Others' Deception Attitude Measure

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Others' Deception Attitude Measure

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Deception is an extensively researched cross-disciplinary subject with limited assessments. Literature has revealed a difference in attitudes toward deception based on the perspective that one holds (liar or dupe). The Others' Deception Attitude Measure (ODAM) was developed to assess attitudes that people hold toward others who are deceptive. The purpose of the current study was to assess the psychometric properties of the ODAM. We recruited 149 participants who completed the ODAM and several other measures. Our results provide initial reliability and validity for the 17-item ODAM.

Keywords: Deception, Attitudes, Scale, Measure, Lying

Understanding the dynamics of how people react and respond to dishonest people in their orbits is important. There is clear evidence that most people have an aversion to lying (Lundquist et al., 2009) and condemn people who do lie (Jordan et al., 2017). However, the link between attitudes about liars and behavior is nuanced. For instance, some researchers have demonstrated that people who affiliate with liars are more likely to be dishonest, suggesting that attitudes about lying might be stably linked to behavior (Mann et al., 2014). However, other research has shown that people who observe others lying are then more inclined to lie themselves, suggesting that attitudes about lying and liars may not be fixed (Ariely, 2012; Gino & Galinsky, 2012). There are also studies showing that attitudes toward lying and liars depend on consequences, where even honest people will tolerate dishonest people who bring them rewards (Gross et al., 2018). Also, the discovery that someone has lied can influence attitudes, with most viewing the discovery of lies unfavorably (DePaulo, 2009; McCornack& Levine, 1990). We submit that understanding people's attitudes about lying and liars is key to understanding the social dynamics of deception.

Deception research extends across numerous disciplines. Some of the diverse research areas include understanding the basic aspects of human communication, detection, forensics, intimate relationships, parental relationships, childhood deception, healthcare, psychopathology, intelligence, law, government, and ethics (Bok, 1978; Curtis & Hart, 2020; Granhag & Strömwall, 2004; Heyman et al., 2009; Levine, 2014; 2020; Talwar & Lee, 2002; Vrij, 2008). Much of this literature has revolved around the ability to detect deception (see Granhag et al., 2015; Levine, 2020; Vrij, 2008). Thus, many measures reported in the deception literature have examined abilities to detect deceit through physiological responses (e.g., polygraph), behavioral observations, speech analysis, and by measuring brain activity (Granhag et al., 2015).

In measuring deception, researchers have examined various ways to analyze lie frequency. DePaulo and colleagues asked participants to journal their lies in a diary over a week, finding that participants told one to two lies per day (DePaulo et al., 1996;DePaulo & Bell, 1996; DePaulo & Kashy, 1998; Kashy & DePaulo, 1996). Serota and colleagues (2010) provided a prompt to participants asking them to indicate the number of times that they have lied to various individuals, face-to-face or over the phone or internet, within the past 24 hours. Other research on self-reported deception has examined lie frequency over a larger span of time, finding that some people report not having lied in over a year (Hart et al., 2021). The use of single point estimates of peoples' lying frequency should be used with caution, however, as recent work shows a great deal of variability over time in individuals' patterns of lying (Serota et al., 2021). Specifically, researchers have noted that the frequency of lying on one day is only modestly related to overall patterns of lying. Many of the methods of measuring lie frequency raise the question of how researchers know that participants are not lying about lying behavior. Halevy and colleagues (2014) and Markowitz (2021) found that self-reported frequency of lying behaviors was correlated with objective evidence of lying in laboratory studies.

Lie frequency measurements ask people to report the number of lies that they previously told but do not assess the broader propensity to lie. Hart and colleagues (2019) developed the *Lying in Everyday Situations (LiES) Scale* to measure the use of everyday lying across a variety of situations. The psychometric properties of LiES were examined across five studies, resulting in evidence of a two-dimensional, 14-item scale that demonstrated inter-item consistency and test-retest reliability along with concurrent validity.

