

The influence of increasing future timespans on the functionality of narratives of possible selves

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Abstract

Background. This thesis examines the question of how different future timespans (a couple of days; one to five years; more than five years) influences the functionality of futuring (imagining the future). It has already been found out that futuring can have motivational effects on for example academic achievement, that it can be trained throughout a course of several weeks and that the functionalities (Expressing emotions, Orienting) are not completely stable over time. Therefore, the manipulation of time, was used to explore how functionalities differ depending on timespan.

Method. Four participants which were all students wrote one to two letters every week. In the first week the suggested timespan was a couple of days in the future, in the second week one to five years and in the third week more than ten years. The letters were coded in order to analyze and compare the functionalities that were used by the participants. These were followed up by a questionnaire in which the participants evaluated the perceived usefulness of the exercise which revealed what kind of functionalities are perceived as useful and how the perceived usefulness of the exercise differs throughout the weeks. Through qualitative analysis, Letters and questionnaires were analyzed with regards to the different dimensions (Imagining, Emotions, Attending to oneself, Orienting, Evaluating, Contra futuring, Personal/Social Situations) as well as the situations that were described in the letters and the situations that would benefit from this exercise which were found in the questionnaires.

Results. Overall, it was found out that the different functionalities all changed over the course of the weeks. The letters showed an excessive amount of 'Imagining' functionalities that were greatest for week 3 while the questionnaires revealed a significant decrease in perceived usefulness of the exercise over time. The situations found in both letters and questionnaires remained relatively stable with social situations (Family/friends/career-related) being predominant in the letters and personal situations (tackling important tasks e.g.) being found in the questionnaires.

Discussion. Manipulating the timespan used in the individual letters was successful in making visible changes in functionalities of futuring over the course of the three weeks. It was found out that certain functionalities are more present in certain future timespans. It was concluded that timespan plays a role in the efficiency of most functionalities relating to imagining a best possible self. Therefore, interventions or therapies that make use of futuring may benefit from the

knowledge that certain functionalities are more efficient in certain future timespans. Thus, further studies need to elaborate on these findings and should seek to do comparable studies with different age groups and educational backgrounds to be able to either generalize the findings or to stress differences in the perception of individuals.

Introduction

Example letter from the future:

Hello present self, I am your future self and I would like to tell you about a great time that lies in front of you. In three weeks it's Christmas and you will be in your home town. Your brother, who you haven't seen for a long time, is going to be there and you will cook and bake together with your family. All your friends from school will be back in your home town and you will have time to meet them, party with them.. but also to prepare yourself for your upcoming exams. You will be relaxed, but also excited and happy to see all your loved ones. And lastly you are going to be proud of yourself, because you managed to concentrated and focus on your exam preparation, gave your best to accomplish the exam and get a good grade. And you also took some time to enjoy the advent time. Love you, your future self

This study aims at investigating the functionality of futuring (imagining the future) using different timespans between current and imagined future self in everyday live by utilizing 'Letters from the future'. It is going to be discussed how the difference between current and imagined possible self, influences the perceived effectiveness of futuring. In the Introduction of the thesis, the focus will lay on determining relevant terms. Moreover, an overview of current research on this topic is provided and the relevance of the present study is explained.

Futuring

The term futuring draws attention to the imagination of a future scenario. Imagining the future is a human skill that, even if often not mentioned explicitly, is essential to many of the current psychological theories. Self- actualization or also psychological development are concepts in psychology that heavily rely on the future as a key component in its theories (Sools & Mooren, 2012). Melges (1982) considered futuring to be composed of four components which are expectation, anticipation, imagination and visualization of the future. He even suggested the involvement of futuring in psychiatric disorders. For example, does he relate psychosis to temporal disintegration. He explains confusion between past, present and future as its cause. Another example would be depression which he claims is caused by hopelessness that results from the future being perceived as meaningless. Pleasant states in life are said to be characterized by the lack of pressure to reach a certain goal in the near future. To stress the omnipresence of futuring in our lives, Sools & Mooren (2012) emphasize the role of futuring in a variety of

emotions such as ‘hope, anxiety, despair, or desire as well as emotion-related states like expectation, boredom, stress or nostalgia only make sense in the context of time moving on’ (Sools & Mooren, 2012). As an example, thinking about or imagining the future can have influence on characteristics such as optimism or motivation which are linked to the overall well-being of the individual. An intervention by Meevissen, Peters, & Alberts (2011) showed that regularly imaging a best possible version of oneself had positive influences on optimism for people regardless of their prior level of optimism. A study of Mayer and Oettingen (2002) suggests the influence of imagination on motivation which is related to future success. The results emphasized the distinction between positive expectations and positive fantasies. Positive expectations were related to past success and could predict actual motivation to achieve future goals. Positive fantasies was found to either lower motivation as it enhances the enjoyment of simply dreaming about desired future scenarios.

The functions of Possible selves

In order to move from general future imagination towards the imagination of a possible self it is necessary to dive into research done in the field of ‘Possible selves’. According to Markus & Nurius (1986), possible selves can be considered representations of the knowledge one has obtained about oneself. They resemble individual goals and motives but can also reflect fears or threats. Thus, possible selves can be hoped for images of the future, for example achieving career in ones’ dream job. In contrast, it is also possible to imagine a feared possible self, for example becoming severely ill. As Markus and Nurius explain another distinction between these two kinds of imagined possible selves is the pathway they follow. On the one hand, hoped for possible selves usually strive towards some kind of success or achievement such as self-promotion. On the other hand, feared possible selves are related to a pathway of avoidance. Nevertheless, both kinds of motivation that an individual receives from these can still lead to a similar outcome. As an example, motivation through a possible self that reached his/her goal of working in his/her dream job may lead to someone quitting behavior such as excessive drinking on the weekend that keeps him/her from functioning at work. At the same time, imagining a possible self that became homeless as a consequence of losing his/her job, may result in the same change of behavior (Barreto, 2012). Research on this topic has also shown a relation between development of the

individual and the topics reflected by imagining a possible future self. This, young adults used to focus on career goals and romantic relationships while family is central to middle adulthood and health issues as well as independence becomes most relevant in later life (Hooker & Kaus, 1994). As already touched on previously, possible selves are, besides reflecting the current developmental stage, also an important influence on motivation. By thinking about future goals, present behavior is shaped in order to reach those (Markus & Nurius, 1986). Now tailoring it down to the approach that is used in this study, the focus is going to be switched towards a special kind of possible self which is called the ‘Best possible self’ (BPS).

The BPS was originally introduced in the already mentioned article by King (2001). In this first version of the study, participants were asked to imagine themselves in the future. They should think of ideal conditions and circumstances for their future self and afterwards write about what they imagined. Peters et al (2010) utilized this approach to check whether imagining and writing about a BPS may have a positive influence on optimism. The results revealed that ‘the study provides evidence for the efficacy of a BPS manipulation to temporarily enhance optimism. In addition to a more positive mood, a BPS manipulation changed the expectancies of participants for the future in a more positive direction’ (Peters et al, 2010). Meevissen, Peters & Alberts (2011) even extended the research on this when they examined the effects of a two-week intervention using BPS on optimism. Their goal was to check whether the same enhancement in optimism that was found to be achieved in Peters et al original study, could be maintained over a longer time period, using a two-week intervention. The study showed that daily imagery of BPS over a two-week period can result in a sustained increase in optimism but had a set future timespan that was not manipulated throughout the weeks. They compared the imagery of BPS with imagining daily activities and the BPS resulted in the cause of significantly larger increases in optimism (Meevissen, Peters & Alberts, 2011).

