

Background

Are smart people better liars?

Being a good liar can mean either: (a) lies are perceived as true, or more generally (b) all statements, both truths *and* lies are perceived as credible. In this latter sense and for this research, we are talking about a **demeanor bias** (Zuckerman et al., 1979).

So what individual differences are relevant to this demeanor bias? Several theorists have discussed why lying is a highly demanding, articulated cognitive task, that requires a high degree of intellect (e.g., DePaulo et al., 1979; Ekman, 1985; Kraut, 1978; Zuckerman et al., 1979). It follows then that intelligent people should be better deceivers.

But what do we mean by *intelligent*?

Present Investigation

We assessed 119 people on various measures of intelligence and interpersonal competencies that should be linked to successful lying. In addition to a **global measure** of intelligence we measured **reasoning ability**, **verbal aptitude**, and **quantitative intelligence**.

We also assessed people with published paper-pencil measures of **emotion/expressive behavior aptitude** (e.g., *MSCEIT*, *Social Skills Inventory* (SSI), and the *Affective Communications Test* (ACT)).

Finally, we assessed people on two measures of interpersonal perception skill; the *Profile of Nonverbal Sensitivity* (PONS) and the *Interpersonal Perception Task* (IPT-30), which a happens to contain a **deception detection** subscale.

Our objective was to determine which of the above would predict a target's credibility (telling truths and lies) as judged by a group of outside observers.

Statements from a High (and Low) Credible Target

Statements from a participant rated highly credible.

Statements by a participant rated very low on credibility.

Attitudinal Statements
My favorite reality television show is America's next best dance crew. At first I didn't like it that much but then music television kept playing it and playing it and so the more I saw it the more I actually realized how creative these um the dance teams actually really were and then they had a theme each week I absolutely got hooked um although the season finale status quo versus the jabba wockeez and I was kind of sad that status quo was up there because I liked how modern which was this Asian dance crew and they were really good really precise but overall when jabba wockeez won I was really really excited. (True)

Attitudinal Statements
Um my favorite musical artist is uh Michael Buble because of the way that he um molds old big band type style with makes it current. (True)
Um my favorite musical uh performer is Michael Jackson because of just how good of a performer he is and um his voice is really unique. (Lie)

Autobiographical Statements
One of my more embarrassing moments in my life was actually the first time I went horseback riding I took lessons in an arena and at the end of my hour lesson my mom came in to watch me and she's kind of over-enthusiastic of horses a little bit so as I'm just riding around the arena in a circle and as my mom walks in I'm pulling on the reins for the horse to turn left but he's not turning he's going straight towards my mom and my mom is there by the gate freaking out and at the end he ended up stopping right in front of her but I felt so bad and so embarrassed that I couldn't control this horse even though it was my first time riding that horse but it was really embarrassing because it was just a simple tug to the left and he didn't respond. (True)

Autobiographical Statements
When I was thirteen uh my family rented a motorhome during the summer and we went um on a trip around all of the western states. Um we visited places like the Grand Canyon um Yellowstone we went through Vegas um and it's something that I'll never forget. (True)
When um I was lpp just graduating high school um my best friend and I we um as a graduation present both of his parents and my parents paid for us to go to Europe. Um we went from we left here we landed in Spain and then we went all the way around through Europe. We um saw the Eiffel Tower um and we ended up leaving from Italy and we saw the um the leaning tower of Pisa. So that was really cool. (Lie)

Spontaneous Responses
I picked my major business because I really wanted to go into accounting and I really love numbers and math and I just absolutely love that aspect of business and how you can do almost anything. (True)
I picked my major because a lot of my friends are picking it it's business and it just seemed like a lot of fun to take classes with them um not only because it'd be fun but I also kinda heard they were a little bit easier than other classes so that is why I picked my major. (Lie)



Method

Participants (73 females and 46 males) were told 48 hours before video taping that they would be asked to answer two questions, one attitudinal and one autobiographical, once truthfully and once deceptively.

On the day of the videotaping participants were asked these questions by the experimenter and answered them twice; once truthfully and once deceptively to a group of onlookers. Order of truth/lie statements were randomized.

Participants then responded truthfully and deceptively to a question they had not prepared for. This was their "spontaneous" statement.

All participants completed a battery of intelligence measures over a period of 10 weeks.

Measures of Emotional Intelligence: Encoding and Decoding Skills

1. Affective Communications Task (ACT), a self-report measure of expressivity. (Friedman, Prince, Riggio, & DiMatteo, 1980)
2. Social Skills Inventory (SSI): the **Emotional and Social Expressivity and Control** domains (Riggio, 1986), a self-report measure.
3. MSCEIT: the **Strategic Understanding** and **Managing** (Meyer, Salovey, & Caruso, 2002).
4. Profile of Nonverbal Sensitivity (PONS), a video based measure of nonverbal behavior judgment (Rosenthal et al., 1979).
5. The Interpersonal Perception Task (IPT-30), a video based measure of interpersonal and social perception and judgment (Archer & Costanzo (1987)

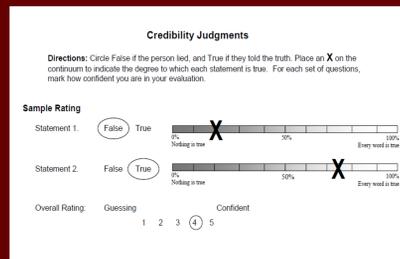
Measures of Cognitive Intelligence

4. Scholastic Aptitude Test (SAT: Verbal and Quantitative)
5. Otis Quick Scoring IQ Test (Otis, 1954)
6. Raven's Progressive Matrices (e.g., Schweizer, Goldhammer, Rauch, & Moosebrugger (2007).
7. Vocabulary test (e.g., Miner, 1961)

Ratings of Statement and Person Credibility

Video clips of each truth/lie statement pair were edited, randomized, and shown to a sample of six undergraduate raters who viewed each clip pair and for each statement decided whether it was true, and then estimated how true the statement was. Each participant had all six of their statements (Attitudinal Truth, Attitudinal Lie, Autobiographical Truth, Autobiographical Lie, Spontaneous Truth, and Spontaneous Lie) rated for truthfulness. Credibility ratings within Truths and within Lies were correlated (see table below) and thus composite scores for general Truth and Lie statement credibility were created.

