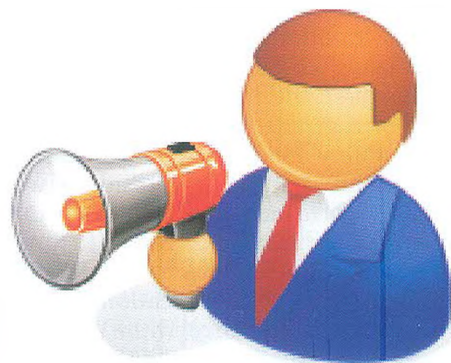


# Optimism:

## Individual Contribution

### and the

# Inability To Accurately Perceive



## Optimism In Virtual Communication

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### ABSTRACT

*Authors from multiple disciplines have discussed the importance of personality attributes and the effect these attributes have on group experiences and the overlying impact of personality on organizational performance. Seventy-four five-person teams (equally divided into face to face, WebCT, and email groups) each analyzed three managerial cases in this study. Using two previously validated instruments (LOT-R and PGOT), the study confirms that traditional face to face group members can accurately identify the level of optimism in a group. Further, the study finds that members of technology driven (mediated) virtual groups (both WebCT and Email) lack the ability to identify the level of optimism in a group.*

**Keywords:** *Optimism, Virtual Communication, Teams, Group Experiences*

## INTRODUCTION

Managers rarely have truly objective perceptions [14, 36]. Most of an individual's perceptions suffer from inaccuracy, distortions, and biases. When recalling a past memory, individuals are often unable to have an accurate recollection of an occurrence, but instead a faded perception that has been modified by personal influences and suffered from memory errors [27]. The power of a person's perception can shape and influence their behavior. Of interest to many organizations is the expansion into international business and online group development. Human resource professionals must calculate the impact individual personality characteristics of newly hired individuals will have on the productivity of the organization, and additionally, must consider how the personalities will be perceived. The forces of optimism that organizations experience seem to be related to performance. Specifically, organizations that use small groups to achieve performance objectives may have noticed that the participating team members and supervising manager's levels of personality, such as the big five (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience) [5] influenced the group's ability to perform [4]. While the impact of personality has been identified to affect traditional groups, many international organizations are using virtual groups for decision-making and have not considered the impact technology has on the personality effect of a group. This research focuses on the differences in the ability for individual group members to identify the personality trait of optimism between when placed in traditional (face to face) and/or virtual group settings (technology driven and/or mediated). Media Richness Theory [9] suggests that a media has an ability to transfer information. We posit that Face to face communication has the highest richness of information transference, while WebCT has semi-rich transference, and Email has the least richness for information transference. No studies have empirically looked at differences between traditional and virtual teams using media richness theory and personality perceptions of optimism.

Knight and Elsaid [22] reviewed a case where a national operations director in a well-known chain of amusement parks was asked to develop teams possessing optimistic traits to produce optimum sales. They stated that managers who seemed optimistic about reaching the goals and were optimistic about the team's potential success seemed to have teams that would consistently reach the sales objective, while managers who seemed pessimistic about reaching the sales objective and pessimistic about their team's potential success seemed to have teams that would consistently fail to reach the sales objective. Additionally, they hypothesized a symbiotic relationship between the optimism of successful groups and their participating members and unsuccessful groups with their members; they found that a group member could accurately identify the optimism level of their respective group and claimed organizations should hire only the more optimistic individuals for productive group actions.

However, this study [22] did not examine the perception of optimism in virtual groups. Can virtual group members adequately ascertain the level of optimism in a group? To date,

no study has compared the perception of optimism and the accuracy in which this perception is true to the actual levels of optimism in a virtual team.

Based on the previously mentioned studies, it seems that when managers are successful in matching their *perceptions* regarding employee optimism with the *actual* levels of optimism, this will directly result in increased value to an organization's hiring personnel. This paper argues that a face-to-face encounter will provide a perception of optimism that is significant in predicting the optimism of a potential group member, but that virtual team members are not able to accurately perceive the optimism of their peers.

Considering the gaps in the research, we review social presence theory and media richness theory and identify four overriding themes in which this study could contribute. These themes include employee selection, impression management, the optimism factor, and lack of measurement tools. Based upon these themes, we provide a model that identifies the relationship between contribution and perception.



