# THE MEASUREMENT OF TRUST AND ITS RELATIONSHIP TO SELF-DISCLOSURE

# LAWRENCE R. WHEELESS and JANIS GROTZ West Virginia University

This study examined the relationship of trust to self-disclosure. A measure of individualized trust was developed and used in conjunction with a multidimensional measure of disclosure to reassess the relationship between the two. A modest, linear relationship between individualized trust and various dimensions of self-disclosure was discovered. Moreover, a higher level of trust (as opposed to lesser trust as well as distrust) was found to be associated with more consciously intended disclosure and a greater amount of disclosure.

There appears to be a general consensus that a relationship between trust and self-disclosure does exist (Cozby, 1973; Pearce & Sharp, 1973). Despite the fact that many investigators of self-disclosure have argued that some relationship exists, little empirical research has confirmed this notion. While some research could be interpreted as supporting the notion that increased disclosive communication produces trust (Deutsch, 1958; Loomis, 1959; Ostermeier, 1967; Worthy, Gary & Kahn, 1969; Wheeless, 1973), other research has produced ambiguous (Levin & Gergen, 1969) or nonsignificant results (Johnson & Noonan, 1972; Gilbert, 1973). The obverse relationship involving the effect of trust on self-disclosure, the focus of this study, has engendered even less research and validation.

Rather, researchers have most often argued that trust is antecedent to a willingness to disclose. For instance, Jourard (1971), one of the pioneer researchers in the area of self-disclosure, stated that "a person will permit himself to be known when he believes his audience is a man of goodwill. Self-disclosure follows an attitude of love and trust" (5). Indeed, the process of self-disclosure does impose certain risks an individual must take such as becoming defenseless and unguarded, receiving negative feedback, fear of exposure, or what Wenburg and Wilmot (1973) termed the "reverse halo effect" (the possibility that revealing one weakness about

the self will lead the disclosed-to person to generalize about other weaknesses the discloser might have). Thus, it would appear that the discloser should have positive perceptions of his target, including perceptions of trustworthiness, before he takes such risks.

Some support for this line of reasoning does exist. Mellinger (1956) found that "a communicator, B, who lacks trust in the recipient of his communication, A, tends to be motivated to conceal his own attitudes about an issue, X, in communicating with A" (309). Honesty of disclosure appeared to be affected. This suggests that a person will inhibit his disclosures to someone whom he distrusts.

Pederson and Higbee (1969) found that trust was significantly correlated with the amount of disclosures a male would make to his best female friend. The lack of relationship found for both males and females in relation to other target persons may have been due to the nature of the measuring instrument: the Target Person Rating Scale consisted of 11 bipolar adjectives which seemed on the face to tap personality characteristics of the target person rather than perceptions of trustworthiness.

In a more recent study, Vondracek and Marshall (1971), using Rotter's Interpersonal Trust scale (1967) and an original 144-item self-disclosure questionnaire (based on items developed by Taylor

& Altman, 1966), were unable to find significant correlations. Trust did not appear to be a significant predictor of disclosure to "best friends" by the 56 males and females studied. Certainly, the nature of disclosure targets as well as measurement problems involving trust and self-disclosure are important and potentially confounding elements in this and the other studies above which have investigated this relationship.

The logical and intuitively sensible reasoning underlying the foregoing studies has led, nevertheless, to apparently inconsistent findings. However, these discrepancies may be explained and perhaps resolved through more careful conceptualization and measurement. First, interpersonal trust has been conceptualized in the past as risky situations (Deutsch, 1958, 1968; Giffin, 1967), dependent behaviors (Bridges, 1970), and/or favorable perceptions (Hovland & Mandell, 1952; Hovland, Janis & Kelley, 1953; McCroskey, 1966; Berlo, Lemert & Mertz, 1969; McCroskey, Scott & Young, 1971; McCroskey, Jensen & Valencia, 1973). Analogous aspects of trust have also been independently derived and discussed more recently by Pearce (1974) as "situations in which trust may occur" (240), "trusting behaviors" (242), and "the cognitive state of trust" (242). While it may be important for measurement purposes to differentiate these three concepts of trust, it may also be conceptually useful to integrate them into a meaningful definition. Interpersonal trust is probably more completely conceptualized as a process of holding certain relevant, favorable perceptions of another person which engender certain types of dependent behaviors in a risky situation where the expected outcomes that are dependent upon that other person(s) are not known with certainty. As a consequence, trust may be measured in research as certain perceptions, behaviors, or situations.

