

The Nonverbal Expressions of Deceptive Communication

Ikuo Daibo

PROBLEM

People do not always show their true intention in their actions. In many cases we cannot help taking an action that inevitably conceals our true intention toward ourselves and others. This deceptive behavior—Alter-deception (Ekman and Friesen, 1969)—is regarded as having some peculiar psychological conditions. Such actions try to convey the intended messages to others, pretending to be faithful while concealing their real intention, and such actions are likely to communicate, using channels that can be controlled consciously. Accordingly, their self consciousness would be raised, and their physical arousal level would also be heightened.

However, this control of channels is limited and not so powerful and constant that it could extend over every channel which can be used in the situation which faced. Always there is some possibility that the real intention would leak out through the channels that cannot be controlled. At the same time, it is possible that discrepancies would appear between the messages that are expressed in communication which is expressed through the channel that is consciously controlled, and that which is uncontrolled. This discrepancy in channels itself would be one of the behavioral characteristics of deception.

Ekman and Friesen (1969) said; As the face is more easily controlled than the body, and has possibilities of sending many messages, faces can get attention and be observed by others more

easily. Therefore, as senders of messages try to control their facial expressions rather than their body movements, it is thought that the discrepancy between the expressive characteristics of the face and body would be readily discovered.

Also, when sending false intentions to others, the deceiver makes a highly conscious effort to manipulate their behavior for the communication which they need to make. At the same time, the deceiver is afraid that the deception would be discovered by others, and feels a sense of shame toward the dual-mindedness of the true intention and deception.

They have to act so that others will not perceive this sense of shame. Communication with which they try to control others, and defensive communication with which they try to conceal their real intentions are the characteristics of deception. For this defense, in expressing messages, they have to be prudent during conversation, and references to the main point are likely to be repressed. Also, they would be sensitive about how others understand their action.

Communication while deceiving is characterized as communicating the raising of the physical arousal level as well as an increase in instability and agitation. It is believed that it is based on the difficulty of expressing verbally how they feel, and thus the efficiency of communication would decline, and so would immediacy (Meharabian, 1971).

We have some studies about arousal level with deception, among them, deTurck and Miller (1985) compared with arousal level, setting up following: these types:

- 1) intentional deception,
- 2) intention to tell the truth when noise has raised the arousal level,
and
- 3) the condition of telling the truth without arousal manipulation.

There is no difference between 1) and 2) in regard to GSR

The Nonverbal Expressions of Deceptive Communication

which is the physical arousal index of the autonomous nervous system, and they both have a higher arousal level than 3). However, comparing 1) and 2), we can find some peculiar characteristics of deceivers, like much adaptor duration, many hands gestures, many speech errors, breaking off of speech, long latency periods and brevity of speech. These different characteristics are shown in comparing with 1) to 3).

Knapp et al (1974) set up interview situations that were manipulated to make a statement which should be a different point of view from one's own opinion, and examined them. As a result, they found some characteristics, those are;

- unconsciousness (shortage of vocabulary)
- ambiguity (few reference to truth and oneself)
- strain (body manipulation)
- repressed expression (shortage of the numbers of words used, and short time to make a statement)
- dependency (mentioning the experiences of one's self or others)
- unpleasantness (avoidance of eye contact)

The other studies also show such tendencies, i.e., few body movements which seems to reflect strain, brevity of eye contact, and avoidance of silence.

In some cases, each study has its own result which is different from others, but it means that psychological changes with deception are not single dimensional, depending on the situation of the experiment and its observation.

For example, while deceiving, an introvert and a person with highly anxiety strongly tend to decline immediately because of their sense of shame and guilt, however, an extrovert is rather active to control others, and their body movements like facial expression are rapid (Meharabian, 1971). As Bond (1985) reports, people do not give much false intention by deceiving in regard to situation to the extent that then manipulate their own primary attitude, but get their reward

by accomplishing the deception task. The strain of “pretending” would be rather important. Therefore, it is observed that with the high intention of deception (the subject uses fewer interjections), many gestures and many eye contacts to raise the efficiency of the communication, and the strength of the strain decreases their smiles.

