Personality traits and financial decisions: a study of youths in the Brazilian Army

Personalidade e decisão financeira: um estudo com jovens do Exército Brasileiro

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Abstract

This study analyzes the relationships between personality traits, human values and socio-economic characteristics and intertemporal financial choices among young soldiers in the Brazilian army. Through the use of a survey, 218 young men in compulsory military service between 18 and 23 years of age from Cascavel, PR participated in our study. The results of our analyses suggest greater patience than impatience in their intertemporal financial choices, in a constant, non-hyperbolic discount model. Many young people did not present intertemporal discount models. The Pearson correlation coefficient revealed a significant association between personality traits of openness, conscientiousness and extroversion; basic human promotion, suprapersonal, existence and interaction values; and socioeconomic characteristics such as the mother's level of education, marital status, family income, growing up in a rural or urban environment and the size of the municipality of origin. These results suggest which emotional or contextual factors affect young people's intertemporal financial choices and how they can influence information processing and individual decision making through affective heuristics.

Resumo

Este estudo analisa a relação entre traços de personalidade, valores humanos e características socioeconômicas nas escolhas intertemporais financeiras de jovens do Exército Brasileiro. Por meio de levantamento, participaram 218 jovens do serviço militar obrigatório de Cascavel-PR. Os resultados sugerem que, na média, jovens adultos demonstram maior paciência à impaciência financeira em suas escolhas intertemporais financeiras. Muitos jovens não apresentaram modelos de desconto intertemporal. A correlação de Pearson revelou associação significativa entre traços de personalidade de abertura, conscienciosidade e extroversão; valores humanos básicos como de realização, suprapessoal, existencial e interacional; e características socioeconômicas como o grau de escolaridade da mãe, estado civil, renda familiar, ambiente de criação e tamanho do município de origem. Estes resultados sugerem que fatores emocionais ou contextuais afetam as escolhas intertemporais financeiras de jovens adultos e podem influenciar por heurísticas afetivas o processamento de informações e a tomada de decisão individual.

Pratical implications

In the financial behavior field, it is possible to suggest human personality traits and the socio-cultural context of individuals which affect young people's processing of information and financial decision making. These variables influence affective heuristics, which as a result, can generate behavioral biases. In this manner, decision making analysis models should consider psychological factors when analyzing economic man.

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1 INTRODUCTION

Managing money represents the command of the goods and services needed to promote an individual's self-interest in an economy based on free initiative. Each person has a different way of dealing with money and there is evidence that personality factors (Cadena & Keys, 2015; Xu, Beller, Roberts, & Brown, 2015; Wong & Carducci, 2016) and socio-economic characteristics (Coley & Burgess, 2003; Pompian & Longo, 2004; Kirby, Winston, & Santiesteban; Bakker, 2017) are related to financial choices.

Behavioral finance has studied, since Tversky and Kahneman (1974, 1979) and Kahneman (2002), behavioral biases which affect the choices made by economic man, under the premise of limited rationality. Studies in this area concentrate on cognitive characteristics which affect the processing of information. However, they also assume that affective heuristics and emotions can influence this context.

The answers to some questions still have not been resolved or there is a lack of consensus in this field in respect to: which personality factors affect an individual's judgement in a decision-making process? How do emotions and affective heuristics influence the processing of information? How are socio-economic and cultural characteristics and individual values related in this context? There has been a constant effort made by various authors who seek to understand these and other issues to further their research in this area (Norvilitis, Merwin, Osberg, Roehling, Young, & Kamas, 2006; Brown & Taylor, 2014; Potrich, Vieira, Campara, & Santos, 2015; Campara, Vieira, & Ceretta, 2016; Pacheco, Campara, & Costa Jr., 2018).

Brown and Taylor (2014), for example, state that personality traits can interfere with the dynamic of individual economic decisions, which can have implications for family indebtedness. Pacheco *et al.* (2018) complement this by suggesting that there are psychological profiles which are more or less susceptible to financial problems.

This situation can be more acute in youths who are beginning their adult lives, are not financially literate, and need to be responsible in terms of their finances. Norvilitis *et al.* (2006) report that youths in debt have a greater level of stress and financial ill health and this can harm their future.

