I Do Not Need Your Help: The Relationship Between the Implicit Need for Autonomy and Help Acceptance When in Debt

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Abstract

May people are dealing with debts and this has negative consequences. Therefore, it is important that they seek out for help. However, not everyone seeks out for help. Research suggest that autonomy could be of influence. This study investigated the relationship between the need for autonomy and the level of help acceptance, of which was expected that a higher implicit need for autonomy was related to a lower level of help acceptance when experiencing debts. The PSE was used to measure the implicit need for autonomy in a sample of 91 (recently graduated) students. The level of help acceptance was measured with a self-developed questionnaire. The correlation analysis showed that autonomy and help acceptance were positively associated (r (91) =.180, p = .044). Future research should focus on investigating the relationship between autonomy and help acceptance in the specific debt domain. In general, more theoretical research is needed to understand the factors influencing the level of help acceptance. This study provides evidence that a higher need for autonomy is associated with a higher level of help acceptance.

Keywords: autonomy, financial scarcity, debts, PSE, Picture-story exercise

Layman's Abstract

May people are dealing with debts and this has negative consequences. Therefore, it is important that they seek out for help. However, not everyone seeks out for help. Research suggest that autonomy could be of influence. Autonomy can be defined as either "a state of independence and self-determination in an individual, a group, or a society.". According to the self-determination theory is it hypothesized that individuals who are in debt suffer autonomy-losses and want to prevent further autonomy losses by not accepting help. This study investigated the relationship between the need for autonomy and the level of help acceptance, of which was expected that a higher implicit need for autonomy was related to a lower level of help acceptance when experiencing debts. The picture story exercise was used to measure the implicit

need for autonomy in a sample of 91 (recently graduated) students. The level of help acceptance was measured with a self-developed questionnaire. The correlation analysis showed that autonomy and help acceptance were positively associated (r (91) =.180, p = .044). Future research should focus on investigating the relationship between autonomy and help acceptance in the specific debt domain. In general, more theoretical research is needed to understand the factors influencing the level of help acceptance. This study provides evidence that a higher need for autonomy is associated with a higher level of help acceptance.

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Content

I Do Not Need Your Help

The Relationship Between the Implicit Need for Autonomy and Help Acceptance When in Debt

The Federal Reserve Bank of New York has reported an increase rising from 27 billion dollars to 15.85 trillion dollars of the total amount of household debt in America in the first quarter of 2022. This was a record amount of total amount of household debt in America. They further stated that less than 25% of the American households were debt free (Average American Debt, 2022). This is important since it indicates that a lot of people are experiencing financial scarcity, which in turn influences several health outcomes (e.g., higher perceived stress, depression, worse self-reported general health, higher diastolic blood pressure) (Sweet et al., 2013). People that are in financial difficulty can be supported by (professional) financial advice (e.g., pro bono financial planning, financial classes and seminars, budgeting, planning apps) (Haegele, 2023). The value of financial advice is shown in an article by Marsden et al. (2011) in which they state that people who met with a financial advisor were engaged in financial planning activities such as goal setting, calculation of retirement needs and retirement confidence. Moreover, in another article they showed that the use of a financial planner for savings and investing was associated with greater household financial assets (Elmerick et. al., 2002).

However, previous studies reported that people often decline offered help and advice or do not want to seek out for help (Carolan et al., 2017; Bredewold et al., 2020; Lawson et al., 2005). Several underlying mechanisms for not accepting help have been identified. For example, the article of Brooks et al. (2015) shows that the fear of appearing incompetent is a big barrier. In another review it was stated that stigma and embarrassment were the most prominent barriers to seek out for help (Gulliver et al., 2010). Other research suggest that not seeking help (while being in financial difficulty) is because people want to deny the situation for as long as possible

(Karlsson et al., 2009). They explain this according to the ostrich effect, which is a cognitive bias in which people often avoid negative information, including possibly useful information. Instead of dealing with the situation, they bury their heads in the sand like ostriches (*Why do we prefer to ignore negative information?*, z.d.). Another factor mentioned in article by Sharot (2011) was the optimism bias. This is a bias in which people have the tendency to overestimate the likelihood of positive events and underestimate the likelihood of negative events (Nikolopoulou, 2023). With regards to financial difficulty they expect to work them out in the near future (Sharot, 2011). Furthermore, it was reported that the need for autonomy could also be of influence for (not) seeking for or accepting help.

Autonomy can be defined as either "a state of independence and self-determination in an individual, a group, or a society." or as defined in the self-determination theory "the experience of acting from choice, rather than feeling pressured to act." (*Apa Dictionary of Psychology*, z.d.). According to a study of Wilson & Deane (2012) the need for autonomy was a significant obstacle for looking for specialized mental health care; increased intentions to seek future professional healthcare were linked to a reduced need for autonomy. Furthermore, Butler et al. (1998) reported that participants who were autonomous orientated were less likely to ask for help (than other orientations). Following the self-determination theory, autonomy is one the three basic psychological needs (i.e., autonomy, competence and relatedness) (Deci & Ryan, 1987). Individuals are motivated to satisfy those psychological needs. People thus have the internal drive to be autonomous. Therefore, it is often that people suffer autonomy losses when they are in debts, because being in debt limits one free choices. People are internally motivated to satisfy those psychological needs, therefore it is possible that they are even less likely to accept help to prevent further autonomy losses. According to the definition of autonomy (i.e., a state of independence and self-determination in an individual, a group, or a society) it can be stated that more dependence indicates less autonomy. To the best of our knowledge the

relationship between the level of help acceptance and the need for autonomy is not yet investigated when it comes to being in financial debt.

Theoretical background

The importance of autonomy is described according to several studies and theories (Wilson & Deane, 2012; Butler et. al., 1998; Deci & Ryan, 1987). In the study of Wilson and Deane (2012) the potentially stronger relationship between attitudes about autonomy and intentions to seek professional medical help was investigated as compared to the relationship between other belief-based obstacles and intentions to seek professional help.

They used a shorter version of the "Barriers to Adolescents Seeking Help scale" to analyze belief-based obstacles (BASH-B; Wilson, Deane, Ciarrochi, et al., 2005). Also a shorter version of the "General Help-Seeking Questionnaire" was used to assess the likelihood that someone will seek out professional medical help for a mental health issue (GHSQ; Wilson, Deane, Ciarrochi, et al., 2005). Respondents were asked if they had ever seen a mental health professional and if so how helpful that visit had been to assess the perceived quality of psychological care. They discovered that the need for autonomy was a significant obstacle to obtaining professional mental health care. Additionally, they discovered among those who had a reduced perceived need for autonomy and those who felt that earlier mental health care was useful that their intentions to seek professional health treatment in the future were much greater. This research illustrates the important role of autonomy in help-seeking behavior in general. Also, it suggests that the need for autonomy is negatively correlated with looking for help. Thus, a lower need for autonomy is linked to larger intentions to seek help.

Furthermore, Butler et al., (1998) studied the prediction that different orientations of help avoidance would predict styles of help-seeking. They used two studies to investigate this. In the

first study children were given a questionnaire in math class to measure reasons for help avoidance. The results were categorized in three sorts of help avoidance orientations: "an expedient orientation", an "autonomous orientation", and an "ability-focused orientation". These identifications of orientations were used for the second study.

In the second study, the children were given an experimental task which consisted of numerical series problems that they had to solve. During this, it was made clear to the children that they could ask for hints or directions to solve the numerical problems. Their help-seeking attitudes were measured with a self-developed questionnaire. The results of their study showed that children who were classified as autonomously orientated were more inclined to independently seek help.

