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THE EFFECTS OF SELF AND SOCIAL MONITORING ON DECEPTION AND DETECTION

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THE EFFECTS OF SELF AND SOCIAL MONITORING ABILITIES ON DECEPTION AND DETECTION

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ABSTRACT

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MONITORING ON DECEPTION AND DETECTION

by

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Like communication, deception is a negotiated process, but past deception research has concentrated on the behaviorial correlates of deception or accuracy of detection, an action-centered approach. Few studies have integrated the two activities to determine if the cues that are noticed are the cues that lead to accurate detection, an interactive approach. Because deception detection is a process of formulating perceptions, it is suggested that one's habitual perceptual style might help to determine why certain cues are noticed, why others are disregarded, and how accurately the cues are processed. Self and social monitoring are considered such perceptual styles. The former should be most closely related to deception, the latter to detection. A simplified card game was used to test these relationships. Results showed that the manipulation, while interactive and naturalistic in its approach, was not strong enough to produce significant results.

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CHAPTER 1

INTRODUCTION

Persistent use of a static, action-centered model (Stiff & Miller, 1984a, b) in deception studies has resulted in research focused on either deception or detection with emphasis on the attendant behavioral cues generated by either activity. Concrete generalizable results regarding these external cues have been scant (see Kraut, 1980 and Zuckerman, DePaulo & Rosenthal, 1981 for reviews of the literature) and contradictory.

While findings have been equivocal, some cues have been more commonly noted across studies than others. Nonverbal cues in this category include reduced postural shifts (O'Hair, Cody & McLaughlin, 1981), reduced eye contact, (Exline, Thibaut, Hickey & Gumpers, 1970), and decreased use of illustrators (Ekman, Friesen & Scherer, 1976). Catalogued verbal cues include shortened responses due to nervousness and uncertainty (Knapp, Hart & Dennis, 1974), increased disfluencies (DePault, Rosenthal, Rosenkrantz & Green, 1981) and discrepant message content (Mehrabian & Winer, 1967; Miller, Mongeau & Sleight, 1984). When asked, subjects report a similar list of expected cues (Miller et al., 1984), although a more recent compilation (Sleight, 1985) indicates a much more discrepant list of expectations.

However, this group of common cues does not guarantee accurate deception detection. There seems to exist, then, a gap between what we study, how we study it, and what is actually happening. Given the fact that detection accuracy scores rarely exceed 65 percent, (Kraut, 1980) one might conclude that the wrong question is being addressed or that some important variable is being overlooked.

With regard to the first possibility, little attention has been given to investigating the correspondence between deception and detection, as Stiff and Miller (1984b) point out in their proposal for an interactive approach. This would permit investigators to identify behaviors that result in perceptions of deceptiveness, whereas the action-centered or source-oriented approached cannot. Instead of asking, "What are the cues of deception?" or "How accurate are subjects at decoding cues?"; the question of interest becomes "On what cues do individuals rely when formulating perceptions of deceptiveness and how are these cues related to actual deceptive behavior?" This perspective suggests an additional line of inquiry, "Why do individuals rely on the cues that they do?" which may point to the second possibility mentioned above.

There may be an individual difference variable (or a set of them) that determines whether or not cues are comprehended and how accurately they are put to use. Attention should be drawn to the idea that detection involves formulating perceptions. Since no one cue is an idea of deception and thus a guarantor of detection, then the judgment must be made based on some internal criterion. The locus of the process is the individual detector; the process itself is cognitive, and the index of success may be social ability of some kind. In fact, Maier and Janzen (1967) found that subjects made judgments about veridical behavior and then defended them regardless of the evidence or their correctness.