## LITERATURE REVIEW

## Social Presence Theory

The conveyance of information from one individual to another has social value of qualities that provide a perception of presence. Social presence theory [38] argues that particular media that transmit more cues can lead to a greater degree of social presence. In other words, media that can communicate more socio-emotional cues can be perceived as personal, warm and sociable [40]. Short et al. [38] suggested that social presence is an important variable in mediated communication. Social presence is defined by Kreijns et al. [23] to mean the degree of illusion that occurs when the other communicator in the communication appears to be a "real" physical person. Social presence therefore, can affect the degree of social interaction taking place in virtual group environments. Social presence influences not only the way group members perceive media but also the recipients of their messages and communication. Additionally, the amount of social presence that can be perceived can vary among each type of medium [6]. Because of the lack of nonverbal cues, computer mediated technologies would seem to have less social presence than other media [33]. Rice [35] expanded social presence to include the use of different media for sending and receiving different types of messages. Tu [39] investigated the online learning environment and noted that social presence is required to enhance and foster online social interaction. Additionally, noted by Tu [39] was the relationship between social presence and social interaction; when social presence was low, social interaction did not occur. Undoubtedly, for groups to be able to interact and communicate effectively, they need a medium that will provide social presence.

## Media Richness Theory

Media richness theory is built upon the social presence theory. Daft and Lengel's [6] media richness theory posits that a given medium has the ability to convey a level of information, and

organizational success is based on the organization's ability to process information of appropriate richness to reduce uncertainty and clarify ambiguity." (p.184) Additionally, Daft and Lengel [5] proposed that communication media have varying abilities for resolving uncertainty, negotiating varying interpretations, and bringing about understanding between communicators. According to the theory, the amount of closeness (social presence) that can be sent over the medium depends on the medium itself and on the corresponding richness. Defined by O'Hair, Friedrich, and Shaver [32], media richness is "the ability of a communication channel to handle information or convey the meaning contained in a message." (p.85)

Seemingly, both social presence and media richness theories suggest that certain media are more appropriate for certain types of communication.

### Employee Selection

Organizations, both traditional and virtual, search for effective ways to increase group productivity. Given that organizations strive to be as productive and profitable as possible, the individuals responsible for hiring and training employees should make good decisions regarding their hiring practices. One way that hiring practices have changed over the years is the use of personality tests [30]. Individual worker personality can explain the dysfunctional aspects of organizations [20]. In 1997, the Society for Human Resource Management indicated that 22 percent of U.S. companies use personality tests to screen candidates. These tests could be an inventory type of survey, projective tests, or even role-playing exercises. However, these personality tests do not specifically ascertain optimism as a factor in considering an employee as a valuable asset. Further, many of the tests were not developed specifically for online interviewing.

Literature and tests have been published to explain a few measures, such as expectancy-valence theory, the Life Orientation Test (LOT) [2], and the Optimism/Pessimism Scale (OPS) [8], attempt to analyze and explain dynamics of motivation such as optimism and pessimism. Literature has also been published regarding individuals and how they modify their behavior toward those goals and/or values that they regard as advantageous [11]. Further, work using the Personal Project Analysis (PPA) [29] points to the concept of organized thinking and personal well-being as a chain of actions that are meant to achieve a purpose or goal important to the individual.

All three, the LOT, the PPA and the OPS, are used to study the orientation of individuals between some of the antecedents of being pessimistic/optimistic. However, questions arise when individuals are placed into workgroups and the dynamics of the workgroup vary from the individually anticipated dynamics. Individuals identified as optimistic through one of the above-mentioned measures may, in fact, be optimistic in a group context. Additionally, these individuals may be able to identify optimism in a group context and do so with little distortion [25]. Knight and Elsaid [22] modified the LOT and developed the Perceived Group Orientation Test (PGOT). It has been used to show that optimism at the group level can be accurately ascertained through individual perception.

However, this testing was only conducted in traditional teams and was not used in virtual teams.