They worked on the issue alone for longer periods of time, only sought assistance when they were unable to resolve it on their own, and rarely asked for directions in contrast to asking for hints. The children with different orientations were more likely to ask for help when they needed it and they asked for more directions instead of hints.

As previously described, the self-determination theory states that autonomy is one the three basic psychological needs and that individuals are motivated to satisfy those psychological needs (Deci & Ryan, 1987). Literature has shown that people that are dealing with financial scarcity experience a decreased sense of autonomy (e.g., Park et al., 2017), as financial problems cause a loss of opportunities and free choices (Underlid, 2012). To explain this further, when people are in debt they often have to choose between necessities and are thus limited in their own free choices and therefore might experience autonomy losses. Since people have the internal drive to be autonomous, it is a possibility that when people have a high need for autonomy that they are less likely to accept help when they are in debt to avoid further autonomy losses . It can be hypothesized that when people theoretically suffer from autonomy losses by being in debt, accepting help could increase autonomy losses further in a way that the

acceptance of help lowers feelings of independence (and thus lower feelings of being autonomous). They prevent themselves for more autonomy losses and are therefore less likely to accept help. This is a consequence of trying to restore the fundamental psychological need 'autonomy'. This also indicates that people who have a high need for autonomy are possibly less likely to accept help advice.

Current study

The purpose of this study is to examine the relationship between the need for autonomy and the level of help acceptance when people are in dept. Considering the previous research, in this study it is hypothesized that a higher implicit need for autonomy is related to a lowered level of acceptance of help when being in debt. This hypothesis is based on the literature that people with a low need for autonomy are less likely to seek out for help and therefore possibly are also less likely to accept help. Moreover, people are motivated to strive for autonomy as suggested by the self-determination theory. People who are in debt often already suffer autonomy-losses and possibly want to prevent further autonomy losses by not accepting help. This is because acceptance of help could lower feelings of independence and therefore feelings of autonomy. They want to restore their fundamental psychological need "autonomy" and are therefore less likely to accept help.

The present study will be of added value since it focusses on a specific population i.e. people being in debt. Investigating the relationship between autonomy and help acceptance, will benefit the understanding of why people do or do not seek help when they are in debt and what the influence of autonomy is on this relationship. Also, the measurement for implicit autonomy in the current study is modernized. As an consequence the measurement technique is improved and thereby is the validity of this measurement possibly increased (Wood & Airth, 2023). This is because participants can relate more to the modernized pictures and therefore the

measurement should be more accurate. If an association can be found between the need for autonomy and the level of help acceptance when being in debt, then this knowledge will be important for practical purposes such as how to provide people with help who indeed have a high or low need for autonomy (dependent of the trend of the association) and who are thus less likely to accept help.

The present study primarily focused on implicit autonomy instead of explicit autonomy, because measuring autonomy implicitly predicts spontaneous behavior (instead of conscious evaluated choices) and it is suggested to be a more stable and accurate way of measuring autonomy (Schüler et al., 2014). Additionally, literature suggests that financial scarcity impairs cognitive functioning, therefore an implicit measure would also be more reliable because conscious rational thinking is not necessary (Zhao & Tomm, 2018). The study of Gawronski and Houwer (2014) supports the benefit of measuring autonomy implicitly further in a way that they state that implicit measures are found to predict behavior over and above explicit measures, especially in people who live under stress and who's processing resources are depleted, which is often the case when individuals are in debt. Lastly, it is stated that the Picture Story Exercise (PSE) is the most commonly used tool to measure implicit motives such as implicit autonomy (Ramsay & Pang, 2013) and the PSE has been used in many studies (Schultheiss et al., 2008; Schönbrodt et al., 2020; Bernecker & Job, 2010). Therefore the PSE is used to measure autonomy implicitly (instead of explicit).

Method

Participants and design

The research had a quantitative correlational design, because two variables were measured and the association between them was tested. The inclusion criteria covered subjects that were students or had been students recently (no longer than 5 years). This target group was chosen

because according to statistics a lot of students are experiencing debts (i.e., 1.6 million people) in the Netherlands (Centraal Bureau voor de Statistiek, 2022). Therefore, it was convenient to choose this target group since a relation between accepting help and autonomy while being in debt was investigated. The total sample size was $N = 100$ before cleaning and preparing the data. The exclusion criteria were subjects under the age of 16 and subjects older than 100 years, participants that had not been a student within 5 years, participants who did not give consent and did not finish stories completely. This criteria was chosen to create the biggest reach as possible, but still remain a representative target group. Participants were not required to be in financial scarcity, but in the questionnaire they were asked about having debts in the present or experiencing debts in the past. After cleaning and preparing the data the sample size was $N = 91$ (there were seven participants who did not give consent and two participants who did not finish their story completely). The average age was 22.6±3.7 years old (range 18-36 years old). The majority was female 69.2% (*Female* = 63, *Males* =26, *Non-binary/Third gender* = 2). The average annual estimated income was €19070.48 (range €0-€60000). This was derived from 82 participants, since one participant did not understand the question and the other eight participants did not know how much their annual income was. The estimated debts were on average €9185.6 (range €0-€65000) over 65 participants since 26 participants indicated to have no idea how much debts they had.

Participants were recruited via Sona, a program used by Leiden university in which active studies can be seen by Leiden students. Those participants had the option to earn 3.75 euros or receive one credit (first year students at Leiden university are obliged to earn 60 credits). The other participants were recruited via social networking with the help of flyers, networking and social media. Those participants received also 3.75 euros.

Statistics

The total sample size should have been at least 23 participants for a correlation point biserial analysis if we consider the parameters: one tailed, correlation p H1: .5, alpha: .05, power: .8 and correlation p H0: 0. It was one-tailed because a relationship in one single direction was expected (if autonomy went up, the level of acceptance went down). I chose for a correlation of 0.5, since so far no identical studies have been executed the correlation coefficient was based on a previous correlational study. This study investigated the correlation between autonomy and family support to cope with stressful events among elderly patients. This study was indicated as relatable since autonomy and a form of help (family support) were investigated (Rani & Madaan, 2019). Literature stated that a correlation of -0.1 to -.5 and .5 to .1 were considered as large effects, therefore a correlation coefficient of .5 was chosen (Mcleod, 2023). The level of significance was set a p<.05, because that was the most accepted statistically significance in the social science fields (Meera, z.d.). And I chose a power level of .8, because a power lower than .8 would be considered too low for most research areas according to Wamsley and Brown (2017).

It was quite bold to expect a large effect and to base my sample on that, because I then was not able to detect any correlation r>0.5. However, the sample size of this study was a lot larger than 23 ($N = 91$), so I was also able to detect smaller differences.

Need for autonomy

Before the need for autonomy was measured with the Picture Story Exercise (PSE) (Schultheiss & Pang, 2007) a pilot study[1] was conducted to choose the modernized pictures that

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[1]. The pictures of the picture story exercise were outdated. The pictures were in black-and white, the clothes that they were wearing etc. did not represent situations of nowadays. To make the study more relatable to the participants, the pictures were modernized. 10 pictures were chosen to include in the pilot study based on the criteria that the picture needed to be a stock free photo, the photo could not be in black and white, the photo should have triggered imagination (not a boring picture) and there should have been a person visible. Those 10

were going to be used in the PSE. The PSE is a measure for implicit motives in which participants write imaginative stories, after seeing 4-8 pictures within an amount of time. The pictures show people in different situations (Bernecker & Job, 2010). Since the picture story exercise (PSE; Schultheiss & Pang, 2007) was used for measuring implicit motives, it was combined with the origin scoring system developed by deCharms and Plimpton in (1992) so that it could score the implicit need autonomy specifically.