Functionalities of futuring related to timespan

The study by Eric Haase (2019) revealed that characteristics of narrative imagination are not entirely stable from letter to letter. Therefore, it was suggested that manipulating a variable such as timespan would lead to even larger varieties in the characteristics or functionalities of the letters (Haase, 2019). Therefore, functionalities of futuring and their relation to future timespan were analyzed.

The first functionality that is reflected is imagining. When it comes to this functionality it needs to be stressed that people, especially those in their twenties, do not usually think of a time far ahead in the future. Even though, the average lifespan of human beings is common knowledge, a future scenario that contains events or actions up to 50 years in the future is nothing that people commonly think of. Thinking usually does not surpass a timespan more than a year ahead in the future. It is easier and therefore more common for these people to think of events, actions and places that are within a one-year timespan from their current self (Zaleski & Przepiorka, 2015). Nevertheless, a study by Blouin Hudon & Carleton from 2017 revealed that training in the form of regular mental imagery over a course of several weeks has a positive influence on the vividness of future imagination. To sum it up, these studies suggest that imagining future timespans closer to the current self are easier for especially adolescents. Regular exercises that ask for imagining future timespans can still partially make up for the rather unusual imagination of future scenarios that lie out of the usual thinking pattern.

Secondly, orienting is a functionality that can be related to future timespan. Research on this topic focuses especially on goal setting (Matthews & Stolarski, 2015; Seginer & Lens, 2015; Zaleski & Przepiorka, 2015). Goals are said to be the director for human actions and play a crucial role in motivation. The relevance of the certain goal is linked to the motivation one has to achieve it. By conceiving desirable future time perspectives, people imagine place and time of obtaining the goal as well as the actions that led to the achievement. There was found to be a difference between short- and long-term goals. A study on 306 high school students revealed that students who were found to score high on long-term goals and made plans to achieve those were not only more persistent in obtaining these goals but also reported a higher well-being connected with higher self-efficacy, meaningful life as well as less emotional distress and hopelessness (Zaleski & Przepiorka, 2015). What was also linked to future timespan is the distinction between proximal goals which suggest a rather short future timespan and distal goals that usually account for a longer future timespan. First of those was found to be a stronger incentive in for example weight control. Nevertheless, there may be other areas that profit more from setting distal goals. Moreover, a set of situations that benefit from goal setting or that are usually a trigger to set oneself goals has been identified. The fact that difficult life conditions may benefit from imagining a desired future self that creates a discrepancy between actual and imagined situation can have a motivating effect. Besides that, age plays a predicting role in the areas of life that goal setting is used for. Thus, adolescents have found out to be mostly involved in setting goals for

their educational career which can also entail place of living, family status, competencies apart from their professionalization as well as characteristics of themselves (Zaleski & Przepiorka, 2015).

Markus & Nurius (1987) also suggested that encountering difficult decisions often involves imagining oneself under certain conditions in the future. This suggests that futuring may play a role in everyday life whenever a certain decision needs to be made. Seginer and Lens (2015) also elaborated on future orientation related to goals setting. They emphasized two factors in instrumentalizing future orientation to achieve goals. First of these is exploration which is related to collecting information about possible future options and evaluating whether it fits individual values and environmental conditions. Second is commitment which is connected to choosing the best possible option for oneself and striving towards achieving this goal, plan or hope (Seginer & Lens, 2015). To sum it up, literature on orienting related to future timespans suggests that future timespan is strongly related to goal setting in terms of proximal and distal goals.

The next functionality to be examined is Evaluating. This functionality is associated with functions like positive reinterpretation, praising or blaming oneself. What an article of Mitchell (1997) revealed was that people tend to evaluate important life events as more positive than they actually experienced them when recollecting these events at a later point in time. Apart from this research, the evaluative function of futuring appears to be understudied (Sools, Borgmann, & Kleine, 2016).

Emotion research, on the other hand, has been a quite well researched field concerning its link to future timespans. Being able to mentally imagine future scenarios has shown to evoke comparable physiological and emotional activations of the nervous system than actually experiencing the scenario. Therefore, emotions are strongly linked to futuring (Bluoin-Hudon & Carleton (2015)). Aristotle emphasized the fact that emotions are strongly related to the attitude towards time. Thus, he argued that events that are further away in the future do not arouse the same amount of anxiety as ones that appear close in time. Everyone is aware that he/she will die one day and nevertheless mortality appears way more threatening when death seems to be close (Matthews & Stolarski, 2015). More current research also suggests that neurotic states are related to imminent, acute events that arouse anxiety. Further research may reveal whether the same accounts for positive emotions. The emotions that are related to futuring are significantly driven by the expectations we have for our future. While negative future scenarios evoke anxiety and

concerns, positive future dimensions are related to hopes and excitement. Emotions also play a role in motivation. When deciding to tackle a task or follow a plan there is usually the decision between approach and avoidance with approach being linked to positive emotions and avoidance with negative ones (Matthews & Stolarski, 2015).

Attending to oneself is the next functionality that is related to future timespans. Self-motivation has been one of the dimensions for this code and most of the research found on timespan and this functionality focuses on this topic. The literature on motivation has already been covered in the orienting abstract above. As literature on future timespan and the functionality of futuring is often not linked to the relatively new method of 'Letters from the future' that allows for a direct communication between current and imagined self, this is a topic yet to be researched.

To sum up, most research found on timespan related to functionalities of futuring is related to a comparison between past, present and future time on those functionalities. Nevertheless, there are different functionalities such as goal setting that is influenced by future timespan. Moreover, imagining best possible selves has been found out to be a method that can be useful in different kinds of domains. Therefore, it would be advisable to further elaborate on the influence of different future timespans on the functionalities of futuring to optimize the futuring experience of participants and to gain an understanding of how certain functionalities may be optimized by manipulating the future timespan used in the futuring experience.

Relevance of the study

The relevance of this study becomes clear when examining the already existing literature on functionalities of futuring with special regards to timespan. Existing literature on the functionalities of futuring often does not include multiple measurements. The study on BPS by Alberts (2011) did include multiple measurements but had a set future timespan that was not manipulated throughout the weeks. Combining multiple measurements with multiple timespans therefore enables the collection of data that has not yet been examined. It can not only be seen how the functionalities and situations used by the participants change throughout a three-week period but also how the difference between actual and imagined possible-self influences the functionalities of the narratives. This aims at revealing knowledge about the most efficient use of narratives of possible selves as well as the most suitable timespans for certain functionalities.

With this knowledge, studies, interventions and therapies that are based on imagining a BPS can highly profit in order to optimize patients/participants experience of narrative imagining

The study by Mayer & Oettingen serves as a nice example of what needs to be done in order to optimize the effects and experiences futuring has. On the one hand, as already explained, it is known that futuring has significant influences on character traits such as optimism and can even obtain predictive power when it comes to future success. What still needs to be found out, on the other hand, is when different functionalities of futuring are effective. In this study, whatsoever, the timespan between current and imagined self is going to be examined in order to find out about the change in perceived effectiveness (the degree to which participants regard their futuring exercise as helpful) when imagining possible selves. The relevance of this study becomes clear when looking at the already mentioned potential that lies in futuring as a psychological a process or capacity that can be stimulated by a prospective-reflective instrument such as letters from the future. It has not yet been investigated how the time between actual and imagined self (short < 1 month; mid 1-5 years; long > 5 years) influences the functionalities as well as the perceived effectiveness in an intervention that is based on futuring. That is why, in order to enhance the effectiveness in the use of futuring as a part of upcoming therapies or interventions, investigating the influence of the timespan has been chosen to be a meaningful field to research on. Therefore, the research question that is going to be investigated is “How does the difference in timespan between current and imagined self, relate to the functionalities and situations of imagining possible selves by writing letters from the future?”