Regarding attitudes toward the use of deception, there are few measurements. The *Revised Lie Acceptability Scale* (RLAS) is an eight-item scale that measures a person's general moral and ethical acceptance

of lying (Oliveira & Levine, 2008). The scale is unidimensional and offers high internal consistency (alpha = .83). Recently, Curtis (2021) found differences in the RLAS measure when asking people to rate general acceptability of lying compared to the acceptability of others to lie. Thus, people hold much more negative attitudes toward others' use of deception than their own use of deception.

Another measure of attitudes toward deception is the *Attitudes Toward Deceptive Scenarios* (ADS; Dunivan, 2013). It presents six different scenarios (e.g., deception in an intimate relationship) and asks participants to rate the scenario using a seven-point Likert type scale across 10 semantic differential labels (e.g., Acceptable/Unacceptable; Dunivan, 2013). The ADS consists of three scenarios that portray the participant as the agent of deception and three that portray the participant as the target of deception. Dunivan reported high internal consistency across the various scenarios (alpha = .86 - .93).

A more specific measure of attitudes toward one's own lying within romantic relationships was developed by Kaplar and Gordon (2004). The *Lying in Amorous Relationships Scale* (LIARS) is a 12-item measure of attitudes toward one's use of white lies within a romantic relationship (Kaplar & Gordon, 2004). Hart and colleagues (2014) used the LIARS and created a Reversed LIARS scale to measure attitudes toward others' use of white lies within intimate relationships. Hart and colleagues (2014) found that people exhibited moral hypocrisy, where they were more tolerant of using white lies within relationships than they were of their partners using white lies toward them.

Attitudes toward lies depend on perspective, specifically, whether the person is telling the lies or is on the receiving end (Bok, 1978). Curtis (2021) provided evidence that the difference between perceptions of liars can be understood by attributional theory, in which people attribute lying behaviors of others to dispositional factors and one's own lying to situational factors.

Research has examined attitudes toward others who lie in a variety of professional relationships and has largely found that people tend to hold negative attitudes toward those who lie (Curtis, 2013; Curtis & Hart, 2015; Curtis et al., 2015; Davis & Curtis, 2016). Those research studies examined attitudes by using the *Therapists' Attitudes Towards Deception Scale* (TATDS; Curtis, 2013). The TATDS consists of 44 items which assess attitudes towards patients/clients who lie along with several other items pertaining to therapist deception. The TATDS has high internal consistency reliability when studying psychotherapists (alpha = .83) as well as physical therapists (alpha = .88; Curtis & Hart, 2015; Curtis et al., 2018).

While the TATDS is an excellent tool for assessing attitudes toward patients who lie, it was not designed to measure attitudes toward other population groups. With the aim of designing a scale to measure attitudes toward anyone who lies, rather than just patients and clients, Curtis and Dickens (2016) modified the TATDS to create the *Others' Deception Attitude Measure* (ODAM; see Appendix A). The ODAM consisted of 23 items from the TATDS and the wording was modified from *patient* or *therapist* to the use of *person*. The ODAM demonstrated high to acceptable internal consistency reliability pre-test (alpha = .88) and post-test (alpha =.73). While the TATDS and ODAM have been used in various studies with acceptable to high reliability, other psychometric properties of the ODAM remained unexamined. Thus, the purpose of the current study was to investigate the psychometric properties of the ODAM. The inter-item reliability and test-retest reliability of the ODAM was examined and we predicted that it would demonstrate acceptable reliability in these areas. To examine aspects of convergent validity the ODAM was compared to other deceptive attitudinal measures, namely the RLAS and ADS. As a greater score on the RLAS indicates greater acceptability of lying in general, we predicted that the ODAM would be negatively correlated with the RLAS. As increased scores on the ADS reflect a negative position toward lying, we predicted that the ODAM would be positively correlated with the ADS. To examine discriminant validity we also asked participants to complete the *Massachusetts General Hospital Hairpulling Scale* (MGH), typically used to assess symptoms of trichotillomania (Keuthen, et al., 1995). As trichotillomania symptoms do not appear to be related to attitudes toward deception, we predicted that the ODAM would not be significantly related to the MGH.

