

# Heuristics and Bias in Indonesian Elections: The Effect of Gender and Academic Degrees on Voter Preference

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Sekar Ayu<sup>1</sup> ; Aira Jasmine Nabilla Alfianti Clarisa ; Clarisa Arfiandani 

## Abstract

In the general election for legislative candidates, which is attended by dozens of candidates in one electoral district, often voters do not have sufficient information about the background and performance of the competing candidates. This study explores how a voter chooses his deputy candidate with inadequate information on the candidates. In conditions of low candidate personal information, voters use various attributes or any clues listed on the ballot to help them make decisions in a limited time. In political psychology, mental processes like this are referred to as heuristics. Using an online experimental method and a 2x2 factorial design as well as a two-way ANOVA statistical test, this study examines two forms of heuristics that voters might use to help make political decisions, namely gender and academic degrees. This study indicates that neither gender nor academic degree has a significant effect on encouraging voters to choose. This is evidenced by the results of experimental research studies, which show that each variable has a significance greater than 0.05.

## Keywords

degrees; gender; heuristics; legislative elections; voter preference

## Introduction

General Elections are held as a forum for people's sovereignty to choose the best leader or representative in the following leadership period. Voting decisions can be influenced by information that voters have about their candidates, such as gender and occupational background (Coffé & Theiss-Morse, 2016), political party (Green, Palmquist, & Schickler, 2004), ethnicity (Jackson, 2011), age (Holland, 2013), and academic degrees (Campbell & Cowley, 2014; Mechtel, 2014). However, amid the large number of candidates competing in the 2019 Indonesian elections, because each party sends party candidates and individual candidates for the election of DPD members, voters have difficulty studying candidates one by one regarding their capacities and abilities (Sirait, 2020). Therefore, this research was conducted under a condition where voters did not have information on the competing legislative candidates and only voted based on the information listed on the ballot sheet, such as gender (male and female) and academic degrees attached to the candidate's name. This condition is called a heuristic which allows gender and classy titles to influence voters' interest in voting.

Because gender and title significantly influence voter decisions, indirectly, it will also be a person's preference to determine his choice. The first impression will form an opinion about the impression of the object or candidate to be selected. The first impression becomes increasingly important because the significant individual believes in the first impressions of others (Prabawangi, 2017).

The thesis written by Sirait (2020) aims to find out how a young voter makes a political choice in the absence of adequate information about the candidate they will choose but in a condition of limited information in deciding to choose the existing candidate. This condition can be said with heuristics. Moreover, the study concludes that only academic degrees affect voter preferences while facial

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## Corresponding author:

<sup>1</sup> Sekar Ayu, Department of Political Science, Universitas Pembangunan Nasional Veteran Jakarta, Indonesia.  
E-mail: [hendysetiawan357@gmail.com](mailto:hendysetiawan357@gmail.com)

appearance does not (Sirait, 2020).

The relationship between prospect theory and heuristics in the context of this research is in the way people make decisions about people's preferences. The preference for people who have low information will make decisions based on the candidate's gender and title. At the same time, voters preferences who have high information will make decisions based on knowledge and information about candidates such as track records and work programs offered. This study looks at the behavior of voters in Indonesia who still have low information about candidates who will compete. In addition, this research also has its urgency to encourage the evaluation of election participants to attract voters' attention based on their capabilities and build a better political culture.

The difference between this study and previous research lies in the variables used where the independent variables are gender and academic degrees attached to the candidate's name. Based on the gender display, we will divide it into two categories, namely male candidates and female candidates, from the images included in the ballot. In contrast, the dependent variable is the influence of the independent variable on people's choosing preferences.

## Methods

In this study, researchers used experimental research methods. Experimental research is one part of quantitative research that aims to determine how the causes and effects occur. Experimental research is research conducted on variables whose data does not yet exist so that it requires a data screening process through specific treatments for the subject to be studied. This experimental research will test the research hypothesis to determine the effect on a problem (Jaedun, 2011).

The sampling technique used in this study is a simple random sampling technique. Simple random sampling is a random sampling technique or random from all populations. All population members have the same opportunity to be selected into the sample (Sulistiyastuti, 2007). In this study, the sample used was Political Science students in Depok City who were at least 17 years old. The election of Political Science students because they are considered to understand the election as a political process, Depok City was chosen because in the 2020 regional head election the voter participation increased by 62.79% (Prastiwi, 2020) as well as the sample limit that must be 17 years old chosen because they already have voting rights in elections.