Based on this logic, this study intends to identify which personality traits in young people are related to intertemporal financial choices, because these characteristics affect their individual perceptions, judgements and behavior in relation to consumption and investment decisions.

This study differs from previous works in that it examines young males in compulsory military service who are on average 19 years of age. This group of individuals is just beginning adult life and most of them do not have experience with finances and do not have the influence of higher education. However, these youths incorporate the army's institutional values which may influence their intertemporal financial choices.

In this way, we ask: what is the degree of association between personality traits, human values, and socio-economic characteristics in intertemporal financial choices among young soldiers?

To analyze intertemporal choices, we use Sutter, Kocher, Glätzle-Rützler and Trautmann's hyperbolic discount model (2013), which measures the level of financial patience or impatience in financial decisions, considering the variables: money, time and interest.

The personality analysis involves the six dimensions of the HEXACO model conceived of by Ashton and Lee (2007): honesty-humility, openness, conscientiousness, agreeableness, extroversion and stability. We have added Gouveia's basic human values model (2003) to this, which analyzes human excitement, promotion, suprapersonal, existence, interactional and normative values. These relationships still have not been studied within Brazil. In addition, we consider in our analyses socio-economic characteristics as factors that influence financial decisions, such as the extent of an individual's education, and the education of that person's parents, marital state, ability to save, average monthly spending, family income, environment and home town.

The results demonstrate a negative association between the personality traits of conscientiousness and extroversion and the intertemporal choices of the studied youths. This suggests that characteristics such as self-control, organization and expressiveness can affect financial choices in this phase of adult life. Human existence and interaction values are positively associated with financial decisions. It should also be noted that marital status and income also affect intertemporal decisions. Other results will be presented over the length of this work.

It is believed that the understanding of the factors that shape financial decisions of youths in this phase of adult life may be determinant in regard to their future, mainly in terms of the management of the family budget. The results of this study contribute by providing new empirical evidence in the field of financial behavior and are of interest to formulators of public policies in the field of financial education for youths, which may be administered during primary, secondary, technical, military or college education.

2 A REVIEW OF THE LITERATURE

2.1 Intertemporal financial choices, personality traits and human values

Intertemporal choices are individual preferences which choose among the costs and benefits of being obtained at distinct points in time (Pimentel, Gonçalves, Scholten, Carvalho, & Correia, 2012). Consumption, investment, savings or planning for retirement are some examples which indicate the importance of models of intertemporal choice decisions in the field of behavioral finance (Muramatsu & Fonseca, 2009).

The development of studies in this area have gained prominence over the past decades after the critiques of Expected Utility Theory made by Tversky of Kahneman (1974, 1979) and the creation of Prospect Theory. Further work in this field has revealed that behavioral biases and cognitive heuristics affect the processing of information and human decision making. However, Kahneman (2002) affirms that other factors such as affective heuristics also influence human judgement and should be considered in models of individual decision making.

In this way, the study of personality, which is the affective or emotional field of man, can help further studies regarding the factors that influence human behavior through decision making.

According to Roberts (2009) personality traits are types of patterns in the relative duration of thoughts, behaviors and sentiments that are revealed through the tendency that the individual has in responding to given situations, and these are fundamental to the essence of a person's personality.

Personality traits can be influenced by behavioral characteristics, attitudes, motivations or affection, but they are predisposed to remain stable in terms of a person's behavior and thought. In terms of the characteristics relevant to personality, these have been good predictors of human behavior in terms of trading current advantages for detriments in terms of future gains (De Faveri, 2017).

Personality factors are related to financial decisions to the extent to which they influence the processing of information and judgement in making decisions. For example, people with levels of financial impatience present personality traits associated with impulsiveness, a lack of self-control, and neuroses, among other factors which end up affecting their decision making (Cadena & Keys, 2015).

Borghans, Duckworth, Heckman and Ter Weel (2008) evaluate systems which deal with measurements of personality traits, associating them with the preference parameters most often used by economists. They conclude that measurements of cognitive capacity are influenced by personality traits, and that it is possible to conceptualize and measure these traits, which are also predictors of economic and social results.