In this study a picture was shown for 15 seconds. After that, the participants had to write an imaginative story with the picture in mind that took a maximum of three minutes. They were shown four pictures. The four pictures showed different situations. In the first picture two man were shown in camo clothes, in which one was holding a binoculars. They were standing in a green environment (it looked like a sort of forest) and they were looking for something or towards something. In the second picture a male was shown who was looking under his bonnet of his car. He was standing next to a road and the sun was shining. In the third picture two people were shown standing on a mountain. The female was standing on the cliff of the mountain and looked down. The man was a few meters behind her and was doing something on his camera/ phone/ doing something with an object. In the fourth picture a female was shown who was sitting and looking out of a window from an apartment. The sun was shining on her face.

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pictures were then divided in two versions (five pictures in part one and five pictures in part two). The benefit of having two versions was that the length of the pilot study was shorter. A long questionnaire can decline data quality in a way that the respondent gets fatigue and that this results in less variance of answers and shorter answers (VansonBourne, 2021). This was especially important for the pilot study since the answers of the stories itself were scored. A minimum of 40 participants in the pilot study was used (20 in each part) to detect differences in variances between the pictures. The only inclusion criteria that was used, was that participants between the age of 16 to 100 years were included. The scoring of the stories was done in line with de guidelines of deCharms and Plimpton (1992). After scoring all the pictures in pairs of two, four pictures were chosen to include in the study. This decision was based on the highest variance in autonomy scores (the picture of the cliff and the picture of the hunter) and also the picture that was mostly related to autonomy (the "looking out of the window" and the "broken car" picture). Four pictures were chosen instead of more because of time efficiency aspects (the study itself would have been longer, but also the time that it would take to analyze the pictures).

The participants were instructed to write a complete story about each of the four pictures. Participants were explained that it should be an imaginative story with a beginning, a middle, and an end. They were told to try to portray who the people were in each picture, what they were feeling, thinking and wishing for. Also, they had to try to tell what had led to the situation that was shown in each picture and how everything will had turned out in the end. Lastly, they were told that each picture was provided with guiding questions, that should be used as guides to write their story and that they did not need to answer them specifically. The guiding questions were: "What is happening? Who are the people? What happened before? What are the people thinking about and feeling? What do they want? What will happen next?". After 2.5 minutes participants were able to see the next picture. If they were ready to move on to the next picture they could, and otherwise they had still 30 seconds to finish their last sentences (which was also then mentioned via an audio tape, in which they heard: (ping) "you have 30 seconds left, please make sure to finish your last sentence now" (see appendix B). Each picture was scored individually in pairs of two. To elaborate, first the pictures were scored individually and then there was an discussion within the pair about the scores. There were 4 raters and in this study picture 1 was scored by rater 1 and 2, picture 2 by rater 3 and 4, picture 3 by 1 and 4, picture 4 by rater 1 and 3. The teams were mixed so that the most stable way of scoring was achieved. For example, if rater 1 and 2 only together scored pictures then there was the possibility that this way of scoring slightly differed from the way rater 2 and 3 scored pictures. Therefore, in this way the measurement was more reliable. The stories of one picture needed to be completely finished with scoring before scoring the next picture. The scoring of a picture went as follows; rater 1 and 2 first scored all of the stories of picture 1 independently (so for example, with 30 participants picture 1 was first scored by two persons separately). After that, they had discussions about the scores of each participant of picture 1. They explained to each other why they had or had not scored a category and had to come to an agreement on the basis of that. Only

after agreeing on all the scores of one picture, the raters were allowed to move on to the next picture. Each picture was scored on six elements. I will now discuss each category in short (for more information see appendix C or see the guidelines of deCharms and Plimpton in 1992).

Persona causation (PS) ; the critical element of PC was that the character chose his behavior. This was scored with one (one; meaning that the category was present, otherwise it was scored with zero) if the whole story showed that the character experienced himself as an origin as the personal locus of causality of his behavior. Goal-setting (GS) was scored with one if the goal in the story was clearly stated; it could be a concrete, interpersonal, a state of affairs or a long term goal. Also, it could be scored independently of activity, but the character should behave or act in order to pursue and reach the goal. GS was always scored first. Instrumental Activity (IA) was any personal caused activity that was instrumental to attainment of a goal (either stated or inferred). Reality Perception (RP) was a person's ability to understand his or her own possibilities, strengths, weaknesses and position in the environment. Also, the capacity to analyze or understand the situation. Personal Responsibility (PR) was the person's willingness to assume responsibility for the consequences of his or her actions, the attainment of goals, fulfillment of desires as well as responsible concern for others. Self-confidence (SC) was the person's confidence in his ability to succeed in goal striving, desired changes in the physical or social environment, and the confidence in his ability to control self and/ or others.

The lowest score possible per picture was zero and the highest score possible six. A higher score indicated a higher implicit need for autonomy. The scores of all four pictures were used to create one mean score per participant. The mean of all the mean scores together was also calculated *(M = 2.096, SE = 0.083)*. 32.7% was the interrater reliability[2] of the PSE. For the measurement reliability the Cronbach's alpha was used. The reliability was not that high (α =

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[2] There were in total 92 stories per picture and there were four pictures. This means that the interrater reliability was calculated over 92 stories* four pictures. For an agreement in scores between one rater and the second a one was given, for no agreement a zero was given. This resulted in 119 agreements over a total of 364 written stories.

.59). Research showed however that this is not very uncommon when using the PSE (Schultheiss et al., 2008). They even stated that based on previous studies they had expected a Cronbach's alpha between .00 and .40, therefore a Cronbach's alpha of .59 did not concern me.

Help acceptance

The level of accepting help advice was measured with an already existing questionnaire created by Seip (2023) (see Appendix E). These questions were made up and not based on literature. However, she had used this set of questions repeatedly and did not face any problems. The help acceptance construct was measured with four items. The participants were asked: "Please indicate how likely you are to perform the following actions. If you were in the situation as described in the letter above, how likely are you to... ". Then, these four items followed: 1 "Answer the phone when the company tries to contact you?", 2 "Contact the company by the phone or by e-mail?", 3 "Reach out to the company to consult on what steps to take?", 4"Feel negative about reaching out for help". All of the four questions had seven answer options ranging from one (Extremely unlikely) to seven (Extremely likely).

To test the reliability and the validity of the help acceptance items Cronbach's alpha for internal consistency was used on all the four items (α = .624). A higher internal consistency between the items was achieved if item four was deleted (α = .746). These four items were not based on literature, so it was indeed possible that they measured different constructs. Considering that the internal consistency was higher without item four indicates that item four could measure another construct than the other three together. When looking at the questions I noticed that the first three questions asked about the likelihood of accepting help (and taking action) and the fourth question asked towards the feeling about accepting help (and taking action). So, it is possible that item four measured a different construct. Therefore, I chose to delete item four. A reliability above .7 is considered acceptable (UCLA Advanced Research

Computing). A non-validated help acceptance questionnaire was used, because no questionnaire was yet available for measuring this construct (to the best of our knowledge). The mean score of all help acceptance items was calculated ($M = 4.368$, SE $= .120$).

Procedure

Before the research was conducted the Psychology Research Ethics Committee (CEP) had approved it. Participants participated in a laboratory. They were seated alone behind a computer with headphones on, so that they were capable of hearing audio. The questionnaire was online and was done behind the computer. The computer was prepared in a way that the participants (when seated and had put on their headphones) could immediately begin with the survey. The procedure of the survey was as follows:

Information letter. The study started with giving the participants an information letter in which as much as possible information about the study was provided. Also, it informed them about their research rights. They had to sign this agreement in order to participate (see appendix A).