The technique used in this research is descriptive analysis. The initial stage of data analysis is to describe the findings. One way is to use descriptive statistics. It is called descriptive statistics because they only aim to describe and describe the findings and data obtained (Eriyanto, 2011). Before processing the data, the data from the results of the research indicator questionnaire was first coded. Included in descriptive statistics is the presentation of data through frequency tables and graphs. The development can be in the form of cross-tabulation, pie chart or line, calculation of mode, median, mean, calculation of data through calculation of average and standard deviation, and calculation of percentage. In this study, data collection results such as the frequency and percentage of respondents' answer choices are described in tables and graphs. In addition, using the analysis technique of Variance Two Way Analysis of Variance or two-way ANOVA can test hypotheses between groups using a factorial design as in this study.

## Results and Discussion

### Validity Test

This study uses the KMO (Kaiser-Meyer-Olkin measures of sampling adequacy) method in measuring the validity test. A study is said to be valid if the KMO value ( $>0.5$ ), and if the KMO value ( $<0.5$ ), then the study is said to be invalid (Santoso, 2012).

**Table 1. KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.707
Bartlett's Test of Sphericity	Approx. Chi-Square	202.711
	Df	10
	Sig.	<.001
Varians		0.604

The results of SPSS data processing show that the KMO value is 0.707 or above 0.5, and Bartlett's Test of Sphericity value is below 0.05, which is 0.001, where the significance requirement must be below 0.05 (5%). Thus the indicators used in this study can be valid and the samples used have a significant correlation.

### Reliability Test

A reliability test is a measuring tool used to determine how the research can provide consistent results even though it is repeated. The reliability test can be done using Cronbach's Alpha, where the results of the study are measured with an indicator value of 0 (zero) to 1 (one), and if the value shows > 0.5, then the research can be said to be reliable.

**Table 2. Agrarian Conflict Frequency by Sector**

Cronbach's Alpha	N
0.732	5

The results of SPSS data processing show that the value of Cronbach's alpha is 0.732. The value is greater than 0.5, so this research can be reliable.

### Descriptive Analysis

To start processing and analyzing data, we can first describe data by using descriptive statistics. Descriptive statistics help describe the data obtained by researchers.

**Table 3. Descriptive Analysis**

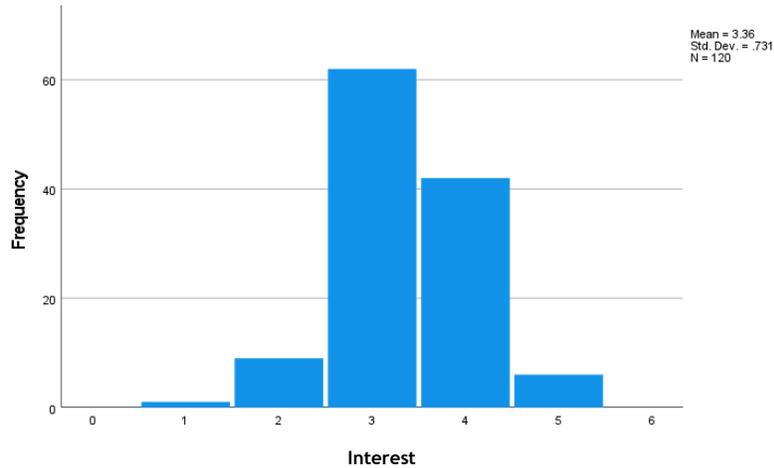
Gender	Use of a Degree	Mean	Std. Deviation	N
Male	Degree	16.53	2.968	30
	No Degree	16.43	2.388	30
	Total	16.48	2.671	60
Female	Degree	18.03	2.008	30
	No Degree	16.47	3.082	30
	Total	17.25	2.697	60
Total	Degree	17.28	2.624	30
	No Degree	16.45	2.734	30
	Total	16.87	2.701	60

In SPSS, the descriptive statistical analysis describes the mean and standard deviation. In the Male - Titled group, the mean obtained was 16.53 with a standard deviation of 2.969. In the Male - Untitled group, the mean obtained was 16.43 with a standard deviation of 2.388. Furthermore, the overall number in the Male gender experimental group, the mean obtained is 16.48 with a standard deviation of 2.671. Furthermore, in the Female - Degree group, the mean obtained was 18.03 with a standard deviation of 2.008. In the Female - Untitled group, the mean obtained was 16.47 with a standard deviation of 3.082. Moreover, the overall number in the female gender experimental group, the mean obtained is 16.87 with a standard deviation of 2.701.