### Impression Management

While organizations go to great extent to influence the impression that they make on employees, some organizations use psychologists to initially detect compatibility on personality factors [21]. In today's organizations, managers may be sent to human resource training sessions to help them manage the dynamics within their work groups and increase motivation. One type of training that is quite common in organizational sales training is impression management. The last ten years have brought about a fair amount of research in impression management dealing with the office environment [3], managerial impression tactics [18], interpersonal factors [16] and the attribution process of job performance [15], and interpersonal perception [17]. From these studies, we can infer that personal interactions from experiences may have a modifying effect on the attitude or behaviors of the individual. These interactions, past experiences, and perceptions or impressions have not been explored within the context of virtual optimism within a group environment. Further, an exploration may provide insight as to how virtual workgroups can be viewed either optimistic or pessimistic. When individuals within a group become lackadaisical, change from an optimistic to a pessimistic attitude, or become social loafers [19], we may notice a difference in the group's overall perceived or generalized optimism. This change in perceived optimism may indicate that managerial intercession may be needed to modify the group flailing between optimism and pessimism. When this intercession occurs, members of a group are affected and these group members will remember the events regarding the perceived optimism of the manager. Overall, the impression management may impact an individual's perception of a situation or event.

While management needs to intercede to curb a group's flailing from optimistic to pessimistic, the manager's own optimism/pessimism may have a modifying effect on the group's outlook. While there are current measures of group optimism and the perception of optimism [22], additional group research areas lend insight into virtual group dynamics. These include charismatic leadership [12], intra-group communication [13], faith and belief in good performance [28], and values, perceptions, and codes of conduct [10]. However, these studies fail to address optimism or pessimism directly, specifically for optimism in a virtual team environment. The reliable measures are only available for individual self-evaluation for optimism though the use of the OPS [8], the LOT [37], and the PGOT [22].

<sup>1</sup>Group Flailing is when a group behaves erratically, changing from one extreme to another on a given topic or characteristic

### The Optimism Factor

Optimism is considered to be synonymous with being positive, hopeful, trustful, or confident, while pessimism is synonymous with negativity, doubt, distrust, cynicism, or lack of optimism. A complication for the American culture is that many individuals have developed a pessimism syndrome that

has had a debilitating effect on their attitudes regarding life, work, and performance [31]. The current workforce, suffering from pessimism syndrome, is frequently being placed into teams or workgroups and is expected to exhibit high performance. Additionally, these groups may be required to communicate virtually. These workgroups possess a wide variety of personality characteristics that affect performance. A fair amount of research, primarily in the fields of health, psychology, business, and sociology, measures optimism/pessimism in individuals. This research varies from friendship development [34], social support networks [37], and results from rejection [2], to friendship duration [7]. However, in these studies researchers do not address the issue of workforce group optimism. Of the measures related to optimism and pessimism, the authors identified two highly cited research articles that discussed relevant instruments: OPS [8] and the LOT [37].

**Lack of Measurement Tools**

While the OPS and LOT measures have been used extensively in the stated fields of study, to date these measures have been used only for individual measurements of optimism or pessimism and have not been applied to a perception of a group's optimism or pessimism. Knight and Elsaid [22] reported that groups can be optimistic or pessimistic, and that the level of a group's optimism has a modifying effect on the overall group milieu for members in the group. However, while the study did develop the foundation that groups possess a social presence and can have a perceivable optimism attribute,

the report only looked at traditional groups and did not consider virtual groups. Hence:

