



Joint Research Portfolio

-Deliverable-

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Lead Beneficiary: UGent

Other Contributors: UVT and UNIMIB

Version 1

The Joint Research Portfolio deliverable involves the documentation of the joint research activities held during the LEARNVUL Project. The joint research activities are defined as mentoring activities. Each early-career researcher from West University of Timisoara proposed at least one research idea of interest to be developed by mentoring. So that, several research work groups are formed. Each group involves one early-career researcher from UVT, at least one mentor from West University of Timisoara, and at least one mentor from each university from Consortium. The mentors are involved in each group in accord to their research expertise.

The Joint Research Portfolio is a document that will be updated continuously at every six months with regard to the progress of each research work group. The whole documentation of each mentoring group will be uploaded on the internal platform (Dropbox) in order to be visible for each Consortium member. The progress status will comprise the planning of each study that will be carried out, the task assignments inside of each research group, the description of the mentorship for each group, and the final research outcomes of each research group.

The present version involves two parts:

- A. The research ideas proposed
- B. The research work groups formation

A. The research ideas proposed

Since from November-December 2020, the early-career researchers from West University of Timișoara have started to search and document research directions of interests to be proposed to the partners from Consortium in order to initiate the scientific activity of mentoring. The research ideas proposed are in accord to the main research objective of the LEARNVUL Project. The research ideas were for the start discussed inside of the WUT team and thereafter were sent to the Consortium partners. During January-February 2021, the partners assessed the research ideas and decided to which research group/ groups they could give more from their expertise.

The general research ideas and the members from each university assigned to mentoring the development of each research idea are presented in the following table:

No. of Study	General Research Idea	Early-career researcher	Romanian Mentors	Italian Mentors	Belgian Mentors
1	Neuroticism and EC (ambivalence, extinction)	Catalina Bunghez	Florin Alin Sava, Andrei Rusu	Rossella Di Pierro, Cristina Zogmaister	Yannick Boddez, Jan De Houwer
2	Automatic thoughts and EC	Florina Huzoica	Florin Alin Sava, Andrei Rusu	Marco Perugini, Rossella Di Pierro, Juliette Richetin, Emanuele Preti	Yannick Boddez
3	Neuroticism change and network analysis	Stefan Marian	Florin Alin Sava	Giulio Costantini	Sean Hughes
4	Neuroticism and high-growth entrepreneurs	Luca Tisu	Laurențiu Maricuțoiu	Marco Perugini, Giulio Costantini	Jan De Houwer
5A	Neuroticism and decision making	Cristina Maroiu, Stefan Marian	Laurențiu Maricuțoiu	Juliette Richetin, Cristina Zogmaister, Emanuele Preti	Yannick Boddez
5B	Neuroticism and moral impression	Cristina Maroiu, Luca Tisu	Laurențiu Maricuțoiu	Juliette Richetin, Cristina	Sean Hughes



				Zogmaister, Emanuele Preti	
6A	Neuroticism and EC. Is there an effect?	Catalina Bunghez	Florin Alin Sava, Andrei Rusu	Marco Perugini, Rosella Di Pierro	Jan De Houwer
6B	Neuroticism and EC. Mechanisms of change (effect)?	Stefan Marian	Florin Alin Sava, Andrei Rusu	Marco Perugini, Rosella Di Pierro	Jan De Houwer, Ernst Koster
6C	Neuroticism and EC. Is it transferable/generalizable?	Florina Huzaica	Florin Alin Sava, Andrei Rusu	Marco Perugini, Rosella Di Pierro	Jan De Houwer, Sean Hughes
7	Workplace emotional regulation	Luca Tisu	Laurențiu Maricuțoiu	Cristina Zogmeister	Jan De Houwer
8	Maleability of Neuroticism	Catalina Bunghez, Florina Huzaica	Andrei Rusu, Florin Alin Sava	Cristina Zogmaister, Giulio Costantini, Emanuele Preti	Jan De Houwer

B. The research work groups formation

The part B includes descriptions of the research teams formed, involving information about: the first meeting date planned, short descriptions of the first meetings in terms of research ideas/ objectives which are/ will be developed during the further work meetings, the current status. All meetings were held online via Zoom platform.

Please find below the description of each mentoring group during the first meeting:

1. Early-career researcher: Florina Huzaica (Group)

a. Research team members

Mentors from UVT: Florin Alin Sava, Andrei Rusu

Mentors from UNIMIB: Marco Perugini, Juliette Richetin, Emanuele Preti

Mentor from UGENT: Yannick Boddez

b. The date of the first meeting

The first meeting was established on Tuesday, March 23 at 14:00 p.m. CET.

