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ABSTRACT

A study tested a causal model of international communication media appraisal using audience evaluations of tests of two films conducted in the Philippines. It was the fourth in a series of tests of the model in both developed and developing countries. In general the model posited determinative relationships between three exogenous variables (editorial tone, communication potential, and utility) and appraisal. The two films were documentaries distributed worldwide by the United States Information Agency and intended for showing in informal audience settings and on television. One film was designed to impart the American values of cooperation and teamwork, while the other stressed the mutual interests of all nations. Both films were intended for primarily older, educated male elites. Results showed the following: (1) a good overall fit of the model to the observed system of intercorrelations; (2) a positive relationship between communication potential and appraisal; (3) a positive relationship between utility and appraisal; and (4) positive interrelationships between the variables of editorial tone, communication potential, and utility. As opposed to findings in the other tests of the model, negative rather than positive relationships were found between editorial tone and appraisal. It was concluded that the model, which was previously supported with research on magazines, could be generalized to other media as well. (HOD)

A MODEL OF INTERNATIONAL COMMUNICATION MEDIA APPRAISAL:

PHASE IV, GENERALIZING THE MODEL TO FILM

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ABSTRACT

A MODEL OF INTERNATIONAL COMMUNICATION MEDIA APPRAISAL:

PHASE IV, GENERALIZING THE MODEL TO FILM

This study constitutes the fourth phase of a programmatic research effort designed to develop and test a model of international communication media measure and appraisal. The results of the audience film tests examined here suggest that the model, which was previously supported with research on magazines, can be generalized to other media as well.

A MODEL OF INTERNATIONAL COMMUNICATION MEDIA APPRAISAL: PHASE IV, GENERALIZING THE MODEL TO FILM

Ever since George Gallup (1930) first examined reader interests, the study of media exposure and appraisal has been a topic of continuing interest within the field of communication. Studies to date have concentrated primarily on activity measures, such as who reads and what is read. The question of why people expose themselves and have particular appraisals of a medium has not been adequately explored, however. This study exhaustively examines the why question by testing a causal model of international communication media appraisal using audience evaluations of tests of two films conducted in the Philipines.

This is the fourth in a series of tests of this model in both developed and developing countries. Previous tests of this theoretical framework were supportive of the general model examined here (see Johnson, 1983, 1984 a,b). The model used in this programmatic research seeks to directly link respondent evaluations of media with their overall appraisal of it. Thus it stands in contrast to prior research approaches which investigated the relationships of loosely interrelated variables which have no direct explanatory linkage to the dependant variable focused on here; such as demographic research (e.g., Stamm, Jackson, and Bowen, 1978) and psychographic research (e.g., Urban, 1980).

The model, in genereal, posits determinative relationships between three exogenous variables and appraisal. The first two variables, editorial tone and communication potential, primarily relate to message content attributes and the utility dimension

represents a judgment of how these attributes serve individual needs (Atkin, 1973). Thus this research relates attributes of the medium to the functions they serve for the user, a focus shared by other recent programmatic research in this area (Burgoon and Burgoon, 1979, 1980).

Editorial tone reflects an audience member's perception of the overall credibility and intensions of a medium. If an individual perceives that a medium has motives other than the mere provision of information, this will weigh heavily in their evaluation and exposure decisions. In a comprehensive examination of newspapers in the United States, Burgoon and Burgoon (1979) have found this dimension, particularly as it related to fairmindedness, to be the critical factor in determining overall satisfaction with a medium.

Another component of editorial tone is perceived accuracy, regardless of motives. Burgoon and Burgoon (1979) have found that an editorial production index which included accuracy, was positvely related to satisfaction. For films of the type examined here, which are extensions of the U.S. government, designed to impart its views to elites in foreign countries, this dimension is critical. It can be expected that higher ratings on this dimension will be associated with higher summary appraisals.

Communication potential refers to an individual's perception of the manner in which information is presented. This dimension relates to issues of style and comprehension. For example, is a film visually stimulating and well paced? Burgoon and Burgoon (1980) have found for newspapers that indicants like quality of visuals and of organization, contained in an editorial production index, related to satisfaction with newspapers (Burgoon and Burgoon, 1979). Visual attractiveness of magazines has also been related to exposure cross-nationally (Johnson

and Tims, 1981). Thus the model developed here predicts generally that the higher the evaluations of communication potential, the higher will be an individual's appraisal of a medium.