Deception, besides *lying* (i.e., to lie on real intention and to try to make others believe some ideas), contains *evasion*, that is, ambiguity about what one is thinking, and *concealment*, that is, to always conceal one's real intention. Those differences among them reflect communication patterns, and on deceiving we can see an action that is likely to decline concerns about others (few nodding, etc.), on the condition of evasion, nervous and unstable behavior and avoidance of visual interaction are seen (Druckman, Rozelle, & Baxter, 1982). Moreover, choosing of the channels used is influenced by whether the deception was prepared, or not (O'Hair, Cody, & McLaughlin, 1981). When the subject is given direction about deceiving before hand, and there is a little time till the deception is expressed, they have much body manipulation (adaptor), and the time to talk is short, it shown in other studies as well. And supposedly because of having enough time to prepare for lying, speech latency is short. On the other hand, on the stage that they have to respond with lying which is not prepared before hand, clues of leakage are few. As they have to think out their own messages significant differences about the time to make a speech with preparation do not appear, only the body manipulation as a reflection of uncertainty increase. Furthermore, after lying, perhaps because the strain involving deception is decreased by an accomplished action, no clues can be found.

Encoding and decoding are separated in most studies so far. In the studies about encoding, an experimental situation is set up as an interview, with an interviewer (confederate) asking questions to an subject, and arranged so that the subject lies about their opinions or attitudes, in response. (Knapp, Hart, & Dennis, 1974). Therefore,

as the same as the beginning of the research of the conversation experiments, they try to understand the behavior of manipulated subject through the interaction with the confederate. It is not always "mutual interaction" studies. Also, encoding ability as closely related to that of decoding is observed (Zuckerman et al., 1975).

In this report, we examine, requesting one speaker (deceiver) in dyad to make a statement which differs from her own attitude, and observing the dyadic communication patterns toward another speaker who makes a statement from her own attitude, that 1) how different the communication patterns are between the two, and 2) if the action of deceiver has some sort of characteristics, how the partner would recognize it.

METHOD

Subjects: Forty-eight freshmen students (twenty four freshmen for each male and female).

Procedure: Before holding an experiment of conversation, completing a questionnaire (selected items from Eysenck and Wilson, 1976) about attitude (seven-point method) which contains a group of thirty items in, and from the result of that, we select the persons who clarify the direction of their opinions, and who agree on the items which they evaluate as highly importance for the conversational topic (five-point method). We constructed conversational pairs (same sex) of those without any acquaintance with each other, and considered the anxiety level of the subjects (twelve pairs for each anxiety discrepant group; such as a High anxiety-Low anxiety pair, and so on, and non-discrepant group; such as a Middle anxiety-Middle anxiety pair, and so on.).

Those subjects were arranged to balance by score of extraversion (E score by MPI) for each group.

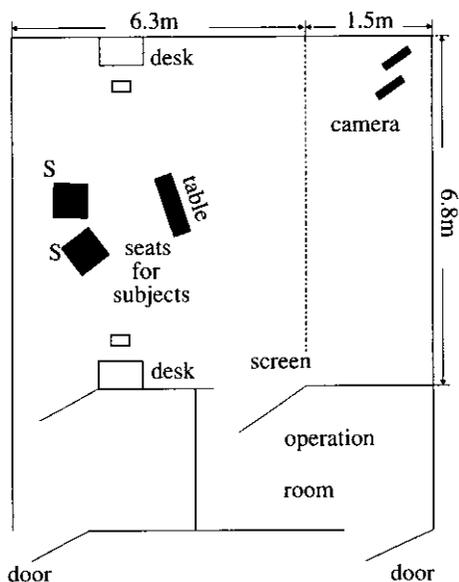


Fig.1. The schematical view of laboratory.