Like communication, deception is a negotiated process. It takes two people, one of whom intends to deceive, the other with the proclivity to detect. Effective deception can be seen as either a willingness to be deceived (for whatever reason) or an inability to correctly perceive and decode possible cues that would lead to detection. Given that the

former may occur to simplify the problems of daily life ("Poached eggplant! My favorite!") as a matter of course, the latter may vary due to personal abilities and interest in the behaviors of others. Heider (1958) notes,

> The fact that there is a lack of correspondence between the raw material of perception and the intended object of perception allows idiosyncratic approaches to the world on the part of the observer a much freer reign in the organization and interpretation of incoming proximal stimuli. The issue here...concern(s)...perceptual styles --what the person extracts from his world because of his manner of perceiving. (pp. 56-7)

Self monitoring can be considered a perceptual style that might affect the deception/detection process, for it involves the ability of self to apprehend and manage external cues. It is of particular interest for two reasons:

1) The original conception of self monitoring (Snyder, 1974) correlates highly with empathy (Stiff, 1984), which suggests predictive accuracy. Mead's (1934) early work defined empathy as the ability to take the role of another. Such ability was conceptualized as predictive accuracy. High self monitors, in taking the role of another, should thus be better able to predict other's behavior.

2) Recent work of Lennox and Wolfe (1984) has refined Snyder's construct and improved the operationalization. The original conception stated:

> The goals of self monitoring may be (a) to communicate accurately one's true emotional state by means of an intensified expressive presentation; (b) to communicate accurately an arbitrary emotional state which need not be congruent with actual emotional experience; (c) to conceal adaptively an inappropriate emotional state and appear unresponsive and unexpressive; (d) to conceal adaptively an inappropriate emotional state and appear to be experiencing an appropriate one; (e) to appear to be experiencing some emotion when one experiences nothing and a nonresponse is inappropriate. (Snyder, 1974, p. 527)

These stated goals seem applicable to both successful deception and successful detection. Prior work can be cited to both support and contradict this supposition. Self monitoring was found not to have a significant effect on deception (Comadena, 1982; Kraut & Poe, 1980; Ekman et al., 1976), a counterintuitive result given the above criteria. High self monitors were found to use different detection strategies than low monitors (Elliott, 1979), a finding that agrees with the Stiff (1984) correlation. These results may be done to the original measure itself;

> ...an instrument specifically designed to discriminate individual differences in concern for social appropriateness, sensitivity to the expression and self-presentation of others in social situations as cues to social appropriateness of self-expression, and use of these cues as guidelines for monitoring and managing self-presentation and expressive behavior. (Snyder, 1974, p. 529)

Lennox and Wolfe determined that "The scale's multidimensionality (Snyder specified five factors) extends beyond the limits of the construct, creating a situation in which its factors compete with one another" (1984, p. 1350). The scale was found to dependably yield only three factors; two of which, acting ability and extraversion, were irrelevant to it and better measured by other instruments. The remaining factor of self monitoring, other-directedness, loaded on two distinct dimension, which they felt correctly represented "Snyder's (1979) description of the high self monitor as one who `is particularly sensitive to the expression and self-presentation of relevant others' (p. 89) and who uses these cues as a guide to regulating self-presentation" (p. 1359).

The two dimensions were defined as "the ability to modify self presentation" and "sensitivity to the expressive behavior of others" (p. 1359). They were found to be correlated (.22, $p < .01$, two-tailed). For the purposes of symmetry the former dimension will be called self

monitoring, the latter social monitoring. These two more sharply defined variables should affect both the deception and detection process more clearly. Self monitoring should be most closely related to successful deception and social monitoring to successful detection. This restores their intuitive relation to the process.

Therefore, regardless of his/her social-monitoring ability, the high self monitor who is able to adapt his or her behavior cross-situationally should be a better liar. On the other hand, the high social monitor who attends more assiduously to the cues of others should be a better detector, regardless of his/her self-monitoring score. Consequently, those individuals who are both high social and self monitors should excel at both deception and detection, while those low in both skills should not. Stated formally, the hypotheses are:

H1: Individuals who are both high social and high self monitors should be relatively more successful at both deception and detection.

H2: Individuals who are high social monitors and low self monitors should be relatively successful at detection but relatively unsuccessful at deception.

H3: Individuals who are low social monitors and high self monitors would be relatively unsuccessful at detection but relatively successful at deception.

H4: Individuals who are both low social and low self monitors should be relatively unsuccessful at both deception and detection.

This study then, attempts to take an interactive look at the deception/detection process by looking at why certain subjects may notice the cues that they do, and what they then do with those cues.