The preceding dimensions involve a direct evaluation by an individual of a particular medium, the final dimension, utility, relates the characteristics of a medium directly to the needs of an individual. For example, is the information contained in the medium important for the individual's purposes, relevant, and topical? Atkin (1973) has argued that mass media exposure will result from a combination of such needs of the receiver and the attributes of a message reflected in the first two dimensions. Indeed, perceived utility of information has been found to relate to newspaper readership (Wang, 1977) and a satisfaction index, which included a current information measure, had the strongest relationship with newspaper readership in a variety of communities (Burgoon and Burgoon, 1980). For the print media it has been argued that indicants of this dimension such as interest, usefulness, and importance for achieving one's goals are interrelated and they have been found to be associated with exposure (Carlson, 1960).

Previous tests wih magazines were conducted in India on Economic Impact and Problems of Communism (Johnson, 1983a); in Nigeria on Topic and Interlink (Johnson, 1984a); and in Germany on Dialogue, Economic Impact, and Problems of Communism (Johnson, 1984b). Thus this research represents a unique attempt to validate cross-nationally a model of communication processes. The previous tests, which rested on the literature just referenced, provide us with a body of evidence which can be summarized in the following hypotheses which are presented graphically in Figure 1.

Figure 1 about here

First, based on previous supportive findings of tne seven tests in India, Nigeria, and Germany the following hypothesis can be made:

> H1: The model specified in Figure 1 will provide a good overall fit to the observed system of intercorrelations.

In all seven of the previous tests the path between editorial tone and appraisal has been positive, as the literature would predict. Thus:

> H2: There will be a positive relationship between editorial tone and appraisal.

In six out of seven of the previous tests there has been a positive, significant relationship between communication potential and appraisal. The only exception was the highly pedantic magazine Problems of Communism in India. For this, and similar magazines, the more boring and 'academic' their presentation of material, the more highly valued they may be by highly educated readers in some developing countries. Given that this finding was not repeated in Germany we will assume for the moment it is attributable to idiosyncratic cultural differences present in India. Accordingly,

> H3: Generally there will be a positive relationship between communication potential and appraisal.

In four out of seven of the previous tests there was a positive,

significant relationship between utility and appraisal. The exceptions occurred primarily in instances where there was competing media present of high quality. For example, the inverse relationship found for Topic in Nigeria was probably attributable to both the high utility of its content for readers in Nigeria, since it deals largely with African issues, and its large number of competitors; a greater number than that for any other magazine examined. Thus a greater relevance when combined with a competing medium of high quality can result in a situation where higher levels of utility result in lower appraisal ratings, since more exacting standard appear to be applied to the magazine, which as a result suffers in comparison to its competitors. Conversely low utility ratings may cause someone to be more generous in their evaluations of a particular magazine. In the Phillipines in this time period we will assume, given the highly specialized content of these films, these factors will not be present. Accordingly,

> H4: Generally, there will be a positive relationship between utility and appraisal.

The results in previous phases also universally found positive associations between the exogenous variables. For example, the model specifies a positive relationship between the incomprehensibility of a medium, reflected in communication potential, and accuracy. If a film is subject to multiple interpretations, then its accuracy may be unverifiable.

> H5: There will be positive interrelationships between the latent variables of editorial tone, communication potential, and utility.

In sum, the completely specified theoretical model moves beyond the demographic and psychographic approaches that have characterized

research in this area. This phase of the current programmatic research is designed to advance our understanding of this research problem by determining if the model can be generalized to another medium- film. Regrettably, little research has been conducted on the social science related effects of film (Austin, 1983; Unwin, 1979), in spite of the unique marketing implications of film, which can be at once both a product and vehicle for transmitting information about other products. Film is also an important topic since: one, it accounts for the majority of U.S. spectator amusement expenditures; two, most film research is over forty years old, having been by and large supplanted as a research topic by the advent of television; three, it is an effortful leisure time pursuit; and four, most research has concentrated on effects rather than how audiences feel about them (Austin, 1982).