Methods

An qualitative longitudinal study design (Thomson, 2007) was employed provided through a smartphone application. It consisted of an exploratory web-based study over the course of three weeks in which timespan was manipulated and used qualitative methods for both data collection and analysis.

Participants

Initially, a sample of seven participants were recruited using convenience sampling. Three of these participants did not participate in all of the three weeks. These letters and questionnaires were excluded in the analysis. Eventually, four participants finished the intervention. All of them were German university students. Two were male with an age of 21 and 22 and two of them were female with an age of 21 and 22. This leads to an average age of 21,5 years. The participants did not have to fulfill any specific requirements besides the ability to sufficiently understand and write the English language.

Procedure/Materials

A survey was designed using 'the incredible intervention machine' (TIIM) in collaboration with the BMS Lab of the University of Twente. The request consisted of biographical information and the informed consent. Over the course of three weeks, two different methods for data collection were utilized twice each week.

Letters from the future

Now we switch the focus towards the approach that will be used in this paper. Within this instrument, the participants should be able to use the futuring technique on their own and reflect on every-day situations. Thus, the method that is going to be used is the 'Letters from the future'. This approach was originally used in the 'Letters from the future project' at the design lab of the University of Twente. Its aim was to explore the functionality of a specific narrative medium by investigating the influence of its content, structure, form and audience on psychological well-being. Prior to utilizing a narrative approach such as the 'Letters from the future', the main data collection based on futuring has been throughout using an oral approach such as interviewing (Sools & Mooren, 2012). Besides the fact that using letters is supposed to be a shorter approach towards reflecting on ones futuring experiences, an article by King (2001) revealed several other advantages of a narrative approach. In her article, King emphasized the fact that writing about traumas has been found to be an effective way of coping with such. Based on this fact, she tried to find out if the focus on writing exclusively about positive future aspects would lead to similar health benefits. Thus, she researched on the health benefits of writing about life goals and concluded that writing about these, lead to a reduction in the frequency of feeling upset or getting sick and to an increase in happiness. Moreover, the downfalls of writing about trauma such as lowering the overall mood and feeling aroused have been erased while

simultaneously maintaining the physical benefits of writing about trauma (King, 2001). These findings combined with the fact that a three week intervention with a total number of six letters per participant profits from the time advantage letters have compared to interviews, it has been chosen to utilize the “Letters from the future” in this intervention.

The kind of letters that are used characterize themselves throughout the perspective they are written from. Prior to the actual exercise, the participants receive a guided meditation in which they have the ability to travel into the future. From this future moment, the participants are asked to write a letter back into the present addressing their current self and reflecting on the past that led from the current towards the future self. This approach is based on the one described in the 2019 article “back from the future: A narrative approach to researching personal imagined futures” by Sools.

Procedure

First, the participants were asked to write a ‘Letter from the future’ and after that they were asked to fill out a questionnaire with short open and closed questions regarding the perceived helpfulness of the exercise as well as situation in which it would be considered useful. The difference between the three weeks is the timespan used. In week 1, the participants are asked to imagine a possible self in a desired situation a few days up to one month ahead in the future. The second week asked for an imagined self between one and five years in the future and the third week is based on the longest timespan of five or more years. The participants were guided through a meditation they received throughout a video which showed relaxing pictures and in which the guided meditation provided below is read to them. This way, it is made sure that the participants will be aware of the different timespans used and they will exactly know what possibilities they have in terms of writing about their possible self. Still, the task is very open and the participants have a lot of freedom in what they are wanting to write about. Due to restrictions of the application used, the word count for the letters was limited to 500.

Guided meditation provided in each of the weeks, with changing timespans:

Welcome to the future now experience. Thank you for joining us. The future now experience is a creative exercise where you will be transported to the future with a time machine. It will take about 20 minutes to write a letter from the future. Before starting the exercise, you will receive a

*guided meditation that will help you travel to the future and relax as much as possible. For this experience to work optimally we invite you to relax yourself, sit in your chair comfortably. It is important that you can release your mind, relax a bit, breathe and don't think too much. Have fun. That is the idea. Okay, are you ready? Let's begin. Close your eyes and sit comfortably in your chair, with your feet on the ground. Take a moment to relax your body. Feel how your feet touch the ground. Maybe wiggle a bit with your toes. Then go up with your attention. Move up to feel your legs. Then move up to feel your belly. Relax. Now feel how you sit in the chair, how your body touches the seat. Take three deep breaths. With each breath you release tension that you may have. Release all thoughts, just focus on the here and now, on the breathing and then smile to yourself. Welcome yourself in the present moment. Now imagine that you are travelling with a time machine to the future. The future can be any moment from now, **a day, a week or up to one month from now (week 1) between one and five years from now (week 2) more than five years from now (week 3)**. Remember that the time machine can go anywhere. You go to a desired situation **a day/week or up to one month from now (week 1), between one and five years from now (week 2), more than five years away in the future (week 3)**. This may be a situation in which you have accomplished something you deeply desire or in which you have learned to deal with some difficulties you may be experiencing right now or simply a situation in which you feel joy and excitement or where you feel at peace. You take the time machine and travel to the desired situation. You step out of the time machine and look around where you are. Your surroundings. Are there people? Is there nature? Buildings? What do you see? What do you look feel? What do you smell? What do you hear? What are you wearing? How are you feeling in this future? What are you doing? Now pause a bit and start writing a letter about this future situation. This letter will go back with the time machine to the present, to your present self. In the letter you describe the future situation. You tell your present self where you are, what you are doing and feeling. Give as much detail as possible. You may also describe the path that led you to your desired future. How did you arrive in this future? Finally, you close the letter with a message to your present self. When you are ready you can now open your eyes and start writing.*

The 'Letters from the future' instrument is adapted from Sools & Moren (2012). They stressed the practical advantage of using letters which lies in its time-efficiency compared to collecting data throughout interviews. Still, sufficient skills in writing the letter are an important prerequisite. These findings led us to utilizing this method and without applying any pressure to

the writing skills of the participants trying to find participants that we think do have the sufficient skills for this task. For our purposes, the ‘Letters from the future’ method was adopted by guiding the participants towards writing about specific time spans which was done by the tasks provided and especially the guided meditation. Moreover, they were specifically asked to write about a desirable situation in order to be able to apply and compare the findings of ‘best possible self’ studies to this intervention. The last method that was adopted is the questionnaire. Each of the participants was asked to write two letters per week and after these letters they were asked a couple of open and closed questions. Apart from analyzing the functionalities and situations explained in the letters, we wanted to find out about the perceived helpfulness of the letters throughout the weeks. Moreover, we were interested in what especially makes the futuring experience or the letter writing helpful or not and in what situations the participants think that the exercises provided in the intervention may help them. For this purpose, we asked the following questions after every letter.

Questionnaire provided after every letter

1. *After having listened to the guided meditation, please start writing a letter from your future self to yourself in the present.*
2. *How difficult was it for you to imagine yourself in the future? (Likert scale)*
3. *How much did you enjoy imagining your future self? (Likert scale)*
4. *To what extent has imagining your future self been helpful for you? (Likert scale)*
5. *Please explain why you think so (open question)*
6. *How much did you enjoy writing the letter from the future? (Likert scale)*
7. *To what extent has writing the letter from the future been helpful for you? (Likert scale)*
8. *Please explain why you think so (open question)*
9. *Did you spontaneously consult your future self in the last few days? (Yes/No)*
10. *If yes, in which situation did you consult your future self? (open question)*
11. *If no, can you think about a situation in which it would have been useful to consult your future self? Please explain why. (open question)*

We adjusted already known methods such as the ‘Letters from the future’ by making it more explicit in asking for different timespans and desired situations. This was done in the hope to be able to compare different combinations of functionalities used in every of the three weeks.

