of deceptive communications: A multidimensional analysis. *Bulletin of the Psychonomic Society*, *24*(6), 435-436.

Saarni, C. (1979). Children's understanding of display rules for expressive behavior. *Developmental psychology*, *15*(4), 424.

Semrad, M., Scott-Parker, B., & Nagel, M. (2019). Personality traits of a good liar: A systematic review of the literature. *Personality and Individual Differences*, *147*, 306-316.

Talwar, V., & Lee, K. (2008). Social and cognitive correlates of children's lying behavior. *Child development*, *79*(4), 866-881.

Tomaka, J., Blascovich, J., & Kelsey, R. M. (1992). Effects of self-deception, social desirability, and repressive coping on psychophysiological reactivity to stress. *Personality and Social Psychology Bulletin*, *18*(5), 616-624.

Vrij, A. (2001) Detecting Lies and Decit, Wiley, New York.

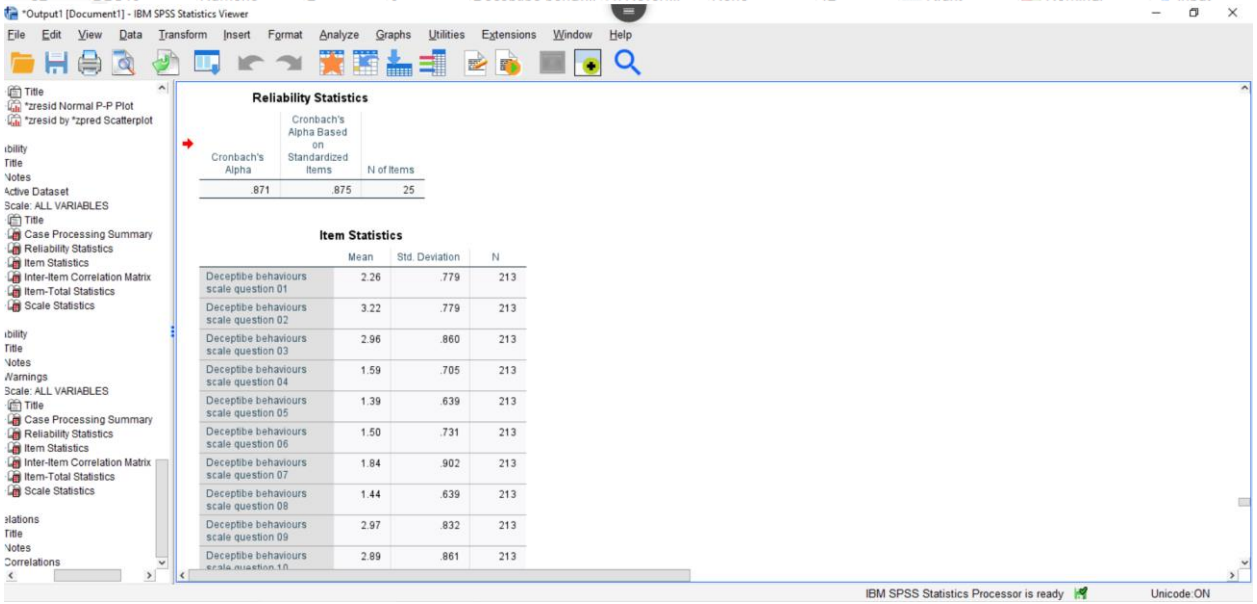
Zajonc, R. B. (1980). Feeling and thinking: Preferences need no inferences. *American psychologist*, *35*(2), 151.

Appendices

Appendix A

Evidence of data and SPSS output (full data file available upon request)

