

## Research Article

# Influence of extroversion and introversion on decision making ability

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### ABSTRACT

**Background:** Decision is defined as a choice that you make about something after thinking about several possibilities. Human decision making and judgment is readily observable in reality. The Personality trait that Influence Decision Making is usually missing from research of decision making. The current study is focused on the characteristics which stimulate the decision making behavior but is not concerned about what makes a decision good or bad. This study aimed to compare the differences in decision making abilities among introverts and extroverts and to analyze which characteristics are favorable for decision making.

**Methods:** A cross sectional study conducted among a sample of 370 participants by nonprobability convenience sampling from Karachi, Pakistan. Questionnaire with close ended and open ended questions had two sections: 1) Personality Analysis; 2) Decision Making characteristics. Eysenck Personality Questionnaire (EPQ) which is the most widely used psychological instrument for measuring the extraversion-introversion with 5-point Likert scale was utilized. The second section regarding decision making included twenty-four open ended and close ended (with a 5-point Likert scale) statements describing how individuals make decisions. The data from the questionnaire was cleaned, coded and entered in Excel (Microsoft, Redmond, WA, USA), exported to SPSS version 21 for windows (SPSS Inc, Chicago, Illinois, USA), for analysis. Descriptive and inferential statistics were used to analyze the data.

**Results:** Exact half (50%) of the extroverts go for snap decisions and quick decisions. Nine out of ten extroverts double-check their information sources before making decisions but more than half (64%) of them hold off important decisions as thinking makes them uneasy. Almost three fourth (68%) of extroverts need someone to steer them in the right direction for decisions. More than three fourth (79%) of introverts rely on their intuition, inner feelings and reactions. More than one third (40%) of introverts do not go for impulsive decisions. One third (33%) introverts do not need the assistance of other people while making important decisions.

**Conclusions:** The introverts are better at decision making than extroverts. The introverts rely on their intuition and inner feelings. Majority of them primarily counting on themselves, do not stretch for impulsive decisions while on the other hand extroverts usually go for snap decisions, quick decisions and decide what feels natural at the moment. They prefer to postpone whenever possible as thinking makes extroverts uneasy. Even though extroverts have a good quality of double-checking their information before making decisions but they need someone to steer them in the right direction when they face important decisions. The findings of the present study can-not be generalized due to the limited sample and volunteer bias. Future research is needed for the confirmation of this dimension of personality type and also to find out whether the decisions made by the introverts are good or bad which was beyond the scope of this study.

**Keywords:** Decision making, Extroversion, Introversion

## INTRODUCTION

Decision is defined as a choice that you make about something after thinking about several possibilities.<sup>1</sup> Human decisions making and judgment is readily observable in reality. Among many other factors like thinking abilities, leadership qualities etc., introversion and extroversion also influences the decisions of a person. Both types of persons think in different ways and have different approach towards various aspects of life. According to Castro, introverts and extroverts not only have differences in opinions, but their brains also operate in different ways.<sup>2</sup> This is the reason that their approach towards dealing the same matter differs drastically.

The research of castro has highlighted scientific and general differences between introverts and extroverts. According to the study, extroversion is a phenomenon, in which the human brain needs constant stimulation and radiates energy in the form of intense emotions and feelings. Extroverts need a driving force to motivate them and like constant changes.

On the other hand, Castro defined introvert people as those who have inward energy towards thoughts and ideas. Their brain does not work in hyperactive state and they do not seek inspiration in people. Instead they find refuge in loneliness and learn from ideas and concepts. Moreover, introversion also makes a person inexpressive, so it is relatively difficult to understand an introvert person than an extrovert. However, Castro highlighted the fact that contrary to the normal perception that extroverts achieve more in life, most introverts decide by analyzing every aspect in detail and therefore most of their decisions are reliable.

Cooper highlighted the fact that brains of introverts process thoughts faster than brains of extroverts.<sup>3</sup> This is because introversion trains the human brain to think constantly. Unlike an introvert, an extrovert thinks in multiple directions at the same time. This is because in extroversion, the brain immediately expresses the processed result in the form of opinion or emotion. While an introvert, analyzes all the aspects of everything before concluding anything.

According to Mitchellette, introverts and extroverts differ drastically in a number of aspects.<sup>4</sup> Mitchellette conducted an in-depth analysis of introversion and extraversion and concluded that extroverts have better communication and interaction skills than introverts. Extroverts prove to be better public speakers than introverts. However, this does not mean that introverts lack confidence or they cannot face people. They don't communicate much with people, but their advice has substance. The extroverts have good convincing abilities, but its introverts whose decisions have insight and are reliable.