While conceptualization has pointed to rather specific types of situations, behaviors, or perceptions, measurement has typically been much more general in orientation. For example, the most widely used instrument for measuring interpersonal trust has been Rotter's (1967) Interpersonal Trust Scale. This scale consists of 25 Likert-type, self-

report items designed to measure a person's generalized expectancy that the promises of other individuals or groups with regard to future behavior can be relied upon. In brief, the scales measure trust in other people in general (generalized trust) rather than trust in specific individuals. Several investigations have provided evidence for the scale's validity (Geller, 1966; Rotter, 1967; Hamsher, Geller & Rotter, 1968). However, Vondracek and Marshall's (1971) study predicted that persons scoring high on self-disclosure would also score high on interpersonal trust (using Rotter's scale), and failed to find a significant relationship. Other studies attempting to examine generalized trust that have not utilized Rotter's scale have typically used one or two self-report items.

In order to examine the relationship between interpersonal trust and self-disclosure with self-report techniques, measurement that taps the degree of perceived trust in specific individuals is needed. As Vondracek and Marshall (1971) have pointed out, "if disclosure is measured with reference to a particular target person, trust should also be measured as it relates to that target person. If this is right, further exploration of this relationship must await the appearance of a good measure of individualized trust..." (239). Giffin (1967), of course, insightfully suggested utilization of credibility scales as a measure of perceived trust in an individual person. Unfortunately, he failed to suggest utilization of only those scales tapping perceptions of trustworthiness as opposed to those tapping extroversion, sociability, etc. The possibility of developing a self-report based upon perceptions of individualized trustworthiness, however, appears to be quite good.

Similar possibilities have already been found in regard to self-disclosure, our second area of concern. Based upon Cozby's (1973) definition, self-disclosure has recently been reconceptualized in the following manner: "A self-disclosure is any message about the self that a person communicates to another. Consequently, any message or message unit may potentially vary in the degree of self-disclosure present depending upon the perceptions of the message by those involved [in the transaction]" (Wheeless & Grotz, 1975, 1976). Moreover,

self-disclosure has also been conceptualized as multidimensional (Altman & Taylor, 1973; Cozby, 1973; Wheeless & Grotz, 1975, 1976). Based upon this notion, recent research has discovered at least five dimensions of reported self-disclosure and has developed a preliminary measuring instrument (Wheeless & Grotz, 1976). Dimensions related to (1) consciously intended disclosure, (2) amount of disclosure, (3) positive-negative nature of the disclosure, (4) honesty-accuracy of the disclosure were found as a result of the related conceptualization and subsequent research.

Unfortunately, research which investigated the relationship between trust and disclosure typically measured only one aspect of self-disclosure. In some instances self-disclosure was measured categorically without allowing meaningful variations in degrees of disclosure even on one dimension. Clearly, the impact of trust may have been related to a number of dimensions of self-disclosure which were not measured. However, a more comprehensive assessment of varying disclosure on a number of dimensions could facilitate the discovery of meaningful linkages between the two constructs.

### FOCUS, RATIONALE, AND HYPOTHESES

According to the foregoing analysis, it appeared that the relationship of trust to self-disclosure had not been adequately tested. Rather, inappropriate measurement resulting from inadequate conceptualization appeared to have produced inconclusive and seemingly inconsistent results. While recent developments in self-disclosure measurement appear to offer potential solutions to help resolve this problem, the measurement of individualized trust remains problematic. Therefore, a major focus of this study was to develop a measure of individualized trust in specific target-persons. To assess the nature of this new measurement, a comparison with generalized trust was thought to be desirable. Therefore, the following research question was in-

vestigated: What is the nature of and relationships between individualized and generalized trust?