After confirming the direction of their opinions before starting conversation for each pair, we requested one subject of the pair to express their own opinion from a point of view opposite to their true attitudes (Deceiver; D), and another to express their opinion without any manipulation (Truth Teller; T), and we did not tell them that thier partner has been manipulated by the experimenter.

Each pair had conversation about each selected topic for twelve minutes in a face to face situation. before and after this conversation, we performed a personality recognition rating (35 items, Daibo, 1978) and made evaluations for interpersonal attractiveness (IAS, 13 items, Daibo, 1982b) to their partner, by asking their impression of each other.

Each subject was seated almost adjacent position and talked by headphone with microphone (see Fig. 1.).

Looking and body manipulation behavior during conversation

were recoded by means of VTR system (two S's faces and shoulders were recoded by a camera and their whole appearances were recoded by another camera)

Each session was divided into three 4-minute blocks, and to analyze communication data, changes over blocks about temporal indices were compared.

Communication indices and measures:

The component is an analogue-to-digital converter with voice relays and recorded data translate into digital information. The conversation speech flow was segmented into four states; Common Silence (neither interactants are talking), Common Talking (both interactants are talking simultaneously) and each interactant's Only One Talking (OT; one of the interactants is talking while the other keeps silent) at a zero-state temporal sequence. This method of analyzing data is similar to the system of AVTA (Jaffe and Feldstein, 1970; Daibo, 1982a in detail).

The dependent variables employed in the present study are mainly abstracted from the index of individual activity, we analysed following patterns within each three blocks of four minutes each, i.e., 1) talking on the condition of above-mentioned zero-state temporal sequence, 2) the pattern of looking recorded by three observers who show a high level of agreement after observation training (.9603), and 3) pattern of their own body manipulation (touching)-face/head (FT; .9414), hands/arms (HT; .9756), and other positions (SOT; .9643). We analysed the duration of each with logarithmic translation.

RESULT

1. Comparison with communication behavior

There is no difference in frequency of talking between the

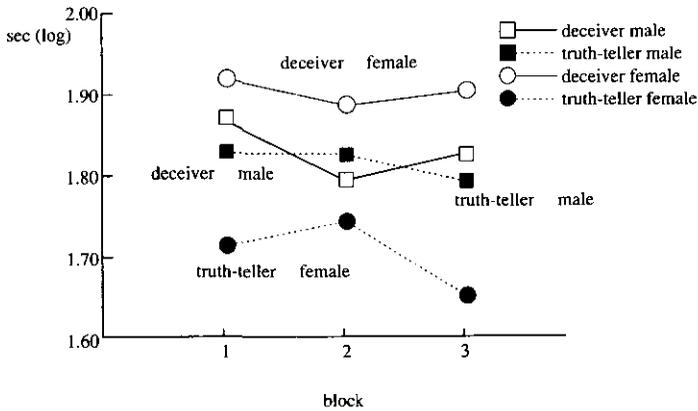


Fig.2. Summed duration of Only One Talking in each block.

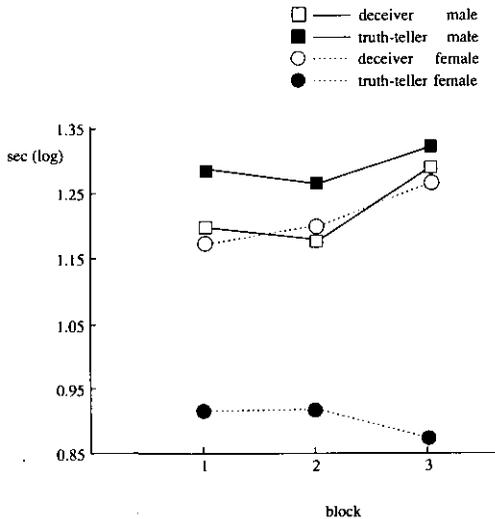


Fig.3. Summed duration of Paused Common Silence in each block. Data were translated into seconds in log.