Films of the sort examined here and magazines, which were the focus of previous model testing, share some basic similarities. Both of these media are tailored for more elite, limited audiences with very focused contents. They also share a strong visual orientation, particularly in the case of magazines like Life. However, they both have obvious dissimilarities as well. Primary among them is the social psychology of the exposure experience, with film typically a shared experience whose appraisals can be influenced by the reactions of others (Austin, 1983; Unwin, 1979). Audience members also have grown accustomed to films having a definite point of view; whereas audiences typically expect print media to be more 'objective'. Finally, because the primary communication of film is through visual images, it can be argued that they are generally a more effective medium for cross-cultural communication, although the nature of the

elite audience which is the subject of these tests could mediate the importance of this factor.

METHOD

Background and Sample

The data for this analysis are drawn from two separate audience reaction tests of elites concerning two films distributed by the U.S. Information Agency in the Phillipines. This research was conducted by a contractor for the Office of Research of this agency who distributed self-administered questionnaires to the priority audience members at the conclusion of the films. The tests were conducted at Agency cultural centers and, as an incentive to attend, each test session was followed by refreshments and a feature length film.

The two films tested here are both documentaries distributed by the agency worldwide and intended for showing in formal audience settings and also for possible placement on television. Team Spirit was designed to impart to audiences the American values of cooperation and teamwork, while Common Sea stressed the mutual interests of all nations in the seas around us. Both these films were intended for priority audiences which represent primarily older, educated, male elites drawn from the following occupational groups: media, academic, government, businessman, professionals, artists, writers, and students. A description of the observed indicants used for the tests can be found in Table 1.

Statistical Tests

LISREL (Linear Structural Relationships), a general computer program for estimating structural equation systems involving multiple indicators of latent variables, will be used to test the model

developed in the previous section. It has the following advantages over conventional multiple regression techniques when used to examine models of the sort tested here: one, it simultaneously estimates all of the parameters in a model (Joreskog, 1970); two, it is specifically designed for the analysis of causal relationships (Goldberger, 1973); and, three, it permits the simultaneous specification and estimation of theoretical and measurement relationships (Fink, 1980).

Perhaps the most useful feature of LISREL for this analysis is its test of the goodness of fit of a model. The probability associated with this χ^2 test "is defined as the probability of getting a χ^2 value larger than that actually obtained given that the hypothesized model is true" (Joreskog and van Thillo, 1972, p. 32). For this test probability levels approaching 1.0 are indicants of increasingly better fits of the model to the data. However, Joreskog (1974) has indicated that this test should be interpreted cautiously, since for increasingly large sample sizes almost any hypothesized model becomes untenable. A less problematic test is the χ^2 to degrees of freedom ratio (Maruyamu and McGarvey, 1980; Wheaton, Muthen, Alwin, and Summer, 1977). In this test values less than 5.00 are indicants of increasingly better fits of the model to the data (Wheaton, et al., 1977).

RESULTS

Tables 1 and 2 contain the Pearson correlations, means and standard deviations of the observed indicants for Common Sea and Team Spirit respectively. In both tests most of the correlations ranged from moderate to high with only the correlation between learn and useful being so high that it might create potential multicollinearity

problems. The means generally clustered in the middle to high range of their scales, with rather typical standard deviations for this sort of research. The only exception to this was for the truthful indicator for Common Sea which showed considerable variability in response.

Tables 1 and 2 about here

Results for Common Sea

The results for the maximum likelihood tests of the theoretical model for each film are contained in Table 3. The model provided a quite acceptable fit to the data for Common Sea ($\chi^2 = 43.93$, 22 d.f.). The probability level was .004 and the chi-square to degrees of freedom ratio was 2.00, which was quite exceptional for this sort of test. The paths (γ) between exogenous true variables and endogenous true variables ranged from $\gamma 11$, -.34, to $\gamma 12$, .74. There was a moderate degree of association between the exogenous variables with values ranging from $\phi 21$, .21 to $\phi 32$, .40. The zeta variance was moderate, indicating the model does not systematically account some of the variance in appraisal. The total coefficient of determination for the structural equations of .61 suggest that these latent variables account for a high proportion of the variance in appraisal.

Table 3 about here

The results for the measurement model for Common Sea, are contained in Table 3. All of the observed indicants loaded heavily on their respective latent variables. The measurement errors ranged from moderate ($\theta_{\delta 8}$= .37) to high ($\theta_{\delta 1}$ = .75). Moreover, the coefficient of determination for the x variables of .94, suggested that in toto the x indicators were excellent measures of the latent variables.