Shamosh and Gray (2008) demonstrate in their research that people with a higher level of intelligence have a lower propensity to desire anticipated rewards, thus demonstrating a lower index of impatience in their financial dealings. Finally, Xu *et al.* (2015) find evidence that more conscientious young adults, who know how to deal with impulsiveness, have a lower chance of suffering financial difficulties, while those who are more neurotic are more likely to suffer with their finances. In this manner, these studies suggest that there is a relationship between personality traits and human behavior in terms of finances.

Norvilitis *et al.* (2006) study the high level of credit card indebtedness among American college students. Factors such as financial knowledge, age, number of cards, delays in receiving salaries and attitudes in relation to using credit cards are related to this debt. Students who reported greater debts reported feeling greater stress and less financial well-being. The authors frame the factors which place individuals at risk of developing credit card problems as: financial knowledge and attitude, personality factors and socio-economic characteristics.

Sadi, Asl, Rostami, Gholipour and Gholipour (2011) express the relationship between personality and financial decisions with a sample of 200 investment fund specialists in India. The authors find a strong relationship between the personality and the errors of perception (behavioral biases) of the respondents, indicating that personality traits influence individual decision making.

Brown and Taylor (2014) conclude that personality traits of openness and extroversion have a significant influence on financial applications as well as family debt. The trait of extroversion was revealed to have an adverse effect on financial assets. Another relevant discovery was the verification of a strong degree of interference by personality traits on the dynamics of individual financial decision making.

In Brazil, Pacheco *et al.* (2018), demonstrate that the predominance of the personality traits of conscientiousness, and openness to experiences in public servants in a university in the South of the country indicate elevated financial knowledge and a low amount of indebtedness. This suggests that this profile is less

susceptible to financial problems among the studied public servants.

Finally, human values are ethical fundamentals which influence human conduct and are important predictors of attitudes, sentiments and behavior, and may be reflected in cultural, social and economic attributes (Queiroga, Gouveia, Penha, Pessoa, & Meira, 2006).

According to Roccas and Sagiv (2010) in considering the value system, basic human values can be divided into three different levels of orientation: personal (excitement and promotion), central (existence and suprapersonal) and social values (normative and interactional). Gouveia (2003) developed an instrument which evaluates basic human values in Brazil, denominated the Basic Value Survey.

The personal values of excitement and promotion can influence rationality in financial decision making, leading individuals to make decisions based on subjective stimuli or desires, which are considered non-optimal financial decisions. Central values, such as existence and suprapersonal values, can lead a rational economic man to prefer intertemporal choices which maximize his or her individual wealth (Gouveia, 2003). Thus, it is believed that there exists some level of association between basic human values and the intertemporal financial choices of economic agents.

To provide continuity for research in this area, we intend to understand the relationship between personality traits and intertemporal financial choices in youths initiating their adult life. To complement our analysis of the dimensions of personality, we have sought to include the human values and socio-economic characteristics of these individuals.

2.2 Socio-economic characteristics and financial decisions

The socio-economic characteristics of individuals are also related to intertemporal financial choices. Bakker (2017) states that people with lower income are more concerned with their immediate needs than wealthier individuals, and therefore discount the future more, prioritizing short-term financial actions.

Pompian and Longo (2004), in studying investors, find that an individual's personality traits and sex produce different results in terms of investment biases. Complementing these studies, Kirby *et al.* (2005) demonstrate that financial impatience is related to the individual's level of education.

In Brazil, Potrich *et al.* (2015) investigate the relationship between level of financial education and socio-economic and demographic characteristics of residents of the state of Rio Grande do Sul. The results indicate higher levels of financial education among single men who do not have dependents, and students with more education, and whose parents have more education, with greater personal and family income.

Campara *et al.* (2018) study the relationship between socio-economic characteristics and the individual's attitude towards indebtedness in Rio Grande do Sul. With a sample consisting of mature adults, with an average age of 43, the authors allege that the interviewees do not have a tendency to accumulate debt, but tend to have a low opinion of indebtedness, do not tolerate risk, are not compulsive buyers and are characterized by good financial behavior. According to the findings, men should concern themselves with the most effective manner to maintain a good financial attitude, avoiding compulsive purchases and maintaining appropriate financial behavior to ensure their family's survival.