## Perspective Selecting Participants

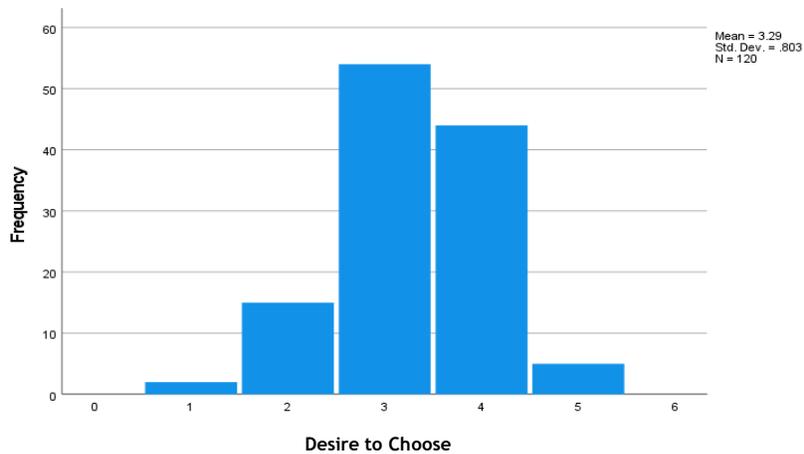
The study uses five questions to respondents to see how the perspective of choosing from the participants on the use of titles from candidates for legislative members. The following are the results from the perspective of voters:

**Graph 1. Interest in Candidates**



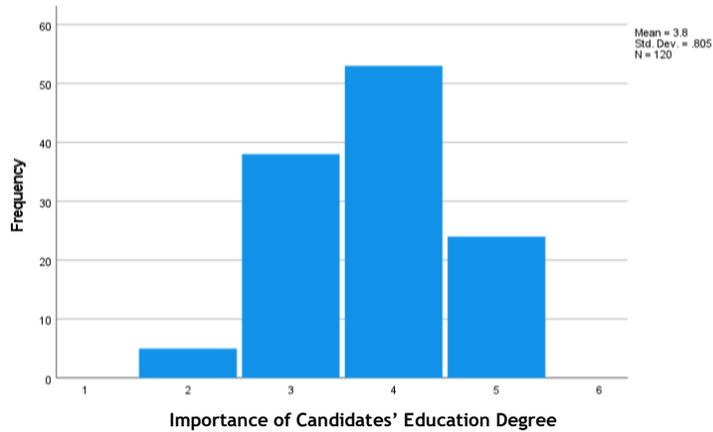
Judging from question number 1, which contains the level of interest in potential candidates. The results can be concluded that the average respondent chooses point 3, which means that the respondent has a "neutral" level of interest.

**Graph 2. Willingness to Vote Against Candidates**



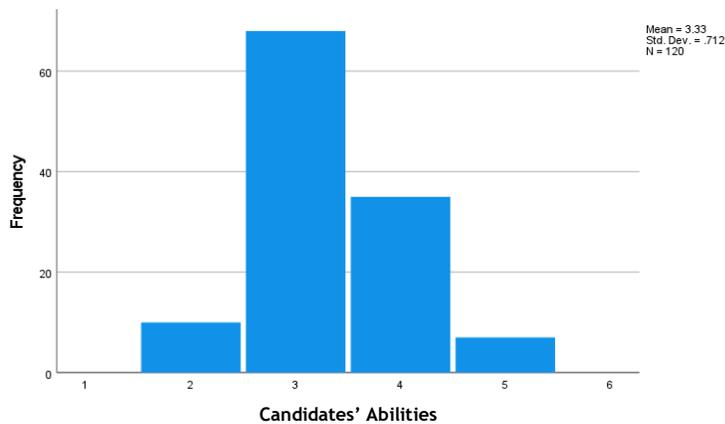
Judging from question number 2, which contains the level of desire to choose the candidates. The results can be concluded that the average respondent chooses point 3, which means the respondent has a high desire to choose "neutral" candidates.

**Graph 3. The Importance of Education Degrees for Candidates**



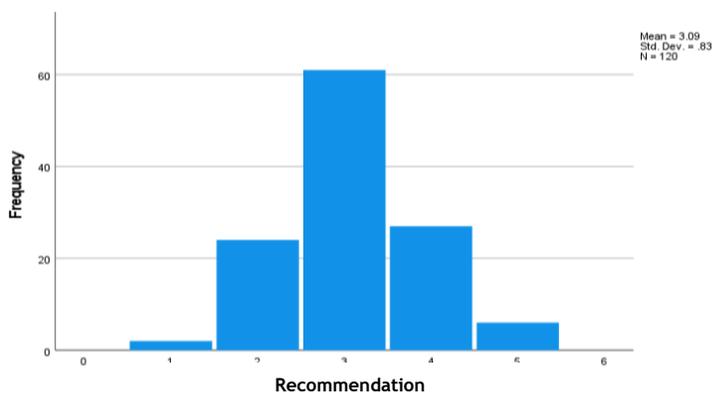
Judging from question number 3, which contains how vital the candidate's degree is. The results show that the average respondent chooses point 4, which means the respondent thinks the candidate's degree is "Important".