**Research Question One:** Can an individual perceive the level of optimism in a virtual group?

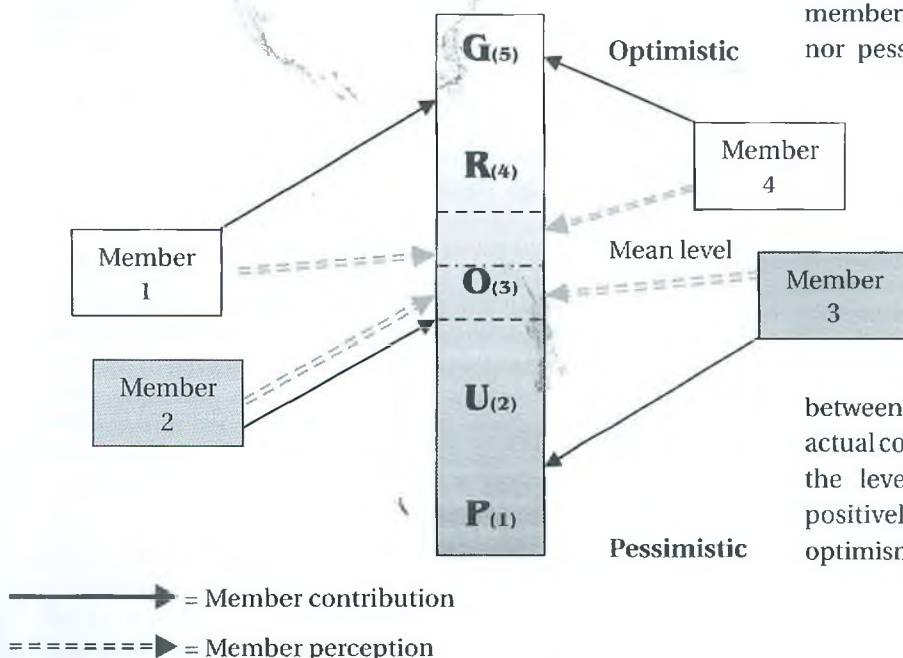
The model shown in Figure 1 provides a visual concept to a collaboration theory of group dynamics. While individual members contribute their personal traits of optimism, or pessimism, to a group, the group itself collectively assimilates the traits and then portrays these traits. Thus, being perceived by the members differently than the individual contributions, the group, as an entity, has an identity.

We posit that the model does not apply to virtual group optimism. While a group, as an entity, has an identity, we hypothesize, based on the aforementioned studies and social presence theory, that while individual members will contribute their personal traits of optimism or pessimism to a group, and that the group itself collectively assimilates the traits, the ability of the individual member to perceive the level of optimism in a virtual group will not be accurate. Thus, being perceived by the members differently than the individual contributions, the group, as an entity, has an identity. Hence:

**Research Question Two:** Does the level of the perceived optimism of the *virtual group* by the individual members significantly differ from the optimism contributed by the members?

As shown in the model, members of a group can contribute individual levels of optimism or pessimism and perceive a level of optimism or pessimism. Member 3 is individually contributing pessimism to the group, members 1 and 4 are individually contributing optimism to the group, and member 2 is individually contributing to neither optimism nor pessimism. Additionally, as shown in the model, the perception of the group, as viewed by all the members is the mean of the contributions (between the dotted lines). Even though Member 3 is individually contributing pessimism to the group, his/her perception is drawn toward the mean of the group's optimism. AS is with the other contributing members of the group. Therefore, as stated in the research questions, this model posits that there is a relationship between the perception of the group's optimism and the actual collective level of optimism. Additionally posited is that the level of optimism contributed individually will be positively correlated to the perception of the group's optimism.

**Figure 1**  
**O/P Group Relationship Model**





## METHODOLOGY

### Site and Subjects

Four hundred five (405) undergraduate students enrolled in upper level management courses at a large university in the Midwestern

US participated in the study for partial course credit. We removed identifying data for security purposes after we gave credit to the students. The mean age of the students was 22.2 years old and they possessed an average of seven group experiences. Of the 405 subjects, 217 (53.5 percent) were males and 188 (46.5 percent) females, out of which 274 (67.6 percent) were white, 55 (13.5 percent) black, 5 (1.2 percent) Hispanic, one (.2 percent) Indian, 17 (4.1 percent) Asian, and 8 (1.9 percent) not mentioned. Thus, the demographical ethnicity was representative of the current approximation of the 2002 U.S. Census (see Table 1). We assigned the students randomly into five person groups, then assigned each group to one of three mediums for group communication (Face to face, WebCT, Email). No consideration was given to produce groups that were more homogeneous than others on the variables of age, gender, or ethnic background.

### Procedure

Of the 405 individual participants, 392 completed all three surveys. After removing the 13 incomplete responses from the data, groups were identified that did not have full member participation. Five WebCT groups were eliminated from the study due to incomplete responses. A second screening was conducted to ensure that participants communicated using only their assigned medium. A review of the WebCT threaded discussions revealed that two WebCT groups met face-to-face. A review of the email records for groups assigned to only email revealed that three groups mentioned meeting face to face. And a review of the face-to-face contact journals revealed that eight groups participated using email. These groups that used a medium other than what was assigned to them were eliminated from the study. As a result, 362 responses out of a possible 405 were used in this study. Outliers and extreme values were identified for the entire data set through an evaluation of the upper and lower standard deviations of the quantitative variables/items (cohesion and satisfaction) used in this study. The question with the lowest standard deviation was .561, and the question with the highest standard deviation was 1.145. No values exceeded the recommended threshold of 3 standard deviations [14] for the Likert type survey questions.