Moreover, insights into what makes the specific letter or futuring experience helpful was aimed to be received by the questionnaire as the letters themselves do not reflect on that. The guided meditation was a means to guide the participants into writing about different timespans which in turn gives insights into the answering of the research question.

Data analysis

To analyze the data derived from the letters and the questionnaires, a coding scheme needed to be developed. This was done together with the second bachelor student working on this topic V. K.. Mainly, the aim was to find out about functionality codes that display how the participants used the letters as well as situation codes that revealed what kind of situations the participants wrote about. The data from the questionnaires was different. Here, the participants indicated what specific functionalities they perceived as helpful. Moreover, they were asked what current situations in the present they perceive as situations in which they may benefit from the exercises provided in the intervention. The basis of the coding scheme was the definition of functionalities in Sools, Tromp & Mooren (2015) They investigated the usage of specific letter types that contain a combination of functionalities. The functionalities of ‘Imagining’, ‘Attending to oneself’, ‘Orienting’, ‘Emotions’ and ‘Evaluating’ and their specific subcodes were adopted from the article as these were functionalities that were already found to be important in ‘Letters from the future’. We did not only focus on functionalities but also situations. Therefore, the distinction between social and personal- situation codes was made and we came up with specific subcodes that we knew were prevalent in the letters. With these first codes, we analyzed the letters and tried to apply them to our data. The first thing that was clearly missing was a code for the sentences that explained why specific participants regarded the exercises as not helpful or less helpful than in the weeks before. We analyzed the answers of the questionnaires and came up with four subcodes that described ‘Contra futuring’. These were found to be ‘too far away’ indicating that the imagined self is too far in the future to have an affect on their current situation, ‘perceived inapplicability’ which was found when a participant did not have the impression that he can be helped with the exercise or if they lack a ‘problem’ that they can successfully manage or reflect on during the exercise (for example one participant mentioned not to have something upcoming that he wants to motivate himself for). The other two subcodes were ‘unachievable future’ which was found in participants that were concerned not to reach what they imagine as well as ‘overload of possibilities’ which was found in participants that did not regard the exercise

as helpful because the imagined scenario was only one of an unlimited amount of possibilities. Besides these codes, we found new functionalities in already existing codes such as ‘distancing oneself’ and ‘accepting’ in ‘Evaluating’, some negative emotions like ‘worries/concerns’, ‘uncertainty’ and ‘dissatisfaction’ in ‘Emotions’ and very prevalent usage of ‘self-motivation, self-empowerment’ as well as ‘reminder’ and ‘avoidance strategy’ in ‘Attending to oneself’. Lastly, we came up with a whole new code ‘Self-care and well-being’ as it was found out that some participants seemed to see the exercise as enjoyable or relaxing without it serving another specific functionality. After having finished the coding scheme, which can be seen in the results section, the data needed to be analyzed.

As there was a remarkable difference in length and number of letters written per participant, the total amount of sentences (per letter, per week) was calculated. Every sentence was coded separately. This enabled the calculation of proportions for every code. The number of each code was divided by the total number of sentences (per letter or per week depending on what wanted to be analyzed). The total numbers are provided in brackets behind the proportions in Table 2 of the results section. To give an example, a number value of 0,260 for the code ‘Attending to oneself’ in week 1 of the letters as displayed in table 1 indicates that in 26% of the combined total sentences (73) of the participants writing a letter in week 1, the participant utilized the letter to attend to him/herself in any way. When talking about the proportions of subcodes, the percentile of the specific subcode concerning the total amount of the main code is meant. Thus, a proportion of 19% for the subcode ‘excitement’ in week one displays that 19% of the sentences that were coded to serve the functionality of the main code ‘Emotions’ referred to ‘excitement’.

This only counts for the functionality codes in letters and questionnaires. Situation codes were coded per letter. Because of that a value of 0,286 for the situation code ‘personal situations’ in week 1 was derived by dividing the total number of times this code was used (2) by the total amount of letters written in this week (7). Therefore, it indicates that in week 1 roughly 29% of the letters referred to personal situations.

Results

In this section, the eventual coding scheme that was used in the data analysis is displayed in table 1. Moreover, the overall findings per code in each of the weeks is provided and explained. The individual aspects of each of the participants is shortly described and the general findings are shortly summarized.

Coding scheme

Table 1

*Table Codes and Subcodes with corresponding citation. Codes marked with * were obtained from Sools, Tromp and Mooren (2015). Citations marked with ° were obtained from the letters of the research partner.*

Code	Definition	Citation
<i>Functionality</i>		
Imagining *	The participant describes future events, recollects events from the future past, engages in daydreaming, or describes own characteristics.	"Now everyone is sitting next to the christmas tree on the couch in the living room." °
1. Narrative imagining of the future *		
2. Anticipated reminiscence *		"I am fine despite some initial anxieties with meeting new people and going to new countries."
3. Characterising oneself *		
Orienting *	The participant identifies future goals or values that have not been reached yet, which can include material or immaterial goals, or discovers different options for his behaviour.	"I want to concentrate more on local social causes and activism, I have applied for a few causes and volunteering."
1. purpose/value [V1] orientation *		
2. goal setting *		
3. monitoring goal-directed behaviour *		
4. exploring options *		

Evaluating [v2] *	The participant may assign value to own past and future experiences, to use them in a productive way. The participant may also praise or blame himself for successes and failures or distance himself from past or present events and experiences.	2. "I am fine despite some initial anxieties with meeting new people and going to new countries."
1. positive reinterpretation *		
2. praising oneself/self-enhancing *		
3. blaming oneself *		
4. learning of lesson *		
5. distancing oneself		
6. Accepting		

Emotions [v3] *	The participant writes about his emotional reaction on future or past events or situations.	"I am very excited; the course starts tomorrow."
1. regret/ sorrow *		
2. obligation/ duty *		
3. hopes/ dreams/ wishes *		
4. satisfaction/ gratefulness *		
5. excitement *		
6. worries/concerns		
7. uncertainty		
8. dissatisfaction		

<p>Attending to oneself</p> <ol style="list-style-type: none"> 1. emotional support/empathy * 2. disclaiming * 3. moral advice* 4. worldly wisdom * 5. practical advice * 6. promise * 7. self-motivation, self-empowerment 8. Reminder 9. Avoidance strategy 	<p>The future self directly addresses the current self and gives advice, tries to motivate or provides emotional support for the present self.</p> <ol style="list-style-type: none"> 8. The participant uses the future lettering as an initiative to think about his or her future. 9. The participant reported that he or she used futuring as means to procrastinate or avoid dealing with difficulties. 	<p>"Enjoy your time, this semester seems relaxed but also study for the exams before Christmas." °</p> <ol style="list-style-type: none"> 8. "The letter could be a "reminder" for [thinking about my future]." ° 9. "Daydreaming, when I wanted to escape work or current obligations."
<p>Self-care and well-being</p> <ol style="list-style-type: none"> 1. Mindfulness 2. Enjoyment 3. Resilience 	<ol style="list-style-type: none"> 1.The participant uses thinking about the future self as a mindfulness-practice. 2. The participant uses futuring for personal enjoyment and without any further purpose. 3. The participant perceives futuring as increasing resilience toward issues he might encounter. 	<ol style="list-style-type: none"> 1."Writing was helpful because it felt like I could let myself and my thoughts flow and be myself without possible judgement by others." 2."Imagine your future me being happy and the people around me as well gives you a good feeling. It shows that there is a future to look forward to." ° 3. "I think it could be helpful in situations when you are stressed or depressed. So, you remember that there is something to look forward to." °