Based upon this attempt at developing individualized trust measurement and more complete assessment of self-disclosure, re-examination of the trust/self-disclosure relationship was undertaken. Although, the relationship of trust to self-disclosure had not been adequately tested, the rationale underlying this linkage still appeared to be reasonable. The idea that a person is unlikely to disclose to another whom he distrusts appeared to be almost axiomatic. More precisely, one does not normally self-disclose to another whom he sufficiently distrusts. Rather, trust and self-disclosure appear to be related in such a way that trust in a specific individual is a necessary condition for self-disclosure to that person. However, modest extension of this rationale appears to be necessary because individuals may trust some people to whom they do not self-disclose. Trust in another is a necessary but insufficient condition to guarantee self-disclosure. However, when sufficient individual trust for disclosure is present, then even higher levels of trust increase the probability of more self-disclosure. While this relationship between trust and disclosure does not appear to be completely linear, a moderate relationship between the two could be expected. Therefore, the following hypotheses were tested:

- 1. Perceived trustworthiness of specific disclosure target-persons is positively related to self-disclosure to the specific disclosure targets.
- Persons with higher levels of trust in a target person report higher disclosure levels to that target than persons with lower levels of trust in a target.

Lower levels of trust, included trusted targets as well as those distrusted. Higher levels of trust included more highly trusted targets. Sex of the discloser, which appear to be a potentially confounding variable (Cozby, 1973), was used as a control. Generalized trust (Rotter, 1967) was included in the analysis of the first hypothesis for

purposes of comparison with individualized trust and exploration of the research question.

#### **METHOD**

# Sample and Procedures

A sample of 261 Ss was selected for this study. In order to increase sample diversity, 100 teachers in the state who were enrolled in an introductory graduate extension course on communication in the classroom and their spouses or oldest child were selected for the sample. The remainder of the sample was selected from lower division courses in human communication at the university. All Ss were randomly assigned to disclosure targets and treatment conditions according to the procedure outlined below. Sample diversity and randomization procedures were thought to increase generalizability of results.

The study was concerned with generating an instrument capable of assessing individualized trust and testing the two hypotheses related to the effect of trust on reported self-disclosure. Ss were administered a booklet containing a 15-item measure of generalized trust, a 15-item measure of trust in a specific target person, and a 16-item instrument designed to measure dimensions of self-reported self-disclosure to the previously specified target person. Ss were randomly assigned to one of 20 trust-disclosure targets.<sup>1</sup>

The study was administered under the guise of an attempt "to develop some resources (scales, messages, sources, etc.) for future research." Although information was requested in terms of age, sex, and marital status, Ss were not asked to identify themselves. Rather, they were told that the researchers wanted to know how "people in general responded" in order to assess the value of the materials. Consequently, only 12 Ss failed to respond sufficiently to be included in the analysis of the instruments assessing the two types of trust (N=249), whereas 39 Ss failed to respond completely enough across all measures to be included in hypothesis testing (N=222).

## Measuring Instruments

Trust of people in general (Generalized Trust) was measured by 15 items selected from Rotter's (1967) interpersonal trust scales. These selected scales were converted from 5-interval to 7-interval, Likert-type responses. Trust of specific target persons (perceived target trustworthiness) was measured with 15 semantic differential-type items derived from Berlo, Lemert, and Mertz's (1969) safety-trustworthiness factor and from McCroskey's (1971, 1973) character factor of perceived interpersonal credibility. These items selected, plus additional items generated by the researchers, were included on the basis of their face validity for measuring perceived trustworthiness as conceptualized in the initial section of this paper (see Table 1 for resulting scales). Also, 16 Likert-type statements consisting of 7-interval responses were used in an attempt to measure self-reported selfdisclosure (Wheeless & Grotz, 1975, 1976) on the dimensions of amount, honesty-accuracy, consciously intended disclosure, positive-negative disclosure, and control of general depth or intimacy of disclosure.2

#### Statistical Analysis

Principal components factor analysis with orthogonal rotation was used to investigate the predicted unidimensionality of the two measuring instruments. The scree procedure recommended by Cattel and the establishment of an eigenvalue of 1.0 as an initial cut-off criterion were used to determine the number of factors present. Each factor was required to have at least two items loaded at .60 or above with no secondary loadings at .40 or above. Items were accepted as loaded on an additional extracted factor if they met the .60 - .40 criterion. Pearson product-moment correlations were used to assess the magnitude of relationships among different tests as well as to facilitate estimates of reliability. Predictive validity was assessed in terms of tests of predicted effects and relationships.