Credibility Rating Scale



Reliability of a Person's Credibility as a Function of their Statement Type and Veracity.

| Type of Statements Given | Credibility of Attitudinal Statement | Credibility of Autobiographical Statement | Credibility of Spontaneous Statement |
|--------------------------|--------------------------------------|---|--------------------------------------|
| Attitudinal | | | |
| Autobiographical | .20* | | |
| Spontaneous | .12 | .25** | |

*p < .05, **p < .001

| Credibility of Deceptive Statements | Credibility of True Statements |
|-------------------------------------|--------------------------------|
| | -.81*** |

***p < .001

Intelligence Measures

Intercorrelations of Emotional and Social Intelligence Measures

| | 1. ACT | 2. SSI (Expressivity) | 3. MSCEIT | 4. PONS | 5. IPT |
|-----------------------|--------|-----------------------|-----------|---------|--------|
| Encoding Skill | | | | | |
| 1. ACT | -. | | | | |
| 2. SSI (SE and EE) | .77** | -. | | | |
| 3. MSCEIT (Strategic) | .07 | .10 | -. | | |
| Decoding Skill | | | | | |
| 4. PONS | .00 | .06 | .40** | -. | |
| 5. IPT | .04 | .03 | .25* | .22* | -. |
| 6. IPT Deception | .00 | -.02 | .19* | .04 | .60** |

*p < .05, **p < .0001

Intelligence Intercorrelations

| | 1. | 2. | 3. | 4. | 5. |
|--------------------------------|-------|-------|-----|------|----|
| 1. Otis Intelligence | -. | | | | |
| 2. Vocabulary | .24* | -. | | | |
| 3. Verbal SAT | .09 | .08 | -. | | |
| 4. Ravens Progressive Matrices | .46** | .28** | .06 | -. | |
| 5. Quantitative SAT | .19 | .04 | .17 | .34* | -. |

*p < .05, **p < .01
Note: N = 119 for Otis, Ravens, and Vocabulary. N = 44 for SAT V and SAT Q.

Intercorrelations

Hypotheses

Telling credible sounding lies is an intelligent task. Therefore measures of cognitive and emotional intelligence should predict how credible observers find a target's statements.

H₁. Cognitive intelligence measures, especially verbal intelligence should correlate positively with a person's ability to generate credible (deceptive) statements.

H₂. Emotional intelligence measures theoretically related to the *encoding* and *effective communication* of emotional messages (e.g., ACT, SSI Expressivity and Control domains, MSCEIT Strategic Domain) should correlate positively with a person's credibility.

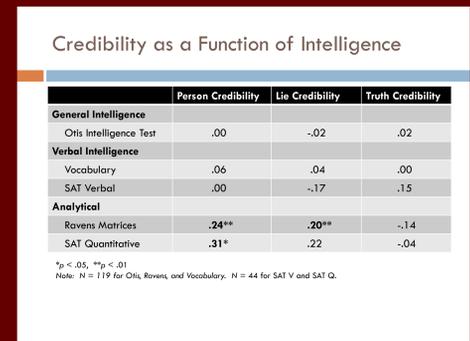
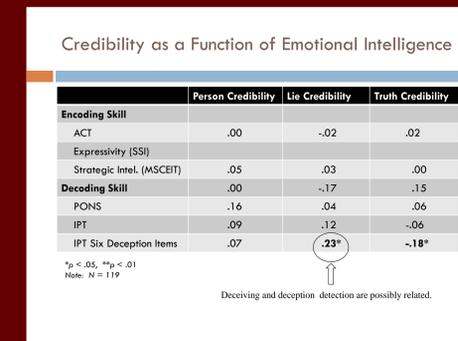
H₃. Emotional Intelligence measures of *decoding* or *perceiving* (e.g., PONS, IPT) should *not* be related to generating and delivering a deceptive message.

Results

Hypothesis 1 was supported in that cognitive intelligence was associated with credibility especially when making deceptive statements, but *surprisingly*, quantitative and analytical intelligence, not verbal intelligence were responsible.

Hypothesis 2 was not supported. Published and validated measures of emotional expressivity did not predict how credible a person would be while attempting deception.

Hypothesis 3 was supported using general measures of decoding/perception skill, but intriguingly, credibility was associated with a person's lie *detection* ability.



Discussion and Conclusion

Constructing a lie is a cognitively complex task requiring the construction of a logically coherent plausible statement or description of events. It was not surprising that **analytical reasoning** ability predicted credible lies.

What this lab found extraordinary was that well known published paper-and-pencil measures of **emotional understanding and management** (MSCEIT strategic subscale), emotional and verbal **expressivity aptitude** (SSI expressivity domain), and **charisma** (ACT) showed no relationship to a person's success at appearing believable.

Since the unexpected null results here replicates findings by others (e.g., Riggio and Friedman, 1983) that failed to find significant relationship between questionnaire measures of emotional and social expression (acting) and lying, we are left with the serious issue of determining *what precisely do these interpersonal skill tests predict?*