

Goal Framing through Communication: Impact of Intrinsic vs. Extrinsic Message on Task Performance and Persistence

Maryum Firdous & Dr. Saima Masoom Ali

ABSTRACT

Communication is one of the most important tools to affect and influence behavior, emotions, and cognition. Goal framing through communication refers to presenting a task with either an intrinsic or extrinsic motivational message. This has been explored in European contexts where extrinsic vs. intrinsic messages caused less task performance and persistence intentions. The aim of the present study was, therefore, to explore goal framing in an Asian context where extrinsic life goals are perceived essential for success. A quasi-experimental study was conducted in six classes (N=241) of the Business department at a higher education institute in Karachi, where a soft skills reading task was framed in terms of intrinsic (self-growth) vs. extrinsic (financial success) message. Multivariate analysis revealed that performance was higher in the two goal-framing conditions compared to the controlled condition. Persistence intentions were also higher in the extrinsic goal-framing condition compared to the controlled condition. The findings suggest that goal framing is significant at the undergraduate level. Further, extrinsic messaging might facilitate performance in various areas in the contexts that promote money-making goals and are economically developing. The findings have important implications for communication experts.

Keywords: communication, goal framing, business undergraduates, intrinsic and extrinsic messages

INTRODUCTION

Communicating intrinsic vs. extrinsic message for a task may influence individual's engagement on it. An intrinsic message is focused on individual's internal goals, such as personal growth goal. It may enhance interest and focus. In contrast, extrinsic message emphasizes external goals, such as money, and may decrease interest. The communication through messages based on different kinds of goals is called goal framing.

Goal framing has been explored in a few developed European contexts where extrinsic messaging produced undesirable learning behaviours (Vansteenkiste et al., 2004, 2005). However, Asian societies are culturally, socially, and economically different, where extrinsic life goals are found to be positively correlated to well-being and academic success (Firdous & Riaz, 2023; Sabzeh Ara et al., 2014). This is why extrinsic messages might be positively contributing to learning outcomes in Asia. Further, business studies are focused on producing successful entrepreneurs, and the extrinsic goal of financial success might be of value for them. Therefore, this study explores intrinsic and extrinsic messaging among business students in an Asian context of Pakistan.

THEORETICAL FOUNDATION

This study is founded on the Goal-content theory (GCT) by Kasser and Ryan (1996). This is a mini-theory of the Self-determination theoretical (SDT) framework (Deci & Ryan, 1985). The SDT is a

macro theory of human motivation and personality which has six mini-theories including the GCT.

The GCT suggests that goals have an intrinsic or extrinsic content. Striving for intrinsic goals stimulates inherent drives, internal motivation, and creates pleasant feelings and outcomes. Examples of intrinsic goals are self-improvement, social development, and positive relationships. In contrast, extrinsic goals cause pressure, external motivation, and negative affect. The goals for money, social image formation, and fame are extrinsic goals.

Intrinsic goals support human basic psychological needs. The three basic needs are for experiencing freedom, excellence, and social connections. However, these needs are frustrated by pursuing extrinsic goals.

Under these propositions of the theory, messages based on intrinsic goals may enhance learning outcomes, whereas messages with extrinsic goals may decrease success on the activity.

LITERATURE REVIEW

The Goal content theory has been widely explored in the context of overall well-being. In one study, intrinsic life goals positively related to positive affect, vitality, meaning, life satisfaction and negatively related to negative affect and stress (Martela et al., 2019) beyond the big five personality traits of neuroticism, extroversion, openness, conscientiousness, and agreeableness anxiety (Toth-Bos et al., 2020). Tasks, such as buying goods, aimed at attaining intrinsic life goals (such as affiliation or self-growth) vs. extrinsic life goals (such as social image) are associated with greater well-being (Moldes, 2023).

Students' prioritization for intrinsic goals over extrinsic also predicts long-term well-being indicators (Hope et al., 2019). However, these are the findings from developed American and European contexts- the US, UK, and Canada. In the Asian context, the goal content theory is not fully supported.

In the Asian context with a Chinese sample, both intrinsic and extrinsic goals were positively related to well-being (Lekes et al., 2010). For Iranian university students, the value, likelihood and attainment of intrinsic goals were correlated positively with higher self-compassion, integrative self-knowledge, and self-esteem (SabzehAra et al., 2014). Further, likelihood of extrinsic goals was positively correlated with self-compassion and self-esteem. Also, attainment of these goals positively correlated with self-compassion and self-esteem. Similarly, Turkish Business students' well-being (vitality, life satisfaction, emotional well-being) was only significantly correlated with the community contribution among the intrinsic goals. Also, it was not negatively related to extrinsic goals (Sonmez, 2023).