Additionally, the maximum and minimum values for age and past group experience were reviewed to ensure that there were no extreme values. We found that no values were outside the

TABLE 1: Demographics of the Study's Participants

Item	WebCT N=115		Email N=126		Face-to-Face N=121	
<b>Average Age</b>						
	AVG	SD	AVG	SD	AVG	SD
	22.67	5.533	23.38	5.921	22.31	4.476
<b>Gender</b>						
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Male	68	59.1	88	69.8	61	50.4
Female	47	40.9	38	30.2	60	49.6
<b>Year in School</b>						
Sophomore	6	5.2	4	3.2	8	6.6
Junior	78	67.8	89	70.6	77	63.6
Senior	29	25.2	32	25.4	36	29.8
Graduate	1	.9	1	.8	0	0.0
<b>Ethnicity</b>						
White	86	74.8	96	76.2	92	76.0
Black	15	13.0	21	16.7	19	15.7
Hispanic	3	2.6	2	1.6	0	0.0
American Indian	0	.00	0	0.0	1	.8
Asian / Island Pac	7	6.1	4	3.2	6	5.0
Other not Mentioned	4	3.5	3	2.4	1	.8
<b>Average Group Grade</b>						
	AVG	Std Dev	AVG	Std Dev	AVG	Std Dev
	86.74	8.492	85.60	8.603	87.93	8.742

expected response range. Therefore, no entries in the data set were changed or omitted.

The individual group members were randomly assigned one "peer" university for which they were asked to become knowledgeable about that university's policy regarding plagiarism. For this exercise, each individual participant was required to answer the following questions:

1. What is your assigned university's academic dishonesty policy?
2. Determine what you MUST do regarding the students' ethical/unethical behavior based on the academic dishonesty policy.
3. What would you have to do if this is a repeat offense (meaning the students do it a 2nd or 3rd time)?

The individual participants then communicated their assigned university's academic policy on plagiarism to their assigned group through the assigned communication medium. The groups were required to arrive at a consensus and develop an academic dishonesty policy for plagiarism that incorporated the "best" features of the other university's policy. A written report was turned in as the official group's position regarding what action was to be taken and how it matches the policy of the university. The four universities

selected for this study included: Southern Illinois University, University of Tennessee, University of Indiana, and University of Arkansas. These universities were selected based on two criteria. First, the selection considered the status of the universities as peer institutions in size. Second, the selection considered the Carnegie doctoral granting status of the peer institutions.

Students were surveyed with both the LOT-R scale [37] and the modified instrument PGOT scale [20] (both shown in the Appendix) at the end of the exercise in order to ascertain optimism levels and perceptions. No group had less than four members throughout the research project.

**Measures**

After a review of the literature and the currently available measures, two specific measures for optimism seemed to be best suited for this research: the Perceived Group Optimism Test (PGOT) and the Life Orientation Test (LOT-R).

As shown in the appendix, the LOT-R [37] is a test of six questions addressing optimism/pessimism and four filler questions. It uses a five point Likert scale ranging from strongly agree to strongly disagree. Alpha reliability for testing optimism/pessimism using this scale is  $r = .79$  [1]. The questions for the LOT-R include ten items used to measure the level of optimism and/or pessimism in *individuals*. The Perceived Group Optimism Test (PGOT) [22] is a modified test of the six questions addressing optimism/pessimism and four filler questions that are found in the LOT-R. The instrument also uses a five point Likert scale from strongly agree to strongly disagree. Alpha reliability for testing optimism/pessimism using this scale is  $r = .71$ . The questions for the PGOT include ten items used to measure the perception of optimism and/or pessimism in *groups*.