Contra futuring	1. Participant perceives the amount of options for his or her future as overwhelming	1. "I find it hard to imagine how my future could look like because there are so much possibilities." °
1. Overload of possibilities	2. Participant perceives the time span between present self and future self as too large	2. "It is not very helpful, because I don't know if this imagination will happen in this way because it's so far away and I don't even know if I want it to happen when I am in this situation." °
2. Too far away	3. Participant is concerned not to achieve his own expectations about his future	3. "It's difficult to take a realistic future perspective, without risking to get disappointed later."
3. Unachievable future	4. The participant perceives futuring as not productive to solve current problems	4. "I already answered this question." °
4. Perceived inapplicability		

Situations

Social situations	1. The participant mentions situations that involves his friends or family.	1. "In the morning, I had breakfast with my family." °
1. Family/friends-related	2. The participant mentions activities, events or emotions involving his or her partner.	2. "I finished the second trip to Europe with [my partner] and enjoyed Christmas celebrations with his family and the anniversary getaway."
2. Romantic relationship-related	3. The participant describes free time activities such as hanging out with friends or doing sports.	3. "Now we are sitting in a bar, drinking a beer and I am writing this letter." °
3. Leisure activity-related	4. The participant writes about job or study related topics such as exams, applications or graduation.	4. "I want to concentrate more on local social causes and activism, I have applied for a few causes and volunteering." [v6]
4. Career-related		
Personal situations		
1. Presenting issues	1. The participant introduces a problem that she encounters.	1. "Otherwise, you can't enjoy the days between Christmas and New Year as much as you would like." °
2. Presenting solutions	2. The participant presents a solution for a problem he encountered.	2. "Study for the exams before Christmas." °
3. Stressed/depressed situations	3. The participant mentions situations in which he/she feels bad (stressed, depressed, scared) as fitting to consult his/her future self	3. "I think it could be helpful in situations when you are stressed or depressed. So you remember that there is something to look forward to." °
4. Important decisions/tasks [v7]	4. The participant mentions situations in which he/she needs to make an important decision or needs to face a complicated task as fitting for consulting his/her future self.	4. "When you have to make a decision for your future. For example, what You want to study." °

Overall results per week

Table 2

Overview weeks, proportions of codes used per participant, per week

Codes	Letters			Questionnaires			Total
	Week 1	Week 2	Week 3	Week 1	Week 2	Week 3	Letters/ Questionnaires
Functionalities							
Imagining	0,630 (46)	0,54 (27)	0,704 (31)	0 (0)	0,048 (1)	0 (0)	104L/1Q
Emotions	0,356 (26)	0,42 (21)	0,341 (15)	0,091 (3)	0 (0)	0 (0)	62L/3Q
Attending to oneself	0,260 (19)	0,34 (17)	0,25 (11)	0,486 (17)	0,286 (6)	0,059 (1)	49L/24Q
Orienting	0,192 (14)	0,3 (15)	0,227 (10)	0,152 (5)	0,333 (7)	0,353 (6)	39L/18Q
Evaluating	0,123 (9)	0,26 (13)	0,227 (10)	0,152 (5)	0,048 (1)	0,059 (1)	32L/7Q
Self-care and well-being	0,014 (1)	0,02 (1)	0,023 (1)	0,182 (6)	0,190 (4)	0,118 (2)	2L/12Q
Contra futuring	0 (0)	0 (0)	0 (0)	0,06 (2)	0,142 (3)	0,471 (8)	0L/11Q
Situations							
Social situations	1,286 (9)	1,2 (6)	2 (10)	0,714 (5)	0,6 (3)	0,2 (1)	24L/9Q
Personal situations	0,286 (2)	0 (0)	0 (0)	1,143 (8)	0,6 (3)	0,8 (4)	2L/15Q
Total sentences	73	50	44	33	21	17	167L/71Q

Total Letters/ Questionnaires	7	5	5	7	5	5	17L/17Q
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The above table provides insight into the proportions and total numbers of functionality and situation codes used in letters and questionnaires per week. It combines the findings of all four participants. The total number of codes used decreases from top to the bottom of the table. In the following abstract the results of the coding are provided. First, it going to be taken a look at the usage of codes within the letters throughout the weeks. Second, the codes used in the questionnaires are explained.

The most prominent code throughout all the weeks in all of the letters is ‘Imagining’. In week one, 63% of the sentences written by the participants made use of ‘Imagining’. In week 2 this number slightly decreases only to reach its peek in week 3 where 7 out of 10 sentences would serve the functionality of ‘Imagining’. When making use of ‘Imagining’, every singly letter of all of the participants utilized ‘narrative imagining’ which was the most prominent subcode referring to ‘Imagining’. Almost 80% of the sentences that were coded with ‘Imagining’ referred to this subcode which made it the overall mostly used subcode with a total amount of 82. Week 2 displayed the highest proportion of ‘narrative imagining’ with around 89% of the codes referring to ‘Imagining’ being ‘narrative imagining’. In week 3 the lowest proportion of ‘narrative imagining’ was found with around 70% of the ‘Imagining’ codes. Even though ‘narrative imagining’ was by far the most used subcode of ‘Imagining’, ‘anticipated reminiscence’ stood out as well. In week 3 around 23% of the sentences coded with ‘Imagining’ referred to ‘anticipate reminiscence’ which marked the highest usage of this subcode. In week 2 there was only a proportion of around 7% which indicated the lowest usage.

‘Emotions’ was found to be the second most used code throughout all the weeks. Week 1 and 2 displayed an almost equal proportion of around 35%. Week 2 has been the week with the highest overall usage of ‘Emotions’. Compared to the weeks before and after, an increase of 7% has been found. ‘Satisfaction/gratefulness’ was found to be the most prominent subcode referring to emotions. This finding applies to each of the three weeks. Overall, approximately 40% of the sentences that were coded with the functionality of ‘Emotions’ referred to ‘satisfaction/gratefulness’. The highest proportion of this subcode was found in week 3. In this week, more than 50% of the codes referring to ‘Emotions’ were linked to

‘satisfaction/gratefulness. The code of ‘Emotions’ differed from ‘Imagining’ in the sense that there were multiple subcodes that were applied quite often and led to the frequent utilization of this functionality. ‘Hopes, dreams and wishes’ has been the second most used subcode with an overall proportion of around 27% of the overall ‘Emotion’ codes. The utilization of this subcode decreased from around 30% in week 1 to 20% in week 3. Shortly after this subcode, ‘excitement’ was the third subcode referring to ‘Emotions’ in each of the three weeks. Especially week 2 which showed a proportion of around 23% for ‘excitement’ stood out to utilize this specific subcode. The lowest usage was found in week 3 with a percentile of 13%.

The third code displayed on the table is ‘Attending to oneself’. This code was found to be most prevalent in week 2 with a proportion of 34% compared to around 25% in both week 1 and 3. The most prevalent subcode with a proportion of 36% was ‘self-motivation, self-empowerment’. What is remarkable about this subcode is its decrease in week 3. In each of the first two weeks, this specific functionality has been found a total of 8 times while in week 3 its total use decreased to only one total usage. ‘Moral advice’ was found to be the second most used subcode with a proportion of around 26%. This functionality increased from week 1 where it was the third most used subcode to becoming the most prevalent one in week 3. The subcode ‘promise’ was the overall third most used subcode overall with a percentage of 15%. Its usage developed from being barely used in week 1 and 2 to becoming the second most used code in week 3. ‘Practical advice’ which was the second most prevalent code in week 1 decreased to seeing no usage in week 3.

