Relationship Statuses' Effects on Empathy and Recognition of Facial Affect

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INTRODUCTION

Positive relationships between empathy and recognition of facial affect are central to interpreting emotion. Therefore, the purpose of this study was to evaluate the correlations between relationship status and empathic ability and their effects on recognition of facial affect. Besel and Yuille (2010) found deficits in accurately detecting emotion to be associated with a lower empathy score. These could be further mediated by relationship status and satisfaction (Cohen, Schulz, Weiss, and Waldinger, 2012). Age seems to not be a factor either with being highly satisfied in a relationship affecting empathic ability, making adolescents more adept at reading emotional situations more accurately (Haugen, Welsh, and McNulty, 2008). Conversely, relationship satisfaction can also be dependent on how well a person perceives their partner's emotions and puts forth an effort to respond to them (Cohen et al., 2012). Because of this research, the purpose of the study was to evaluate the correlations between relationship status, empathic ability, and its subsequent effects on recognition of facial affect.

Hypothesis:

I hypothesized that that those in a relationship would express higher scores of empathy and accurately detect facial expressions of emotion better than those of single or dating status.

Method

Participants

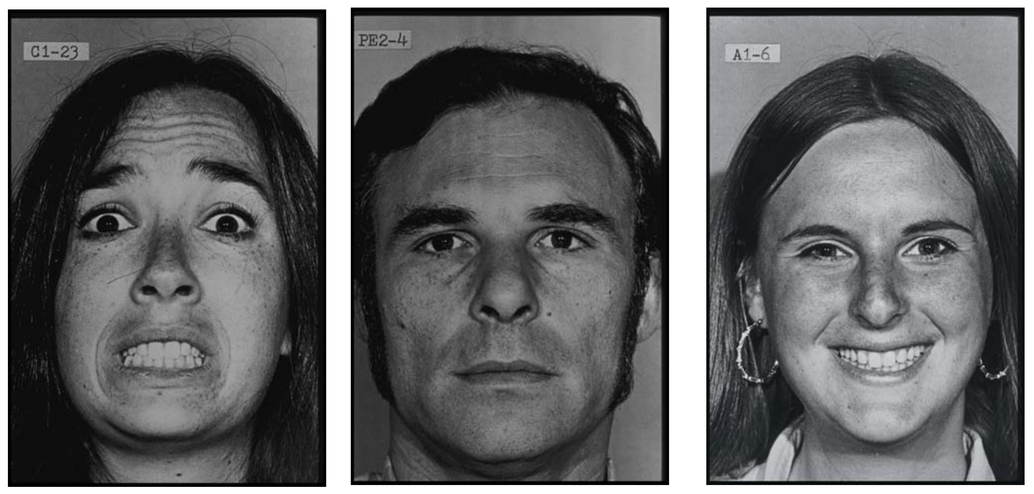
A total of 61 participants were recruited from California State Polytechnic University, Pomona. Subjects included 41 female participants and 20 male between the ages of 18 and 27.

Materials

21DELL computer stations were loaded with a Superlab program displaying 46 facial expressions from Paul Ekman's *Pictures of Facial Affect.* 36 pictures depicted six basic emotions at various degrees of intensity and 10 showed neutral expressions. Two questionnaires, the Interpersonal Reactivity Index (IRI) and Empathy Quotient (EQ) were given in a packet along with a demographics page. Key presses ranged from 0 to 6 and corresponded with the following emotions: neutral, happiness, sadness, anger, surprise, disgust, and fear.

Procedure

To determine if there was any correlation between relationship status, levels of empathy, and ability to recognize facial expressions, participants were instructed to complete a facial recognition task before answering two questionnaires and reporting relationship status on a demographics sheet. Faces were shown for 3 seconds before being prompted to press a key between 0-6 with each number corresponding to the emotion they think is present: neutral, happiness, sadness, anger, surprise, disgust, and fear. After this was completed they responded to the IRI and EQ, rating how well they agreed with each statement in the questionnaires on a 4-point scale. At the end, each participant filled out a demographic page with their age, race, relationship status (single, dating, or in a relationship), length of relationship, and degree of satisfaction on a 5-point scale.



Correlations

		Relationship	Duration	Satisfaction	Age	Accuracy
Relationship	Pearson Correlation	1	.201	-.167	.004	.273*
	Sig. (2-tailed)		.287	.379	.977	.033
Duration	Pearson Correlation	.201	1	.214	.592**	.136
	Sig. (2-tailed)	.287		.256	.001	.473
Satisfaction	Pearson Correlation	-.167	.214	1	-.204	.106
	Sig. (2-tailed)	.379	.256		.280	.577
Age	Pearson Correlation	.004	.592**	-.204	1	.230
	Sig. (2-tailed)	.977	.001	.280		.074
Accuracy	Pearson Correlation	.273*	.136	.106	.230	1
	Sig. (2-tailed)	.033	.473	.577	.074	
EmpathyQ	Pearson Correlation	-.089	.187	.219	-.103	-.173
	Sig. (2-tailed)	.495	.322	.246	.429	.183
IRIEC	Pearson Correlation	-.053	.173	-.006	.096	-.105
	Sig. (2-tailed)	.685	.361	.976	.463	.420
IRIPT	Pearson Correlation	.110	.193	.100	.124	-.004
	Sig. (2-tailed)	.401	.307	.598	.343	.978

Results

The medians were taken for the empathy quotient scores, satisfaction ratings, and relationship durations for all participants. No significant difference in accuracy was found between those high and low on empathy (based on a median split), $t(59)=1.120$, $p=.267$, those in relationships or not, $t(28)=.391$, $p=.69$, or those in satisfying relationships or non-satisfying ones, $t(28)=564$, $p=.577$. A series of correlations among age, relationship status, satisfaction, relationship duration, accuracy, EQ scores, and IRI scales were also conducted. No significant results were found on all scales. However, an univarite ANOVA of relationships ($p=.073$, $F(2, 56)=2.744$) and sex ($p=.088$, $F(1, 56)=3.014$) with relation to accuracy scores shows a nearly significant difference. Still, both failed to reveal how relationships and sex can have an effect on accuracy or levels empathy.

Discussion

Technical difficulties made it very difficult to conduct this study. Forty potential subjects were lost due to lack of the proper software being available. Had they been available for the study, there might have been a chance that the results would prove to be significant, especially between relationships and sex. Despite the inconclusive findings, there are many lessons to be learned from it.

Although there was no significance among the correlations conducted, many were nearly significant. This could have been caused by the low amount of participants used. If more male participants had been involved in the study, the relationship between relationship statuses, sex, and facial recognition accuracy could prove to be significant. However, because the correlations were so subtle it may be better to introduce more variables into the analyses in future studies.

Adding an instruction to report major on the demographics page could account for a difference in empathy levels and provide a dimension that could contribute to facial expression recognition ability. This can be further improved by introducing two sets of exposure times with a faster and longer view time of the facial stimuli. This could account for the differences among ability and gain a better measure of how relationship statuses, empathy levels, and recognition of facial stimuli relate.

References

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