Following the practices of the reviewed literature, the data regarding the optimism of the group were averaged for each responding team. The results of this data were compared to the individual levels of reported optimism and analyzed for factors that may provide correlations between personal optimism and perceived group optimism. We specifically considered the difference in perception between groups that used technology (WebCT, email) to communicate and groups that did not use technology to communicate (face to face).

acceptable levels, OP1 on individual optimism .717, OP2 on individual pessimism .75, OP3 on individual optimism .733, OP4 on individual pessimism .743, OP5 on individual pessimism .694, and OP6 on individual optimism .684 in three iterations.

The pessimism variables were reverse scored for optimism contribution and assessed for reliability using Cronbach alpha, individual optimism alpha, and perceived optimism alpha. A factor analysis was then conducted using varimax rotation and Kaiser Normalization on a PGOT to ascertain the perception of group optimism. The six variables also loaded at acceptable levels, OPG1 on perceived optimism .820, OPG2 on perceived pessimism .759, OPG3 on perceived optimism .741, OPG4 on perceived pessimism .757, OPG5 on perceived pessimism .721, and OPG6 on perceived optimism .593 in three iterations. The perceived pessimism variables were again reverse scored for perceived optimism and assessed for reliability using Cronbach alpha.

Following the approach used in previous work with these instruments [20], the scores were added together to determine a total optimism score that would be contributed to the group.

**TABLE 2: Rotated Component Matrix for Individual O/P**

Item	IPessimism	IOptimism
OP1 In uncertain times, I usually expect the best.		.717
OP2 If something can go wrong for me, it will.	.750	
OP3 I'm always optimistic about my future.		.733
OP4 I hardly ever expect things to go my way	.743	
OP5 I rarely count on good things happening to me.	.694	
OP6 Overall, I expect more good things to happen to me than bad.		.684

I = individual

The individual optimism contributions were then averaged to develop a *group optimism level score*. The perception measures were then summed and averaged to develop *perceived group optimism*.



**ANALYSIS**

Factor analysis (principal component) using varimax rotation and Kaiser normalization was conducted on the original LOT-R. As a result of the factor analysis, six variables loaded at



**RESULTS**

**Traditional Face-to-Face Groups**

Correlations were computed at the group level between the average group optimism in traditional groups and the individual perception of group optimism. The results indicate a significant positive correlation ( $R = .410, p < .01$ ). This finding indicates that individual perception of optimism is linearly related to a traditional group's optimism.

TABLE 3: Rotated Component Matrix for Perceived O/P

Item	PPessimism	POptimism
OPG1 In uncertain times, the Group usually expects the best.		.820
OPG2 If something can go wrong for this Group, the Group thinks it will	.759	
OPG3 The Group is always optimistic about the future.		.741
OPG4 The group hardly ever expects things to the right way.	.757	
OPG5 The group rarely counts on good things happening.	.721	
OPG6 Overall, the Group expects more good things to happen than bad.		.593

P = Perceived

- a Predictors: (Constant), group optimism  
 b Dependent Variable: optimism perceived

Linear regression was conducted next. Average group optimism was significant in predicting the dependent variable, the optimism perceived ( $R^2 = .168$ ,  $p < .01$ ). The Durbin-Watson result (1.836) is acceptable and provides support that there is not a multicollinearity problem in the equation.

To further analyze the findings, a one-way ANOVA was conducted to identify significant differences between the factor variable, individual optimism, and the dependent variable, perception of group optimism. The results ( $p < .01$ )

indicate that contribution and perception are significantly different for the individual contributor.

#### Mediated WebCT Groups

Correlations were conducted at the group level for the average WebCT group optimism and individual perception of group optimism. The results indicate a positive but non-significant correlation ( $R = .551$ ,  $p = .157$ ).

Linear regression was conducted next. The predictor variable, the total group optimism, was not found to be significant in predicting the dependent variable, the optimism perceived ( $R^2 = .304$ ;  $p = .157$ ). The Durbin-Watson result (1.235) is

TABLE 4: Traditional FTF Group Correlations

		Group optimism	Optimism perceived
Group optimism	Pearson Correlation	1	.410(**)
	Sig. (2 -tailed)		.002
	N	25	25
Optimism Perceived	Pearson Correlation	.410(**)	1
	Sig. (2 -tailed)	.002	
	N	25	25

TABLE 5: Regression Traditional FTF Groups

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.410 (a)	.168	.152	1.96898	.168	10.505	1	24	.002	1.836

\*\* Correlation is significant at the 0.01 level (2-tailed).

acceptable. Therefore, individual contribution of optimism is linearly related but not significant in predicting a WebCT group's optimism perceived.

a Predictors: (Constant), group optimism  
 b Dependent Variable: optimism perceived  
 To further analyze the findings, a one-way ANOVA was conducted to identify significant differences between the factor variable, individual optimism, and the dependent variable, perception of group optimism. The results ( $p=.157$ ) indicate that contribution and perception are not significantly different for the individual contributor.

