Research Report

A FEW CAN CATCH A LIAR

Paul Ekman,[1] Maureen O'Sullivan,[2] and Mark G. Frank[3]

[1]*Department of Psychiatry, University of California, San Francisco;* [2]*Department of Psychology, University of San Francisco; and* [3]*Department of Communication, Rutgers–The State University of New Jersey*

Abstract—*Research suggests that most people cannot tell from demeanor when others are lying. Such poor performance is typical not only of laypeople but also of most professionals concerned with lying. In this study, three professional groups with special interest or skill in deception, two law-enforcement groups and a select group of clinical psychologists, obtained high accuracy in judging videotapes of people who were lying or telling the truth about their opinions. These findings strengthen earlier evidence that some professional lie catchers are highly accurate, and that behavioral clues to lying are detectable in real time. This study also provides the first evidence that some psychologists can achieve high accuracy in catching lies.*

Most research on how well people can identify lies from demeanor has focused on college students; a few studies have examined a single law-enforcement group. Almost all have found that accuracy is close to chance (see DePaulo, 1994, 1998; DePaulo, Stone, & Lassiter, 1985; and Zuckerman & Driver, 1985, for reviews). Ekman (1992) suggested two reasons for these results. First, the stakes for success or failure in lying were quite low in most of these studies, and therefore emotions that could betray a lie—fear, guilt, or excitement—were not likely to be strongly aroused. There may have been no signs of these emotions about lying that could have contradicted the liars' verbal claims. Without these emotional reactions interfering with thought processes, it is easier for the liar to assemble words into a credible fabrication. Consistent with this reasoning, DePaulo and Kirkendol (1989) found more motivated liars were more easily detected.

The second explanation of why high accuracy was not found is the possibility that the liars and truth tellers may not have behaved very differently. Most studies of observers' accuracy in detecting deceit have not included behavioral analyses of how many of the subjects shown in the videotapes actually provided clues to deceit in their face, body, voice, or speech when they lied.

In a previous study (Ekman & O'Sullivan, 1991), we remedied these problems by showing videotapes known to contain behavioral clues that could provide the basis for accurate deception judgments (Ekman, O'Sullivan, Friesen, & Scherer, 1991). We showed the videotapes to more law-enforcement personnel (a total of 330), and more different law-enforcement groups (seven), than had previously been examined in any one study. Yet we found that only one group, the U.S. Secret Service, was quite accurate. A skeptic could argue that this was a random occurrence.

The primary purpose of the current study was to determine whether other occupational groups could also achieve high levels of accuracy in detecting deceit from demeanor. We examined not only law-enforcement groups who differed in their interest in detecting deception and in their reputation for doing so, but also groups of psychologists who might differ in their interest in and knowledge about this topic.

The second purpose of our study was to generalize our previous finding that very accurate judgments are possible by using a lie different from the one we studied before. In the previous work, we studied a lie about emotions; subjects claimed to have positive feelings when in fact they were experiencing very strong negative emotions. The current study used a deception scenario in which subjects lied or told the truth about strongly held opinions.

THE DECEPTION JUDGMENT TASK

We used an adaptation (Frank & Ekman, 1997) of Mehrabian's (1971) false-opinion paradigm. Twenty males (ages 18–28) were asked the strength of their opinions on a number of current controversial social issues. The opinion about which each subject felt most strongly was the one he or she was then asked to discuss with an interrogator. Some subjects were told to describe their opinions truthfully; others were told to falsely claim to hold the position opposite their true opinion. Truth tellers who were believed by the interrogator received a $10 bonus; liars who were believed received a $50 bonus; liars or truth tellers who were disbelieved received no money, and half of them faced an additional punishment. (See Frank & Ekman, 1997, for more details.)

To verify that the subjects did manifest different behaviors when lying versus telling the truth, we analyzed facial muscular movements using the Facial Action Coding System (Ekman & Friesen, 1978). This analysis, which codes all discernible facial movements, verified that there were significant behavioral differences between the subjects who lied and those who told the truth (Frank & Ekman, 1997).

In our previous study (Ekman & O'Sullivan, 1991), we found that a test comprising 1-min samples of each of 10 different people discriminated among various law-enforcement groups. We constructed a similar task, again showing 10 different people, half of whom were truthful and half of whom were lying about their opinion. The 10 subjects selected for inclusion on the videotape were chosen so that both pro and con positions on each opinion were represented, independent of whether the subject was lying or telling the truth. The videotape showed face-and-shoulder close-ups with full audio. The interrogator could be heard but not seen. (See Frank & Ekman, 1997, for more procedural details.)