deceiver and the truth teller, but deceiver makes a statement significantly longer than truth-teller do (Fig. 2., block1, 3, and the whole

The Nonverbal Expressions of Deceptive Communication

block, $p < .05$, Deception condition \times Sex ANOVA, deception main effect is: block1, $F = 6.903$, block 3: $F = 4.653$, as a whole: $F = 4.297$, $df = 1/44$). This effect emerges conspicuously on female subjects (Tukey's test; block 1: $q = 4.375$, $p < .01$, block 3: $q = 3.811$, $p < .05$, and the whole block: $q = 7.422$, $p < .01$, $k = 2$, $n = 44$). However, it shows the opposite relation between deceivers: female $>$ male, and truth tellers: male $>$ female.

In the female group, the truth-tellers have less time and frequency of paused common silence (Pause during their talking; Fig.3.: $F = 4.070$, $df = 1/44$, $p < .05$). We can see that the female deceiver makes a longer statement. On the other hand, we scarcely find any difference like this in male subjects.

The length of time in which deceivers have long glances forward the partner is not significant (Fig. 4.).

Among the body manipulations, there is a significant relation-

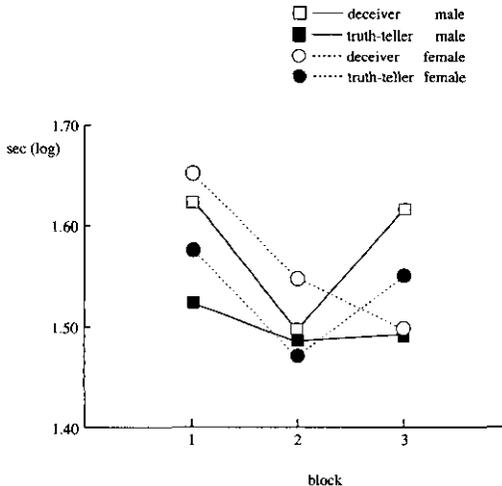


Fig.4. Summed duration of Only One Looking in each block. Data were translated into seconds in log.

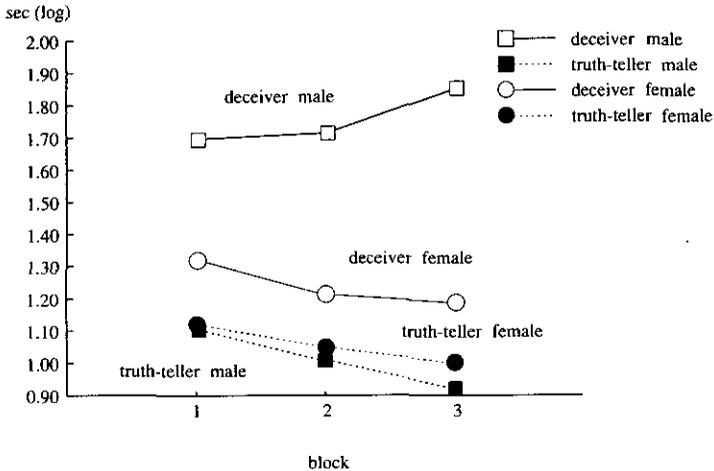


Fig.5. Summed duration of Hand Arm Touching in each block. Data were translated into seconds in log.

ship in the HT summed duration, that is, the deceiver > truth-teller (Fig. 5., $F = 6.987$, $df = 1/44$, $p < .05$). Compared with other body manipulations, the length of the HT duration of the male deceiver is significant (male's simple effect: $F = 8.114$, $df = 1/44$, $p < .01$). Moreover, on the SOT about "the other position touch", the difference that male > female is remarkable (Sex main effect; block 1: $F = 9.378$, $p < .01$, block 2: $F = 8.577$, $p < .01$, block 3: $F = 4.543$, $p < .05$, $df = 1/44$), and the relation is obvious that the male deceiver = male truth-teller > female deceiver > female truth teller (Fig. 6.).