At the fourth place in overall proportional usage, ‘Orienting’ is displayed. This codes highest proportional usage was in week 2 where 30% of the sentences referred to its functionality. In week 1 and 3 its proportional usage was around 20% which makes its use in week 2 stand out. The overall most used subcode that was applied in around 46% of the case in which ‘Orienting’ was coded has been ‘goal setting’. This code was relevant in week 1 and went on to become the most used subcode in week 2 and 3 where around 50% of the ‘Orientation’ codes referred to ‘goal setting’. In week 1 ‘monitoring goal directed behaviour’ was found to be the most prevalent code with a total usage of 6 times that week. Its usage decreased from 1 in week 2 to 0 in week 3. The second most used code overall was found to be ‘purpose/value orientation’ with a proportional usage of around 28%. What stands out for this subcode is its low usage in week 1 compared to the other weeks. While it was used in only 7% of the cases in week 1, it increased to

an equal amount of 40% in week 1 and 2. 'Exploring options' was the last subcode to be used in the 'Orienting' category. Its overall usage in week 1 and 3 was minimal while it was not used at all in week 2.

The fifth code displayed in the table is 'Evaluating'. Its proportional usage doubled from week 1 to week 2 in which it reached a proportion of around 26% and remained significant in week 3 with around 23%. Two out of three times a sentence was coded to serve the functionality of 'Evaluating', the subcode 'positive reinterpretation' was found to be used. In week 1 and 3 it was by far the most prevalent subcode used concerning 'Evaluating'. 'Praising oneself/self-enhancing' has also seen usage in all of the weeks but was found rarely in week 1 and 3. Week 2 displayed a total amount of 7 sentences being coded with this functionality which makes it the most used code for this specific week. Apart from these two subcodes, 'accepting' accounted for around 3% of the usage of 'Evaluating'. This subcode was completely absent in the first two weeks but was utilized a total amount of 1 time in the letters of the last week.

The last functionality code that was used in the letters was 'Self-care and well-being'. The only subcode that was coded in this category was 'resilience'. This code was used in all of the weeks but only one time each making its appearance very minimal.

The functionality code 'Contra futuring' was not found at all in the letters.

Next, the situation codes that were used are displayed in the table. What stands out is that the overall usage of 'Social situations' has been dominant in each of the three weeks. Week 1 and 2 saw an almost equal usage of around 1,3 'Social situations' coded per letter. The highest usage was found in week 3 where on average each letter contained 2 social situations. The subcode that was used the most in each of the three weeks was 'family/friends-related'. Its overall usage revealed that 52% of the letters being coded with 'Social situations' referred to a family or friends related situation. Even though this subcode was the most used in each of the weeks, its proportional usage decreased over the course of the weeks from 67% in week 1 to 40% in week 3. This shows that other subcodes beside this one became more relevant from week 1 to 3. One of these subcodes was 'career related' it was the overall second most used code overall with 28% of the letters being coded with 'Social situations' referring to a career related situation. Its usage increased over the weeks. In week 1 it was only coded in 22% of the cases whereas its usage increased to around 30% in both week 2 and 3. The less frequently found situations were 'leisure

activity related' which was found in every week but remained barely used as well as 'romantic relationship-related' which was only coded once in week 3. What stands out is that only the letters in week 3 covered all of the above mentioned subcodes.

'Personal situations' were found less frequently than 'Social Situations'. In week 2 and 3 they were not found at all while week 1 contained a letter that referred to 'presenting issues' and 'presenting solutions' once each.

Next, the results of the questionnaires are presented. The sentences coded were the answers to the question why they evaluated futuring as well as writing letter from the future as helpful or not. The situations coded were the ones in which they perceive futuring or writing letter to be useful. The overall most used code was found to be 'Attending to oneself'. This code was found to be most prevalent in week 1 where almost half of the sentences coded served the functionality of 'Attending to oneself'. The proportion of this code decreases over the weeks and is only applied in 6% of the sentences in week 3. The subcode 'self-motivation, self-empowerment' was found to be the most prevalent subcode of 'Attending to oneself' throughout all the weeks and was used in 58% of the cases in which 'Attending to oneself' was coded. Week 1 displayed the greatest variability with a total amount 6 subcodes being used concerning 'Attending to oneself'. 'Self-motivation, self-empowerment' was the most used code in week 1 with a proportion of 53%. Nevertheless, the functionalities of 'reminder', 'practical advice', 'moral advice', 'emotional support/empathy' as well as 'promise' were found as well. This variability changes as the overall usage of 'Attending to oneself' does over the weeks. In week 2, 'reminder' was used in every third case besides the still highly prevalent 'self-motivation'. Week 3 only displayed 1 total usage of 'Attending' which was 'self-motivation'.

'Orienting' has been the second most found functionality in the questionnaires. In week 1, 15% of the sentences served this function but the proportions increased over the weeks. Week 2 as well as week 3 displayed a proportional usage of above 30% each, making it the most prevalent code in week 2 and the second most prevalent code in week 3. The subcode that was found in most of the cases has been found to be 'goal setting' which was coded in 44% of the cases the functionality of 'Orienting' was found. This subcode was barely used in the first week but became the most used in week 2 and 3. Besides that, 'monitoring goal directed behaviour', which was the most used subcode in week 1 has been found in 22% of the cases in which 'Orienting' was coded. Its usage sharply decreased from week 1 to week 2 and has not been found in week 3.

The other two subcodes that were ‘purpose/value orientation’ which was found in 33% of the cases in week 3 and ‘exploring options’ which was especially used in week 2.

The third most prevalent code in the questionnaires was ‘Contra futuring’. Being hardly used in week 1, this functionality became more prevalent as the weeks went on and even became the most used functionality in week 3 with 47% of the sentences being coded with this code. In week 1 the only subcode that was used has been ‘perceived inapplicability’ and its overall usage was fairly low. Week 2 displayed usage of ‘too far away’ which was found two times besides one occurrence of ‘overload of possibilities’. Week 3 displayed the most prevalent usage of ‘Contra futuring’ especially because of the high usage of ‘too far away’. This subcode had the highest overall proportion accounting for 69% of the sentences that were coded with ‘Contra futuring’ and was especially prevalent in week 3. Together with ‘overload of possibilities’ which was again only used once in week 3, the use of ‘too far away’ led to ‘contra futuring’ being the most used code in week 3.

‘Evaluating’ was especially found in week 1, where 15% of the sentences referred to this functionality. Week 2 and 3 did not display the same amount of functionalities concerning ‘Evaluating’ with a usage of around 5% for both weeks. In the first week, there was a large variety of 4 subcodes which were found. ‘positive reinterpretation’ which accounted for 43% of the total sentences coded with ‘Evaluating’ was most prevalent in week 1 and has been the only subcode used in week 2. ‘Distancing’, ‘Learning of Lesson’ and ‘praising-oneself/self-enhancing’ which were each used once in week 1 accounted for the large variety and the overall high usage of ‘Emotions’ in week 1 compared to the other weeks. Week 3 only showed usage of ‘Evaluating’ once with the subcode ‘accepting’.

‘Self-care and well-being’ was about equally used in week 1 and 2 with a proportional usage of around 20% and dropped down to 12% in week 3. The overall most used code was ‘Enjoyment’ with a proportion of 60% accounting for most of the sentences that were coded with ‘Self-care and well-being’. This subcode was found equally often in week 1 and 2 as well as ‘resilience’ which was used less often but saw usage in both weeks. Week 3 displayed no usage at all of the subcodes mentioned before. Instead, ‘mindfulness’ has been the only subcode used in this week.