In this manner, we can see that, in general, socio-economic characteristics together with personality traits influence the intertemporal financial choices of individuals and influence their behavior in relation to money. Thus, it will be promising to verify empirically which factors induce this behavior in young Brazilian adults.

3 METHODOLOGICAL PROCEDURES

This study may be classified as quantitative, exploratory research. The data was collected in the beginning of 2019. The target population consisted of youths in compulsory military service during the year 2018/2019 in the city of Cascavel, in the state of Paraná. The number of recruits serving during this period totaled 470 soldiers, out of a total of 10,500 youths of 18 and 19 living in the municipality, with approximately half being male, according to the latest IBGE census. These youths represent roughly 5% of the population of this age and sex within the municipality.

Of a total of 227 surveys answered, 9 had to be discarded because they were not properly filled in, leaving a total of 218 surveys. This number meets the needs of the statistical sample, considering 5% sample error and a 95% level of confidence in the data.

The developed survey consisted of four sections, designed to measure the level of financial impatience related to intertemporal choices, personality dimensions, human values and the socio-economic characteristics of the young soldiers.

The first section of the instrument consisted of a test to verify impatience or patience in intertemporal financial choices using the hyperbolic discount model of Sutter *et al.* (2013), translated and adapted by De Faveri (2017).

In this test the participants chose between given rewards at two different times: one was an immediate reward and the other a larger reward in the future. In total there were 8 lists of choices which contained 10 items each, in which anticipated rewards remained unaltered over time and the future reward was monotonously increased over time.

To analyze the results of financial impatience in the sample, we calculated the future equivalent of each one of the lists and compared them one by one. If the average value of the future equivalent of List 1 was greater than that of List 2, we considered that the individual discounted time hyperbolically, because he acted in an impatient manner in the short term and in a patient manner in the long term. If this were not true, he presented a constant discount bias. To complement the analysis, we performed a t test of the measures to verify whether the results were statistically significant.

The second section dealt with the personality verification of the Brief HEXACO Inventory, developed by De Vries (2013), and translated by De Faveri (2017). The test is composed of 24 statements distributed on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The third section involved the Basic Value Survey developed by Gouveia (2003). This test has 18 statements and uses a 7-point Likert scale. For this study, the scale was adapted to a 5-point scale.

The fourth section of the instrument investigated the socio-economic characteristics of the individuals. The variables analyzed were the individual's education and that of his parents, marital status, financial control, family income, type of environment (rural or urban) and the size of this person's hometown. The research instrument is presented in Figure 1.

To analyze the degree of association and its direction in relation to intertemporal financial choices, personality traits, human values and socio-economic characteristics, we opted for Pearson correlation analysis.

