Mail to: Dr. Charles Lyons	EASTERN OREGON UNIVERSITY	For ORSP use only
Chair,		
Institutional Review Board	HUMAN SUBJECTS RESEARCH	Protocol #
Department of Psychology	APPLICATION	
BH 151 Phone: 541-962-3660		Approval Date
Phone: 541-962-5660	A PROJECT MAY COMMENCE ONLY AFTER REVIEW AND APPROVAL	
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FOR CO	MMITTEE MEETING DATES CALL	. ORSP
1 311 3 3	(No Meetings July-August)	
Researcher's Name Jane't Mor	rrison & Huong Nguyen_ Depar	tment Psychology 440
Phone _971-313-08747 & 541-220-	5251 emailmorrisjc@eou.edu_& nguye	nh2@eou.eduFAX
Project Title The Influence of Posit	ive and Negative Verbal Feedback on Motiva	ation in a Timed and Repeated
Task	ive and ivegative verbal reedback on Motiva	adon in a Timeu and Repeated
Researcher: Faculty Staff _	Student _x Undergraduate Yea	r2015
If student Faculty Spansor's name	William H. Knapp III	
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I.V.	OR FUNDED RESEARCH PROJECT	3
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For PHS Funded projects, is human	subjects protocol the same as described in	Grant Application YES
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(Submit one copy of cover page from	Protocol Numbern currently approved protocol)	<u> </u>
Describe any changes to cur	rently approved protocol on a separ	rate page
Project Director Signature		Date

Faculty Sponsor Signature

Date

Faculty signature indicates that you accept responsibility for the research described, including work by students under your supervision. It further attests that you will monitor all phases of the research and notify the Committee if there are any significant changes to the protocol.

Page ½

#### PROJECT DESCRIPTION

Provide a brief description of your research protocol. Address each of the following questions about the use of human subjects:

- State the educational significance of the proposed research.
- Describe your proposed procedures. Include the number of subjects required, how they
  will be recruited, identify risks associated with participation, and whether subjects will
  be compensated.
- Describe how the results of the proposed research are to be used. Is this part of a class project or part of an investigator's research program? Will results be published?
- Describe how subjects will be debriefed and how subject's anonymity will be protected.
   Will the results be made available to subjects?

#### RESEARCH PROTOCOL

### Significance

The purpose of this experiment is to investigate the effects of verbal feedback on intrinsic motivation. Regardless of age, ethnicity, socioeconomic class or educational level, all individuals have some level of intrinsic motivation that drives them to get involved into various activities. These activities may be done for sheer pleasure or for the challenge, as opposed to external reward. Some researchers argue that tangible extrinsic rewards can undermine existing intrinsic motivation (e.g., Deci, 1971; Kruglanski, Friedman, & Zeevi, 1971; Lepper, Greene & Nisbett, 1973). However, intangible extrinsic rewards, such as verbal praise, can be effective (Breckler, Olson, & Wiggins, 2006). According to Breckler et al. (2006), it is more effective to praise a child for effort (e.g. "You worked so hard!") than for ability ("You're so smart!"). Additionally, Akin-Little, Lovett, and Little (2004) demonstrated the need for praise to be genuine, if it was given to motivate behavior.

The focus of this study is to examine the effect of positive feedback—an intangible extrinsic reward—on motivation. A demonstration of increased motivation could be useful knowledge for employers, parents or those in supervisory roles.

## **Hypotheses**

There are four hypotheses: a) participants high in intrinsic motivation, when provided seemingly genuine positive verbal feedback, will slightly increase intrinsic motivation to repeat a timed task; b) when given negative feedback, motivation will also increase for highly intrinsic participants, but to a greater extent than the positive feedback condition; c) participants low

in intrinsic motivation, when provided seemingly genuine negative verbal feedback, will decrease their intrinsic motivation to repeat a timed task; d) participants low in intrinsic motivation, when provided seemingly genuine positive verbal feedback, will increase their intrinsic motivation to repeat a timed task.

#### **Materials**

Attached are modified versions of the Intrinsic Motivation Inventory (IMI I, IMI II). The Intrinsic Motivation Inventory is a multidimensional measurement device used to assess subjective experience related to a target activity in laboratory experiments. The IMI has been used in several experiments related to intrinsic motivation and self-regulation (e.g., Ryan, 1982; Plant & Ryan, 1985; Ryan, Connell, & Plant, 1990; Ryan, Koestner & Deci, 1991; Deci, Eghrari, Patrick, & Leone, 1994). The IMI assesses various components related to intrinsic motivation (e.g. enjoyment and perceived usefulness). We designed the attached Genuine Verbal Feedback (GVF) questionnaire to measure the genuineness of the feedback, as perceived by participants, after the experiment. Finally, the Chinese puzzle tangrams, which consist of silhouettes printed on white cardstock, will be used as the repeated task. Participants will need to fill in tangram silhouettes using a single arrangement of 7 plastic geometric shapes. In addition, these tangrams will be used as the basis of feedback meant to affect intrinsic motivation.