CHAPTER TWO

METHOD

To establish scores for test-retest reliability, students at a large Midwestern University enrolled in a basic communication course were given the Lennox and Wolfe Revised Self-Monitoring Scale (1984). This scale is a 13-item instrument. Seven items pertain to self monitoring, while six items measure social monitoring. A five item, Likert-type scale, ranging from strongly disagree (1) to strongly agree (5), was used to tally the responses. The ordering of the items was the same random ordering as that used by Lennox and Wolfe.

At this first scale administration students were also asked to enroll for the experiment itself. Those who did participate were given extra credit for their work. One hundred students actually participated; 66 women, 34 men, all of whom were to both deceive and detect.

Ten days later, subjects were called into the lab in dyads. The lab setup consisted of two rooms. In one, measurement scales were administered, in the other, the experimental manipulation took place. Once in the lab, subjects were either ushered directly into the manipulation room or asked to wait in the adjacent room and fill out the measurement scales. This alternating schedule expedited the work and helped to keep all subjects busy most of the time. Respondents were asked to fill out a reordered Lennox and Wolfe Scale. Empathy, dogmatism, and Machiavellianism measures were also administered. This was done for two reasons: 1) to both relax subjects and focus their attention on the experimental setting if they had to wait, 2) to provide additional information for future work.

Manipulation

The manipulation consisted of a card game similar to both blackjack and poker. The game was directed by an assistant trained to be the dealer. Dyads were seated opposite each other at a table. A written set of rules was provided for each player. After reading the rules, players were asked if they had any questions. If they did, the dealer was instructed to reread the rules with the players until they understood and to caution them that two practice hands would be played. The practice hands served as additional explanation.

The rules stated that each player would be dealt a pair of cards. Player A's cards would be dealt face down, Player B's cards face up. Player A, who could look at his/her own cards and also see B's hand, was the deceiver in the game. Player B, who could see only his/her own cards, was the detector. An ante of 25 cents or one dollar was preset for each hand. The dealer informed the players of the ante. Both then anted the required amount.

After the deal of the cards a waiting period of 30 seconds was observed. During this time the players could talk to one another or remain silent. Player B could then either call or fold his/her hand. If B folded, and A's cards were high, then B would win the hand. If B called, and A's cards were low, then B would also win the hand. The opposite was also true. If B folded when A had low cards, A would win; or if B called when A had high cards, A would win again. The order of the cards was predetermined, so all dyads played the same series of 14 games.

To give each player a chance to both deceive and detect, players switched roles at the end of six hands. The ante was arranged so that the total amount of money at risk in each series of six hands was the

same. Players thus were not monetarily penalized for being better at one task than the other.

Real money was used as antes rather than poker chips, since a series of pretest games revealed that subjects preferred money and felt more motivated to win when using it. Unfortunately, subjects could not be allowed to keep their winnings. They were told that the top four money winners would win gift certificates for record albums. Given the age range of the respondents, this seemed to stimulate their desire to win. A number of players inquired about the amount they had to beat in order to win the albums.

At the end of play, two free response questions were asked. One was a manipulation check: "What strategies did you use in playing the game?" The other was not: "Did you notice any behaviors in the other player that affected your strategy? If you did, what were they?" A list of the behavioral correlates of deception was the object of the second question.

Having completed the game and filled out all the scales, players were thanked for their participation in this "study of game playing strategies" and told they would be contacted if they were the overall winners. Gift certificates were sent out two weeks later.

CHAPTER 3

RESULTS

Using SPSS (Nie, Hull, Jenkins, Steinbrenner & Bent, 1975), two 2 x 2 ANOVAs with independent groups were used to test the hypotheses. In the first case, deception was the dependent variable, in the second, detection was the criterion variable. Monitoring scores in the test condition were used as the independent variable as all 100 cases were available to be used. Only 95 subjects had answered pretest items. Means, which represent number of games won, are shown in Tables 1a and 1b.

These homogeneous cell means indicated no significant treatment effects. ANOVA results, found in Tables 2a and 2b, confirmed this.

While the alphas for the subscales were relatively high, (.76 for self monitoring and .75 for social monitoring), the possibility that the Lennox and Wolfe measure itself might have contributed to these results was entertained. Being a new and relatively untested scale, a confirmatory factor analysis using PACKAGE (Hunter, Cohen & Nicol, 1982) was run.