Further, both kind of goal content are linked with positive behaviors in Pakistan and Malaysia. In Pakistani students, intrinsic goals were positively linked to critical thinking and extrinsic goals were positively linked to academic achievement (Firdous & Riaz, 2023). Also, both goals were related to metacognition, help-seeking, organization, self-efficacy, and task value of Malaysian students (Adnan et al., 2014). Further, participants' intrinsic goals were connected to fewer exam failures and more credit points, but these goals had an inverse relationship for high achievers (Eniko & Stefan, 2016).

Goal framing by communicating intrinsic vs. extrinsic messages have been conducted among school and university students. The tasks of reading, species identification, and physical exercises have been explored. For example marketing students at a Belgian university read a text on communication style (Vansteenkiste et al., 2004). In intrinsic message group, the instructions highlighted importance of the text for personal growth in future. In extrinsic message group, the instructions pointed out the text's importance for possible financial success in the future. Participants' engagement, deep processing, performance, and persistence intentions were higher in intrinsic message than in extrinsic message group.

The second experiment in the same study with teaching students used a reading text on recycling, community contribution goal in intrinsic message group, and financial success in extrinsic message group (Vansteenkiste et al., 2004). The analysis supported previous results. Communication of messages (health=intrinsic; attraction=extrinsic) for nutrition text and physical exercises has also been researched with school children and supports these findings (Vansteenkiste et al., 2004).

In a more recent study, Norwegian students did species identification with a community contribution goal in intrinsic message condition and financial success goal framed in extrinsic message condition (Jeno et al., 2020). In contrast to the above studies, performance, effort, and learning intentions were similar in the two conditions.

In a nutshell, intrinsic and extrinsic goals and messages appear to have different roles in developing and developed contexts. Therefore, goal framing might also work in different ways for students in different

contexts. Given a different set of results in Norway, there may be some other factors playing a role in the goal framing phenomenon.

Research Question:

RQ1: What is the impact of intrinsic, extrinsic, and neutral message framing on performance and persistence among Business students?

Study Hypothesis

The following multivariate hypothesis was formulated:

H1: There would be differences in the scores of performance and persistence intentions of Business students among intrinsic, extrinsic, and neutral message conditions.

METHODOLOGY

Research Design

It was a quasi-experimental study where a reading task was presented with intrinsic vs. extrinsic vs. neutral motivational message.

Participants

Six lecturers teaching in the business department at Mohammad Ali Jinnah University were recruited to conduct the activity with their undergraduate students (Mean=21.25 years, $SD=1.778$) in their regular classes. Total number of students who participated was 241, with a class size of 31-53. Purposive sampling method was used because the

study aimed at exploring the impact of intrinsic vs. extrinsic messaging among Business students.

Measures

The performance questionnaire consisted of ten multiple choice questions. The questions were conceptual and based on the reading text. This approach of measurement of performance was adopted from that used by Jenou et al. (2020) and Vansteenkiste et al. (2004). The total score ranged from 0-10.

The persistence intentions questionnaire had three items adapted from Hardre and Reeve (2003) and Jenou et al.'s (2018, 2020) studies based on “1= not at all true to 7= very true”. Items for intention to persist predict actual persistence very well and are a valid measure among university students (Harred et al., 2023).

Procedure

The study was approved by University of Karachi Advanced Studies and Research Board and Mohammad Ali Jinnah University Ethics Committee. The messages were adapted from Jenou et al. (2020) Vansteenkiste et al.'s (2005) studies. Intrinsic message focused on personal growth goal, were: “You are going to read a text about soft skills. Reading this text is important because it will help you know about your strengths and weaknesses, and hence you can work to improve yourself.” Extrinsic message focused on financial success and stated: “You are going to read a text about soft skills. Reading this text is important because it will help you get those skills that increase your chances of getting good-paying job opportunities in the future.” A

controlled condition was also included with a neutral message: “You are going to read a text about soft skills. Reading this text is important because it is a part of the class activity that is being conducted. You are required to complete this activity in the class.” The three conditions were applied to six classes. Students in all conditions read the same text on soft skills adopted from Schulz (2014) and filled out questions on a Google form for performance and persistence intentions variables. After data collection was completed, students were debriefed by the researcher, and their written consent for participation was obtained. Data was analyzed in SPSS (v.25). Demographics, descriptive, and MANOVA analyses were used.

RESULTS & FINDINGS

Demographics

Table 1 shows the demographic characteristics of the participants. More than fifty percent of the participants were male, from the third year of study, belonged to middle socio-economic background, and were not doing a job. Intrinsic message condition was conducted in the first and third year, extrinsic message condition in the second and third year, and neutral message in the first- and third-year classes.