Attention check. Subsequently, there was a attention check in which the participants had to listen to a short audio, and do a color test (which was not actually a color task, it had the purpose to check the attention of the participant). The audio that they heard, was: (ping) 'you have 30 seconds left, please make sure to finish your last sentence now'. This was done in order to make sure the audio functioned properly. They had to wear the headphone during the PSE in order to hear the audio (which is the same audio as written above). Next, in the color test the participants were given the instruction that when asked for their favorite color they had to answer with 'puce'. The next question was what their favorite color was. When they answered correctly, the participant was showed the message 'That is correct. We will now continue with the study.'. When the participant answered incorrectly the following message was shown: 'That

is incorrect. Please, pay attention to the instructions. It's important for the reliability of our research and the conclusions that we can draw from this that you seriously participate in this study. We will now continue with the study.' (see appendix A). This check served the purpose to make sure that the participants were attentionally involved in the study to establish reliability of the study. After that, the Picture Story Exercise started, followed by questions on financial decision making (the priming scenario).

     Priming scenario. Then, the participants were primed with the purpose to really take the perspective of someone who was in debts. First, participants were asked if they currently were experiencing financial difficulties or if he/she was able to vividly remember a personal situation in which they had experienced financial difficulties in a way that they had less money than they needed. If they answered 'I can vividly remember having experienced debt' or 'I am currently experiencing debt' the following question was to describe that situation in a way that someone who was reading it knew what they were thinking and feeling in that situation. This was done to put the participants in an financial scarcity mindset. If they selected one of the following options: 'No, I have never experienced financial debt' or 'I prefer not to answer', a scenario was presented. The additional instruction before reading the scenario was : "As you read the following scenario try to vividly imagine yourself as if you were in this situation", again with the purpose to put participants in a mindset of financial scarcity. Then, a scenario followed in which was described that the participant had just bought a new apartment and had put a lot of money in it, has almost nothing left and now has to choose between paying the electric bill or the taxes. The participant does not have enough money to pay both (see appendix D for a detailed description).

     After that, both participants (the participants who indeed could vividly remember experiencing debt, or were currently experiencing debt, and also the participants who read the scenario) were presented a letter which was again related to experiencing financial difficulties

vividly. The letter originated from a creditor of which was stated that the participant was behind with rent for over two months. Consequently, participants read that the housing corporation had send them a second email about their outstanding debt. In this email it was again mentioned that there was an outstanding debt, but it was also explained what they could do about it: "Make sure that the sufficient amount of debt, including this month's rent, is credited to our bank account before March 28th, 2023.". And it was also explained what would happen if they decided to do nothing: "We will hand over the arrears to our bailiff. Your debt will then be increased with the additional bailiff costs. These costs are at least 20% of the total arrears.". To summarize the email, they mentioned the severity of the situation and then said: "Do you feel like you need help repaying us? Please, contact our housing consultant. You can reach us on 0800 348 184 or by email: help@housingcorporation.org.". In the end of the email, there was thus a possibility of accepting help mentioned (see appendix D for the detailed priming scenario). Following, this instruction was given: "We are interested in your willingness to reach out to the company for help. Please indicate how likely you are to perform the following actions. If you were in the situation as described in the letter above, how likely are you to... " and then questions related to the given scenario and help acceptance followed (for example: "Answer the phone when the company tries to contact you?") (see appendix E). After that, there were four shame items (but I did not use them in my study) (see appendix F). Lastly, there were some questions about demographics and the survey was finished with a debriefing letter (see appendix G and H).

Materials

Participants used a computer to fill in the questionnaire. To analyze the data the computer software program SPSS version 26 was used for data that was created by another program; Qualtrics.

Statistical analyses

A Pearson correlation analysis (parametric test) was used to analyze the association between two continuous variables (the mean score of the implicit need for autonomy and the mean score of the level of help acceptance for item one, two and three). A Pearson correlation was used because the final calculations were done with continuous variables. The original scale of the implicit need for autonomy and the level of acceptance were ordinal (ranging from 1= Extremely unlikely to 7= Extremely likely). I calculated the mean score per variable per participants and used those means to analyze the data.

The null-hypothesis that was tested was that the need for autonomy and the level of acceptance were not associated.

Assumptions and data screening

There were five assumptions that needed to be met when using the Pearson correlation test, and they were all met (Zach, 2021) (appendix I).

The raw data consisted of 100 participants. I excluded participants that did not give consent to participate in the study (this was the case for nine participants) or when the giving answers were incomplete such as incomplete answers at one of more of the stories (this was the case for two participants). After cleaning the data 91 participants are included in the data.

Results

The Pearson correlation was used to test the hypothesis that a higher implicit need for autonomy was related to a lowered level of acceptance of help when being in debt. So, participants who experienced an higher implicit need for autonomy should also be less likely to accept help when they are in debt. The association between the variable autonomy and help acceptance showed a very small, but significant effect according to the guidelines of Laerd

Statistics (2020), (*Pearson r* (91) =.180, *p* = .044). This is not in accordance with the

hypotheses that a higher need for autonomy would be negatively correlated with the level of

acceptance of help.

Discussion

The present study investigates the relationship between the implicit need for autonomy

and the level of help acceptance, when experiencing debt (participants were primed with a

mindset of experiencing debts). This relationship is an important and interesting topic for

understanding and examining the factors that are or could be of influence on accepting help

when being in debt. The results show a small, but significant effect. The results also reveal a

positive correlation between the implicit need for autonomy and the level of help acceptance.

The current results are contrary to previous research. In previous research a negative

relationship between autonomy and help acceptance was found (Wilson & Deane, 2012;

Butler et. al., 1998; Deci & Ryan, 1987). In this study I have found a positive relationship

between these two variables, although this effect was very small. This discrepancy can be

possibly explained by the fact that this study was applied to the very specific debt situation.

No other research is yet available with regards to the association between autonomy and help

acceptance in this specific situation. This could explain why the association between these

variables was reversed.

An alternative explanation for not finding confirmatory results for the hypothesis is

that the pictures of the PSE were not suited enough for this study. I changed (modernized) the

pictures of this picture exercise to create a more valid study. However, due to lack of time I

did a small pilot study and decided on the bases of that study which pictures to use. Because

the pictures were not extensively researched, it is possible that other pictures would have

been better to use in this study. For example, picture two was scored very frequently with

zeros and ones, indicating that the variance between participants was low. This might be due to the picture itself, off which the situation presented was possibly too easy to interpretate. Research states the importance of using ambiguous pictures in the PSE (Ramsay & Pang, 2013). As a consequence, participants wrote short stories and those stories were therefore scored low (i.e., the shorter the story, the less there was to score). A possible consequence could therefore be that participants were scored as low instead of high on the implicit need for autonomy. This could explain why non-confirmatory results were found instead of confirmatory. Another explanation is that a different factor or a combination of factors could be of influence on the level of help people accept. In previous research are a lot of factors found to have an influence on the level of help acceptance i.e., fear of appearing incompetent, stigma and embarrassment, the ostrich effect, optimism bias and the need for autonomy (Brooks et al., 2015; Gulliver et al., 2010; Karlsson et al., 2009; Sharot, 2011). It is therefore possible that a different factor or a combination of factors explains the level of help someone accepts better and as a consequence this possibly creates stronger and confirmatory effects.