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	Measure	Role
1	ID	Numeric	40	0		None	None	11	Right	Scale	Input
2	Gender	String	17	0		{1, Male}...	None	17	Left	Nominal	Input
3	Age	Numeric	3	0		None	None	12	Right	Scale	Input
4	LA1	Numeric	2	0	Lying aceptability...	{1, Acceptabl...	None	12	Right	Nominal	Input
5	LA2	Numeric	2	0	Lying aceptability...	{1, Acceptabl...	None	12	Right	Nominal	Input
6	LA3	Numeric	2	0	Lying aceptability...	{1, Acceptabl...	None	12	Right	Nominal	Input
7	LA4	Numeric	2	0	Lying aceptability...	{1, Acceptabl...	None	12	Right	Nominal	Input
8	LA5	Numeric	2	0	Lying aceptability...	{1, Acceptabl...	None	12	Right	Nominal	Input
9	LA6	Numeric	2	0	Lying aceptability...	{1, Acceptabl...	None	12	Right	Nominal	Input
10	LA7	Numeric	2	0	Lying aceptability...	{1, Acceptabl...	None	12	Right	Nominal	Input
11	LA8	Numeric	2	0	Lying aceptability...	{1, Acceptabl...	None	12	Right	Nominal	Input
12	LA9	Numeric	2	0	Lying aceptability...	{1, Acceptabl...	None	12	Right	Nominal	Input
13	LA10	Numeric	2	0	Lying aceptability...	{1, Acceptabl...	None	12	Right	Nominal	Input
14	LA11	Numeric	2	0	Lying aceptability...	{1, Acceptabl...	None	12	Right	Nominal	Input
15	LA12	Numeric	2	0	Lying aceptability...	{1, Acceptabl...	None	12	Right	Nominal	Input
16	LA13	Numeric	2	0	Lying aceptability...	{1, Acceptabl...	None	12	Right	Nominal	Input
17	DBS1	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
18	DBS2	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
19	DBS3	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
20	DBS4	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
21	DBS5	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
22	DBS6	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
23	DBS7	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
24	DBS8	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
25	DBS9	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
26	DBS10	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
27	DBS11	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
28	DBS12	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
29	DBS13	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
30	DBS14	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
31	DBS15	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input
32	DBS16	Numeric	2	0	Deceptibe behav...	{1, Never}...	None	12	Right	Nominal	Input



Appendix B

Lying Acceptability Instrument

(Cantaero, Szarota, Stamkou, Navas & Dominguez Espinosa, 2018)

Presented below are various social situations. Please take a stance on each of them by ticking the extent to which you think the presented behaviour can be characterised by a given expression.

1 = Acceptable	2 = Slightly acceptable
3 = Tolerable	4 = Neutral
5 = Intolerable	6 = Slightly unacceptable
7 = Unacceptable	

Denominate of the type of each lie is in parenthesis (this information was not given to participants).

1. On a message from Alex (superior of Sam and Olive) that said that Olive had made an error at work, Sam tells Alex, that Olive only made the mistake because she was not informed about the new guidelines, even though Sam knows that Olive was aware of the new guidelines. *(other orientated, professional domain)*
2. Sam tells Alex (superior of Sam and Olive) that Olive went to the toilet, even though in fact Olive was only late to work and not in the toilet. *(other-orientated, professional domain)*
3. Sam calls Alex (his supervisor) and tells him that he is not feeling well and will not come to work, even though in reality he feels good and is not sick. *(egotistic, professional domain)*
4. Sam knows that in order to obtain the possibility of executing a task, which he is really counting on, he must be skilled in a particular field. He says to Alex (his supervisor) that he is skilled in this field even though he knows he is not as skilled, as he claims to be. *(egotistic, professional domain)*

5. Sam and Alex, who are in a relationship, planned to organize a home party. Sam informs friends that Alex went on a business trip, and the home party will not take place, despite the fact that Alex did not go on a business trip and is only just not feeling well. *(other orientated, private life)*
6. Sam hides from Alex because of the rude behaviours of their child Olive. *(other-orientated, private life)*
7. Sam informs Alex (his supervisor) about successes, which in fact he did not achieve. *(egotistic, professional domain)*
8. Sam informs Alex (his supervisor), that Olive is a co-author of a project, of which Olive was supposed to take part in, although in reality Olive did not take part in it. *(other-orientated, professional domain)*
9. Sam is in a relationship with Alex. Sam starts having an affair with someone. In answer to Alex's question, if Sam is having an affair, Sam answers no. *(egotistic, private life)*
10. Sam, when asked for help by Alex says that he cannot help because he has a fever, and has to rest, even though in reality he feels good. *(egotistic, private life)*
11. Sam is friends with Alex, who likes Olive. Olive stopped talking to Alex after one date. Sam knows that Olive is not interested in Alex, in spite of that he tells him that Olive did not call him because she had a lot of work to do. *(other orientated, private life)*
12. Sam and his friends have been invited to a party that takes place on the other side of town. Sam wants his friends, who had planned to go to this party to stay home with him. He tells them that the party was cancelled, even though it had not been cancelled. *(egotistic, private life)*

13. Sam tells Alex (supervisor of Sam and Olive) about the successes of Olive, even though he knows that she did not achieve them. *(other orientated, professional domain)*

Appendix C

Deceptive Behaviours Scale

(Philips, Meek & Vendemia, 2011)

Please indicate how often do you/ would you…

1 = Never

2 = Seldomly

3 = Occasionally

4 = Frequently

Avoidance

1. … change the subject wile in conversation in order to avoid telling the truth?
2. … play it down when someone hurts your feelings?
3. … lie to protect someone else's feelings?
4. … leave out the details of a story to mislead someone?