## **Proposed Procedures and Design**

To test the effects of feedback on intrinsic motivation, 24 or more participants will be individually tested. Participants will be briefed about the procedure. Upon signed consent, they will receive the IMI I. Participants will then have 3 minutes to complete as many tangrams as possible. The tangrams will be organized in which subsequent tangrams will be more difficult; 2 sets of tangrams will be counterbalanced between participants. At the end of 3 minutes, participants will receive either positive or negative feedback, based on random assignment. In the positive feedback condition, participants will be told "You did a good job," "This is too easy for you," and "Most people don't do this well." In the negative feedback condition, participants will be told "You might want to double check your strategy," "This might be too hard for you," and "Most people complete more." Participants will then be given the option to repeat the task again with a new set of tangrams. Upon acceptance, they will receive the IMI II, and another 3 minutes to complete as many tangrams as possible. After 3 minutes, participants will be given the GVF to measure how genuine they perceived the feedback to be.

## **Participants**

Based on Deci (1971) we plan to collect data from at least 24 participants.

## Participant Recruitment

Participants will be recruited in person from the researchers' local communities.

#### **Exclusion Criteria**

Potential participants must be at least 18 years old and have the ability to read, write and speak English.

#### **Potential Risks**

There are no anticipated risks to the participants.

## Compensation

During debriefing participants will be given refreshments.

## **Protecting Anonymity/Confidentiality**

Other than the consent forms, no personally identifying information will be collected. The experimental data collected from the participants will be separated from the consent forms to protect confidentiality.

#### Use of Results

This research is part of the investigators' senior capstone project and will be presented in the form of a poster. If the results are significant, they may be written up for publication in a peer-reviewed journal.

## Debriefing

Participants will be given debriefing information upon completion of the experiment. The debriefing will include information about results and answers to questions about contacting the Chair of Eastern Oregon University's Institutional IRB, should anyone feel that rights have been violated.

#### Attachments

- Intrinsic Motivation Inventory I and II questionnaires
- · Genuine Verbal Feedback questionnaire
- Answer Key
- Consent Form

#### References

- Akin-Little, K. A., Eckert, T. Lovett, B. J., & Little, S. G. (2004). Extrinsic reinforcement in the classroom: Bribery or best practice. *School Psychology Review*, 33, 344-362.
- Breckler, S. J., Olson, J. M., & Wiggins, E. C. (2006). *Social Psychology Alive*. Belmont, CA:Thomson Wadsworth.
- Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology, 18,* 105-115.

- Deci, E. L., Eghrari, H., Patrick, B. C., & Leone, D. (1994). Facilitating internalization: The self-determination theory perspective. *Journal of Personality*, 62, 119-142.
- Kruglanski, A. W., Friedman, I. & Zeevi, G. (1971). The effects of extrinsic incentive on some qualitative aspects of task performance. *Journal of Personality*, 39, 606-617.
- Lepper, M. R., Greene, D., & Nisbett, R. E. (1973). Undermining children's intrinsic interest with extrinsic rewards: A test of the "overjustification" hypothesis. *Journal of Personality and Social Psychology*, 28, 129-137.
- Plant, R. W., & Ryan, R. M. (1985). Intrinsic motivation and the effects of self-consciousness, self-awareness, and ego-involvement: An investigation of internally-controlling styles. *Journal of Personality*, 53,435-449.
- Ryan, R. M. (1982). Control and information in the intrapersonal sphere: An extension of cognitive evaluation theory. *Journal of Personality and Social Psychology*, 43, 450-461.
- Ryan, R. M., Connell, J. P., & Plant, R. W. (1990). Emotions in non-directed text learning. *Learning and Individual Differences*, 2, 1-17.
- Ryan, R. M., Koestner, R., & Deci, E. L. (1991). Varied forms of persistence: When free-choice behavior is not intrinsically motivated. *Motivation and Emotion*, 15, 185-205.

# Intrinsic Motivation Inventory Questionnaire I

Code:		

For each of the following statements, please indicate how true it is for you

1	2	3	4	5
Very False	Somewhat False	Neutral	Somewhat True	Very True

			nber, using the f	following scale:	10 10 101 you
1		2	3	4	5
Very False		newhat False	Neutral	Somewhat True	Very True
	will hav		oice about doing 5	g this activity.	
	nat doin 2 3		vity will be usefo 5	al for improved o	concentration.
	ill unde 2 3		task pretty well 5		
	will fee 2        3		e while perform 5	ing the task.	
	is activ 2          3	-	e I wanted to. 5		
	nis will i	-	oring activity. 5		
	le that 2          3		y could improve 5	my critical thin	king skills.
	laxed w 2 3	_	rming this task. 5		
9. I am willin	g to do	this activit	y again because	e I think it is som	newhat useful.
1 :	2 3	4	5		
	escribe 2 3		ty as very enjoya 5	able.	
	ng this 2 3	-	will feel like I ha 5	d a choice.	
	I will pe	_	vell or better the	an others on the	task.