Observers were given about as much information about the deception scenario as has been provided here, and were told that between one fourth and three fourths of the men were lying. Observers made their judgments during a 10-s interval after viewing each man.

LAW-ENFORCEMENT GROUPS

Four law-enforcement groups completed the deception judgment task as the first part of a workshop on deception. Two of these groups had special interest or expertise in the area of deception. The *federal officers* group included 23 officers who had been chosen by their agency to participate in a daylong workshop (taught by Ekman) because of their

Address correspondence to Paul Ekman, Department of Psychiatry, University of California, San Francisco, 401 Parnassus Ave., San Francisco, CA 94143-0984.

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special interest and experience in deception and demeanor. Most of these officers were from the Central Intelligence Agency (CIA); the remainder came from other federal law-enforcement agencies. The *sheriffs* group included 43 Los Angeles County sheriffs who had been identified by their department as outstanding interrogators. The two other law-enforcement groups had less interest or experience in detecting deception. The *mixed law-enforcement officers* group included 36 municipal, state, and federal law-enforcement personnel who had not been chosen because of their reputation as interrogators. The last group, *federal judges,* included 84 judges who attended a 90-min presentation on deception as part of a 3-day federal judiciary program that did not focus on deception, except for this one presentation. Table 1 presents demographic information about these four groups.

The mean accuracy scores and standard deviations for each of the four law-enforcement groups are given on the left side of Table 2. Additionally, the percentage of each group who obtained low, average, or high scores is given in the middle section of Table 2. A one-way analysis of variance (ANOVA) on the accuracy scores for the four groups was computed. There was a significant between-groups effect, $F(3, 181) = 11.4, p < .0001$. A Scheffé procedure showed that the federal officers were significantly more accurate than the federal judges and the mixed law-enforcement group, but not significantly more accurate than the sheriffs. The sheriffs and the federal judges both were significantly more accurate than the mixed law-enforcement group.

PSYCHOLOGIST GROUPS

As with law-enforcement groups, we sought to study psychologists who varied in their interest in detecting deception. The first group was 107 full-time, practicing clinical psychologists who showed an unusual interest in deception, by virtue of their deciding to attend a 2-day workshop on "Lying, Deception and Malingering," held all day on both a Friday and a Saturday. We presume this group had a special interest in deception because they elected to invest 2 days on this specific topic, losing income in addition to the costs of attending the meeting. (Later we were told that many of these psychologists do at least some forensic work.) We refer to this group as *deception-interested clinical psychologists.*

The second group of psychologists attended a 1-hr, plenary session on deception, part of a 4-day national conference on brief psychotherapy. We excluded from the data analyses those who did not have a Ph.D. in clinical psychology and those who did not do full-time clinical work, leaving a sample of 209 *regular clinical psychologists.* As a group, they had no special interest in deception; they attended this conference to learn about other matters, not about deception. As full-time, practicing clinical psychologists, however, they should have been interested and experienced in interpreting discrepancies in interview behavior.

A third group consisted of *academic psychologists* who had attended a 1-hr invited address on deception, as part of the 1996 Western Psychological Association Convention. Excluding those who said they did any clinical work left 125 academic psychologists. We expected this group to do less well than the other two psychologist groups because most of the psychologists in this group did not do interviewing as a major part of their work.

Table 1 presents demographic information about the psychologist groups, and the bottom half of Table 2 gives the mean accuracy scores, standard deviations, and percentage distributions for these groups. We computed a one-way ANOVA on the total accuracy score for the three groups and found a significant between-groups effect, $F(2, 439) = 12.91, p < .0001$. A Scheffé procedure showed that the deception-interested clinical psychologists differed from both the regular clinical psychologists and the academic psychologists. The regular clinical psychologists were also more accurate than the academic psychologists.

LYING VERSUS TRUTHFULNESS

Table 2 also shows that for the most accurate groups, performance was better in judging lies than in judging truths. No such difference can be seen in the judgments of the less accurate groups. A multivariate analysis of variance in which the dependent variables were accuracy for lies and accuracy for truths was significant, $F(6, 620) = 15.67$, $p < .000$. A Scheffé analysis suggested that there were no differences among the groups in accuracy for truths, but that differences among the groups in accuracy for lies were the same as the differences found for total accuracy. The federal officers were more accurate on the lies than