METHOD

Participants

A total of 149 participants completed all measures at the first administration. Participants were recruited from undergraduate psychology courses and Facebook. Student participants were recruited through a research administration system and provided extra credit or course credit. Response-driven sampling methods were used to recruit the other participants on Facebook. Participants ranged in age from 18-52 years ($M = 21$, $SD = 5.36$). Over half of the participants were female (70%) and Caucasian (54%). Of the 149 participants, 41 completed the ODAM at the two-week interval. Those who completed the ODAM at the two-week period ranged in age from 18-34 years ($M = 19.83$, $SD = 2.61$) and were mostly female (68%) and Caucasian (56%).

Materials

A demographics questionnaire and four measures were used: *Others Deception Attitude Measure* (ODAM), The *Revised Lie Acceptability Scale* (RLAS), the *Attitude Toward Deceptive Scenarios* (ADS), and *Massachusetts General Hospital Hairpulling Scale* (MGH).

The ODAM was developed as a 23-item instrument, with the first 12 items asking participants to indicate their attitudes if they discovered a person was lying to them (1 = significantly decrease; 4 = no change; 7 = significantly increase) and the remaining 11 items asking participants to indicate their attitudes toward people who lie compared to those who do not (e.g., 1 = not very successful; 7 = very successful). The RLAS is an eight-item scale that measures how acceptable people view lying (Oliveira & Levine, 2008). The ADS consisted of six scenarios (three rating self and three rating others) with 10 semantic differential scales (Dunivan, 2012). In the current study, we computed a total score of ratings for the ADS when rating self and when rating others. The MGH is a self-report measure that consists of seven 5-point scales used to assess repetitive hair pulling (Keuthen et al., 1995).

Procedure

The study was approved by an institutional review board at a southwestern university. Upon selecting a link to the study, participants were provided with an informed consent. Then, participants were asked to complete, in order, the demographic questionnaire, ODAM, RLAS, ADS, and MGH. Upon completion of the study, participants were provided with their unique respondent identification number and asked to write it down to use in the second part of the study. Lastly, participants were debriefed and notified that they would be asked to complete the ODAM in two weeks through the same secure online research site. Two weeks later, the researchers sent a follow-up email with a link to the study to participants who provided consent and their email. Following the completion of the ODAM, the participants were debriefed.

RESULTS

Based on previous literature and the construction of the ODAM, it was assumed to be a unidimensional measure of attitudes toward others who employ deception. An exploratory factor analysis (EFA) was conducted with all 23 items to test whether it is a unidimensional measure. Thus, a principal component analysis with a one-factor extraction was conducted. Most of the items loaded onto a single factor with the recommended extraction criterion of .40 (Field, 2018; see Table 1). Six items did not meet the extraction criteria and were removed. An EFA with the 17 items found that all loaded onto a single factor and

explained 31% of the variance (see Table 2; Appendix A). To examine all 23 items broadly, a principal component analysis was conducted based on eigenvalues and a direct oblimin rotation. All but five items

Table 1 Single Factor Component Matrix of ODAM

Item	Factor loading
Being angry at the person?	0.38
Speaking poorly of the person with others?	0.26
Seeing the person as a bad person?	0.48
Thinking negatively about the person?	0.52
Judging the person harshly?	0.48
Liking the person?*	0.48
Desire to interact with the person?*	0.61
Enthusiasm to interact with the person?*	0.65
Judging the person as a good person?*	0.50
Trusting the person?*	0.61
Thinking positively about the person?*	0.70
Viewing the person as sincere?*	0.66
Successful*	0.42
Compliant*	0.43
Pleasant*	0.62
Knowledgeable*	0.54
Intelligent*	0.54
Likeable*	0.62
Adjusted*	0.52
Pathological	0.00
Weak	0.36
Lazy	0.43
Awkward	0.21