Concealment

5. … leave out the details of a story to lead someone to the wrong conclusion?
6. … confuse the details of a story to lead some to the wrong conclusion
7. … tell someone how to live his/her life while not following the same rules?
8. … you make a promise you have no intention of keeping?

Interpersonal-Play

9. … hide you true feelings in front of others?
10. . … put up a front
11. … add fictitious details to or make up a story about something that happened to you?
12. … exaggerate when retelling a rumour?

Gainful-Falsification

13. … play a practical joke intended to mislead someone?
14. … copy someone else's work and present it as your own?

15. … purchase someone else's work and present it as your own?
16. … lie to an insurance company to receive money?
17. … write a check even though you know it will bounce?

Gainful-Misleading

18. … dupe someone out of money or goods?
19. … pretend to be someone else on the internet?
20. … give false information on the internet?

Social Enhancement

21. … exaggerate a story to impress others?
22. … exaggerate a situation in order to gain sympathy from others?
23. … put a positive slant on something to make it seem better than it was?
24. … lie to impress a date?
25. … make up a good story to impress others?

Appendix D

Information Sheet and Informed Consent Form

Please read the information sheet thoroughly and tick the boxes corresponding to the informed consent.

Introduction

You have been invited to take part in a current study that aims to investigate demographic factors such as gender and age, affecting attitudes towards deception and lying. Your participation is vital for the data collection and results of this current study.

About this study

My name is Aideen McEvoy and I am the researcher responsible for this current study. I am a final year psychology student from the National College of Ireland. I was first introduced to the psychology of attitudes when I studied social psychology in my first year. I am interested in the relationship between measuring attitudes and predicting behaviour. In this study, I aim to investigate the relationship between attitudes towards deception and deceptive behaviour.

Who can take part in this study?

Each participant in this study must be aged 18 years or older. You must have been invited by the researcher, Aideen McEvoy, in order to take part in this current study.

What you need to do

To take part in this study, the first thing you need to do is read this information sheet and sign the informed consent form. This consent form must be signed in order to attempt this questionnaire. The questionnaire will take approximately 10 - 15 minutes. After you have answered all of the questions, you will be taken to a debrief page. This page will inform you

that once you have submitted your results, there will be no possibility for you to withdraw your data from this current study. This is due to the fact that your information and results will be 100% de-identifiable as you are fully anonymous when taking part in this questionnaire.

Anonymity

Your participation in this study will be 100% anonymous. This study does not require any identifiable personal information for participation.

Right of withdrawal

You, the participant, have the right to withdraw at any time during this questionnaire if you choose to do so. This withdrawal will have no penalty on you.

Potential benefits and risks

Benefits: The information that each participant will supply for this study will contribute to the research on the relationship between attitudes towards deception and deceptive behaviour. This will allow us to better our understanding and predicting deceptive behaviour.

Risks: This study is primarily investigating attitudes regarding deception and lying. There is a minor risk to participants that this subject matter could be distressing. This risk is deemed minimal as this study has not required a clinical sample. This study also involves the use of validated, published scales. If any participant suffers any distress as a result of taking part in this questionnaire or after, please feel free to contact the following email as published in the contact information.

Contact information

If you require any additional information, please feel free to contact Aideen McEvoy;

Email: aideenfyp@gmail.com

Additionally, you can contact my thesis supervisor, Fearghal O'Brien;

Email: fearghal.obrien@ncirl.ie

Informed consent

- I agree that I am eighteen years or older at the time of completing this questionnaire.
- I agree that I have fully read and understood the information sheet attached to this questionnaire.

Please select which option you identify with.

- Female
- Male
- Prefer not to say

Please enter you age in years

_____

Appendix E

Debriefing Sheet

Thank you for completing this questionnaire. Your participation in this study was vital and I would just like to say thank you

Data Protection

This questionnaire required no personnel information from participants. Your gender, age, and results of this questionnaire will be de-identifiable based on each participant's anonymity. This means that participants will not have the ability to withdraw from this current study once the results have been submitted.

When will this study be published?

The completed study should be available to access in March 2021. Once this study has been completed and published, I will have the ability to send you a link to access the completed study. Please feel free to contact me if you would like access to this study nearer the time of the proposed completion.

This study attempts to investigate the relationship between acceptance of lying and deceptive behaviour. What this study aims to add to the research is a better understanding of how and why people lie. This study was possible with the use of a Lying Acceptability Instrument and a Deceptive Behaviour Scale. I would like to thank the publishers of these scales for permission to use them in my study.

Contact Information

If you require any additional information, please contact me.

Email: aideenfyp@gmail.com

or you may contact my thesis supervisor.

Email: fearghal.obrien@ncirl.ie