TABLE 6: WEBCT Group Correlations

		Totoplev	Totoptpr
Group optimism	Pearson Correlation	1	.551
	Sig. (2 -tailed)		.157
	N	23	23
Optimism perceived	Pearson Correlation	.551	1
	Sig. (2 -tailed)	.157	
	N	23	23

TABLE 7: Regression WebCT

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin - Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.551(a)	.304	.188	1.28580	.304	2.619	1	22	.157	1.235

**Mediated Email Groups**

Correlations were conducted at the group level for the total email group optimism and individual perception of group optimism. The results indicate that the relationship is positive but not significant ( $R=.001, p=.998$ ).

Linear regression was then conducted. The predictor variable, the average group optimism, was not found to be significant in predicting the dependent variable, the optimism perceived ( $R^2= .000; p=.998$ ). The Durbin Watson result of 2.072 is acceptable.

a Predictors: (Constant), group optimism  
 b Dependent Variable: optimism perceived

Again, a one-way ANOVA was conducted to identify significant differences between the factor variable, individual optimism and the dependent variable, perception of group optimism. The results ( $p=.998$ ) indicate that contribution and perception are not significantly different for the individual contributor.

To summarize, Only the Face to face groups had a significant positive relationship between Group optimism and optimism perceived. The mediated groups did not exhibit a significant positive relationship between the group's optimism and the ability of the members to perceive optimism.



TABLE 8: Email Group Correlations

		Totoplev	Totoptpr
Group optimism	Pearson Correlation	1	.001
	Sig. (2-tailed)		.998
	N	26	26
Optimism perceived	Pearson Correlation	.001	1
	Sig. (2-tailed)	.998	
	N	26	26

TABLE 9: Regression Email Group (b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.001 (a)	.000	-.077	1.18594	.000	.000	1	25	.998	2.072

## DISCUSSION

The impact of individual characteristics in the productivity of the organizational workforce is a valuable area of study. Overall, the results of the analyses provide a dynamic insight into the personality dimension of optimism and the ability to perceive optimism in a group setting. Based on these results, a number of findings can be discussed. First, the greater the optimism contributed by individual members of a traditional, face-to-face group, the greater the total optimism level of the group.

**Finding One:** *The more optimistic the members of a traditional group, the more optimistic the group will be.*

One may find that when individual group members are optimistic, this optimism carries over to the rest of the group members. The logic behind the previous statement is that the remainder of the group members tend to be affected by the positive optimism that individual members exhibit. Further, optimistic individuals perceive a group more optimistically.

**Finding Two:** *The more optimistic the individual within a traditional group, the more positive his/her perception of the group's optimism will be.*

When an individual is optimistic to begin with, then that individual is more likely to perceive group optimism than an individual who is not optimistic to begin with. On the other hand, when an individual is pessimistic, then that individual is more likely to perceive group optimism negatively.

When a group composite of optimism is high, the individual members seem to perceive the higher levels of optimism for traditional face-to-face groups. For individuals that used mediated technology for communication (WebCT, Email) the results did not show a significant positive relationship for perceiving optimism in their assigned group.

**Finding Three:** *The higher the level of optimism in a traditional group the higher the perception of optimism by the individual members.*

**Finding Four:** *Individual members of computer mediated groups are unlikely to be able to identify the optimism of the group.*

Our statistical analysis results suggest that individuals using WebCT were able to more accurately identify optimism levels than the individuals using only email.

**Finding Five:** *The richer the media for communication, the more accurately the identification of optimism.*

Based on Findings One through Five, the sixth finding is a culmination of the study. The data presented in this study suggest that perception of optimism can be accurately ascertained. Additionally, the ascertaining of optimism can be accurately completed by individuals in traditional groups but not in computer mediated group.