Comparing the summed duration of Only One Talking by themselves with the relation of 'anxiety discrepancy' condition, on the discrepant group, the summed duration of the deceiver's talking is longer than that of the truth-teller, and it is the same as that of the non-discrepant anxiety group (Table 1, Fig. 7.).

Attempting about the summed duration of Only One Looking

The Nonverbal Expressions of Deceptive Communication

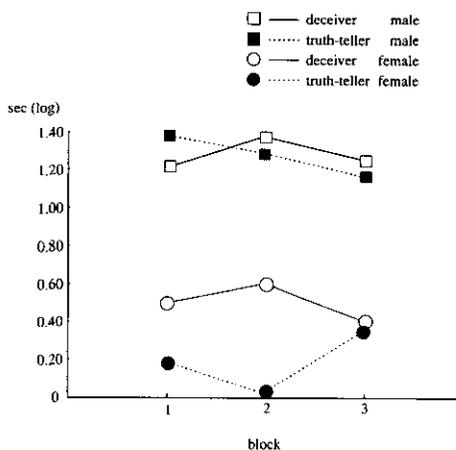


Fig. 6. Summed duration of Self Other Touching in each block. Data were translated into seconds in log.

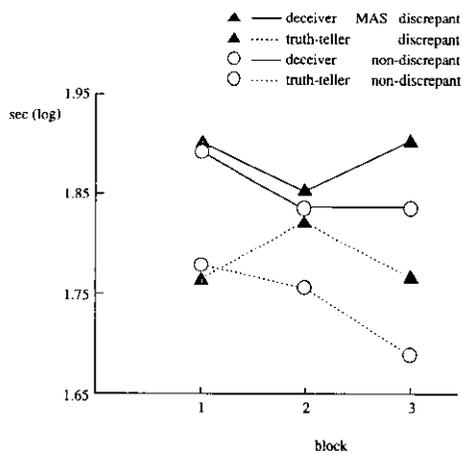


Fig. 7. Summed duration of Only One Talking in each block. Data were translated into seconds in log.

Table 1 Summary of ANOVA for Summed duration of Only One Talking

	SS	df	MS	F	P(%)
A (deception)	0.14	1	0.14	4.158	4.81*
B (MAS)	0.02	1	0.02	0.490	48.81
C (Sex)	0.01	1	0.01	0.156	69.46
AB	0.00	1	0.00	0.044	83.47
BC	0.01	1	0.01	0.401	52.99
AC	0.09	1	0.09	2.594	11.52
ABC	0.00	1	0.00	0.060	80.70
W. cell	1.34	40	0.03		
Total	1.61	47			

$\log(x+1)$ * $p < .05$

Table 2 Summary of ANOVA for Summed duration of Only One Looking

	SS	df	MS	F	P(%)
A (deception)	0.05	1	0.05	0.318	57.60
B (MAS)	0.00	1	0.00	0.000	98.85
C (Sex)	0.00	1	0.00	0.001	97.43
AB	0.42	1	0.42	2.874	9.78*
BC	0.37	1	0.37	2.547	11.84
AC	0.01	1	0.01	0.094	76.13
ABC	0.00	1	0.00	0.002	96.55
W. cell	5.79	40	0.14		
Total	6.64	47			

$\log(x+1)$ ○ $p < .10$

that: condition of deception \times that of anxiety discrepancy \times sex ANOVA, interaction which is deception condition \times anxiety discrepancy condition showed a significant tendency (Table 2, $p < .098$). As a result referred to Fig. 8., the relation which is deceiver $>$ truth teller is seen on the non-discrepant group rather than the discrepant group. On the case of the similarity of personality, it seems that the condition of deception would be remarkably evident, and the deceiver in the nondiscrepant group have stronger tendency to monitor their