TABLE 1 Individualized Trust Scales (ITS)

Semantic Differential -

Type Items	Unrotated Primary Loadings
Trustworthy-Untrustworthy	.86
Trustful of this person - Distrustful of this person	. 78
Confidential-Divulging	.56
Benevolent-Exploitive	.60
Safe-Dangerous	.81
Candid-Deceptive	.67
Not Deceitful-Deceitful	.83
Straightforward-Tricky	.75
Respectful - Disrespectful	.83
Considerate-Inconsiderate	.82
Honest-Dishonest	.79
Reliable-Unreliable	.84
Faithful-Unfaithful	. 84
Sincere-Insincere	.84
Careful-Careless	.66

Canonical correlation of individualized and generalized trust with the self-disclosure dimensions was used to test the first hypothesis predicting relationships between individualized trust and self-disclosure. Generalized trust was included as a control variable for comparison purposes. Analyses of variance and directional t-tests were used to test the differences on reported disclosure dimensions as a function of individualized trust. Sex of discloser was used as a control to check for interaction effects. The .05 level of significance was required on statistical tests of the hypotheses.

## RESULTS AND INTERPRETATION

Measurement and Probes of General Research Question

The 15-item, perceived trustworthiness (individualized trust) instrument was submitted to factor

analysis with orthogonal rotation. Application of a priori criteria (scree and 1.0 eigenvalue) revealed that the instrument measured a unidimensional, single factor of trust in another accounting for 59% of the total variance with items having fairly high factor loadings (see Table 1). Split-half reliability was .92 (df=247). For the 20 target persons used in this study, individualized trust displayed the following norms: mean = 81, standard deviation = 19, range = 23-105. The potential range was 15-105 and the neutral score between distrust and trust was 60 (scale midpoint).

Rotter's (1967) interpersonal trust scales (15 items), used as a measure of generalized trust, were also submitted to factor analysis. The rotation revealed a two-factor structure. However, examination of the items loaded revealed that the positively worded items constituted the first factor and the negatively worded items were loaded on the second factor. Therefore, Rotter's instrument was regarded as unidimensional. Since factor loadings on a single

factor are not meaningful in this situation, they are not reported. In this study, the split-half reliability was .61.

The correlation between individualized trust (trustworthiness) and generalized trust (Rotter) was not significant (r=.02; df=247). Apparently, individualized trust and generalized trust were (and can be) measured fairly reliably as independent constructs by the use of the two instruments used in this study. However, each individual was exposed to only one target person although 20 targets were used. An individual's "average individualized trust" in a large number of targets might well be related to his generalized trust of people. Therefore, we should not assume that generalized trust and individualized trust are totally independent. However, the two constructs can be relatively uncorrelated when only a limited number of targets are assessed by individuals for individualized trustworthiness as was the case in this study.

### Relationship of Trust to Self-Disclosure

The first hypothesis, predicting a positive relationship between individualized trust and self-disclosure, was analyzed with canonical correlation. Individualized trust (perceived trustworthiness of a target person) and general trust (control) scores were correlated with scores of reported self-disclosure to the target on five dimensions.

A significant canonical correlation was observed between trust measures and the five-factor selfdisclosure measures (r=.26;  $X^2=19.75$ ; df=10). The canonical variable of trust was significantly correlated with both individualized trust in a target person (r=.99) and generalized trust (r=.14). The canonical variable related to disclosure was significantly correlated with all five dimensions of selfdisclosure: Intent (r=.55), Amount (r=.37), Positive-Negative (r=.35), Honesty-Accuracy (r=.39), and Control of general depth of disclosure (r=.71). Target trust was the main contributor to the correlation with self-disclosure dimensions consisting predominantly of control of general depth and consciously intended disclosure. Although generalized trust was the main contributor (r=.99) to the

next canonical correlation extracted, the correlation was not significant.

Apparently trust is predominantly related to control of depth and intent to disclose. Individualized trust appears almost exclusively to be the type of trust related. The strength of that linear relationship, however, appears to be modest with only seven percent of shared variance observed between the two constructs. Although the hypothesis received significant support, the actual linear relationship between trust and disclosure may not be too meaningful. As argued in the rationale, it may well be that some sufficient level of trust for the individual is merely a prerequisite for disclosure. This level may vary from individual to individual. Also, while a sufficient level of target trust may be prerequisite, it may not guarantee disclosure; rather, we may not disclose to a number of trusted targets. Given individuals with predispositions to disclose, however, sufficient trust in the target might be a fairly good predictor of increased disclosure. Such was indicated in the test of the second hypothesis.