Note: *Reverse coding

(angry, speaking poorly, pathological, weak, and awkward) loaded on the first factor, explaining 25% of the variance and two factors explaining

38% of the variance. As the measure was conceptually developed as a unidimensional measure of attitudes, due to most items loading on the

Table 2 Factor Loadings of ODAM with 17 items

Item	Factor Loading
Seeing the person as a bad person?	0.43
Thinking negatively about the person?	0.46
Judging the person harshly?	0.45
Liking the person?*	0.54
Desire to interact with the person?*	0.65
Enthusiasm to interact with the person?*	0.69
Judging the person as a good person?*	0.55
Trusting the person?*	0.66
Thinking positively about the person?*	0.76
Viewing the person as sincere?*	0.71
Successful*	0.40
Compliant*	0.42
Pleasant*	0.57
Knowledgeable*	0.47
Intelligent*	0.47
Likeable*	0.55
Adjusted*	0.48

Note: *Reverse coding

first factor, and due to the one-factor model explaining 31% of the variance, it was retained. The one-factor solution aligns with suggestions for a saliently loaded factor that demonstrates internal consistency reliability and is also theoretically meaningful (Watkins, 2018).

The ODAM was highly reliable for both administrations, pre-test and post-test (Cronbach's α = .85 & .87 respectively). Additionally, a bivariate correlation revealed a statistically significant correlation ($r = .53$, $p < .001$) for the pre-test and post-test administrations of the ODAM, indicating acceptable test-retest reliability (see Table 3).

Regarding validity, there was a statistically significant negative correlation found between the ODAM and the RLAS ($r = -.29$, $p < .001$). Thus, more negative attitudes toward deception were related to less acceptance of deception. Additionally, a statistically significant positive correlation was found between the ODAM and the ADS-other ($r = .29$, $p = .001$) but not significant with the ADS-self ($r = .16$, $p = .07$). More negative attitudes toward deception were related to more negative attitudes toward deception in specific scenarios when rating others. Thus, the ODAM demonstrated convergent validity with two other measures of deception. With regards to discriminant validity, there was no statistically significant relationship between the ODAM and the MGH scale ($r = .12$, $p = .13$). Thus, attitudes toward deception were not statistically related to another construct, specifically trichotillomania.

Table 3 Internal Consistencies of Measures

Scale	Mean (SD)	Range	A
ODAM-Pre	85.24 (10.99)	17-119	0.85
ODAM-Post	81.76 (11.93)	17-119	0.87
RLAS	23.57 (8.70)	8-56	0.84
ADS	272.04 (40.78)	60-420	0.94
Self	126.07 (27.30)	30-201	0.93
Others	146.84 (33.55)	30-201	0.92
MGH	10.33 (4.96)	0-28	0.91

DISCUSSION

The study of attitudes has a longstanding history within psychology and remains an area of interest (Allport, 1935; Petty et al., 1997; Tesser& Schwarz, 2001). In fact, Allport (1954) claimed that "This concept is probably the most distinctive and indispensable concept in contemporary American social psychology" (p. 43). Attitudes are particularly relevant when examining how people think and feel about others' use of deception and lies. As Bok (1978) indicated, there are different perspectives taken on lying, depending on whether a person is the one telling the lies or whether they are on the receiving end of those lies. It is important to assess general acceptability about lying; people clearly differ in attitudes when asked to think about others who lie (Curtis, 2021). Those differences in attitudes no doubt influence the manner in which people treat others who lie. There are numerous instruments that

measure deception. Among them, only the ODAM measures general attitudes toward others who lie.

The current study examined the psychometric properties of ODAM. We found evidence that the ODAM demonstrates internal consistency, test-retest reliability, and convergent validity. Thus, the ODAM may be utilized in research aimed to explore attitudes held toward others who lie. Additionally, the ODAM can be used to explore attitude change or interventions that may affect attitudes about people who lie (Curtis et al., 2021). In other research, the ODAM has been used to educate healthcare practitioners about their attitudes toward patients who lie and the potential consequences of those attitudes (Curtis et al., 2018).