Strengths and limitations

This study is executed in a way that it has several strengths. First of all, the research is conducted in a laboratory. This makes it easier to replicate since a standardized procedure is used. Also, there is more control over extraneous (e.g., variables that were not investigated that could potentially affect the outcomes of the study, for example noise in the environment) (Mcleod, 2023). Besides that, the pictures are modernized. Therefore, the validity is increased because the measurement technique is improved (Wood & Airth, 2023). One other strength is that the focus of this research was conducted to a very specific situation: being in debt. In this way more knowledge is gained in research related to being in debt, which can be used for practical purposes. Moreover, the large sample size ($N = 91$) had several benefits. It

generated more reliable and stronger results due to the smaller margins of error and lower standards of deviation. It also controlled for the risk of reporting false-negative or false-positive findings. Besides that, it was stated that the social sciences field benefitted the most of larger sample sizes (*The importance of large sample sizes in research for your research*, 2022).

One limitation is that the modernized pictures used in this study were not extensively investigated. Therefore, it is possible that people who indeed had a high need for autonomy were not scored as high. Another limitation in this study is that it is possible that for the students who have indeed experienced debts, these debt feelings differ from someone who is not a student anymore. Non-students have assumably more and bigger responsibilities such as feeding children or paying healthcare bills. These people are less likely to be provided with financial support from their parents when necessary. A rapport concerning students supports this reasoning in a way that an average of 68% of the students in the Netherlands are financially supported by their parents (Groen & Houtsma, 2021). Also, considering autonomy in students, it has been found that the need for autonomy is greater in adults than students (Sheldon et al., 2006). Taken together, this could indicate that this study could be more relevant if we researched non- student adults, because they experience more serious financial responsibilities and also have a higher need for autonomy in general. Moreover, it is a possibility that the items that measured help acceptance were not (valid) enough. According to the reliability analysis of the construct help acceptance, the measurement was more reliable without item 4. However, these questions were made up and had not been used before in this way. It is therefore possibly that these questions do not cover help acceptance completely or measure a different construct. Lastly, another limitation of this study was the lower interrater reliability (32.7%) of the PSE, which indicates that there were little agreements in the scoring of the pictures between two raters.

Implications

The current study contributes to the literature in a way that the results indicate that a higher implicit need for autonomy is associated with a higher level of help acceptance, instead of a reversed relationship as stated in previous literature. Also, this study contributes to the recent literature in a way that current literature has investigated this relation, but not in the specific debt situation as in this study. Consequently, a practical implication is that this knowledge can then be used for practical purposes such as how to promote people seeking help when being in debt and adjusting help-services in a way that more people are actually accepting help. This could mean for example that the helping services will focus more on how to stabilize feelings of autonomy or even heighten these feelings based on the results that a higher need for autonomy was associated with higher level of help acceptance. In this way people will be more likely to accept help when they need it. A methodological implication is that our sample size included students and recently graduated students. In this way more knowledge is gained about this target group covering the relationship between autonomy and help acceptance while experiencing debts.

Future research

For future research I would recommend a more extensive research on which pictures to use for the modernization of the PSE and also making sure that they are ambiguous enough. In this way the measurement of autonomy is more accurate. This could change the results in a way that people score higher on the implicit need for autonomy. This could consequently change the positive trend into a negative trend, because participants who scored low on autonomy, may now score high on autonomy. That is important to know, because if that is the case then our findings are in line with previous research. This would mean that a

negative association will be found (as previous literature), independent of the specific situation experiencing debts.

Moreover, I would suggest to broaden this research with people who are not students or not have been students over five years, since most students do not take their biggest debt (i.e., student loan debt) seriously (Bol, 2015). Also, considering the fact that the implicit need for autonomy is greater in adults, a broader age range could generate stronger and possibly different effects. This would be the case in a way that on average the implicit need for autonomy will be higher.

Also, the measurement of help acceptance may needs to be adjusted. Since this measurement is not based on any literature it is possible that this measurement measures a different construct than help acceptance or does not cover help acceptance completely. When considering face validity, I would say that the face validity is okay since the questions appear to measure the help acceptance construct. But a validation study could be helpful to confirm that this measurement measures the construct help acceptance and not something else (Chiang et al., 2015).

Besides that, I would also suggest a longer period of training and more practice in scoring together the pictures in the PSE to create a more consistent way of scoring the pictures. Also, during this period of practice, I would recommend to discuss the scoring with all partners and not only the pairs together, to make sure that the whole group scores in one line and not only the pairs. This will hopefully benefit the interrater reliability and heighten the agreement between two examiners.

Theoretically, I would suggest to study the relationship between autonomy and help acceptance in the situation 'experiencing debt' more extensively, since this study has contrary results to our expectations and this could be due to the specific debt situation. Also, more theoretical research is needed to understand the investigated relationship between autonomy

and help acceptance, because research states that a lot of factors could be on the influence on accepting help i.e., fear of appearing incompetent, stigma and embarrassment, the ostrich effect, optimism bias and the need for autonomy (Brooks et al., 2015; Gulliver et al., 2010; Karlsson et al., 2009; Sharot, 2011). It is important to seek out which one or which combination is the most prominent barrier to accept help, which can then result in practical improvements such as helping people accept help when they need it.

Conclusion & Take home message

A higher need for autonomy is associated with a higher level of help acceptance. Previous research has been focused on the relationship between autonomy and help acceptance. This study extents this research by adding the debt situation. Future knowledge on how and which factors influence help acceptance can provide a better understanding of when people indeed do accept help. In the future this knowledge can then be used for practical purposes, such as improving help services. As a consequence, more people will be accepting help and thus be helped in the end. This study is provides evidence that a high need for autonomy is associated with a higher level of help acceptance, although this is a very small effect.

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Appendix A. Information letter and attention check

Welcome to our study on financial decision making!

What is the study about?

In this study, we examine how people make decisions when they are in financial difficulty. If you choose to participate, you will be asked to fill in a questionnaire. You will be asked to write short stories, recall/imagine a situation of financial difficulty, read a letter, and answer several questions. We cannot tell you the exact research question of the study now, since it may influence the results. After participation, we will debrief you about the full nature and aim of this study.

Participation will take about 25 minutes. As compensation for participation you are offered €3.75. Psychology Bachelor students can also choose to receive 1 participant credit instead. In case of non-completion, there will be no compensation.

If you want to participate, we need your consent

Before taking part in this study, please read this full information letter and fill in the consent form if you understand the statements and freely consent to participate in the study. Participation is only possible if you have provided informed consent. You can withdraw your consent for this study at any given time without any negative consequences.

What happens with your responses?

The survey includes several personal questions (about age, gender, education level, and income), so that we can describe some basic characteristics of our research sample. You are not obliged to answer personal questions. We will save the data on a secured University server for 10 years (in line with the Netherlands Code of Conduct for Research Integrity), and may also be used to answer future research questions. We guarantee that all responses will be treated confidentially, saved in a coded way, and in no case will responses from individual participants be identified. The study has been approved by the Psychology Ethics Committee.

I DO NOT NEED YOUR HELP

Questions or complaints?

Do you have questions about this study or your rights? Or do you wish to lodge a complaint

or concern? Then you can contact the principal researcher, Dr. Anouk van der Weiden:

a.van.der.weiden@fsw.leidenuniv.nl. In case you have specific questions regarding your

privacy, you can contact our privacy officer at Leiden University via

privacy@fsw.leidenuniv.nl.

Thank you in advance for your participation!

Kind regards,

Anouk van der Weiden, principal investigator

Department of Social, Economic, and Organisational Psychology, Leiden University

a.van.der.weiden@fsw.leidenuniv.nl

☐   I choose not to participate in this study

As you do not wish to consent, we kindly ask you to return your submission on Prolific

by selecting the 'Stop without completing' button, and thus making space for other

participants to take part in the survey.

Thank you!