**Graph 4. The Importance of Candidates' Abilities**



Judging from question number 4, which contains how confident the candidate's abilities are. The results can be concluded that the average respondent chose point 3, which means the respondent has confidence in the ability of the "Neutral" candidate.

**Graph 5. Desire To Recommend Candidates**



Judging from question number 5, which contains how much respondents want to recommend candidates. The results can be concluded that the average respondent chose point 3, which means the level of the respondent's desire to recommend candidates to close relatives is "Neutral".

### Homogeneity Test

The homogeneity test was performed Levene's Test of Equality of Error Variance, processed using the SPSS program. The data is homogeneous if the significance value obtained is greater than 0.05.

**Table 4.** Homogeneity Test

Levene's Test of Equality Error Variances <sup>a,b</sup> of		Levene	df1	df2	Sig.
		Statistic			
Total Answer	Based on Mean	.950	3	116	.419
	Based on Median	.823	3	116	.484
	Based on Median and with adjusted df	.823	3	90.686	.484
	Based on trimmed mean	.893	3	116	.447

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: Total Answers

b. Design: Intercept + Gender + Gelar + Gender \* Gelar

The homogeneity test results obtained the results of 0.419, which is greater than 0.05, so it can be concluded that it is homogeneous.

### Normality Test

Kolmogorov-Smirnov Normality Test is a statistical method that aims to test the comparative hypothesis of two samples of variables using cumulative frequency. Data is said to be generally distributed if  $D_{count} < D_{table}$ , otherwise the data is not generally distributed if  $D_{count} > D_{table}$  (Sugiyono, 2004).

**Table 5.** Kolmogorov Smirnov Test

Nilai	F	f(X)	F(X)	Z	F(Z)	D =  F(X)-F(Z)
11	3	0,0250	0,0250	-2,1724	0,0149	0,0101
12	3	0,0250	0,0500	-1,8021	0,0358	0,0142
13	3	0,0250	0,0750	-1,4318	0,0761	0,0011
14	10	0,0833	0,1583	-1,0615	0,1442	0,0141
15	22	0,1833	0,3417	-0,6912	0,2447	0,0970
16	17	0,1417	0,4833	-0,3209	0,3741	0,1092
17	15	0,1250	0,6083	0,0494	0,5197	0,0886
18	13	0,1083	0,7167	0,4197	0,6626	0,0540
19	15	0,1250	0,8417	0,7900	0,7852	0,0564
20	11	0,0917	0,9333	1,1603	0,8770	0,0563
21	5	0,0417	0,9750	1,5305	0,9371	0,0379

25	3	0,0250	1,0000	3,0117	0,9987	0,0013
F(K)	120					
Average		16,867				
Standard Deviation		2,7006				

From the table, it can be seen that  $D_{max}$  is 0.1092. Moreover,  $D$  table with a population of 120 and an error rate of 5% is 0.1480. From the Kolmogorov-Smirnov test concept, it can be said that the data is normally distributed because  $D_{max} < D_{table}$ .

## Hypothesis Test

### Two-Way Anova Test

The data processing of this research uses Variance Two Way Analysis of Variance or two-way ANOVA to determine the existence of 2 (two) factors that might cause differences or comparisons in the independent variables. In addition, this test also aims to estimate and consider the effect of different treatments for each independent variable and dependent variable. The analysis is carried out after testing and getting the test results. The effect of the results and the basis for decision making in the two-way ANOVA test in this test are as follows:

1. If the value of Sig.  $< 0.05$ , then there is an effect of choosing preferences based on factor variables.
2. If the value of Sig.  $> 0.05$ , then there is no effect of Preference Choosing based on factor variables.

Decision-making in this study is based on the Test of Between-Subjects Effects. This test is carried out to test the researcher's hypothesis, and the results will answer the formulation of the research problem.