**Finding Six:** *The ascertaining of optimism can be effectively completed by any participating member of a traditional group.*

**Finding Seven:** *The ascertaining of optimism cannot be effectively completed by participating members of a mediated group.*

This study has also provided evidence that personality characteristics of optimism and pessimism can be accurately measured as previously reported. Organizations can employ practices of evaluating group levels of optimism through perception measures of one member of each group, thus eliminating extensive questionnaires and costs to the organizations.

When hiring, the interviewer may be able to accurately identify the optimism level of applicants. Since hiring managers often use group interviews, we suggest that this identification of optimism take place through a role-playing group activity. Additionally, an interviewer may be able to eliminate the individuals that do not have the optimism levels needed to increase current workgroup optimism levels. However, considerations should be taken into account for practices with mediated technologies for communication between group members.



## CONCLUSION

This study provides important contributions to the field. First, this study has provided further empirical evidence that a traditional group's optimism can be accurately identified as the mean of the individual member's contributions. Second, that perception of the group is relative to the contribution of the individual member and will have directionality to the mean of the group, but only in traditional groups. Third, individuals appointed to virtual groups in this study did not accurately identify optimism levels for their group. While organizations continue to utilize groups and develop teams for a multitude of organizational tasks, it is important that the understanding of how these groups and teams function is a mean effort of the individual member contributions. Individual contributions into a group setting may have additional factors not addressed

in this paper regarding optimism and the dynamics of individuals in a group setting. However, this foundational research regarding how individual contributions in a group setting can be measured and perceived is essential for better understanding of several research streams. This research has found that member perception does provide an accurate representation of optimism within a traditional group. However, this research has not provided support that virtual groups can identify optimism.

Fourth, organizations with active human resource departments can benefit from the use of optimism identification in employee candidates. The use of role-playing may provide the observer an opportunity to identify optimism levels in candidates that will provide added optimism to the organization's workforce and ultimately, higher performance. However, as companies continue to expand virtual recruiting practices, the ability to identify optimistic individuals may become more difficult.

Finally, while the literature on personality is primarily found in the psychology and social behavior fields, organization behavior and human resource discourses are limited in the studies analyzing personality and group level data. Cross discipline studies are progressively becoming more acceptable and more frequently found. The discourse needs to draw from the literature of social psychology and organizational behavior and develop studies accordingly.

## APPENDIX

## LOT-R QUESTIONS

Please be as honest and accurate as you can throughout. Try not to let your response to one statement influence your responses to other statements. There are no "correct" or "incorrect" answers. Answer according to your own feelings, rather than how you think "most people" would answer.

5 = I agree a lot

4 = I agree a little

3 = I neither agree nor disagree

2 = I DISagree a little

1 = I DISagree a lot

1. In uncertain times, I usually expect the best.

[2. It's easy for me to relax.]

3. If something can go wrong for me, it will. \*\*

4. I'm always optimistic about my future.

[5. I enjoy my friends a lot.]

[6. It's important for me to keep busy.]

7. I hardly ever expect things to go my way. \*\*

[8. I don't get upset too easily.]

9. I rarely count on good things happening to me. \*\*

10. Overall, I expect more good things to happen to me than bad.

\*\* - reverse scored

Note: Items 2, 5, 6, and 8 are fillers. Responses to "scored" items are to be coded so that high values imply optimism.

Scheier, CARVER (1994) - LOT-R

11. In uncertain times, the Group usually expects the best.

[12. It is easy for Group to relax.]

13. If something can go wrong for this Group, the Group thinks it will \*\*

14. The Group is always optimistic about the future.

[15. The Group enjoys time together.]

[16. The Group feels it is important to keep busy.]

17. The group hardly ever expects things to the right way. \*\*

[18. The Group doesn't get upset too easily.]

19. The group rarely counts on good things happening. \*\*

20. Overall, the Group expects more good things to happen than bad.

\*\* - reverse scored

Note: Items 2, 5, 6, and 8 are fillers. Responses to "scored" items are to be coded so that high values imply optimism.

This study has provided a further development and guidance to utilize an optimism and group optimism in organizational decision-making.

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