I choose to participate in this study and declare that I:

☐   Understand the information about the study entitled 'Financial decision

making' as described in the information above, and have had the opportunity to ask

questions about the study (via email);

☐   Understand that the data will be collected and processed in a coded way

I DO NOT NEED YOUR HELP

☐   Understand that I can withdraw from participation at all times, without needing

to provide reasons, and how I will be compensated in case I do not complete the study

☐   Consent to participate in this study

We will start the study with a quick audio and colour test.

Before we continue please:

1. Put on the headphones.

2. Play the fragment below.

3. Confirm that you can hear the audio fragment.

☐   I hear audio

☐   I do not hear audio

If *Before we continue please: 1 Put on the headphones. 2. Play the fragments below. 3.*

Confirm that you can heard the audio fragment.   I do not hear audio is selected

Please notify the experiment leader that the audio is not working.

We now continue with a quick colour test.

The colour test is simple. When asked for your favorite colour, you must enter the word 'puce' in the text box.

Based on the text you read on the previous page, what is your favorite colour?

If *Based on the text you read on the previous page, what is your favorite colour?* Text Response Is equal to "puce" That is correct. We will now continue with the study.

If *Based on the text you read on the previous page, what is your favorite colour?* Text Response Is not equal to "puce" That is incorrect. Please, pay attention to the instructions. It's important for the reliability of our research and the conclusions that we can draw from this that you seriously participate in this study.

We will now continue with the study.

Appendix B. PSE

We will start with the Picture Story Exercise. In this exercise, your task is to write a complete story about each of a series of 4 pictures - an imaginative story with a beginning, a middle, and an end.

Try to portray who the people in each picture are, what they are feeling, thinking, and wishing for. Try to tell what led to the situation depicted in each picture and how everything will turn out in the end.

With each picture, we will provide some guiding questions – these should be used only as guides to writing your story. You do NOT need to answer them specifically.

Each picture will be presented for 15 seconds. After it has disappeared, write whatever story comes to your mind. Don't worry about grammar, spelling, or punctuation — they are of no concern here.

You will have 3 minutes for each story. A timer will inform you of how much time there is

I DO NOT NEED YOUR HELP

left to finish your story. Once the 3 minutes are over, you will have 30s left to quickly finish your last sentence. This will also be announced over the headphones. If you take less than 3 minutes, the computer will be ready to move on after 2.5 minutes.

Please keep the headphones on.

The task will start on the next page.

PSE1 Answer

Guiding questions: What is happening? Who are the people? What happened before? What are the people thinking about and feeling? What do they want? What will happen next?

I DO NOT NEED YOUR HELP

PSE2 Answer

Guiding questions: What is happening? Who are the people? What happened before? What
are the people thinking about and feeling? What do they want? What will happen next?

PSE3 Answer

I DO NOT NEED YOUR HELP

Guiding questions: What is happening? Who are the people? What happened before? What are the people thinking about and feeling? What do they want? What will happen next?

PSE4 Answer

Guiding questions: What is happening? Who are the people? What happened before? What are the people thinking about and feeling? What do they want? What will happen next?

You have completed the Picture Story Exercise and you can take off the headphones. We will now continue with several questions on financial decision making.

Appendix C. Scoring categories

- Goal-setting

May be concrete, interpersonal, a state of affairs, long term… It is scored independently of activity, but the character should behave or act in order to pursue and reach the goal. Scored when people plan to propose.

- Instrumental activity

Any personally caused activity that is explicitly stated in the present tense. The character has to personally decide to do the activity, and not be forced to it. Does a major character in the story engage in present, personally chosen activity to reach a goal?

Not scored in situation like "**maybe** solving the situation through xy"

- Reality perception

Person's ability to understand their possibilities, strengths, position… It is about the character's reality, not the scorer's realistic view of it. If the character believes there is a cause-effect relationship, even if bizarre, they are showing realistic perception.

Examples: Blocks; intelligent adjustment, acceptance of advice; planning; perception of social interaction; punishment, obedience, social sanctions

- Personal responsibility

Character's willingness to assume responsibility for the consequences of their actions, goals, desires and responsible **concern** for others.

Examples: responsibility for action and goal attainment; consequences; social responsibility; concern for others or to be reunited with others. Does the character show evidence explicitly stated of taking personal responsibility?

- Self-confidence

Person's confidence in his ability to succeed in goal striving, to effect desired changes, to control the self or others. Most often seen in a successful conclusion to goal striving at the end of a story.

Examples: goal attainment or positive outcome; overcoming blocks; confidence in personal capability; affect over total goal attainment

For example "everything will be alright"

- Personal causation

Only scored when the whole story shows that the character experiences himself as an origin, as the personal locus of causality of his behavior. More in adults than in children. Whole story meaning that there are no subplots. The critical element of PC is that the character chooses his behavior. Subtle forms of challenge, self-investment & play.

Appendix D. Priming scenario

Are you currently experiencing financial difficulties? Or can you vividly remember a personal situation in which you have experienced financial difficulties because you had less money than you needed?

(*e.g., debts or loans they could not pay back, difficulty paying bills or earning too little money to make ends meet*)

☐ I am currently experiencing debt

☐ I can vividly remember having experienced debt

I DO NOT NEED YOUR HELP

 No, I have never experienced financial debt

 I prefer not to answer

If *Are you currently experiencing financial difficulties? Or can you vividly remember a personal situation in which you have experienced financial difficulties because you had less money than you needed*? I can vividly remember having experienced debt Is Selected

Or *Are you currently experiencing financial difficulties? Or can you vividly remember a personal situation in which you have experienced financial difficulties because you had less money than you needed*? I am currently experiencing debt Is Selected

---

We would like to ask you to think of such a personal situation in which you experience (or have experienced) financial difficulties. In other words, a situation where you have (had) less money than you need. For example, when you have debts or loans that you cannot pay back. Or when you have trouble paying your bills or earn too little money to make ends meet. Please describe the situation below in a few sentences in such a way that someone reading it knows what you are thinking and feeling in this situation.

If *Are you currently experiencing financial difficulties? Or can you vividly remember a personal situation in which you have experienced financial difficulties because you had less money than you needed*? *No, I have never experienced financial debt* Is Selected

Or *Are you currently experiencing financial difficulties? Or can you vividly remember a personal situation in which you have experienced financial difficulties because you had less money than you needed? I prefer not to answer* Is Selected

I DO NOT NEED YOUR HELP

We would like to ask you to please read the following section. As you read the following scenario try to vividly imagine yourself as if you were in this situation:

Last January you moved into your new apartment which was not furnished. You had to dip into most of your personal savings to furnish your apartment. You had a lot of big purchases to make like a fridge, a desk, and chairs. You had just enough left to pay your rent. Having nothing left, you had to survive on instant ramen and pasta for a couple weeks. However, you had forgotten that municipal taxes are due this time of the year and you had spent all your savings on your new apartment. Living alone with no one to help out with taxes and the increasingly expensive electric bills, you were stuck in a situation where you had to choose to either pay your taxes or your electrical bill.

Imagine that in the situation as just described, you are renting a place and you haven't paid your rent for two months. Last month, you received a first email from the housing corporation with a request to pay the owed amount. You did not respond to it and did not make a payment. Please, take a moment to really imagine yourself in this situation. We would like you to engage in this situation as much as possible. The more you feel like you can imagine this situation the better.

Now, the housing corporation has sent you a second email about your outstanding debt.

Please, continue to read the email. Afterwards, we ask you to answer a couple of questions.

Date   : March 7th, 2023

E-mail no.   : 101019-ado

Subject   : rental debt; Last warning

I DO NOT NEED YOUR HELP

Dear Sir/Madam,

According to our administration, there is an outstanding amount in your account. At this time, the total amount of the arrears is three times your monthly rent.