The codes ‘Emotions’ and ‘Imagining’ were hardly relevant in the coding of the questionnaires. Each of these codes were only found in one week. A combination of the subcodes

‘satisfaction/gratefulness’ and ‘hopes/dreams/wishes’ found in week 1 and made up for at least 9% of the total sentences in week 1 being coded with ‘Emotions’. ‘Narrative imagining’, a subcode of ‘Imagining’ was found once in week 2.

Lastly, the situation codes found in the questionnaires are displayed in the table. ‘Personal situations’ were found to be the most prevalent code used. In week 1, every questionnaire referred to ‘Personal situation’ at least once. In week 2 the proportional usage was almost cut in half but in week 3, 80% of the questionnaires referred to ‘Personal situation’. The most prevalent subcode was found to be ‘important decisions/tasks’ accounting for 57% of the times ‘Personal situation’ was coded with ‘stressed/depressed situations’ coming right after with a proportional usage of 43%. Week 1 and 2 displayed a higher usage of ‘important decisions/tasks’ while in week 3 ‘stressed/depressed situations’ were more prevalent.

‘Social situations’ were found less frequently than ‘Personal situations’ in week 1 and 3 but equally often in week 2. The most used subcode was ‘career-related’ with a proportional usage of 78% of the sentences coded with ‘Social situations’. It was the only subcode found in week 3 and more prevalent than ‘family/friends-related’ which was the other subcode found in week 1 and 2.

Next, the results of the different participants are explained. The focus of this study lies on the overall findings and the comparison between the weeks of the total results that were displayed above. Nevertheless, there are some interesting findings in the results of each of the participants. To keep the focus on the overall findings, only the most remarkable results of one week per participant are going to be displayed. For example, the findings of one specific week of one of the participants may contribute largely to the overall high proportional usage of a specific code in that week or one specific letter may differ significantly from the ones of the other participants. Moreover, a general overview per participant is going to be provided.

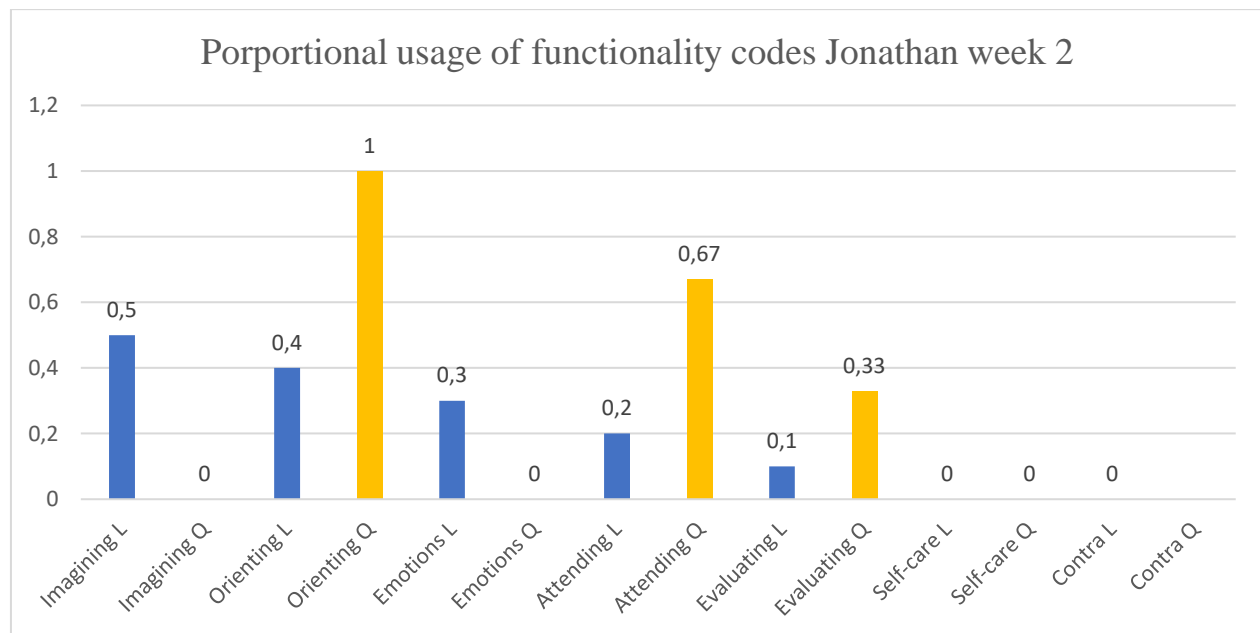
Findings per participant

Jonathan

First, the findings of Jonathan are displayed. His results of week 1 and 3 are very much in line with the overall results that were already discussed above. What stands out most for him is week 2. In this week, ‘Orienting’ was his second most used code overall, while in the general results

‘Orienting’ was only on the fourth place in this week. The results of the questionnaires were in line with the findings of the letters as they emphasized the perceived usefulness of ‘Orienting’ subcodes such as ‘goal setting’ or ‘monitoring goal directed behaviour’ as the most found functionalities in his answers. Overall, his letter focused on the imagination of having achieved a goal and on making plans on what to do after having achieved it. He motivates himself to work towards this goal and in his questionnaire he identified the subcode ‘reminder’ of ‘Attending to oneself’ as a valuable functionality of this weeks’ exercises: ‘*Imagine yourself in the future helps you to remember your dreams.*’. Below, the letter of week 2 as well as the proportional usage of codes in the letters (blue) and questionnaires (orange) are displayed.

Graphic 1



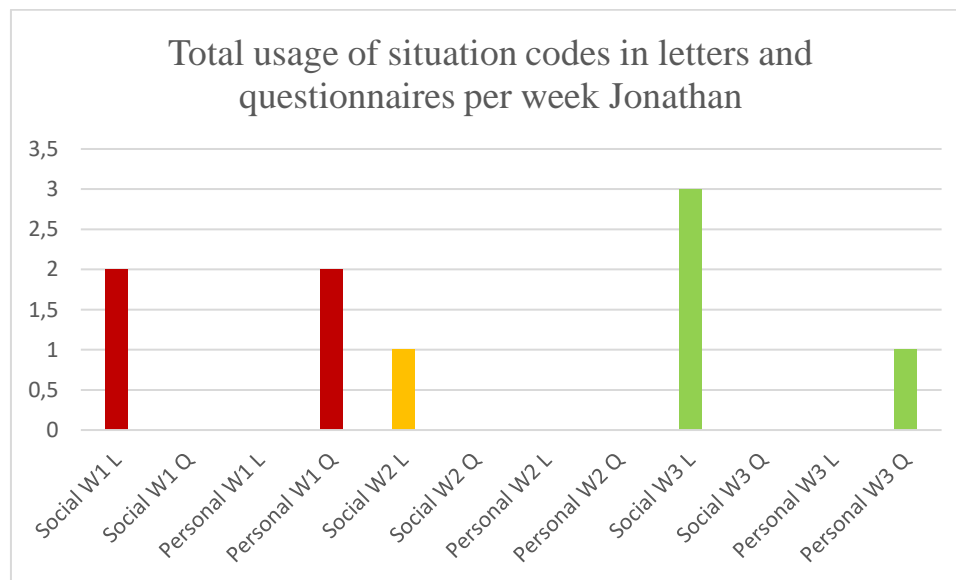
Example letter Jonathan (week 2):

Jonas, It's the year 2020 right now. I'm actually made it to an Semester abroad in Canada. More precisely i'm in Vancouver. Winter is about to start and the first snow will fall soon. I already

met a few kind people. Can't wait for our first weekend trip to explore the nature of this country. I definitely want to ski here as much as I can. Moreover I'm really exited how different the life at the university is in Canada. I'm looking forward to every day I spend here. Jonas, keep working hard so you can fulfill your dreams so you can see what I see right now.