Table 4 about here

Results for Team Spirit

The model again provided an acceptable fit to the data for Economic Impact with a chi-square to degrees of freedom ratio of 2.10. The relationships between exogenous and endogenous variables ranged from -.73 for γ_{11} to .78 for γ_{13}. The zeta variance was higher, .48, than in the previous test. The total coefficient of determination of .52 suggested that the latent variables accounted for a smaller, although still substantial, proportion of the variance.

The results for the measurement model for the Team Spirit tests are contained in Table 4. Except for λ_{x7}, which has only a moderate value (.61), all of the observed indicants loaded heavily on their respective latent variables. Again the measurement errors range from moderate ($\theta_{\delta 5}$=.35) to high ($\theta_{\delta 7}$=.76). The coefficient of

determination for the x variables of .94 indicated that these indicators provided excellent measures for the latent variables.

Discussion

In general, the results indicated the model provided an acceptable fit to the data in the two separate tests reported here. Thus H1 was confirmed. The substantive paths between latent variables all had substantial values. In general, the measurement errors were acceptable and there were high loadings of the observed indicants on the latent variables. This coupled with the coefficient of determination results suggested that the measurement model was quite acceptable. The amount of variance explained in appraisal was generally superior to that reported in other tests (see Burgoon and Burgoon, 1979). All of these factors taken together were quite supportive of the general theoretical framework advanced earlier.

The results for H2 were the most problematic of the tests reported here, with both film tests reporting highly negative relationships. In the three previous phases involving seven seperate tests there has been a consistently positive relationship between these variables, which was also consistent with the literature. This finding directly conflicts with the assumed importance of editorial tone for media products of this sort which are distributed by a foreign government (see Johnson and Tims, 1981).

There are several factors which could explain these discrepant findings. First, the previous studies were based on samples of readers which were conducted in such a way as to mask the sponsor of the research. In contrast these tests were done on a more self-selected sample and conducted at agency cultural centers thus

sensitizing respondents to the source of these films. As a result the audience may respond favorably to a film they disagree with because they may put themselves in the role of the agency and criticize according to agency objectives and not their own. Thus even though they may personally disagree with a film they may see it empathically as a useful vehicle for agency objectives.

Second, the respondent's very willingness to attend the screenings may reveal basic predispositions to be favorable to the agency itself. Third, the specialized content of the films, particularly of Common Sea, which dwells on a topic of high salience to occupants of an archipelago, may be one on which these audiences have divergent opinions. This was reflected in the high variance associated with responses to this question which reflects the general assumption that subject matter is the most important factor in determining exposure decisions (Austin, 1983). Finally, audiences have grown to expect films to be associated with definite points of view, so even though they may disagree with a film, they still may appreciate it on other levels, thus not directly affecting their appraisals of the film; which suggests a contingent media difference in audience reaction to film when compared to the magazines examined in previous tests.

Consistent with the overall framework adopted here, and in support of the general prediction made in H3, all of the paths for communication potential had highly positive relationship with appraisal. Similarly the values for the path between utility and appraisal, which ranged from moderately to highly positive, supported H4. The only discrepant finding for this hypothesis in previous tests was in the highly competitive media environments. Thus the results of

this phase suggested a general finding for developing countries of a positive relationship between utility and appraisal. As predicted in H5 all of the covariances between exogenous latent variables in both tests ranged from low to moderately positive. Thus all three phases bear out the important interrelationships between these variables.

A general strength of this approach over previous attempts to address these issues is the difference in operational approach. Research related to exposure and appraisal has traditionally focused on either demographic or psychographic approaches. While these approaches can provide useful descriptions of the nature of an audience, they can only provide indirect evidence of why someone attends to a medium. To understand the root causes of someone's reactions to a particular medium, more direct linkages need to be made between explanatory variables related to both characteristics of the medium and of individual evaluations of it (e.g., King and Summers, 1971; McCombs, 1977; Stamm et al., 1978). This was the approach followed in this research.

In addition, to improved explanations this approach had the additional pragmatic benefit of suggesting specific features of a film which need to be changed to improve evaluations. While in practice communicators cannot change demographics, they can change those characteristics of the media to which individuals react (Burgoon and Burgoon, 1979; Lehmann, 1971). This is particularly important for film because of its unique product characteristics: one, it does not offer trialability; two, its exact content is typically unknown to an audience; and, three, there are few repeat purchases (Austin, 1983).