**Table 5. Two-Way Anova Test Table**

Tests of Between-Subjects Effects					
Dependent Variable: Result Total					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	54.600 <sup>a</sup>	3	18.200	2.596	.056
Intercept	34138.133	1	34138.133	4869.280	<.001
Gender	17.633	1	17.633	2.515	.115
Degree	20.833	1	20.833	2.972	.087
Gender * Degree	16.133	1	16.133	2.301	.132
Error	813.267	116	7.011		
Total	35006.000	120			
Corrected Total	867.867	119			

a. R Squared = .063 (Adjusted R Squared = .039)

From the above results, it can be concluded as follows:

1. Obtained the value of Sig. of 0.115 for the gender variable, the value is greater than 0.05 (0.115 > 0.05), so it can be concluded that there is no gender effect on people's voting preferences for Legislative Candidates.

2. Obtained Sig. of 0.087 for the variable level of academic degree, the value is greater than 0.05 (0.087 > 0.05), so it can be concluded that there is no effect of the level of academic degree on the public's preference for legislative candidates.
3. Obtained the value of Sig. of 0.132 for the variables of gender and academic degree, the value is greater than 0.05 (0.132 > 0.05), so it can be concluded that there is no interaction between gender and academic degree on the public's preference for legislative candidates.

## Discussion

This study aims to examine the effect of gender and academic degrees on legislative candidates who participate in the election contestation in Indonesia. The research uses an experimental method conducted online. The experimental method was chosen based on the belief that this method can provide advantages by placing researchers to control the independent variables by manipulating the factors contained in the dependent variable. This allows researchers to rule out confounding factors so that the internal validity of the resulting research is better.

### Gender Does not Affect Voting Preferences in Indonesian Elections

This study proves no gender influence in voters' preferences when they want to vote in elections. This shows that respondents have other factors besides gender in choosing their deputy candidate, even in the absence of personal information about the candidate (heuristic). The results of this study support the research of [Dolan \(2014\)](#) through a national survey of more than 3000 adults, which shows that voters do hold gender attitudes, both positive and negative, about female candidates, but these attitudes are not related to the political decisions they make. [Sides \(2016\)](#) report also explains that gender stereotypes do not guide voters. The results of other studies have also revealed that male and female candidates with similar traits are evaluated in the same way ([Clayton, Robinson, Johnson, & Muriaas, 2020](#)).

There are two explanations that the author can give to explain the zero effect of gender on voter preferences. First, respondents may realize that gender is a social construct that does not influence the candidate's future performance. Second, the success of the feminist movement in supporting the fulfillment of equal rights for each gender to contribute in public spaces, including politics.

### Academic Degree Does Not Affect Voting Preference in Indonesian Elections

This study indicates that the academic degree heuristic does not affect voter preferences even though academic degrees are essential for candidates. The results of this study support previous research conducted by [Kelley & McAllister \(1984\)](#), who explored the heuristics of honors and academic degrees in the UK. Their research into elections held in the UK and Australia revealed that only honorary degrees could benefit candidates, while academic degrees had no significant effect on voter choice.

The participants involved in this experiment also had experience with the leadership of the Minister of Maritime Affairs Susi Pudjiastusi's leadership. She did not have a high-end academic degree, so this might also influence participants not to choose candidates based solely on the academic title attached to their name. However, the findings of this study have different results from previous research conducted in that voters use the candidate's PhD degree as a heuristic in voting and show significant positive results towards the candidate ([Schneider & Tepe, 2017](#)). In addition, other research also considers that an academic degree is still an essential attribute for voters to make their choice ([Sirait, 2020](#)).

### Interaction Between Gender and Academic Degrees on Indonesian Elections Voting Preferences

The results show no interaction effect between gender and academic degree significantly indicate that the two variables do not contribute to voter preferences. Both the gender and academic title of the Legislative Candidate candidates do not encourage voters to vote for them even under heuristic circumstances.

## Conclusion

In this experimental study entitled "Heuristics and Bias in Indonesian Elections (The Effect of Gender and Academic Degrees on Voter Preferences)", the researchers grouped respondents into four groups. Each research group contains 30 respondents so that the total number of respondents in this study is 120 people. In this report, the researcher tested the data using SPSS, including testing the validity, descriptive analysis, homogeneity test, and hypothesis testing.

It is related to the hypothesis that has been built by the researcher, where  $H_0$ : there is no effect of gender and academic degree on voting preferences. So,  $H_0$  can be accepted because each variable has Sig. greater than 0.05. so that this experimental research can be concluded that there is no influence of gender and academic degree on people's voting preferences, this study only uses gender heuristics and academic degrees as factors that influence voting preferences. At the same time, the heuristics contained in the ballot are not only gender and academic degrees. It is hoped that further research can use other heuristics, such as clothing, facial appearance, and make the experimental conditions as natural as possible so that the more factors that can be tested will further add and enrich the research results on voting behavior in Indonesia.

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