For the correlation analysis, we transformed the ordinary socio-economic variables into dummy variables, so that: if the mother had more education than the son, the value would be 1, if the father had more education than the son, the value would be 1, otherwise it would be 0; If the youth was in a stable union or was married, the value would be 1, if not it would be 0; If he spent more than 2/3 of his salary on non-essential spending, the value would be 1, otherwise it would be 0; if family income was up to twice the minimum wage, the value would be 1, otherwise it would be 0. If the youth was raised in a rural area, the value would be 1, otherwise it would be 0; if the youth's hometown had up to 100,000 inhabitants, the value would be 1, otherwise it would be 0.
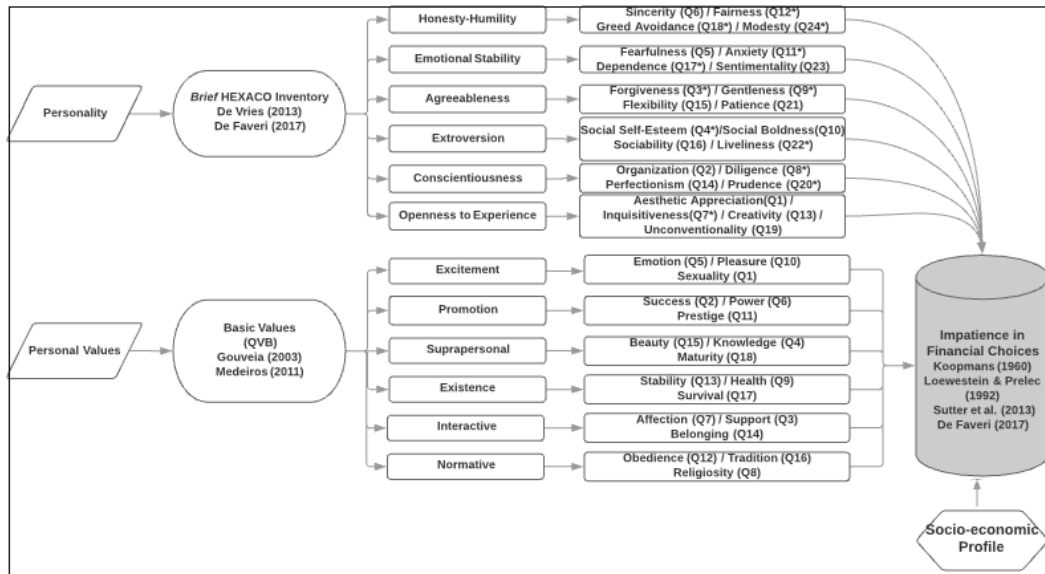
Figure 1. Analysis dimensions of the data collection research instrument
Source: Adapted by the authors from Gouveia (2003), Sutter *et al.* (2013) and De Faveri (2017).

4 DESCRIPTION AND ANALYSIS OF THE RESULTS

In general, the young soldiers in the sample were an average of 19 years old, single, had not completed high school, and their families did not have much education. Around 38% of the youths affirmed that they never managed to save money and 43% managed to save up to R$300. Also, 74% spent more than 40% of their income on leisure and assets.

In relation to average family income, 27% of the youths earned up to twice the minimum wage, and 37% earned between R$2,001 and R$4,000 per month. In terms of their upbringing, 65% of these youths were raised in an urban environment, and 35% were raised in a rural environment. Finally, 47% stated that their hometown was relatively small, and 53% said they came from medium to large towns.

Table 1 presents the descriptive statistics of the personality traits and human values dimension investigated in the sample. One may note that the personality traits of agreeableness and conscientiousness predominate, with averages greater than the median. However, no value stands out. In terms of basic human values, the youths agreed more with the existence, interactive and normative values.

Table 1. Descriptive statistics for personality traits and human values in the sample

Description		Average	Median	Mode
HEXACO Model	Honesty and Humility	14.4	15	
	Emotional Stability	16.5	17	
	Agreeableness	13.2	13	
	Extroversion	11.9	12	
	Conscientiousness	15.4	15	
	Openness	10.5	11	
Basic Values Survey	Excitement		4.0	4
	Promotion		4.0	4
	Suprapersonal		4.0	3.6
	Existence		4.3	4.3
	Interactive		4.0	4.3
	Normative		4.3	4.3

Source: research data.

Table 2 presents the intertemporal choices of these young soldiers in terms of financial decisions. First, it was necessary to segregate the youths whose list responses corresponded to the constant discount, no discount, or hyperbolic discount models.

The first group made rational decisions in relation to money, interest and time. The second group did not make a distinction between the lists, with its results not considering the relationship between these variables. The third group presented a hyperbolic discount model, that is, these youths preferred to anticipate receiving money in the present compared to receiving money in the future, even if it was worth it financially.

We classified the first group as financially patient and the third group as financially impatient. In the comparison between lists 1 and 2, 12% of the youths presented the hyperbolic discount model in their decisions; between lists 3 and 4, the number was 20%; between lists 5 and 6, it was 10%; and between lists 7 and 8, it was 16%. It may be observed from this data that the longer the wait between financial decisions, the more these youths wished to anticipate their choices, presenting some degree of impatience. However, in comparing the lists by their averages, we find that the model that predominates in the averages of the analyzed groups is the constant discount model.