All the team members attended.

c. Description of the first discussion

Introduction in the research topic

The first meeting was set in order to discuss more about the objectives, the structure and the methodology of a possible future study. In the first part of the meeting, Florina presented her study proposal. The main objective consisted in shaping and understanding the relationship between evaluative learning, neuroticism and agreeableness, at the level of domains and facets, by integrating a series of automatic thoughts as US in the evaluative conditioning sequence. Based on the results obtained by Vogel et al. (2019), I had two research questions in mind:

- Could a high level of neuroticism make people more sensitive to negative stimuli, especially when they are related to them (*Self perspective*)?
- Are non-agreeable people more sensitive to negative information related to others (*Other perspective*)?

Florina proposed this idea based on a classical evaluative conditioning paradigm (De Houwer, Thomas & Baeyens, 2001), with an acquisition sequence, a post-acquisition sequence and a cognitive task. And the 8 US



(automatic *negative* vs. *positive* thoughts) could be simple, short propositions formulated from the self's perspective (e.g. *I am no good; I am strong*) or from the other's perspective (e.g. *Others are bad; Others are strong*).

Possible research directions/ objectives emerged

The presentation was followed by an active discussion on the variables and the procedure. Every team member engaged in this collaborative dialogue underlining the strengths and the weaknesses of the initial idea. There were pointed out some distinct areas where further work needs to be undertaken in order to gain coherence and a deeper insight. For example, it was assessed the necessity of using agreeableness as a moderator for the evaluative conditioning effect. The members concluded that it would be more meaningful to only take into account neuroticism, the personality dimension which is most related to psychological difficulties. Another example, is the initial reliance on negative thoughts as US, without using a sequence where these items could be individualized. If they remain the same for everyone, the conditioning effect might not be visible. Thereby, a preselection phase, where each participant would rate and choose the US, became essential. In order to fill in the gaps between the variables introduced in the initial idea, it was also decided that introducing a control condition might be a very important aspect to accomplish.

During the meeting, several new ideas were proposed. For instance, initially, the *self/others perspective* was addressed as a possible indirect measure of self-image, where the stimuli could become names (the participant's name vs. others names) or avatars. Another relevant idea was formulated regarding the inclusion of self-esteem, in addition to neuroticism, as a risk factor for mental health.

In the final discussion, the meeting concluded with a sketch of a future study where the main questions are: *How do people become neurotic? Could a pattern of repetitive thinking (e.g., rumination) isolate them from the environment? And could the evaluative conditioning effect be stronger for individuals high in neuroticism that think repetitively of certain thoughts (e.g., negative automatic thoughts)?*

Handing out specific tasks to the research team members

The meeting concluded with the need to elaborate another study proposal in order to integrate the ideas addressed in the final discussion. More specifically, the key aspects of the study will be:

- the preselection phase (where participants will rate the automatic thoughts in terms of frequency; based on their ratings 2 common vs. 2 uncommon negative thoughts could be selected to serve as US in the following sequences);
- neuroticism as a moderator of the evaluative conditioning effect;
- the process of repetitive thinking (Watkins, 2008).

Thereby, Florina's main task is to establish a second meeting where we would discuss the new direction emerged from the previous one. All participants in the group also had the responsibility to consult the literature on the topic to decide whether other important aspects require special attention.

d. The date of the second meeting

To be decided together with the team members. To be held in April.

Florina will create a poll (using <https://framadata.org/>) where everyone will be able to vote the date which is most convenient for them.

2. Early-career researcher: Ștefan Marian (Group)

a. Research team members



Mentors from UVT: Florin Alin Sava
Mentors from UNIMIB: Giulio Costantini
Mentor from UGENT: Sean Hughes

b. The date of the first meeting

The first meeting was established on Wednesday, March 17, 2021.

c. Description of the first discussion

The meeting started with the presentation of a general research idea by Marian Ștefan. Precisely, the group members aim to research if it can identify central aspect of individualised networks, and through evaluative conditioning, change the structure of the whole network by only changing the most central node(s). The group then discussed several general possibilities of implementation:

- Create or assess a network on a group level
- Create or assess a network on individual level

The version of creating a network in contrast to just assessing an existing one has priority because evaluative conditioning is better suited for neutral, unestablished concepts. Besides, intervening on a central node, the idea to change a relationship between nodes through forming proposition about the relationship of the two was also considered.

Ștefan Marian, along with the other members of the group, will further consult the existing scientific literature on discussed matters and initialize the next meeting.

d. The date of the second meeting

The date of the second meeting is not set yet. To be held in April.