Internal consistency and parallelism are the criteria by which a factor is judged to be uniformly measuring a trait (Hunter, 1980). Using these criteria, each subscale contained a weak item. Item 6 "I can usually tell when others consider a joke to be in bad taste, even though they may laugh convincingly," a social-monitoring item from the original Lennox and scale, was one; and Item 12, "Even when it might be to my advantage, I have difficulty putting up a good front", a self-monitoring question, was the other.

Lennox & Wolfe found that Item 12 correlated .30 with other questions on the self subscale. All other interitem correlations ranged from .42 to.60. When Item 12 is removed from the cluster, the alpha is

Table 1a

Self-Monitoring and Social Monitoring

Means with Original Scales

Condition	Level	Mean
Deception	High Self Monitoring (N=47)	1.62
Deception	Low Self Monitoring (N=51)	1.82
Deception	High Social Monitoring (N=53)	1.73
Deception	Low Social Monitoring (N=53)	1.72
Deception	Grand Mean	1.72
Detection	High Self Monitoring (N=47)	4.23
Detection	Low Self Monitoring (N=51)	4.31
Detection	High Social Monitoring (N=45)	4.40
Detection	Low Social Monitoring (N=53)	4.28
Detection	Grand Mean	4.28

Table 1b

Self-Monitoring and Social Monitoring

Cell Means with Original Scales

Self monitor	Condition	Mean
	High social monitor	
High (N=25)	Deception	1.68
Low (N=20)	Deception	1.80
High (N=25)	Detection	4.16
Low (N=20)	Detection	4.40
	Low social monitor	
High (N=22)	Deception	1.55
Low (N=31)	Deception	1.84
High (N=22)	Detection	4.32
Low (N=31)	Detection	4.26

Table 2a

ANOVA of Dependent Variable Deception
using Original Self and Social-monitoring subscales

SOURCE	SS	df	MS	F	p	eta	r
self monitor	1.088	1	1.088	.503	>.05	.011	.104
social monitor	.051	1	.051	.047	>.05	.0005	.02
self X social	.179	1	.179	.164	>.05	.002	.038
S/self monitor and social monitor	102.288	94	1.088	-	-	.986	.992
TOTAL	103.561	97	1.068			1.00	

Table 2b

ANOVA of Dependent Variable Deception
using Original Self and Social-monitoring subscales

SOURCE	SS	df	MS	F	p	eta	r
self monitor	.149	1	.149	.139	>.05	.001	.031
social monitor	.001	1	.001	.001	>.05	.000	
self X social	.537	1	.537	.500	>.05	.005	.07
S/self monitor and social monitor	100.868	94	1.073	-	-	.994	.996
TOTAL	101.561	97	1.047			1.000	

increased to .80. Item 6 correlated .35 with its companion social-monitoring items, whose correlations ranged from .36 to .53. While removal of this item did not change the alpha, it can be argued that its deletion conceptually tightened the cluster. The remaining five items all pertained to subjects' ability to utilize the leakage of facial cues (Ekman & Friesen, 1969).

These "improved" subscales are based on an N of 100, far less than the N of 1538 recommended by Hunter, Schmidt and Jackson (1982) for statistically valid judgments. Nevertheless, the ANOVAs were rerun using these instruments. Means are found in Tables 3a and 3b.

The pattern of means has shifted slightly here, when compared to the first analysis, but their uniformity again suggests little treatment effect. The ANOVA (see Table 4) again confirms this.

While it is tempting to compare the changing patterns of these two analyses to see the change in distribution of subjects/cell and to note that the pattern of means in the detection condition with unimproved scales is as predicted, such observations are meaningless given the lack of significance.

As noted earlier, test-retest reliabilities were calculated by correlating pretest with test scores on the monitoring scales. This was done to provide two reliability scores for each measure. The greater of these was to have been used to correct for attenuation due to error of measurement had the ANOVA results been significant. Given the outcome and the consequent development of "improved" scales, reliabilities for both original and modified measures were figured. Similar results were found using both SPSS (Nie et al., 1975) and PACKAGE (Hunter et al., 1980; see Table 5).