Table 1. *Demographic characteristics of the seven professional groups*

Group	*n*	Percentage female	Age		Experience or skill[a]	
			Mean	*SD*	Mean	*SD*
Federal officers	23	31	40.8	7.9	5.6	4.9
Sheriffs	43	0	40.7	6.1	16.3	6.6
Federal judges	84	18	52.4	7.5	—	—
Mixed law-enforcement officers	36	11	34.9	7.8	8.3	6.1
Deception-interested clinical psychologists	107	33	49.6	9.3	2.8	0.5
Regular clinical psychologists	209	48	49.1	10.1	2.7	0.5
Academic psychologists	125	62	39.2	15.1	—	—

[a]For the law-enforcement groups, the measure was years of job experience. For psychologists, the measure was self-ratings of therapeutic skill and experience (1 = beginning, 2 = intermediate, 3 = advanced).

Table 2. *Mean accuracy scores and the percentage of each group achieving them*

Group	Accuracy		Percentage achieving accuracy level			Accuracy by type of item			
						Lie		Truth	
	Mean	*SD*	0–30% accuracy	40–60% accuracy	70–100% accuracy	Mean	*SD*	Mean	*SD*
Federal officers	73.0	13.6	0	26	74	80.0	15.9	66.1	16.4
Sheriffs	66.7	15.5	2	42	56	77.7	17.6	55.8	21.2
Federal judges	62.0	14.9	6	50	44	60.9	17.8	63.1	18.2
Mixed law-enforcement officers	50.8	17.8	19	58	22	47.8	27.6	53.9	19.6
Deception-interested clinical psychologists	67.5	13.1	1	42	56	71.0	18.1	63.9	14.9
Regular clinical psychologists	62.1	15.2	4	52	44	64.3	19.8	59.8	18.1
Academic psychologists	57.7	15.0	7	64	29	57.0	18.1	58.4	19.7

the truths ($t[21] = 3.81$, $p < .001$), as were the sheriffs ($t[42] = 6.12$, $p < .0001$), the deception-interested clinical psychologists ($t[106] = 3.63$, $p < .0001$), and the regular clinical psychologists ($t[208] = 2.86$, $p < .005$).

DISCUSSION

We have shown that it is possible for some people to make highly accurate judgments about lying and truthfulness without any special aids such as slowed motion, repeated viewing, and the scoring of subtle changes by either trained coders or computer-based measurements. Such fine-grained behavioral measurements (Ekman et al., 1991) had previously revealed differences between people who lied and those who told the truth, but we did not know whether these differences would be noticeable when the videotapes were seen once in real time, much as real-life judgments are made. In our previous study (Ekman & O'Sullivan, 1991), only one law-enforcement group—a small sample of U.S. Secret Service agents—made accurate judgments.

In that study, we speculated that the Secret Service agents' superior performance was due, in part, to elements of their job training, experience, and interest. Other occupational groups might also have either interest or expertise in detecting deception. When we selected law-enforcement groups that varied with respect to their special interest in deception, or their reputed expertise at doing so, and contrasted them with less interested or less expert groups, we found support for this reasoning. We now have firm evidence that accurate judgments about truthfulness and lying can be made when a videotape is viewed once, in real time. Not everyone, however, can make such accurate judgments; most of the unselected groups we studied did poorly.

The fact that the most accurate groups did especially well in judging the lies compared with the truths cannot be attributed simply to a bias to identify more of the subjects as liars, because all groups were told that between one fourth and three fourths of the subjects were lying. Instead, there may be more identifiable signs of lying than of truthfulness. This possibility is consistent with what we have found in measuring the facial, bodily, and vocal differences between lying and truthfulness.

Our study has, for the first time, shown that accurate judgments are not confined to selected law-enforcement groups. Psychologists with a special interest in deception also showed more accurate performance than other groups of psychologists.

We have also provided the first evidence that accuracy is possible for judging more than one kind of lie. The subjects who lied in our previous study were in an unusual situation—being interviewed while they watched a film designed to evoke emotions. In the present study, the subjects who lied and told the truth were in a situation that more closely resembled an initial interview.

As has been reported before, neither the age nor the sex of the observer was related to accuracy.

Although there were significant group differences, even the more accurate groups showed a range of scores, with some observers doing much better than others. In every group there was a substantial number who performed at or below chance. It is unlikely that judging deception from demeanor will ever be sufficiently accurate to be admissible in the courtroom. Nevertheless, judgments based on demeanor can be quite useful in pointing to the need to develop more information. Our findings suggest that judgments that someone may be lying will have value only if they are made by certain professionals, and even then not all of these judgments will be accurate. Most of us would do well to entertain some skepticism about our ability to detect deception from demeanor.

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