3. Early-career researcher: Luca Tisu (Group)

a. Research team members

Mentors from UVT: Laurentiu Maricutoiu
Mentors from UNIMIB: Cristina Zogmeister
Mentor from UGENT: Jan De Houwer

b. The date of the first meeting

The meeting was established on Friday, March 26, 2021 (duration: 1h 45min)

c. Description of the first discussion

Introduction in the research topic

An experimental paradigm for studying the relationship between neuroticism and impression formation; how do morality assessments regarding managerial decisions influence work-related outcomes.

The research paradigm is derived from the experiments conducted by Siegel et al. (2018). We adapted the research design to assess how moral impressions regarding good/bad managerial decisions in a pandemic context influence participants decision regarding the workplace (i.e., engaging in counter-productive work behaviors, turnover intentions).



The experimental paradigm - modified version-



- We modified Siegel et al. paradigm to be used for research in IOP;
- **Storyline:**

A fast-food chain with subsidiaries in 50 cities is facing financial difficulties in the context of the restrictions imposed by the COVID-19 pandemic.

The manager is looking for ways to get through this period successfully.

The solution would be to reduce the number of hours paid per month/employee to save money, so that the company is profitable.

For each restaurant, the manager has to choose between two options, which contain two pieces of information: the number of reduced hours and the estimated profit from this decision.

You will see, for each of the 50 restaurants, the two alternatives from which the manager must choose.

Your task is to anticipate, in turn, which option he will choose.

Stimuli:

4.6 % profit
and
4 hours/employee

13.9 % profit
and
20 hours/employee

Participants are presented with two options a manager of fast-food chain has regarding either increasing profit or cutting hours from employees. In the “good” manager condition, the manager chooses to sacrifice profit to protect employees, in the “bad” manager condition, the manager chooses to cut more hours from his employees to increase profit. Participants are asked to indicate which of the options they believe the managers chooses and then receive a feedback whether their guess was right or wrong. After four such trials, participants are asked to express their opinion regarding the morality of said manager, the certainty of their impression, and other work-related outcomes. Participants undergo a number of 24 trials (8 measures of the VD’s). We intended to include neuroticism as a moderator variable.

Suggestions after the meeting:

- To include goal hierarchies in the instructions participants, receive (i.e., choosing profit in the short term will lead to more job creation in the long term vs. protecting employees now);
- To manipulate the stakes; (i.e., participants are employees of that manager – decision has direct impact over them vs. decision of the manager has no direct implication over participants);
- Possible Halo effect based on target features -> participants could be asked to express features of moral/immoral managers prior to starting the trials;
- To differentiate between halo effect (based on description of manager) and spontaneous trait inference task (what manager does);
- Manipulation of salience (i.e., between-subjects – one group is primed by answering questions regarding manager’s morality, one group answers questions regarding work-place behaviors without being primed regarding manager’s morality);
- To identify whether participant with higher neuroticism need more trials to form an impression regarding the manager (coupled with stakes manipulation – p2);
- To modify the design and allow participants to stop when they are certain about their impression regarding the manager (i.e., some participants could stop after 8 trials, other after 24 trials – will people who score high on neuroticism need more trials to form an impression?);
- Control condition for experiment is not necessary.

Tasks:



Laurentiu and Luca mainly (along with the other members of the group) will carry out a literature search based on the suggestions that emerged during the meeting to decide on improvements on the current proposed paradigm.

d. The date of the second meeting

The date of the second meeting is not set yet.

4. Early-career researcher: Cătălina Bunghez (Group)

a. Research team members

Mentors from UVT: Florin Alin Sava, Andrei Rusu

Mentors from UNIMIB: Cristina Zogmaister, Rossella Dipierro

Mentor from UGENT: Jan de Houwer, Yannick Boddez

b. The date of the first meeting

The first meeting was established on Friday, March 12 at 2 p.m. CET.

c. Description of the first discussion

Introduction in the research topic

The main objective of the first meeting consisted in presenting a general research idea of interest by the early-career researcher, followed by a valuable discussion on the topic presented. Based on general results identified by Cătălina Bunghez in her first study as PhD student, she came up with a research question regarding the possibility of reducing negative evaluations made by highly neurotic people. An introduction on Extinction Procedure as an evaluative learning intervention was presented by the early-career researcher. The rationale of involving such an experimental procedure in a further study was to reduce the negative evaluations made by people with high levels of neuroticism (as a possible intervention on reducing the possibility for developing psychopathological symptoms).