The second hypothesis, predicting that persons with higher individualized trust report higher selfdisclosure to that target than persons with lower individualized trust, was analyzed with analyses of variance on each self-disclosure dimension to acquire error terms and to control for sex-of-discloser interaction (higher and lower trust by male and female discloser). Higher individualized trust was operationalized as above the mean, 81; lower trust, as at the mean and below. The neutral score between trust and distrust was .60. Predicted cell comparisons were made with one-tailed t-tests. (Since the dependent variables—dimensions of disclosure were not meaningfully correlated, MANOVA was not a more efficient or appropriate procedure.) No significant interaction of individualized trust with sex was observed on any of the dependent variables measuring self-disclosure. A significant difference in consciously intending to disclose to the target (t=2.09; df=220) was observed. Consciously intended self-disclosure was higher (M=14.82) for persons higher in individualized trust of the target than was such disclosure (M=13.80) for those lower in individualized target trust. Likewise, a

significant difference in amount of disclosure, (t=2.09; df=220) was also observed. Amount of disclosure was greater (M=16.50) for those higher in individualized trust than the amount of disclosure (M=15.29) for those lower in individualized trust. No other significant differences in self-disclosure dimensions were observed to be related to higher levels of individualized trust.

While the positive linear relationships between individualized trust scores and disclosure scores were not discovered as highly meaningful, broader categories involving higher and lower levels of individualized trust in a target did appear to be related to levels of consciously intended disclosure and amounts of disclosure. Apparently, also, it is not necessary to distrust another for disclosure levels to be lower: target trust was categorized above and below the mean (81) which was substantially above the absolute neutral score (60) on trust. Rather, lower levels of trust (not distrust) are related to lower disclosure on intent and amount dimensions. More discrepant categories of higher and lower target trust might well relate to more discrepant disclosure levels. For example, if a sufficient sample size permitted comparing those persons reporting trust scores beyond standard deviations above and below the mean then more dramatic differences in disclosure might well be discovered—especially for those categorized as distrustful disclosure targets.

## CONCLUSIONS AND IMPLICATIONS

This study assessed the nature and measurement of trust. In this process a reliable 15-item semantic differential-type instrument was developed for measuring trust in other specified individuals (individualized trust). The instrument had predictive validity in the sense that levels of self-disclosure on a number of dimensions were related to individualized trust scores derived from the new scales. Similar reliability and validity were not found for selected scales measuring generalized trust (Rotter, 1967). Also, the two constructs were not found to be related to each other within the limitations of this study. Therefore, the individualized trust scales (ITS) are recommended for general use as an alternate means of measuring trust.

Although generalized trust of people was not found to be related to self-disclosure on any dimension, trust in specific targets was. Higher individualized trust in disclosure targets (as opposed to lesser trust) is related to more consciously intended disclosure and greater amounts of disclosure. This conclusion also implies that distrust is not a necessary condition for lowering disclosure levels; rather, merely lesser trust. While a positive, linear relationship between individualized trust and disclosure on various dimensions was discovered, the strength of that relationship was not high. This conclusion implies that sufficient levels of trust may be prerequisite to disclosure but not a guarantee of it. These general conclusions, of course, generally support the paradigm generated for this study. Moreover, other elements such as presence or absence of general disclosive predispositions may function to confound the relationship of individualized trust to self-disclosure. This consideration plus more focus in the future upon individualized trust as well as distrust might well lead to fruitful discoveries in this area of research.

#### NOTES

- 1. The 20 targets specified, in an attempt to maximize variability for those considered "close" and "more distant," were the following: mother, father, brother/ sister, spouse, girl/boyfriend, best male friend, best female friend, doctor, minister/priest, psychologist/ guidance counselor, barber/hairdresser, neighbor, instructor/professor, roommate, classmember, co-worker, disliked male, disliked female, subordinate/ employee, boss/superior. If a subject did not know such a target as he was assigned to, then he exchanged booklets with another subject or was given the next booklet containing a different target.
- The disclosure scales for each dimension and the reliability found for each dimension are available from the first author on request.

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