Table 1

Demographics of the Participants (N=241)

	Intrinsic Message	Extrinsic Message	Neutral Message	Full Sample
	<i>n</i> =66	<i>n</i> =91	<i>n</i> =84	<i>N</i> =241

Characteristic	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Gender								
Male	42	64	51	56	58	69	151	63
Female	24	36	40	44	26	31	90	37
Study Year								
1st	30	45	0	0	33	39	63	26
2nd	0	0	52	57	0	0	52	22
3 rd	36	55	39	43	51	61	126	52
Socio-economic status								
Low	3	5	5	6	0	0	8	3
Middle	59	89	80	88	79	94	218	91
High	4	6	6	7	5	6	15	6
Employment status								
Not employed	42	64	65	71	60	71	167	69
Employed	24	36	26	29	24	29	74	31

Descriptive Statistics

The minimum and maximum, mean, standard deviation, skewness, and kurtosis statistics are presented in Table 2. All the statistics for skewness and kurtosis were in the range (-1 to +1), showing a normal distribution.

Table 2

Descriptive Statistics for Study Variables (N=241)

Variable	Mi n	M ax	<i>M</i>	<i>SD</i>	Skewness		Kurtosis	
					Statis tic	<i>SE</i>	Stati stic	<i>SE</i>
Performance	0	10	6.7 39	1.8 83	-.743	.157	.474	.312
Persistence intentions	2	7	5.5 04	1.1 84	-.719	.157	-.082	.312

The means and standard deviation values of the study variables for the three experimental conditions are presented in Table 3.

Table 3

Descriptive Statistics for Experimental Conditions (N=241)

Variable	Intrinsic Message		Extrinsic Message		Neutral Message	
	<i>n</i> =66		<i>n</i> =91		<i>n</i> =84	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Performance	6.924	1.817	7.110	1.696	6.190	2.015
Persistence intentions	5.379	1.086	5.758	1.082	5.325	1.322

Homogeneity of Covariance Matrices

Box's M test of the homogeneity of Covariance Matrices was carried out to check whether two or more covariance matrices were homogeneous. Table 4 shows that the test result was insignificant implying that covariance matrices were homogeneous.

Table 4

Box's M Test of Equality of Covariance Matrices (N=241)

Box's M	<i>F</i>	<i>df</i>	<i>p</i>
6.795	1.119	6, 913710.451	.348

Multivariate Analysis

A MANOVA test was conducted with goal framing as an independent variable and two dependent variables (performance and persistence intentions). The analysis in Table 5 revealed that there was a statistically significant difference in the mean scores of dependent variables among the three experimental conditions (Wilks' $\lambda = 0.034$, $F(2,237) = 3412.975$, $p < .01$, $\eta_p^2 = .966$). Wilks' Lambda test statistic was used as the homogeneity assumption was met (Ateş et al., 2019) in the Box's M test.

Table 5

**Multivariate Test for Impact of Goal Framing on Performance
and Persistence Intentions (N=241)**

Wilks' Lambda	<i>F</i>	<i>df</i>	<i>p</i>	η_p^2
.034	3412.975*	2, 237	.000	.966

** $p < .01$

Table 6 shows between-subject effects. The goal framing effects were significant for performance ($F(2, 238) = 5.881, p = .003, \eta_p^2 = .047$) and persistence intentions ($F(2, 238) = 3.491, p = .032, \eta_p^2 = .029$). Tukey-Kramer post hoc test was used to analyze the differences in dependent variables among conditions because the sample sizes were unequal (Alver & Zhang, 2024).

The test results demonstrated that performance was higher in intrinsic message group ($M=6.924, SD=1.817$) as compared to neutral message group ($M=6.190, SD= 2.015, p=.043$). Further, performance was also higher in extrinsic message group ($M=7.110, SD= 1.696$) as compared to neutral message group ($M=6.190, SD= 2.015, p=.003$).

Also, Tukey-Kramer post hoc test results demonstrated that persistence intentions were higher in extrinsic message group ($M=5.758, SD= 1.082$) as compared to neutral message group ($M=5.325, SD= 1.322, p=.041$).

Table 6**Between-Subject Effects of Dependent Variables (N=241)**

	Intrinsic Message <i>n</i> = 66		Extrinsic Message <i>n</i> = 91		Neutral Message <i>n</i> = 84		F	df	p	η_p^2
	M	SD	M	SD	M	SD				
Performance	6.9 24 _a	1.8 17	7.1 10 _b	1.69 6	6.1 90 _a , b	2.0 15	5.8 81*	(2, 238)	.00 3	.04 7
Persistence intentions	5.3 79	1.0 86	5.7 58 _a	1.08 2	5.3 25 _a	1.3 22	3.4 91*	(2, 238)	.03 2	.02 9

Note. Subscripts show significant mean difference in a row based on Tukey-Kramer.