Table 2. Hyperbolic discount model for intertemporal financial choices

List	Constant Discount	No Discount	Hyperbolic Discount	Frequency of Hyperbolic Discount
FE1 > FE2	135	57	26	12%
FE3 > FE4	33	142	43	20%
FE5 > FE6	130	67	21	10%
FE7 > FE8	75	108	35	16%

List	Sample	Average	Comparison	t Test	Conclusion
FE1	161	4,84	FE1 < FE2	(9.90)*	Constant discount
FE2		6,53			
FE3	76	7,55	FE3 > FE4	1.6	Hyperbolic discount
FE4		7,13			
FE5	151	3,04	FE5 < FE6	(9.93)*	Constant discount
FE6		4,59			
FE7	110	6,37	FE7 < FE8	(2.14)*	Constant discount
FE8		6,80			

Source: research data.

Note: *Significant at a 5% level

Table 3 presents the Pearson correlation coefficients between the analyzed constructs. In the personality traits category, the openness, conscientiousness and extroversion dimensions presented a significant negative association with levels of financial patience. Thus, the greater the level of the future equivalent in the applied hyperbolic discount model, the lower the values in the dimensions of these personality traits.

In the human values category, we may observe a significant negative relationship between the level of financial patience in intertemporal choices and the excitement, promotion and suprapersonal dimensions. It was also observed that the existence and suprapersonal dimensions presented a significant positive association with the future equivalents.

Among the socio-economic variables, we noted a significant negative association between financial patience and the mother's education, the soldier's marital status, savings, and family income. On the contrary, we found that the size of the hometown had a significant positive association with levels of financial patience.

Table 3. Correlation between personality traits and financial impatience

Models	Variables	fe1	fe2	fe3	fe4	fe5	fe6	fe7	fe8
HEXACO Personality Model	Honesty-Humility	0.10	0.07	0.01	0.03	0.09	0.09	0.03	0.05
	Openness	-0.06	-0.14**	-0.17*	-0.14**	-0.05	0.02	-0.05	-0.05
	Conscientiousness	-0.18*	-0.24*	-0.08	0.00	-0.06	-0.01	-0.18*	-0.13
	Agreeableness	-0.09	0.03	0.03	0.11	-0.08	-0.02	0.04	0.05
	Extroversion	-0.06	-0.15**	-0.11***	-0.08	-0.12***	-0.06	-0.18*	-0.07
	Stability	-0.24	0.03	0.02	0.04	0.01	-0.02	0.04	0.06
Basic Human Values Model	Excitement	-0.05	-0.06	-0.12	-0.09	-0.15**	-0.01	-0.02	-0.01
	Promotion	-0.13***	-0.05	-0.16**	-0.11***	-0.11	-0.10	-0.11	-0.09
	Suprapersonal	-0.10	-0.16**	-0.11***	0.08	-0.09	-0.06	-0.11***	-0.09
	Existence	0.12***	0.08	0.12***	0.22*	-0.03	-0.02	0.10	0.03
	Interactive	-0.03	-0.04	0.00	0.12***	-0.02	0.00	0.04	0.07
	Normative	0.04	0.07	-0.07	0.03	-0.07	0.03	0.04	0.06
Socio-economic Characteristics	Mother's education	-0.05	-0.06	0.10	-0.04	-0.01	-0.13**	0.00	-0.04
	Father's education	0.06	0.07	0.07	-0.02	0.06	-0.04	0.07	-0.03
	Marital status	-0.15**	-0.06	-0.04	-0.17*	-0.03	0.02	-0.03	-0.07
	Savings	-0.10	-0.09	-0.10	-0.06	0.05	-0.12	-0.16*	-0.11
	Monthly spending	0.09	-0.03	0.04	0.08	-0.01	0.06	0.04	0.06
	Income	-0.14**	-0.04	0.00	0.01	0.09	0.04	-0.06	-0.08
	Rural or urban environment	0.03	0.00	0.15**	0.15**	0.04	0.00	0.03	0.03
	Size of hometown	0.11	0.10	0.06	0.08	0.06	0.06	0.16**	0.09

Fonte: research data.