What can you do?

Make sure that the sufficient amount of debt, including this month's rent, is credited to our bank account before March 28th, 2023.

What if you do not do anything?

If you do not do anything, we will hand over the arrears to our bailiff. Your debt will then be increased with the additional bailiff costs. These costs are at least 20% of the total arrears.

To conclude

I hope that you notice the severity of the situation. Do you feel like you need help repaying us? Please, contact our housing consultant. You can reach us on 0800 348 184 or by email: help@housingcorporation.org.

Yours sincerely,

C.P. Green

Housing consultant

Q47

In a moment, you will be asked to answer some questions about how you feel, think, and act now you have received this debt validation email from the housing corporation.

Please, be aware that there are no right or wrong answers: we are interested in your personal thoughts, feelings, and actions.

Please, go to the next page to continue.

Appendix E. Help acceptance items

We are interested in your willingness to reach out to the company for help.

I DO NOT NEED YOUR HELP

Please indicate how likely you are to perform the following actions.

If you were in the situation as described in the letter above, how likely are you to...

	Extremely unlikely	Moderately unlikely	Slightly unlikely	Neither likely nor unlikely	Slightly likely	Moderately likely	Extremely likely
Answer the phone when the company tries to contact you?	○	○	○	○	○	○	○
Contact the company by phone or by e-mail?	○	○	○	○	○	○	○
Reach out to the company to consult on what steps to take?	○	○	○	○	○	○	○
Feel negative about reaching out for help?	○	○	○	○	○	○	○

Appendix F. Shame items

We are also interested in how you would feel in regard to having the outstanding amount in your account with your housing corporation.

	1 (strongly disagree)	2	3	4	5	6	7 (strongly agree)
I feel that others look down on me because of my financial situation	○	○	○	○	○	○	○
I feel as if I have failed as a person.	○	○	○	○	○	○	○
I feel inadequate	○	○	○	○	○	○	○
I feel like an unworthy or invaluable person	○	○	○	○	○	○	○

Appendix G. Demographic items

Almost done!

I DO NOT NEED YOUR HELP

Below are two final demographic questions

What is your gender?

☐   Male

☐   Female

☐   Non-binary / third gender

___

What is your age?

What is your estimated annual income in Euros

Please, can you provide an estimation of the amount of debt (in Euros) you are currently

facing?

(If you have no idea, please write down: no idea.)

Appendix H. Debriefing letter

Dear participant,

As we have indicated in the information letter before, we will now debrief you about the true nature and aim of the study.

Some background

Buying enough food for a week or finally making that well-needed dentist appointment? Paying the electric bill or getting enough fuel to get to work? Most of us never even have to think about such things. But some people face tough choices like this on a day-to-day basis. Even in high-income countries, some people struggle to make ends meet. Recent statistics, for example, show that about one million Dutch households have problematic debts. Although people in a negative financial situation are offered help by different institutions, the help offered is not always accepted.

The questions we want to answer

In this study, we want to know whether the need to make your own decisions (autonomy) may lower the willingness to accept help from others (e.g., in the form of debt advice). The need for autonomy was measured in the task where you had to write stories about four different pictures. We will score your stories on how autonomously the characters in your stories were behaving. People with a higher need for autonomy are more likely to write stories about autonomous characters.

We also know that people sometimes feel ashamed of their financial difficulties, which may cause them to avoid the situation, including contact with help providers. We therefore also want to test whether people who are experiencing more shame are less likely to accept help.

You can decide that your data may not be used for (some of) these aims. In that case, please

contact us and provide the following unique participant code: **${e://Field/RandomID}**. We

will then exclude your survey responses from our analyses.

Please save your personal code for future reference.

Any questions for us?

If you have any questions regarding this study, please contact Dr. Anouk van der Weiden,

a.van.der.weiden@fsw.leidenuniv.nl. In case you have specific questions regarding your

privacy, you can contact our privacy officer at Leiden University via

privacy@fsw.leidenuniv.nl.

In case you want to inspect your own data, you will have to provide your participant code. We

are not able to retrieve your personal data without this code.

We hope you enjoyed our study. Your contribution to our study is greatly appreciated.

Thank you again for your co-operation!

Dr. Anouk van der Weiden,

Principal Investigator "financial decision making"

Department of Social, Economic and Organizational Psychology

We thank you for the time you have spent taking this survey

Your answer has been recorded

Appendix I. Assumptions

The first assumption was that the two variables needed to be measured at the interval or

ratio level. This one was met, since they were mean scores and thus continuous variables. The

second assumption stated that there should be a linear relationship between the two variables.

This assumption was checked with a scatterplot in SPSS with the two mean scores. The plot

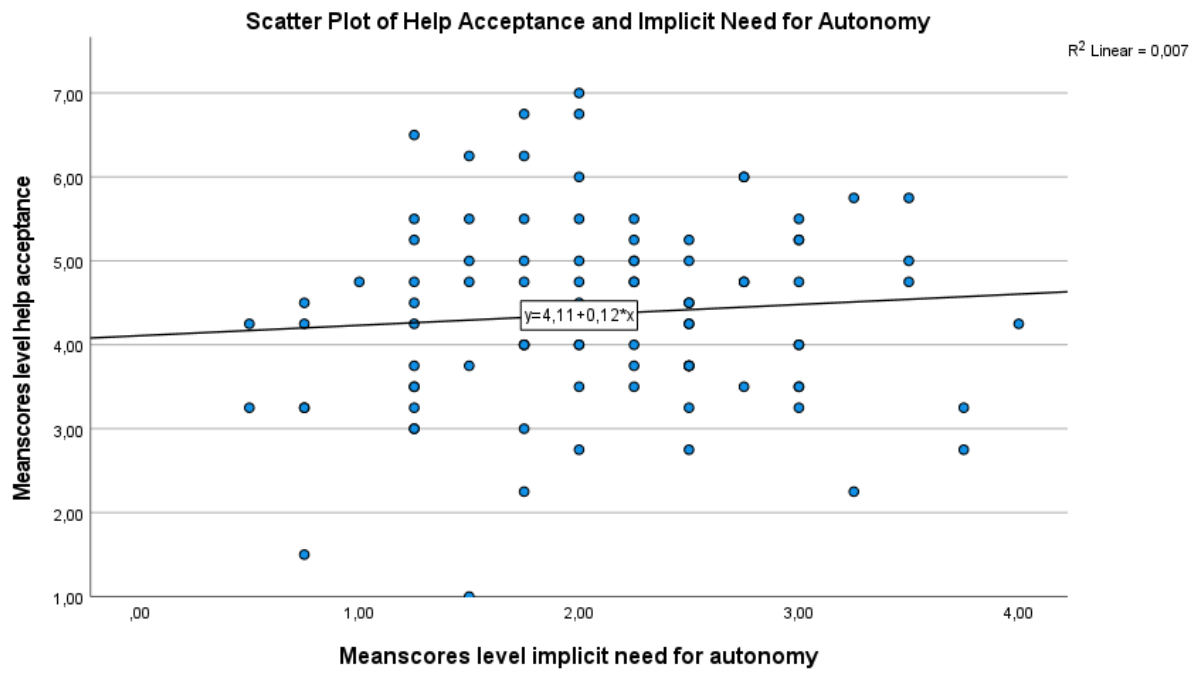showed no signs of a Quadratic relationship or another relation type of non-linearity. Therefore,

this assumption was also noted as being met (Plot 1).The third assumption was that both variables should be roughly normally distributed. Two Q-Q plots were used to check if this assumption was met. This visual check indicated that the values of the variables were not normally distributed (Figure 2 and 3). Therefore, I also executed the statistical tests Kolmogorov-Smirnov test and the Shapiro-Wilk test. I chose these tests because those are the tests that are the mostly widely used methods to test normality of the data. Since our data exceeded a sample size of 50, the final decision was made to use Kolmogorov-Smirnov. With a sample size smaller than 50, the Shapiro-Wilk test would have been recommended by Mishra et al. (2019). The kolmogorv-Smirnov test indicated that both variables (help acceptance and Autonomy) followed a normal distribution, Dhelp(91)= .077, *p*=.200 and Dauto(91)=.070, *p*= .200, as shown in Table 4.