According to Brown, the recent research on the brain of introverts and extroverts revealed the fact that introverts are better at decision making than extroverts.<sup>5</sup> Although extroverts are always considered good leaders due to their interaction and communication skills, when it comes to making the right decision, introverts have better abilities than extroverts. This is because Introverts analyze every aspect of a situation in detail and view a situation from different angles. The processing unit of introverts brains operates faster than extroverts brain, thus allowing them to take timely decisions. Introverts don't rely on people for making decisions, which means that they have more self-confidence than extroverts. The Personality trait that Influence Decision Making is usually missing from research of decision making. This study aimed to compare the differences in decision making abilities among introverts and extroverts and to analyze which characteristics are favorable for decision making. This study is not concerned about how good or bad decisions are made but only focusing on the characteristics which stimulate the decision making behavior.

## METHODS

**Study participants:** Participants were chosen by nonprobability convenience sampling. Participation into the study was solely on a voluntary basis and whoever volunteered was reassured that all information obtained will be kept confidential and secure.

Sample size is 370 randomly selected from Karachi, Pakistan. The ages of the sample range from 18 to 45 years.

**Research instrument:** was a questionnaire included close ended and open ended questions in it.

Broadly, the questionnaire had two sections:

- Personality Analysis
- Decision Making characteristics

Data collection for section one was accomplished by using Eysenck Personality Questionnaire (EPQ) which is the most widely used psychological instrument for measuring the extraversion-introversion. Hans Eysenck described extraversion-introversion as the degree to which a person is outgoing and interactive with other people. These behavioral differences are presumed to be the result of underlying differences in brain physiology.<sup>16</sup>

It consisted of 10 items that measure over the previous month with a 5-point Likert scale ranging from inaccurate (=1), moderately inaccurate (=2), Neither Inaccurate nor accurate (=3), moderately accurate (= 4), and very accurate (= 5). The EPQ has a possible range of scores from 10 to 50.

The second section of the Research instrument (questionnaire) included twenty-four open ended and close ended statements describing how individuals make decisions. For close ended questions a 5-point Likert scale ranging from strongly disagree (=1), disagree (=2), neutral (neither agree nor disagree) (=3), agree (=4) and strongly agree (= 5) was utilized.

Participants answered the questionnaire in direct supervision of the author. Test-retest technique was adopted to check the reliability and validity of the questionnaire.

**Data analysis**

The data from the questionnaire was cleaned, coded and entered in Excel (Microsoft, Redmond, WA, USA), exported to SPSS version 21 for windows (SPSS Inc, Chicago, Illinois, USA), for analysis. Descriptive and inferential statistics were used to analyze the data.

**Ethical considerations**

After briefing the study purpose, an informed consent was obtained from all of the participants without coercion. Confidentiality and anonymity of the participants, and protection of data gathered was ensured.

**RESULTS**

In total, 370 participants provided data that contributed to this study. The characteristics of the respondents are summarized in Table 1. A minor modification of the study questionnaire that did not deviate much from the original Eysenck Personality Questionnaire (EPQ) was found expedient for the main study and 140 out of 370 were extreme introverts, 200 were extreme extroverts while 10 were found to be moderate introverts and 20 were moderate extroverts. Total number of introverts was 150 while 220 were extroverts.

The majority was between 21 and 45 years old. Fifty-four percent were male, just over one fourth were single, and 73% were married. Half of the participants were educated beyond a master’s level.

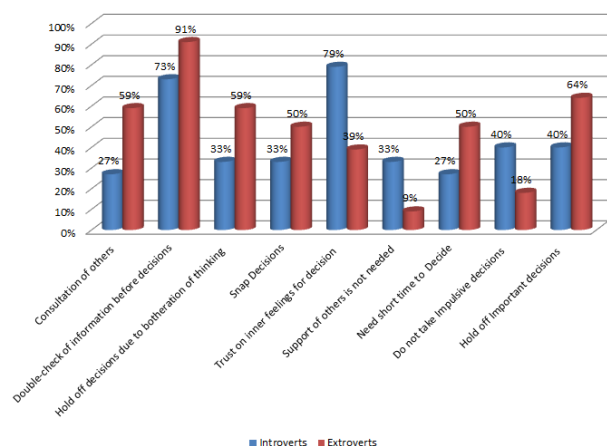
The characteristics of decision making process were identified through closed ended and open ended questions from the respondents. The responses were organized under themes included the personal attributes, different aspects and facets of decisions. The detailed are as follows:

Personal attributes of a significant number of participants included relying on their intuitions, instincts, inner feelings and reactions. The process of decision making requires careful thought in a logical and systematic way for them. Consideration of various options for specified goal and double-check information sources to be sure for the right facts before making decisions. Generally they

make decisions that feel right to them. Some of them prefer to postpone whenever possible and even put off making important decisions. The reason they mentioned was thinking makes them uneasy. Therefore they avoid making important decisions until the pressure is on and decide on the spur of the moment.