Test-retest reliabilities (with correlations corrected for attenuation due to error of measurement in parantheses) were .65 (.88)

Table 3a

Self-Monitoring and Social-Monitoring
Means with Modified Scales

Condition	Level	Mean
Deception	High Self (N=56)	1.63
Deception	Low Self (N=41)	1.83
Deception	High Social (N=50)	1.66
Deception	Low Social (N=47)	1.77
Deception	Grand Mean	1.71
Detection	High Self (N=4.20)	4.20
Detection	Low Self (N=4.39)	4.39
Detection	High Social (N=4.39)	4.39
Detection	Low Social (N=47)	4.28
Detection	Grand Mean	4.28

Table 3b

Self Monitoring and Social Monitoring
Cell means with modified scales

Self Monitor	Condition	Mean
	High Social Monitor	
High (N=32)	Deception	1.69
Low (N=19)	Deception	1.61
High (N=32)	Detection	4.22
Low (N=19)	Detection	4.39
	Low Social Monitor	
High (N=24)	Deception	1.54
Low (N=23)	Deception	2.00
High (N=24)	Detection	4.17
Low (N=23)	Detection	4.39

Table 5

Test-retest correlation matrix
from PACKAGE

	501	502	503	504	505	506	507	508	509
501	100	97	28	28	65	65	26	25	15
502	97	100	27	27	65	65	23	22	11
503	28	27	100	95	27	27	59	58	23
504	28	27	95	100	31	31	58	62	26
505	65	65	27	31	100	97	28	28	16
506	65	65	27	31	97	100	28	29	15
507	26	23	59	58	28	28	100	97	28
508	25	22	58	62	28	29	97	100	29
509	15	11	23	26	16	15	28	29	100

501 = pretest self subscale (modified)

502 = pretest self subscale (original)

503 = pretest social subscale (modified)

504 = pretest social subscale (original)

505 = test self subscale (modified)

506 = test self subscale (original)

507 = test social subscale (modified)

508 = test social subscale (original)

509 = items from all other administered scales

for the modified self scale and .65 (.91) for the original scale. For the social scale these reliabilities were .59 (.84) and .62 (.93) respectively. While these reliabilities are not as robust as one might like, they are certainly within sampling error of each other. The inflated corrected values for the original scales reflect the smaller sample size (95) thus including more sampling error.

Use of the subscales as independent dimensions in this study was based upon Lennox and Wolfe's finding that they were correlated .22. Although not expressly stated in their paper (1984), one can assume that they administered the original scales in a laboratory setting. The correlation of .29 (.38) that was obtained using the same scale in a similar (lab) setting corroborates their finding, considering the smaller sample used here. The correlation of the modified scale, .28 (.36), in a lab setting is more supportive of their claim.

Correlations of the subscales--i.e. self X social (pretest-classroom) and self X social (test-lab) when compared to each other--suggest that these scales are stable over time (see Table 6). That is, regardless of the conditions under which they are administered, the relationship of the two subscales to each other remains constant.

Table 6

Self-monitoring and Social-monitoring
Subscale Intercorrelations

Modified scales	Original Scales
Pretest (classroom)--- Self X Social = .28 (.41)	Self X Social = .27 (.42)
Test (lab)--- Self X Social = .28 (.42)	Self X Social = .29 (.38)

CHAPTER 4

DISCUSSION

The conclusion most readily drawn from these results is that the manipulation was not strong enough to provide adequate tests of the hypotheses. The game did not sufficiently engage the respondents; with no deception then, there could be no detection. Responses to the manipulation check item reinforced this idea. Of the 91 subjects who responded to this question, 24% said they used no strategy in playing, 60% said they played the odds, and only 11% said they watched the other player.

The fact that most subjects won when being asked to ostensibly detect (when they could see only their own cards, but were asked to call or fold) indicates that the fall of the cards alone gave away who would win. Too many high pairs were repetitively dealt to detectors in combination with low pairs to deceivers. In the detection condition, 96% of the respondents won $3.00 or more; in the deception condition, this was true of only 21% of the players.

Additionally, having both players ante each time rather than having the deceiver only do it, further exacerbated the non-deception condition. The ante, which might have been used as a clue (either positive or negative) by the detector, was denuded of its possible significance.

Nevertheless, the operationalization is appealing for a number of reasons: 1) it was my chairperson's idea, and seemed like a good one; 2) it is an interactive way to operationalize the construct, one which involves all subjects in both the deception and detection process; 3) it is a relatively naturalistic way of getting at the process; and 4) it is a fairly straightforward manipulation involving little deception of the respondents by the experimenter and therefore minimal debriefing.