13. I believe I will feel nervous about doing the task. 3 4

# Intrinsic Motivation Inventory Questionnaire II

0 -	-T -		
( :n	no.		
$\mathbf{v}$	u.		

For each of the following statements, please indicate how true it is for you by circling the appropriate number, using the following scale:

	1	2	3	4	5
Very	False	Somewhat False	Neutral	Somewhat True	Very True

			J.	
1	2	3	4	5
Very False	Somewhat False	Neutral	Somewhat True	Very
1. I had some of 1 2	choice about doi: 3 4	ng this activity. 5		
2. This activity 1 2	will be useful fo	or improved cond 5	centration.	
3. I understood 1 2	the task pretty 3 4	well. 5		
4. I felt very term 1 2	nse while perfor 3 4	rming the task. 5		
5. I did this act 1 2	ivity because I v 3 4	wanted to. 5		
6. This was a verification 1 2	ery boring activ	ity. 5		
7. This activity 1 2	could improve r	ny critical thinki 5	ing skills.	
8. I was relaxed 1 2	d while performs	ing this task. 5		
9. I am willing 1 2	to do this activit	ty again because 5	e it is somewhat	useful.
10. I would des 1 2	scribe this activi 3 4	ty as very enjoya 5	able.	
11. While doing 1 2		felt like I had a c 5	choice.	
12. I believe I r		ell or better than 5	others on the ta	ısk.
13. I felt nervo	us about doing t 3 4	he task. 5		

15. The task held my attention.  $1 \quad 2 \quad 3 \quad 4 \quad 5$ 

Genuine Verbal Feedback
Questionnaire

The following sentences describe thoughts and feelings you may have had regarding the researcher's behavior. Please answer all items. For each item, please indicate how true the statement is for you by circling the appropriate number, using the following scale as a guide:

1	2	3	4	5
Very False	Somewhat False	Neutral	Somewhat True	Very True

1.	This	person	expres	ssed	genuine	interest for	the activity.
	1	2	3	4	5		

2.	This	person	was	attentive	to	what I was	s doing	during	the	activity.
	1	2	3	4	5					

5. I felt this person was honest with her feedback. 
$$1 \quad 2 \quad 3 \quad 4 \quad 5$$

## **Answer Key For Experimenters:**

Code \_\_\_\_\_.

Feedback Condition \_\_\_\_\_.

#### IMI I and II:

Interest/enjoyment: 6(R), 10, 15

Value/usefulness: 2, 7, 9

Perceived choice: 1, 5, 11

Perceived competence: 3, 12, 14

Pressure/tension: 4, 8, 13 (R)

#### **GVF:**

Total score of 1-14: Not Genuine

Total score of 15: Neutral

Total score of 16-20: Somewhat Genuine

Total score of 21-25: Genuine

## Office for Research and Sponsored Programs Jane't Schab and Huong Nguyen

Eastern Oregon University, La Grande, OR 97850-2807 USA **Email**: morrisjc@eou.edu, nguyenh2@eou.edu **Tel**: (971) 313-0747, (541) 220-5251

## Informed Consent—The Influence of Motivation in Timed Tasks

Jane't Schab and Huong Nguyen, students at Eastern Oregon University, are conducting a study to investigate the influence of motivation on performance in a timed task. If you volunteer for this study, you will fill out the Intrinsic Motivation Inventory questionnaire (s) and participate in a timed activity solving puzzles—tangrams, which involve making specific patterns out of geometric shapes. At the end of the activity, you will fill out an evaluation form. You and other participants will benefit from this experiment by contributing to research that may enhance the scientific understanding of motivation on task performance.

### Participant Criteria

To participate, you must be 18 or older. Additionally, you must be able to read, write, and speak English fluently.

### **Risk & Benefits of Participating**

You have the right to be informed of the nature of the study, its methods, and the potential risks and benefits of participating in the study. You have the right to participate voluntarily and the freedom to withdraw from the study for any reason. You also have the right to be protected from harm and have your identity protected. To ensure your privacy, this consent form will be separated from your results and stored securely. You also have the right to learn more about this study and to contact the proper authorities (see below), should you have concerns about this study. You have the responsibility to participate to the best of your ability if you choose to participate and are eligible for this study. This responsibility to participate to the best of your ability does not override your rights to withdraw from the study.

#### **Who To Contact**

If you are interested in learning more about this study or have questions, you can contact this study's primary investigators, whose names and contact information are at the top of this form, or the faculty advisor (William Knapp at wknapp@eou.edu). If you believe that any of your rights have been violated, you should contact the Chair of the University's Institutional Review Board: Charles Lyons at clyons@eou.edu.

#### **Agreement**

By signing below I affirm that I am 18 or older and that I understand the basic purpose and methods of this study, the risks and benefits associated with participating in this study, and my rights and responsibilities as a research participant. I also affirm that I had the

consent voluntarily.	
Email:	Date:
Printed Name of Participant:	
Signature of Participant:	
If you would like a convert this form for w	our porconal records places

opportunity to ask questions related to my participation in this study. Finally, I consent to participate in this study, and I provide this

If you would like a copy of this form for your personal records, please inform the researcher.