**Table 1: Demographic characteristics of the participants (n=370).**

Variable	Category	n=370	%
Gender	Male	200	54
	Female	170	46
Age (years)	15-20	55	15
	21-45	260	70
	> 45	55	15
Marital Status	Married	270	73
	Unmarried	100	27
Education level	Intermediate	55	15
	Graduate	130	35
	Post-Graduate	185	50
Religion	Muslims	370	100
	Christian	0	0
	Others	0	0



**Figure 1: Difference of personality characteristics for decision making.**

Other aspects and facets of decisions making among a considerable number included impulsive decisions and decide what feels natural at the moment. A very interesting phenomenon noticed from the current study was ‘snap decisions’, which is different from last minute or quick decisions because it is taken unexpectedly on the spur of the moment. For important decisions, consultation, assistance and advice of other people was preferred by some of them. A good number of participants needed someone to steer them in the right direction when they faced important decisions. They were

of the opinion that support of others makes decision easier for them.

The difference in a number of identified traits remained insignificant among extroverts and introverts. However, Chart 1 reveals characteristics, a very big proportion of extroverts of the sample outnumbered the introverts including snap decisions 110 (50%), quick decisions 110 (50%) and 140 (64%) decide what feels natural at the moment. Almost all of them 200 (91%) double-check information sources before making decisions and prefer to postpone whenever possible and even 140 (64%) put off making important decisions as thinking makes 130 (59%) extroverts uneasy. Consultation by 130 (59%) and support of other people was preferred by 190 (86%) of them. A good number 150 (68%) of extroverts needed someone to steer them in the right direction when they faced important decisions.

More than three fourth 110 (79%) of introverts rely on their intuition, inner feelings and reactions. More than one third 60 (40%) of introverts do not go for impulsive decisions. One third 50 (33%) introverts do not need the assistance of other people while making important decisions.

## DISCUSSION

We use our decision making skills to solve problems by selecting one course of action from several possible alternatives. This study aimed to compare the differences in decision making abilities among introverts and extroverts and to analyze which characteristics are favorable for decision making. We are not concerned here about how good or bad a decision is but only looking for the characteristics which stimulate the decision making behavior.

A central distinction among different decision making strategies (theories/models) is the extent to which they make trades-offs among attributes.<sup>7</sup> The study findings shows that introverts have some personality attributes which favor decision making as compared to extroverts which are in agreement with Brown,<sup>5</sup> according to him the recent research on the brain of introverts and extroverts revealed the fact that introverts are better at decision making than extroverts. Although extroverts are always considered good leaders due to their interaction and communication skills, when it comes to making the right decision, introverts have better abilities than extroverts. This is because Introverts analyze every aspect of a situation in detail and view a situation from different angles. The processing unit of introverts' brains operates faster than extroverts' brain, thus allowing them to take timely decisions. Introverts don't rely on people for making decisions, which means that they have more self-confidence than extroverts.<sup>5</sup>

The current study also supports the aspect discussed by Mitchellette<sup>4</sup> in his book that Introverts go for quality,

while extroverts prefer quantity. According to the findings of this study introverts rely on their intuition, instincts, inner feelings and reactions. Intuition can greatly enhance the effectiveness of your decision making, especially when it complements rational analysis. Get a better idea of where intuition fits best and how to use it properly. They take time and do not go for quick impulsive decisions. Castro defined introvert people as those who have inward energy towards thoughts and ideas. Most introverts decide by analyzing every aspect in detail and therefore most of their decisions are reliable.<sup>2,6,12</sup>

Avoiding decisions often seems easier. Yet, making your own decisions and accepting the consequence is the only way to stay in control of your time, your success, and your life. According to findings of current study extroverts prefer to postpone whenever possible and even put off making important decisions in order to avoid the botheration of thinking. In the '60s, psychologist Hans Eysenck<sup>9</sup> proposed that the difference between introverts and extroverts was that they simply had different levels of arousal meaning the extent to which our minds and bodies are alert and responsive to stimulation. Hans's theory was that extroverts have a lower basic rate of arousal. This means that extroverts need to work harder to arouse their minds and bodies to the same 'normal' state that introverts might reach quite easily.<sup>9-11,13-18</sup>

## CONCLUSION

The introverts are better at decision making as compared to extroverts. The introverts rely on their intuition, inner feelings and reactions. Majority of them basically counting on themselves, do not go for impulsive decisions while on the other hand extroverts usually go for snap decisions, quick decisions and decide what feels natural at the moment. They prefer to postpone as thinking makes extroverts uneasy. Even though extroverts have a good quality of double-checking their information before making decisions but they need someone to steer them in the right direction when they face important decisions. The findings of the present study cannot be generalized due to the limited sample and volunteer bias. Future research is needed for the confirmation of this dimension of personality type and also to find out whether the decisions made by the introverts are good or bad which was beyond the scope of this study. Limitation of study is, participation in the study was voluntary so the data gathered for this study may not be generalized.

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