The Nonverbal Expressions of Deceptive Communication

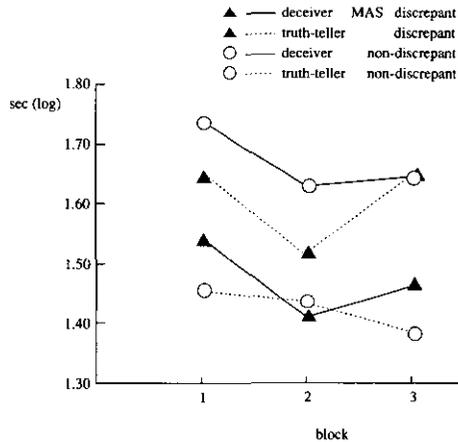


Fig.8. Summed duration of Only One Looking in each block. Data were translated into seconds in log.

partner's behavior.

2. Comparison of interpersonal cognition: interpersonal attraction and personality rating

Compared with rated data after having conversations, in the case of male Ss, deceivers are talkative, do not have sense of humor, and are not recognized positively (Fig. 9.). In the case of female Ss, truth-tellers accept the deceivers as talkative, having a sense of humor, and being pleasant and attractive (Fig. 10.). There is difference of cognition between male and female Ss.

Performing the discriminant analysis of Deceiver and Truth-teller with selecting variables by stepwise method based on rated scores before and after conversation, the percentage of correctly discriminance is that:

Cognition of attractiveness

before: 64.558% after: 79.170% (Table 3, 4)

and

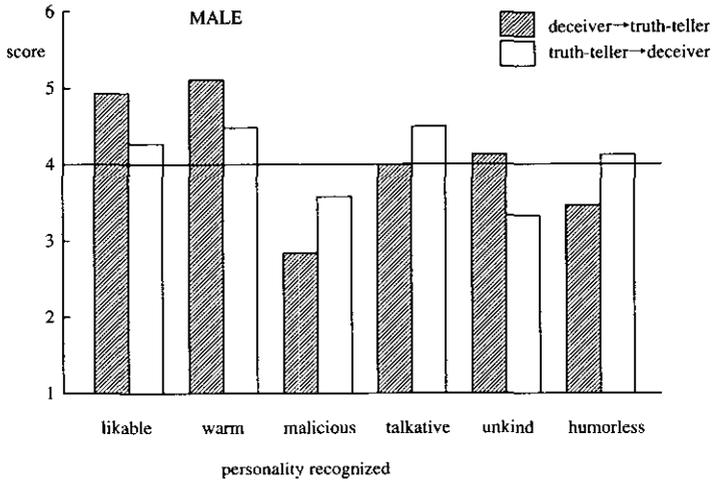


Fig.9. Comparison of personality rating scores between deceiver and truth-teller in male group.

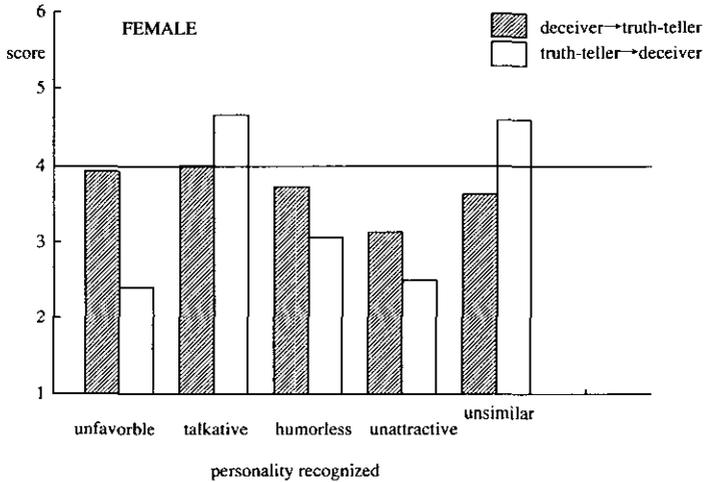


Fig.10. Comparison of personality rating scores between deceiver and truth-teller in female group.