Improvements would not be difficult to make: 1) Pairs of cards should be drawn from several decks thus obviating the player's ability to simply count pairs played. During pretest games, several combinations of pairs were changed because it was found, for instance, that a pair of kings dealt face up always elicited the same response--Player B folded because two pairs of aces had already been dealt. 2) A more careful monitoring of pairs, that is controlling whether face cards or low number pairs were dealt face up and in what combination, would encourage deception and detection. This would be particularly true if several repetitions of the same pair were dealt early in the game. 3) A method to allow play to continue so that Player A (the deceiver) would have a chance to raise the ante if he/she desired before B (the detector) called or folded might enhance interactive deception. Play might progress this way:

1) Dealer sets the ante;
2) Cards dealt;
3) Player B (who can see only his/her own pair) antes or doesn't;
4) Player A antes (raises) or doesn't;
5) Player A is dealt a second pair;
6) Player A antes or doesn't;
7) Player B antes (calls) or doesn't (folds);
   or
7) Player B is dealt a pair which instructs her to call or fold and A being aware that this will happen at random must control her behavior accordingly.

The benefit of an effective manipulation is obvious; the effects of individual difference variables such as self and social monitoring can then be tested. The present results suggest alterations that will permit a more powerful test of the hypotheses.

During the course of analyses, two additional issues emerged. A valid confirmatory factor analysis for both the subscales used is needed. Results from the minor adjustment made in the self-monitoring scale indicate that a study with a reasonably sized N is warranted. In

addition, while the removal of an item from the social scale made no difference in the alpha level with a small sample, it might well do so with a large one. Conceptually, this subscale might benefit from the addition of items that tap issues other than facial cues and leakage. There are certainly other kinds of cues that social monitors heed: eye contact, or lack of it, is the only one included in the current version of the measure.

The stability of the scales over time was also brought to this researcher's attention during the course of this work. While the scales seem to be stable, as the intercorrelations show, no studies could be found that specifically addressed this issue. Earlier researchers (Briggs, Cheek & Buss, 1980; Gabrenya & Arkin, 1980; Lennox & Wolfe, 1984; Snyder, 1974, 1979) have confined themselves to confirmatory factor analysis of the self-monitoring scale alone. Indeed, no test-retest reliability scores could be found to be used as a basis for comparison. It appears that a high alpha level is inferred to imply stability. The logical connection seems tenuous. Future work might take a systematic look at the situational variables that may or may not affect scale administration.

As administered, this study demonstrates only the effects of sampling error and error of measurement. However, these results and this discussion indicate: 1) that with the suggested alterations the manipulation can be strengthened sufficiently to properly test the hypotheses, for conceptually, a replication seems warranted; 2) that a confirmatory factor analysis with a meaningful N should be performed on the subscales; and 3) that a measurement study to confirm the test-retest reliabilities is in order. Therefore, despite the apparently

discouraging results reported here, some bit of progress has been made toward improving future investigations.

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APPENDIX

APPENDIX A

Lennox and Wolfe Self-Monitoring Scale

Items 1-7 are the self-monitoring subscale
Items 8-13 are the social-monitoring subscale

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1. In my social situations, I have the ability to alter my behavior if I feel that something else is called for.

2. I have the ability to control the way I come across to people, depending on the impression I wish to give them.

3. When I feel that the image I am portraying isn't working, I can readily change it to something that does.

4. I have trouble changing my behavior to suit different people and different situations.

5. I have found that I can adjust my behavior to meet the requirements of any situation I find myself in.

6. Even when it might be to my advantage, I have difficulty putting up a good front.

7. Once I know what the situation calls for, it's easy for me to regulate my actions accordingly.

8. I am often able to read people's true emotions correctly through their eyes.

9. In conversations, I am sensitive to even the slightest change in the facial expression of the person I'm conversing with.

10. My powers of intuition are quite good when it comes to understanding others' emotions and motives.

11. I can usually tell when I've said something inappropriate by reading it in the listener's eyes.

12. I can usually tell when others consider a joke to be in bad taste, even though they may laugh convincingly.

13. If someone is lying to me, I usually know it at once from that person's manner of expression.