In summary, this was the fourth phase of a programmatic research effort which seeks to develop a general model of media appraisal. The

current tests focused on appraisal with data drawn from two separate audience tests of films in the Phillipines. While there was some differences in the results of the tests of the model in this and the other phases, they are probably attributable to the contingent factors already discussed. What was remarkable was the generally high degree of similarity of the tests of the model, especially in the overall goodness of fit to the data, in four different countries with nine different media products, which suggests that the model is indeed generalizable to other media. This overall pattern of results suggested that the model provided a basic framework in which to pursue continued research aimed at specifying even more directly various contingent factors which effect media exposure and appraisal decisions.

NOTES

1. However, both this approach to the utility of information and the use. ' gratification approach, which relates to this issue (see Katz, Blumler, and Gurevitch, 1974), conceptualize these issues at a level of both specificity and generality that are beyond the scope of the current study.

2. While all of the previous phases involved the same latent exogenous variables, there were slight differences in the observed indicants from test to test. The primary difference in this test were in the more primitive scaling, with most items using a 1-4 scale, although some, particularly the film rating scale used a 1-5 scale.

3. Because of space limitations a complete description of LISREL cannot be provided here. For detailed descriptions of the program and its associated terminology the interested reader can consult Joreskog and Sorbom (1981).

4. Since there was only one indicator for appraisal, its measurement error was fixed at .000, as a result, measurement error was incorporated in its zeta variance. This probably resulted in elevated values for the zeta variances reported here.

5. The values greater than 1 reported here may be evidence of some instability in the model (see Fink and Mabee, 1978).

6. LISREL provides several additional measures of goodness of fit; taken in toto the overall pattern of these indicators provided further support for the model. The values of the goodness of fit index ranged from .91 for Team Spirit to .94 for Common Sea. For this statistic higher values indicate better fits of the model to the

data. The residuals plot for the three tests ranged from acceptable to good for this sort of test. The only residual greater than 2 in both tests was that for agreement and importance, suggesting that these indicators of two separate latent variables were highly related to each other. In general, the modification indices were quite low, indicating that there was no unestimated parameter which could contribte substantially to a better model. Thus, these different measures provide additional support for H1.

7. Thus in spite of the more primitive scaling used here the measurement model was quite comparable to the previous phases. The standard errors for both tests were also quite good and the t-values were generaly excellent with only one in the Common Sea test falling below 2 and only two in the test of Team Spirit.

8. This finding was tempered somewhat by the low t-values which indicated that this finding was not significant and higher standard errors than the other estimated parameters.