The study of attitudes toward deception by others can help researchers understand the relationship between attitudes and behavior, specifically related to deception (Fishbein &Ajzen, 1974). For example, if people hold negative attitudes toward others who lie, then they may be less inclined to interact with those individuals or they may keep those relationships at a more superficial level. Research on the creation and maintenance of social affiliations suggests that homophily is important (Currarini et al., 2009). This may explain the assortment of social pairs by honesty, with honest people affiliating with other honest people, and similar pairing of dishonest people (Mann et al., 2014). However, one interesting finding across various studies is the moral hypocrisy related to deception. People generally hold negative attitudes toward others who lie but tend to justify their own use of deception (Curtis, 2021). This finding has been documented in intimate relationships, parental relationships, and psychotherapy relationships (Curtis & Hart, 2015; Hart et al., 2014; Heyman et al., 2009; Williams et al., 2013).

While the current study provides psychometric evidence of the ODAM, there are some limitations worth mentioning. Our sample consisted of a convenience sample of students at a southwestern university and individuals on Facebook. While the sample in the current study is constrained to a convenience sample, other studies have replicated the high internal consistency reliability of the ODAM with healthcare professionals (e.g., Curtis, 2015; Curtis & Hart, 2015). Future research could benefit from exploring the utility of the ODAM with other populations. Another limitation of the study is the potential for an ordering effect, as the scales were not presented randomly. It is possible that presentation of one deception measure could have affected participants' subsequent responses, though attitudes are largely stable. The current study also provides initial evidence of psychometrics for the ODAM. Future research could examine the ODAM with a confirmatory factor analysis.

As attitudes toward deception are discrepant based on whether you are lying or being lied to, the ODAM provides researchers and practitioners with a brief psychometrically validated instrument that is designed to assess attitudes toward others who lie. Researchers can use the ODAM to measure the perspective of the dupe in a general assessment of attitudes, within studies designed to examine the impact of lies, or as an outcome measure. A variety of practitioners (healthcare, forensic, law enforcement) may find the instrument useful to understand their attitudes when faced with people who lie to them. As forensic practitioners and law enforcement personnel are faced with deception in their workplace, the ODAM may offer value to examine these practitioners' attitudes toward those who lie to them and the impact on their performance or duties. Relatedly, the ODAM can also be used in workshops or trainings to raise awareness about one's attitudes toward others who lie and the potential consequences of those lies. The measure may also prove useful for examining the impact of any workshop or intervention designed to elicit attitudinal change. We hope that researchers and practitioners will find this measure useful in future research and practice related to deception. Social attitudes are for social behavior. With a useful measure of attitudes about liars, we can begin to understand how people will behave toward liars.

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APPENDIX
Others' Deception Attitude Measure

If you discovered that a person was lying to you, how would that affect:

1	2	3	4	5	6	7
Significantly Decrease			No Change			Significantly Increase

1.   Seeing the person as a bad person?
2.   Thinking negatively about the person?
3.   Judging the person harshly?
4.   Liking the person?
5.   Desire to interact with the person?
6.   Enthusiasm to interact with the person?
7.   Judging the person as a good person?
8.   Trusting the person?
9.   Thinking positively about the person?
10.   Viewing the person as sincere?

11-17. People who lie compared to people who do not lie are:

1	2	3	4	5	6	7
Not very Successful					Very Successful	

1	2	3	4	5	6	7
Not very Compliant					Very Compliant	

1	2	3	4	5	6	7
Not very Pleasant					Very Pleasant	

1	2	3	4	5	6	7
Not very Knowledgeable					Very Knowledgeable	

1	2	3	4	5	6	7
Not very Intelligent					Very Intelligent	

1	2	3	4	5	6	7
Not very Likeable					Very Likeable	

1	2	3	4	5	6	7
Not very Adjusted					Very Adjusted	