* $p < .05$ ** $p < .01$

DISCUSSION

This study was designed as a quasi-experimental study in the framework of goal content theory with business undergraduates. The aim of the study was to explore impact of goal framing through communication. Intrinsic vs. extrinsic vs. neutral messages were communicated to students for a class activity. A multivariate hypothesis was tested with goal framing conditions as independent variable and performance and persistence intentions as dependent

variables. The MANOVA analysis revealed a significant impact of intrinsic and extrinsic messages (Wilks' $\lambda = 0.034$, $F(2, 237) = 3412.975$, $p < .01$, $\eta_p^2 = .966$).

Performance on the test based on the soft skills reading task was higher in intrinsic ($M = 6.924$, $SD = 1.817$, $p = .043$) and extrinsic ($M = 7.110$, $SD = 1.696$, $p = .003$) message groups as compared to neutral message group ($M = 6.190$, $SD = 2.015$). It implied that goal framing effects were significant in improving task performance. This is supported by a previous study where goal framing had a significant impact on test performance and physical exercise as compared to controlled conditions (Vansteenkiste et al., 2005, 2007). This is because goals give a big picture and create meaning for the present (Sutu et al., 2024).

However, both intrinsic and extrinsic message groups were equally significant for performance scores. This result supports the previous findings demonstrated in developing contexts and contrasts those in developed contexts (Eniko & Stefan, 2016). In economically developed contexts, extrinsic life goals provide a chance to build a secure future for family. In this way, extrinsic life goals fulfill the basic needs for security and relatedness (Firdous & Riaz, 2023). In other words, people in developing contexts have extrinsic life goals for the purpose of living, which is not same as materialism.

Persistence intentions were higher in extrinsic message group ($M = 5.758$, $SD = 1.082$, $p = .041$) as compared to neutral message group ($M = 5.325$, $SD = 1.322$); intrinsic message group had no significant impact on intentions. In continuation to the findings above for performance, this further highlights the importance of extrinsic life goals in an Asian context. People may tend to persist in activities that

give them financial success. However, this tendency needs to be challenged- extrinsic messaging being more influential than intrinsic messaging for persistence may not mean that this kind of goals needs to be fostered over intrinsic ones. An ignorance of personal growth as a reason for task persistence may result in incompetence among students (Cottrell, 2021) who in turn will become incompetent professionals. Therefore, intrinsic life goals need to be focused on in learning environments.

The findings demonstrate the significance of extrinsic goals and messages, specifically for Business students. Business studies have a more money orientation than other students, which could be a reason for the results of the present study. In a previous study with Pakistani final-year Business students, extrinsic goals of financial success and fame were the most prominent determinants of their entrepreneurial intentions (Arshad et al., 2019). Their collectivist orientation negatively moderated the effect of intrinsic goals on the intentions but positively moderated the impact of extrinsic goals. Whereas, our findings contrast previously conducted study with European Marketing students where extrinsic goals resulted in lower learning outcomes (Vansteenkiste et al., 2004). This clearly points out that cultural context, economic conditions, and discipline of study may have a combined influence on effects of intrinsic vs. extrinsic messages.

CONCLUSION

This study demonstrates two important findings. Intrinsic and extrinsic messages for soft skills reading task for Business undergraduates resulted in better performance on a test than the neutral message group.

Further, extrinsic message resulted in better persistence intentions for soft skills than intrinsic and neutral messages. Important implications for communication experts, educators and lecturers based on the findings of this study are listed. First, communicating messages in terms of intrinsic and extrinsic goals are better than communication without goals. Second, both kind of messages may have their own benefits in Asian contexts and none should be condemned. Third, lectures may consider framing of learning tasks in terms of goals to improve student learning outcomes and may use intrinsic and extrinsic both kinds of goal content and framing at the undergraduate level. This study also contributes to the Goal content theory literature. Combined with other studies conducted in developing contexts, this study provides contrasting evidence from developed contexts. In this way, this informs the theoretical propositions and points towards a need for an adaptation for various cultures.

Future researchers should explore goal framing with intrinsic messages focused on community goals and extrinsic messages focused on fame and social image. The participants may be customers of products, audiences of mass media, or students or professionals from various backgrounds. The studies may focus on the role of social media platforms they play for goal framing or intrinsic vs. extrinsic messaging. Participants' personal intrinsic vs. extrinsic goal orientation may also be assessed, and framing may be crossed with it. Finally, longitudinal studies with consistent framing with intrinsic vs. extrinsic messaging may also be conducted to explore social behaviours in the long term.

Ethics Approval. This study was approved by University of Karachi Advanced Studies and Research Board and Mohammad Ali Jinnah University Ethics Committee Ref: IERB/MAJU/Approval/2023/061.

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