Possible research directions/ objectives emerged

The research idea presentation was followed by a valuable discussion on the extinction procedure in general (from Fear Conditioning perspective, but also from Evaluative Conditioning perspective). The conclusion was that extinction procedure, as an intervention phase after an evaluative conditioning phase, does not generally prove a significant effect in reducing evaluation of the CSs. So, people tend to be generally more resistant to the extinction procedure. The discussion emerged helping in reframing the research question in order to identify whether people with high levels of neuroticism tend to be more resistant to the extinction procedure (making more negatively evaluations to the CSs that were paired with negative USs during the evaluative conditioning phase compared to people with low levels of neuroticism). Such a research direction could have theoretical implications by emphasizing the sensitivity to negative-related features in highly neurotic people.

Otherwise, the counterconditioning procedure was proposed by mentors as a more powerful evaluative learning intervention.

Handing out specific tasks to the research team members

The mentors' task supposed to send/ upload on Google Drive scientific publications related to the evaluative learning procedures discussed.

The early-career research's task was to analyse the materials sent by the mentors and to take a deep scientific insight on the two procedures discussed during the meeting.

d. The date of the second meeting

The second work meeting was established on Friday, March 26 at 2 p.m. CET



e. Description of the second meeting

The second meeting started with a summary of the first meeting.

The discussion around extinction procedure was resumed. A valuable input regarding the measurement of two dependent variables after evaluative conditioning phase was emphasized. So that, the mentors concluded that the extinction procedure could work whether the “expectancy” of the USs occurrence and the “thinking of the USs” measurements will be taken into account. However, this research direction will probably represent the second study.

The focus of the second meeting was on the counterconditioning procedure, a more powerful evaluative learning intervention. The mentors suggested some specific scientific publications on this topic to be examined. A part of them involves a classical counterconditioning procedure which can be implemented along with neuroticism measurements.

The further early-career researcher’s task consists in examining more in depth all those publications and designing the methodology of the first study. The experimental design emerged will be discuss with all mentors during the third meeting on Friday, April 16, 2021 at 2 p.m. CET.

5. Early-career researcher: Cristina Maroiu & Ștefan Marian / Luca Tisu (Group)

a. Research team members

Mentors from UVT: Laurentiu Maricutoiu

Mentors from UNIMIB: Cristina Zogmaister, Emanuele Preti, Juliette Richetin

Mentor from UGENT: Sean Hughes, Yannick Boddez

b. The date of the first meeting

The first meeting was established on March 19, 2021

c. Description of the first discussion

There were two starting-point ideas, that could be summarized as:

- Neuroticism and decision making
- Neuroticism and moral impression formation

While both ideas involve the topic of uncertainty, the study paradigm for neuroticism and decision making involves uncertainty as situational uncertainty: people have to make a choice, but some of the information regarding the options is unknown, thus the outcome is uncertain (so in a way, uncertainty here is given or manipulated and we measure people’s response - the choice they make - confronted with uncertainty); the study paradigm for neuroticism and moral impression formation involves uncertainty as subjective uncertainty - the participants are asked to state their impression about an “agent” they are learning about, and subsequently report their uncertainty regarding this impression (so here, uncertainty is a measured variable).

-Neuroticism and decision making-

For the topic of neuroticism and decision making, we started from a paradigm used in a previous study, where participants had to choose between two medical treatments. Three attributes were presented (advantages, disadvantages, cost), but some of the information was missing, so in regard to the two options, there was one “common attribute” (e.g., for both treatments, the information about advantages was available) and two “unique attributes” (e.g., the information about disadvantages was only available for one of the treatments and for the other, this information was missing).



Here are some of the ideas that came up during our first meeting:

- the task can be adjusted so we can measure how much information a participant needs in order to make a decision. Here, we present the participants with a series of two options, and a list of attributes regarding the options. The options are presented with incomplete information (only “unique attributes”: what is known for one option is unknown for the other), thus the participants need to actively request information (i.e., press a button that displays a certain piece of info.). This way, we can measure how much information does a participant need in order to make a decision. The expectation is that participants with a higher level of neuroticism will need more information to make a decision.
- also, we can include a “cost” for the information (there is already an implicit “cost” in the fact that they spend more time on the task, but maybe for some people, the “cost” of time is not that important as long as they get valuable certainty - so maybe we can include additional “costs” for the information and/or “rewards” for decisions made with scarce info).
- we can measure reaction time (the time people take to process the information, before making a decision).
- also, we can ask the participants how certain/ uncertain they are regarding the choice they made (this would be a self-reported measure of uncertainty and I really don’t know what to expect in relation with neuroticism. Neuroticism is related to a low tolerance of uncertainty but I’m not quite sure how that would translate here).
- since neuroticism has different facets (anxiety, hostility, depression, self-consciousness, impulsiveness, vulnerability), it’s possible that each, or some of these facets might make people more sensitive to certain information (e.g., facet anxiety might mean that people place a higher weight on disadvantages, potential losses or “side effects” of an option, rather than the advantages).
- another possibility would be that we give the participants the option of not doing anything (e.g., if we ask them to choose among two medical treatments, they can also have the option of not taking any treatment). This way, there’s a possibility to measure indecisiveness if they would consistently choose (?)
- we could induce uncertainty / a “blockage” by providing two options with the exact same utility (expectancy * value). Under such conditions, there is no way for people to make a choice between these two options. So, a goal-directed model would predict a blockage in such a case. However, there may be individual differences: some people simply not caring and making a quick decision still (“both options are fine”), while others would take a long time. So, it would be about the effect of individual differences on reaction times. We would also think about manipulations to speed up the decision process (“therapeutic interventions”) if some people would indeed be exceptionally slow.

-Neuroticism and moral impression formation-

For the topic of neuroticism and moral impression formation, we started from a paradigm used in a previous study (Siegel et al., 2019), where participants had to predict or “guess” the choice made by an “agent”. Each trial, the agent chose between a more harmful (more shocks inflicted on another person for more money) and a less harmful (fewer shocks/money) option (Siegel et al., 2019). The participants had to predict the choices made by the agent, and then they received feedback whether their guess was correct or not. The “agent” is a priori constructed to be either “bad” (i.e., mainly chooses the less harmful option) or “good”. Every 3rd trial, the participants are asked to evaluate the moral character of the “agent”, and the certainty/uncertainty they have regarding their evaluation of the agent’s morality.

Here are some of the ideas that came up during our first meeting:

- neurotic people might be more “judgmental” (in the sense that, compared to less neurotic people, they might consider both the “good” and the “bad” agent as more nasty or bad);
- measuring the participant’s expectation of people’s trustworthiness. It’s possible that neurotic people might expect that a “nice” behavior of somebody else is an exception rather than something specific of that person’s character. Thus, neurotic people might have a bias toward the “agent’s” negative behavior which would make them prone to ascribe more weight to the “nasty” behaviors and less weight to the “nice” behaviors in the process of moral impression formation. In simple words, if someone does something good (for you or for someone else, you don’t expect that will happen again). For this, we can have an agent (CS) who does a



couple of bad things (US) to you (the participant), followed by doing a good thing to you. The task would then be to predict whether the agent will do something good or bad to you on the test trial. One could find effects of neuroticism on that (perhaps already been done): possibly a bias towards predicting something bad. The question would then become: why do neurotic people tend towards making these negative predictions? Perhaps it has to do with early life experiences in which they learned that one nice thing is not a predictor for future nice things (e.g., their father might occasionally have given them a compliment, but haven been strict / negative again right after that). In a pre training phase, we could manipulate such experiences (e.g., either doing a good thing is predictive for good things from then onwards or a good thing is not predictive for future events).

- what would happen if we would vary the nature of the stimuli? (in the above-mentioned example, morality was operationally defined as money/shocks, so something negative; we could also include tasks that refer to positive (altruistic) behavior). One idea to pursue would be the possible moderating role of the type of behavior in the relation between neuroticism and moral impression formation [type of behavior=either it's negative and we refer to administering shocks, or it's positive - here, I would need to figure out a pair of complementary operationalisations for behavior (i.e., what is the opposite of administering shocks to somebody else in exchange for money?)]
- are neurotic people more sensitive to uncertainty regarding a certain subject (for instance, to social stimuli when people score high on the hostility subscale).
- also, we can approach the facets of neuroticism and the behavior of the participants in the tasks via network analysis (we can further discuss and develop this idea during the summer school, when we'll have a training session on network analysis).

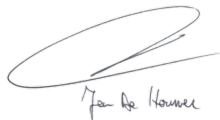
For all the ideas we discussed, it would probably make more sense to measure neuroticism as a state [for example, with the Mini Marker scale (Saucier, 1994)] rather than as a trait, since traits predict behavior aggregated across time, and here we are focusing on the participant's behavior on a specific task.

d. The date of the second meeting

The second work meeting will take place in April (probably on the 23rd).

The remaining research groups (6, 7, and 8) will probably have their initial online working session during April or May 2021. All developments will be included in the progress report, every six months starting from M6 of the project.

Signed, 30 March 2021



Prof. Jan De Houwer

Ghent University