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Comparative study on emotions analysis in students of psychology by gender

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Abstract

The purpose of this study relates to differences in recognizing basic emotions: happiness, sadness, anger, contempt, disgust, fear and surprise at students who are in training to become psychologists. The research is a comparative analysis of emotions. The participants are 34 boys and 34 girls, ranging the entire sample of psychology students. Data collection was performed by testing the subjects with Ekman micro expressions training software which refers to emotion recognition by specific facial expressions. Data were entered and processed with SPSS statistical program and to analyse the results we used t test. The results showed that there are significant differences in recognition and analysis of emotions between female and male students.

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Keywords: emotions, facial expressions, psychology, Ekman

1. Introduction

Paul Ekman and Wallace Friesen did the first atlas of the human face expressions twenty years ago which represented a detailed description of facial movements. They built an instrument for measuring facial expressions, Facial Action Coding System (FACS) in 1978, which was used for the study of tens of thousands of expressions. (Ekman, 2011). Emotions for most of us are good, are helpful, but there are three situations in which they can become destructive: intensity of emotion unjustified, improper transmission of emotion and third situation is when you feel, emotion wrong " (Ekman, 43, 2011). Psychologist Richard Lazarus has brought a new approach in the

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spectrum of emotional expressions and used the phrase "themes central relational" (Lazarus, 52), in order to analyse that emotions aroused when you need to communicate with other people.

Paul Ekman says that many people prefer to selectively block certain emotional reactions in the face of certain situational triggers, than to give up completely on emotions, emotional signals emitted by others often determines how we interpret words and actions, their expressions determine their responses, which affect the interpretation we give to words, motives, attitudes and intentions of that person." (Ekman, p. 96, 2011) When the emotion that we feel has a low intensity, our face expression is first partially diluted, but when the intensity is high, emotion will get a full facial expression, on the entire face. There are studies that have investigated the effect of intensity of emotional expression by gender, in recognizing emotions, and the results showed that women are more subtle in emotion recognition, even where the stimulus was low expressiveness, and if stimulus with intense expression there were no differences between men and women. (Helger, Kassler et al. 2010).

An important aspect of emotional competence is the ability to recognize emotions in facial expressions, and in this area, the literature is quite restricted. Studies have shown that there are no differences by gender in the recognition of emotional facial expressions. (Ervin et al., 1992, Robman, Wilson and Abrahams, 2004)

Hall and Matsumoto (2004) conducted research that led to results that women have an advantage in recognizing emotions even with a minimal information about the stimulus; when there are other conditions, the effects of recognizing emotional expressions in women are more intense. Other studies have shown that the three basic emotions: fear, surprise and anger, are more difficult to recognize than others and this is associated with deficiency of achieving these emotions. (Goldman, Sripada, 2004). P. Ekman (1973, 1994) proposed that anger, contempt, disgust, fear, happiness, sadness and surprise to be basic emotional categories and their recognition as the most important, only contempt was charged with little emotion recognition accuracy. Lazarus defined emotion as a process of emotional content which relates to significant personal relationships to prepare for potential action, the assessment of the benefits, challenges and threats to personal and certain physiological changes (Lazarus, 1991 as cited. Pitariu, Levine, Musat & Ispas 2006).

Goleman (1995) defined emotion as a feeling related to extra thoughts, including its biological and psychological states of mind regarding behaviors (Goleman, 1995 as cited. Fiebig & Kramer, 1998). Brief and Weiss have made the distinction between affective states and emotions. Memories are generalized emotional feelings from the past that are not related to a particular stimulus and interfere a very intense way with the ongoing thought processes. Emotions are more specific, they are related to certain stimuli (events, specific events) and are sufficiently intense that can interrupt ongoing thought processes. Affective provisions are divided into two categories, positive and negative emotions are the specifics: happy, fear, anger, sadness, disgust, surprise, etc. (Brief & Weiss, 2002). Emotional state is unstable emotions change in response to stimuli surrounding the events that occur around them. Studies have shown that certain positive emotions increases job satisfaction, while those with high job satisfaction tend to engage more frequently in organizational citizenship behaviors. Organ conducted a study in 1990; he showed that emotions at a time accumulates and stable labor influence attitudes such as job satisfaction, attitudes that determine the appearance then led cognitions behaviors such as citizenship behavior Organization (Organ, 1990 as cited. Ashkanasy, Härtel & Daus, 2002).

2. Organization of the research

2.1 The purpose of the research

The study aims to identify statistically significant differences by gender in the analysis and recognition of facial expressions of specific basic emotions to female and male subjects studying psychology.

2.2 Subjects

Participants were 67 students of the Faculty of Psychology from all three years of study, of which 34 males and 34 females, from Bucharest. Testing lasted 20 minutes and has begun with a short training.

2.3 .Methods

We used original METT by Paul Ekman. Paul Ekman is the most known scientist who develops both theory and methods about basic universal emotions. Ekman Micro Expression Tool is a computerised tool which shows randomly the basic emotions named by Ekman (happiness, sadness, anger, fear, surprise, contempt, disappointment). The emotions are shown at seven miliseconds. Ekman Micro Expression Training Tool is a landmark release for

micro expression training. The instrument is usually used to improve ability to identify micro expressions. A pre-eminent psychologist and co-discoverer of micro expressions with Friesen, Haggard and Isaacs, Ekman was named by the American Psychological Association as one of the most significant psychologists of the 20th century. AlsoTime magazine (2009) indicates him as one of the 100 most influential people in the world.