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FIGURE 1

Theoretical Model of Factors Affecting Media Appraisal

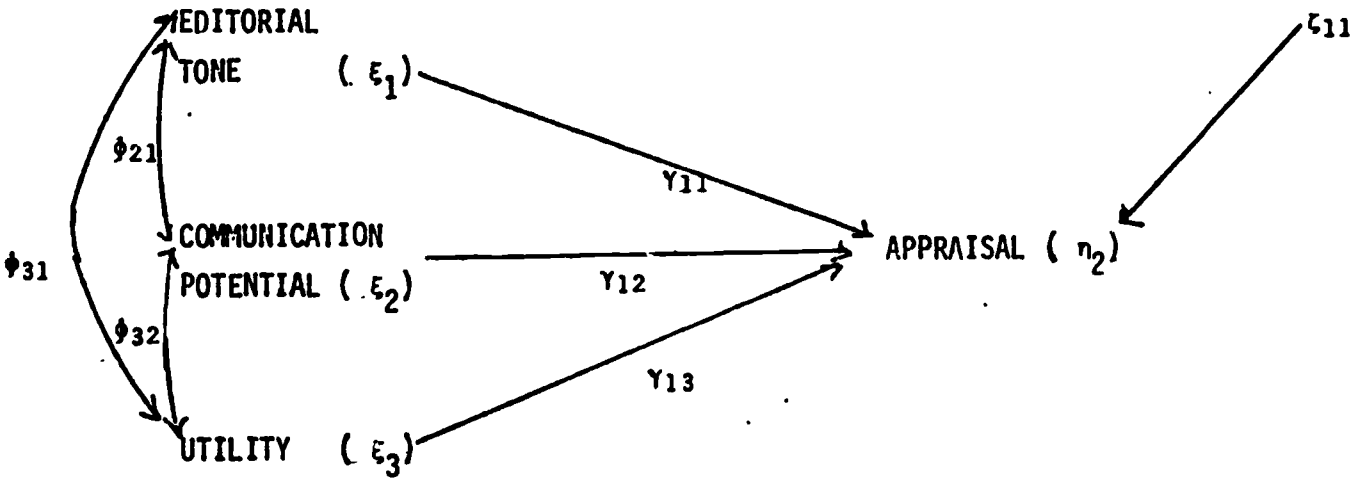

TABLE 1

Pearson Correlations, Means, and Standard Deviations for Common Sea

Observed Indicant	y_1	x_1	x_2	x_3	x_4	x_5	x_6	x_7	x_8
y_1- Film rating	1.00								
x_1- Truthfulness	.31	1.00							
x_2- Agree	.33	.36	1.00						
x_3- Clarity	.52	.27	.32	1.00					
x_4- Artist	.57	.25	.26	.54	1.00				
x_5- Useful	.50	.26	.47	.34	.36	1.00			
x_6- Interest	.51	.36	.28	.40	.37	.49	1.00		
x_7- Importance	.38	.21	.51	.29	.22	.46	.34	1.00	
x_8- Learned from film	.54	.30	.42	.47	.43	.66	.45	.45	1.00
Mean	2.02	1.99	1.53	1.48	1.73	1.53	1.63	..20	1.57
Standard Deviation	.84	1.36	.68	.62	.64	.68	.68	.55	.71

N = 169

TABLE 2

Pearson Correlations, Means, and Standard Deviations for Team Spirit

Observed indicant	y_1	x_1	x_2	x_3	x_4	x_5	x_6	x_7	x_8
y_1- Film rating	1.00								
x_1- Truthfulness	.24	1.00							
x_2- Agreement	.27	.51	1.00						
x_3- Clarity	.40	.44	.46	1.00					
x_4- Artistry	.41	.27	.23	.44	1.00				
x_5- Useful	.43	.47	.42	.37	.33	1.00			
x_6- Interest	.58	.23	.27	.35	.32	.53	1.00		
x_7- Importance	.30	.27	.48	.35	.08	.32	40	1.00	
x_8- Learned from film	.47	.43	.37	.38	.35	.69	.48	.37	1.00
Mean	2.39	1.66	1.36	1.56	2.12	1.62	1.60	1.24	1.77
Standard Deviation	.81	.6[illegible]	.50	.62	.68	.71	.74	.49	.72

N = 107

TABLE 3

Maximum Likelihood Results for Theoretical Model for Common Sea and Team Spirit

Parameter	Common Sea	Team Spirit
γ_{11}	-.34	-.73
γ_{12}	.74	.74
γ_{13}	.57	.78
ζ_{11}	.39	.48
ϕ_{21}	.21	.42
ϕ_{31}	.32	.42
ϕ_{32}	.40	.41
χ^2	43.93	46.24
Degrees of freedom	22	22
Ratio	2.00	2.10
Probability Level	.004	.002

TABLE 4

Maximum Likelihood Results for Measurement Models for Common Sea and Team Spirit

Parameter	Common Sea	Team Spirit	Parameter	Common Sea	Team Spirit
λy_1	1.00[a]	1.00	$\theta_{\varepsilon 1}$[b]	.00	.00
λx_1	1.00	1.00	$\theta_{\delta 1}$	.75	.48
λx_2	1.44	.98	$\theta_{\delta 2}$	.48	.50
λx_3	1.00	1.00	$\theta_{\delta 3}$	.48	.42
λx_4	1.04	.76	$\theta_{\delta 4}$	.44	.67
λx_5	1.00	1.00	$\theta_{\delta 5}$	.38	.35
λx_6	.79	.83	$\theta_{\delta 6}$	.62	.56
λx_7	.75	.61	$\theta_{\delta 7}$	.65	.76
λx_8	1.01	.99	$\theta_{\delta 8}$	.37	.37
ϕ_{11}	.25	.52	ϕ_{33}	.62	.65
ϕ_{22}	.52	.58			

a. For identification purposed the λy_1, λx_1, λx_3, and λx_5 parameters were fixed at 1.000 (see Joreskog & van Thillo, 1972).

b. The measurement error variance for y_1 was fixed at .000 since it was the sole indicator of η_1. This results in the measurement error being incorporated in the zeta variance (ζ_1) estimate of this latent variable.