The Nonverbal Expressions of Deceptive Communication

Table 3 Summary of discriminant analysis of interpersonal attraction rating at session 1 (preconversation)

index	discriminat function coefficient		
	standardized	unstandardized	
IAS 04	1.00	1.09762	
constant		-3.93710	
Wilks' lambda=0.93282			
Eigenvalue=0.07202 $x^2=3.0820$ $p=.0820$			
Number of grouped cases correctly classified			
	deceiver to truth-teller	truth-teller to deceiver	Total
deceiver to truth-teller	16 (66.7%)	8 (33.3%)	24
truth-teller	9 (37.5%)	15 (62.5%)	24
Correct % = 64.58%			
Centroid of dicriminant score	-.26247	.26247	

Table 4 Summary of discriminant analysis of interpersonal attraction rating at session 2 (post-conversation)

index	discriminat function coefficient		
	standardized	unstandardized	
IAS01	1.06710	1.38541	
IAS06	-0.83088	-0.98729	
IAS09	-0.60944	-0.61210	
IAS13	0.60820	0.60354	
constant		-0.59897	
Wilks' lambda=0.71502			
Eigenvalue=0.39856 $x^2=14.4240$ $p=.0061$			
Number of grouped cases correctly classified			
	deceiver to truth-teller	truth-teller to deceiver	Total
deceiver to truth-teller	19 (79.2%)	5 (20.8%)	24
truth-teller	5 (20.8%)	19 (79.2%)	24
Correct % = 79.17%			
Centroid of dicriminant score	.03103	-.60473	

Cognition of personality rating

before: 85.400% after: 95.830%

On the analysis of cognition of attractiveness before conversation, good-looking (IAS04) is the only variable with discriminative value. As the same analysis after conversation, weight in discrimination is seen in an order, that is appearance (IAS01) > to get along well (IAS06) > adaptation (IAS09) > reliable (IAS13).

The analysis of personality recognition rating before conversation showed that "healthy" was the most discriminant coefficient. After the conversation, many variables show high discriminative, among them, these items: like-dislike, keeping company with as a friend, passive-active, hatred-attraction, have high coefficient, and it is recognized that personality cognition toward the deceiver and the truth-teller differs in their attractiveness to each other. And it also can be seen that both characteristics are shown in the rating after conversation. In the case of male, there is no difference between the evaluations of non-deceiver and that of deceiver before conversation. However, female truth-tellers regard deceivers as active, a characteristic of female deceivers which emerged constantly more often than that of the male deceiver.

DISCUSSION

While temporary, the deceiver shows a peculiar psychological condition, and it appears as a characteristic of communication. On the research so far, some results have appeared as if they were inconsistent, however, it highly depends on the situation that is set up, in addition the channel influenced by males differs from those influenced by females, as talkativeness is a female deceiver's characteristic, and nonintended body manipulation is male deceiver characteristic.

We can recognize a relationship to compensate the general characteristics of male and female communication in this deceptive condition. In general, the female is less talkative, and the male has less nonintended, body manipulation. Then, in the situation of forced deception, we consider that the behavior with the channel is usually repressed when beginning to arouse.

We mentioned the behavior of touching one's own body position, in the report of Bond et al (1985), but it has no relationship to deception condition, and in the research of Matsui et al (1986), the effect of feedback information toward the subject has no influence upon this expressed behavior of physical touching. It could be suggested that the way to reflect the psychological process is differentiated by the body positions to be touched.