3.Results

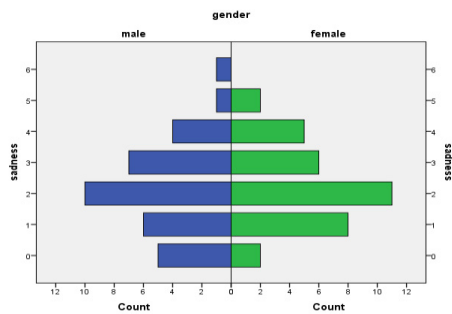
The obtained data were entered into SPSS statistical software and we applied parametric test for independent samples t because we have a normal distribution of data and because we wanted to observe statistically significant differences in emotion analysis between those two samples of males and females subjects. Applying the test, we can say that the hypothesis is confirmed and there are significant differences in recognizing some emotions.

For example: on emotion "fear", sig = ,011, which shows that between males and females for this emotion, recognition of specific facial expressions of fear are produced differences. Also for emotion named contempt in Ekman instrument, sig = ,039 allow us to see that the differences in the recognition of the emotions between males and women are statistically significant.

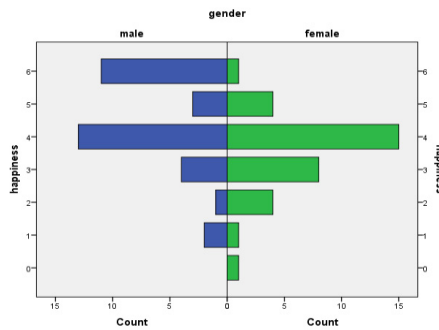
Table 1. T test for unrelated data for all studied variables independent samples test

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
sadness	Equal variances assumed	,200	,656	-,346	66	,731	-,118	,340	-,797	,562
	Equal variances not assumed			-,346	65,029	,731	-,118	,340	-,797	,562
anger	Equal variances assumed	,158	,692	-,467	66	,642	-,176	,378	-,931	,578
	Equal variances not assumed			-,467	64,596	,642	-,176	,378	-,932	,579
surprins	Equal variances assumed	2,791	,100	-,629	66	,532	-,176	,281	-,737	,384
	Equal variances not assumed			-,629	58,396	,532	-,176	,281	-,738	,385
fear	Equal variances assumed	6,917	,011	1,692	66	,095	,676	,400	-,122	1,475
	Equal variances not assumed			1,692	59,843	,096	,676	,400	-,124	1,476
disgust	Equal variances assumed	,157	,693	-1,481	66	,143	-,588	,397	-1,381	,205
	Equal variances not assumed			-1,481	65,401	,143	-,588	,397	-1,381	,205
contempt	Equal variances assumed	4,417	,039	-2,536	66	,014	-1,029	,406	-1,840	-,219
	Equal variances not assumed			-2,536	57,911	,014	-1,029	,406	-1,842	-,217
happiness	Equal variances assumed	1,260	,266	2,738	66	,008	,882	,322	,239	1,526
	Equal variances not assumed			2,738	64,197	,008	,882	,322	,239	1,526

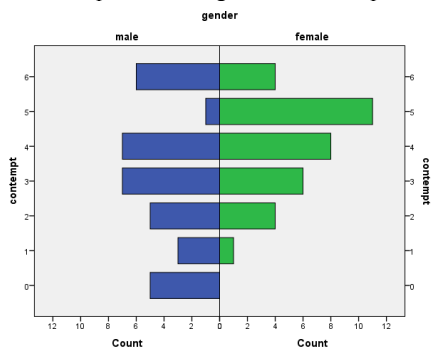
Graphic 1. Histogram for sadness



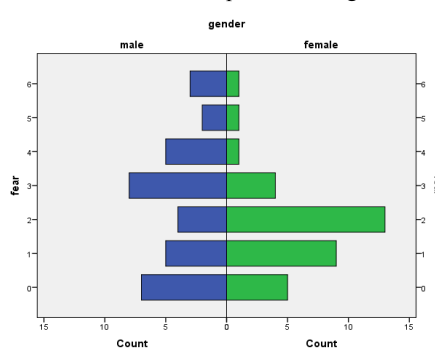
Graphic 2. Histogram for happiness



Graphic 3. Histogram for contempt



Graphic 4. Histogram for fear



In the four graphs histograma type seen above can be observed distribution of responses in four significant emotions: sadness, happiness, contempt and fear. Thus, if we look comparative between emotions sadness and happiness, the differences between males and women are visible, for example, emotion happiness, the recognition ratio was higher in women than in males. And emotions named contempt and fear, we have a significant distribution of responses for males.

Conclusions

Based on Paul Ekman theory, there are seven basic emotions which are universal: happiness, sadness, anger, fear, surprise, contempt, disappointment. In this study we tried to examine any gender differences in analysis and emotion recognition. The results showed that two of emotions, fear and contempt, have significant differences in their recognition which can lead to possible directions of research on these two and the reasons these differences between males and females, studying psychology. So, emotional spectrum analysis should not be viewed as one by itself, but simply as an expression of emotional experiences and their individual transformations. In conclusion, analysis of the data in this paper supports the idea that emotions play an important role in social interactions, mediating the relationship of the individual. The future psychologists who are preparing to become professional persons must know how well they can use recognition of emotions in their work and how well they can rely on it. The clients of psychologists can be sometimes insincere, so being a good psychologist suppose having this skill. An early training assure better skills in time.

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