Note: P-value significant at: 1%*, 5%** and 10%***.

5 DISCUSSION OF THE RESULTS

In analyzing the study sample, the relationship between financial impatience and the suprapersonal values can be related to experiences and challenges that these young soldiers need to overcome in life, to meet their needs in terms of growth.

There is a significant inverse relationship between the level of financial impatience and extroversion. Extroversion is a personality characteristic of people who are confident in dealing with groups of people, enjoying meetings and social interactions, and have positive feelings in terms of experience, enthusiasm and energy (De Vries, 2013).

Evaluating this perspective for the study sample, we may observe that the young soldiers who are more extroverted tend to be more impatient and prefer intertemporal financial choices which favor immediate gain to the detriment of long-term gain. This analysis is sustained by the low or non-existent level of savings and the high average monthly spending on leisure or loans that these individuals possess. However, according to Weller and Tikir (2011), it is possible that controversial results may occur under this hypothesis.

There is a significant inverse relationship between the level of financial impatience and conscientiousness. A high degree of conscientiousness is related to organization and discipline. This value is broadly disseminated by the structure of the Brazilian army. This result is in line with Weller and Tikir (2011) and Xu *et al.* (2015).

Weller and Tikir (2011) state that conscientious individuals are generally more careful, and are more likely to maintain their focus on a task, and may be more likely to consider the risks and benefits of certain activities which in the final analysis, may lead them to have less involvement with unnecessary risks. The authors observe significant negative correlations between extroversion and taking risks and the perceived benefits for the domains of health, security and ethics in their sample.

It should be emphasized that Xu *et al.* (2015) also investigated whether personality traits explain a group of financial difficulty indicators. Among their findings, the authors discovered that more conscientious young adults are less likely to suffer financial difficulties, while those who are more neurotic are more likely to.

There is a significant negative relationship between the level of financial impatience and the individual's ability to save. This result compared individuals who do not manage to save anything with those who are able to achieve moderate savings, with 38% of the interviewed youths declaring that they are not able to save anything. Loewenstein *et al.* (2003) affirm that individuals who present difficulties in retaining knowledge and understanding and imagining future situations do not consider long-term events to be important. As a result, they imply higher discount rates that affect their level of savings for retirement.

There is a significant positive relationship between the level of financial impatience and family income. In this analysis, it was verified that individuals with low income are more impatient financially. Bakker (2017) verifies in his study that individuals with relatively lower income are concerned with more immediate needs and for this reason discount the future more, prioritizing short-term financial actions.

There is also a significant positive relationship between the level of financial impatience and the size and urbanization of a municipality. Individuals who were raised in an urban area of a town with up to 100,000 inhabitants tend to be more impatient financially.

Finally, factors having to do with personality, basic values and socio-economic characteristics such as childhood, family structure, and health and education, among others, are the backdrop for generating this decision-making behavior (Xu *et al.*, 2015). Thus, this study has succeeded in obtaining its objective by presenting the relationship between some human personality traits and levels of financial impatience.

6 CONCLUSIONS

The objective of this study is to analyze the relationships between personality traits, human values and socio-economic characteristics with impatience in intertemporal financial choices made by young soldiers in the Brazilian army.

The results suggest that individuals use constant discount models instead of hyperbolic discount models. Our correlation analysis suggests the association between several dimensions of personality, human values and socio-economic characteristics and individual intertemporal choices.

Intertemporal choices are a central determinant in terms of economic decisions, which range from education to savings and investment. However, beyond this, they shape agent behavior, which can help the education of soldiers within the institution of the Brazilian army – far beyond their ostensible goal. Recruits with less financial impatience will tend to become privates, corporals, sergeants or officials in the future who will use strategic thinking to evaluate the relative costs and benefits of given alternatives and tend to be more organized, engaged in more planning, and be patient and less impetuous.

The personality trait models used in this study may be cited as a limitation. In future studies we would recommend adopting other instruments to measure financial impatience, considering financial and non-financial rewards to analyze the biases related to hyperbolic discounts with products offered by financial institutions. Finally, we hope that this study stimulates new research regarding financial behavior.

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