The looking pattern shows no significant difference between deceiver and non-deceiver, the same as the reserach of Zuckerman et al (1981). Moreover, there is no difference between male and female. In the research so far, compared with male, it has been pointed out that females' looking behavior is active, however, it does not make any sense here. On the situation of deception, there is a huge gap in possessed information between the way speakers and deceivers pay attention to their own communicativeness composed with their partners. That is, looking at one's partner is regarded as a sort of monitoring action (It does not reach a significant level yet, but deceiver uses rather much looking.). As a whole, the duration of looking shows a negative correlation between the two. Moreover, on the part of males, the frequency of Only One Looking (Individual Looking) after both gaze aversion shows a positive correlation. The looking of males seem to have an active mutual in fluence. To compare with the duration of individual looking pattern in none-deceptive dyadic communication (Daibo, 1983), female Ss had same level, but male Ss looked more their partner in this situation. Therefore, the looking behavior of males becomes relatively active,

and as the result of that, we suppose that there would be no difference between male and female Ss.

It appears seen that we need to analyze the results from the point of view that includes the differences which male and female have, as communicative behavior itself has differences between male and female, considering the cognitive relationships that correspond more to expressed communication than the meaning of deception itself.

Moreover, if we see personality rating partner after conversation, both male and female deceivers are regarded as making a talkative, we would regard that recognition as being built up by means of the characteristics of their communication pattern of deceiver and truth-teller. And compared with males, from the beginning of interaction, females constantly regard deceivers as active, that means, they are sensitive to the behavior of the deceiver. There are some findings that females are highly sensitive toward communication compared with males (ex: Rosenthal et al, 1975, etc.), however, this result also would show the female's high decoding sensitivity.

According these results, the deception operation which activate communication activity compensate the general characteristics of male and female communication patterns under without deception manipulation situation. In general, the female is less talkative, and the male has less looking, and non-intended self-adaptors. The male is activated his tension and unrest under deception manipulation condition. On the other hand, the female is increased defending power of her true intent. It is considered that the female is more defensive to leakage her secret than the male (Fig. 11.).

Then, in the situation of forced deception, we consider that the behavior with the channel is usually repressed when beginning to arouse.

The Nonverbal Expressions of Deceptive Communication

general activity (no deception)	deception induced (arousal effect)	deceiver's characteristics
channel		
<i>Talk</i> male > female	female ↑	female > male
<i>Look</i> female > male	male ↑	female = male
<i>Body</i>		
<i>manipulation</i>		
female > male	male ↑	male > female

Fig. 1 1. Relationships of communication activity between male and female's under deception condition for three channels. The talk is regared as the intened action, the looking is regared as the emotional action, and the body manipulation is regared as the unintened and the confused action.

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The Nonverbal Expressions of Deceptive Communication

Ikuo DAIBO

We must understand the fact that the deception has played an important role in each phase of interpersonal relationships. Telling the truth is the desirable manner, but we must take some act of deception to maintain the interpersonal balance. Deceiver will exhibit more uncertainty, vagueness, nervousness, unpleasantness, and defensiveness than will truth teller (Knapp, 1974 etc).

The purpose of this study is to clarify the characteristics of the deceptive communication in face-to-face dyadic conversation. The subjects consisted forty eight male and female undergraduates. Same sex Ss were all divided into deceivers or truth tellers. Deceivers were asked to take standpoint of opposite to their own attitude for a certain topic. Talking, looking, self-touching pattern indices employed in this study. Before and after conversation, the Ss were asked to provide personality perception ratings about their partners.

The results showed that deceivers displayed more vocally active than truth teller, in particular this trend was remarkable in female dyad. Concerning the touching behavior, deceivers touched their hands and arms longer than partners. Self-adaptors are remarkable in male dyad. This male and female characteristics were opposite to the overall characteristics in each order. Further, female deceivers were perceived talkative, humorous, agreeable and attractive by their partners.

According these results, the deception operation which activate communication activity compensate the general characteristics of male and female communication patterns. In general, the female is less talkative, and the male has less looking, and non-intended self-adaptors. Then, in the

situation of forced deception, we consider that the behavior with the channel is usually repressed when beginning to arouse.