The fourth assumption that needed to be met was the assumption that each observation in the dataset should have a pair of values. The same participant was asked different things, therefore the values were paired with one participant. The last assumption was that there should be no extreme outliers in the dataset. I checked this by creating two boxplots (one boxplot with the mean scores of the implicit need for autonomy and the other one with the mean scores of the level of help acceptance). The boxplots indicated no outliers for the variable autonomy and one outlier, although not an extreme outlier, in the dataset of the variable help acceptance (see plot 5). I investigated the data of respondent 3 on the help acceptance variable. Although participant 3 scored low on this variable (MeanHelp acceptance=1.00), it was possible to generate that score. Therefore, I also assumed that this assumption was met.

Plot 1.

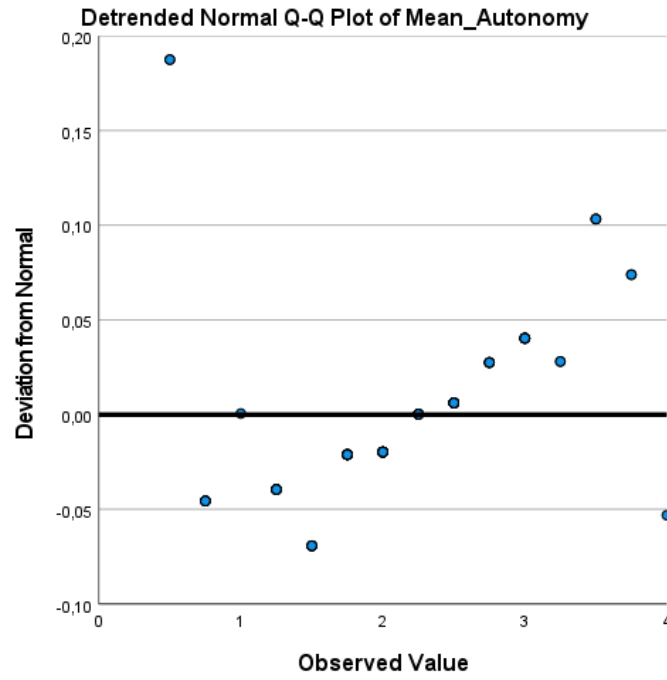*Scatterplot mean scores of the level of help acceptance and the implicit level of autonomy*

Figure 2.
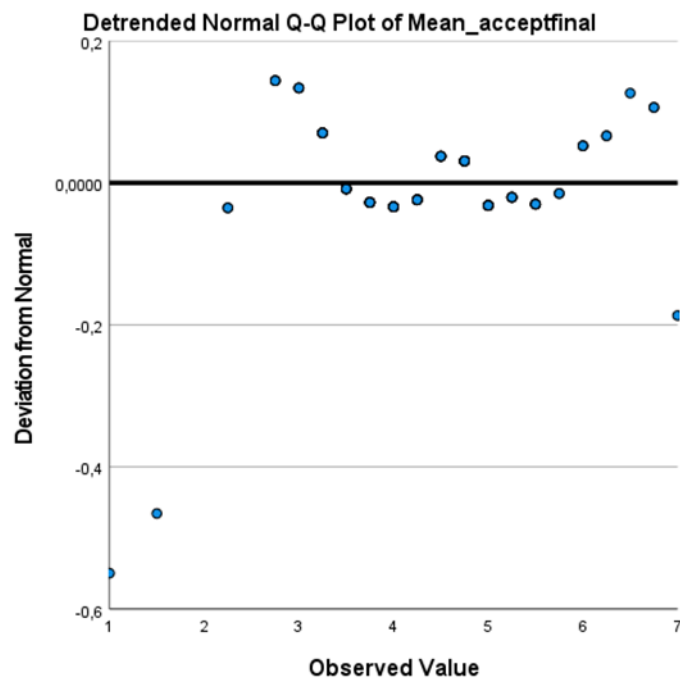
Q-Q plot of the deviation of the scores of implicit level of autonomy

Figure. 3.

Q.Q plot of the deviation of the scores of the level of help acceptance

Table 4.

Tests of normality
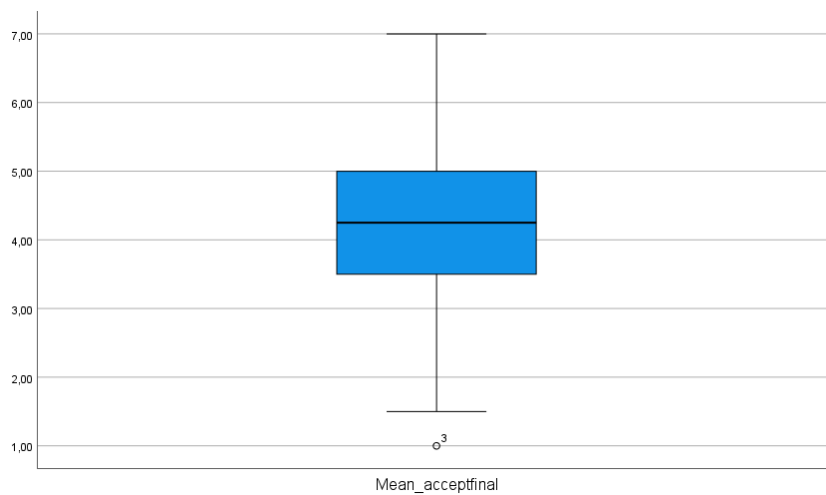
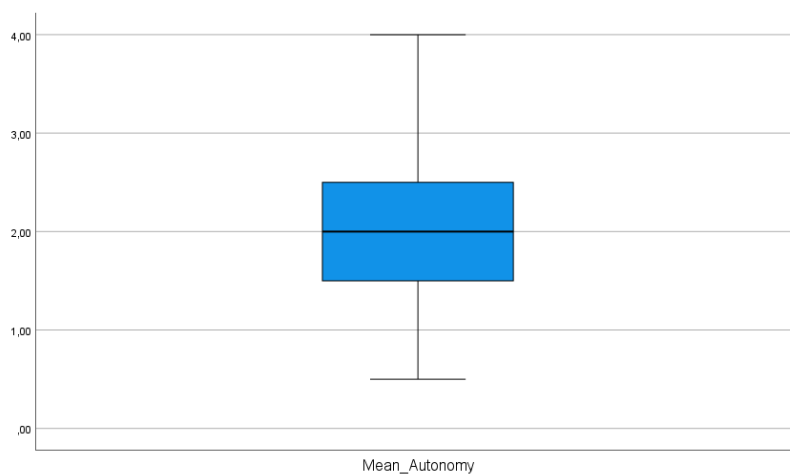|	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Autonomy	,077	91	,200[*]	,980	91	,190
Help acceptance	,070	91	,200[*]	,989	91	,646

Plot 5.

Boxplot Help acceptance

Plot 6.

Boxplot Autonomy

I DO NOT NEED YOUR HELP