The total usage of situation codes that can be viewed in graphic 2 below, reveals the utilization of situations used in letters and questionnaires over the course of the week for Jonathan. The codes used in week 1 are highlighted in red, week 2 in yellow and week 3 in green. Here, a clear pattern can be observed. In his letters, he only focuses on describing 'Social situations'. Mostly he relies on 'family-friends-related' codes as well as 'career-related' as can be seen in the example letter above. When being asked in which situations he thinks utilizing futuring or writing a 'Letter form the future' could be helpful, he refers to 'personal situations' as can be seen in the questionnaires of week 1 and 3. The situations mentioned referred to either 'important decisions/tasks' or 'stressed/depressed situations'. In week 2, he indicated not to be able to think of a useful situation. Moreover, the letter of week 2 was found to be the most structured one as it relies on one situation only which was 'career-related'. In all of his other letter he referred to at least 2 situations with the greatest variation found in week 3 where he utilized three different situations.

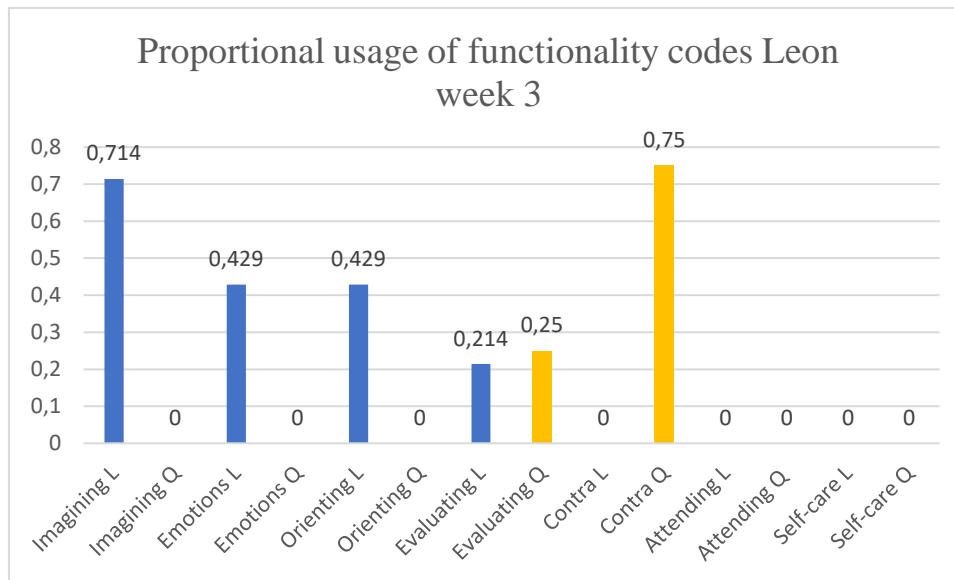
Graphic 2



Leon

The next participant was Leon. What stood out in his letters was the decrease of sentences coded with ‘Attending to oneself’ over the weeks while the codes for ‘Contra futuring’ as well as ‘Orienting’ increased from week 1 to week 3. What has also been remarkable about him was the introduction and usage of a code that was not previously considered to be used and which only he made use of. In one of his letters from week 3 as well as in the questionnaire associated with this letter, he used the subcode ‘accpeting’. This one is related to unavoidable changes and as can be seen in the example letter provided below, is related to getting old. What is also remarkable about his findings in week 3 are that his proportional usage of ‘Imagining’ is the highest in this week. In the example letter he makes use of ‘narrative imagining’ but also ‘anticipated reminiscence’ (‘‘My whole life I though being 80 is like...I don’t know: very old and do everything very slowly’’) as well as ‘characterising oneself’ (‘‘I feel fit and I’m fine’’). What else is remarkable about week 3 is that in the questionnaires, no positive evaluation besides using futuring or ‘Letters from the future’ as an aid to accept unavoidable life changes was found. In the previous weeks, he mentioned the ‘Attending to oneself’ subcode ‘self-motivation’ to be helpful. He even perceived letters as less helpful when he did not have a goal to focus on or to motivate for in the soon future. Week 3, as it made use of the largest timespan was not coded once with such codes and instead was found to be evaluated as ‘too far away’ multiple times. This emphasizes the decrease in helpfulness the further in the future his imagined self is as the most important factor contributing to the helpfulness of the exercises for this participant has been the motivation for immediate or upcoming goals.

Graphic 3



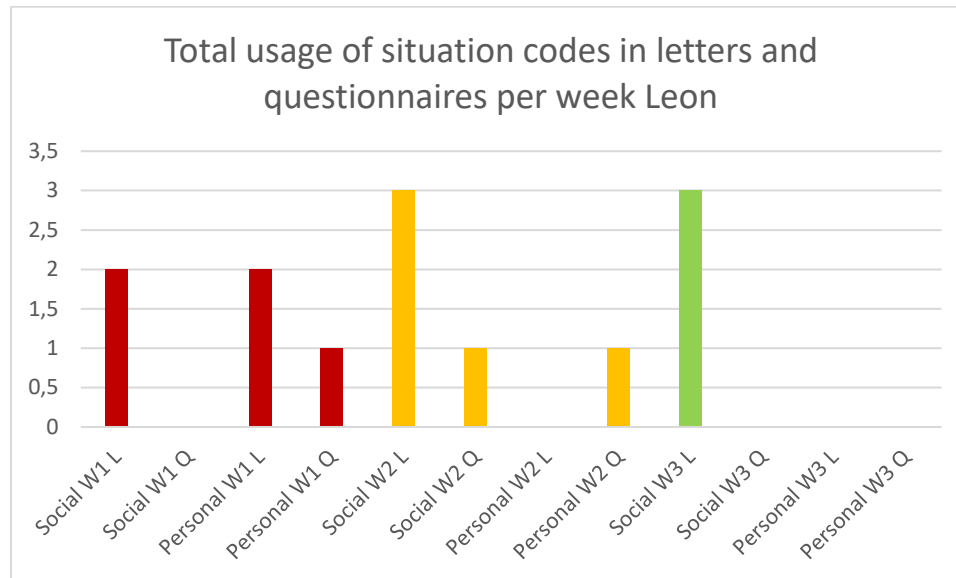
Example letter Leon (week 3):

Hello, today is my birthday. Now I am 80 years old, crazy! My whole life I thought being 80 is like... I don't know: very old and do everything very slowly? But I feel fit and I am fine, thanks! My family and nearly all my friends are here, but I hope it won't be the "classic boring birthday come together", I would appreciate it. I go running every second morning and enjoy my life. In addition my grandchildren are often with us, I hope they like this time as much as I do. To sum up, it's okay getting old, you have to accept the changes. Bye!

Graphic 4 that can be seen below reveals the usage of situation codes in both questionnaires and letters. Compared to the overall findings, to factors stood out when observing Leon's results. First, he had difficulties coming up with scenarios or situations in which the exercises could be helpful for him. This explains the overall quite low amount of situation codes in all of the questionnaires. Additionally, this is in line with the perception that his primary function of the exercise was the motivation for future tasks and apart from that he was not really able to come up with different scenarios. Additionally, social situations were found most prevalent in all of the letters which compliments the overall results but while he, in the first two letters, exclusively mentioned 'family/friends-related' situation codes, the variety in week 3 was the greatest as he wrote about 'family/friends-related' but also 'leisure activity-related' and 'career-related'

situations. This was a finding that is in line with Jonathan's letter of week 3 that also displayed the same variety of 'Social situation' codes.

Graphic 4

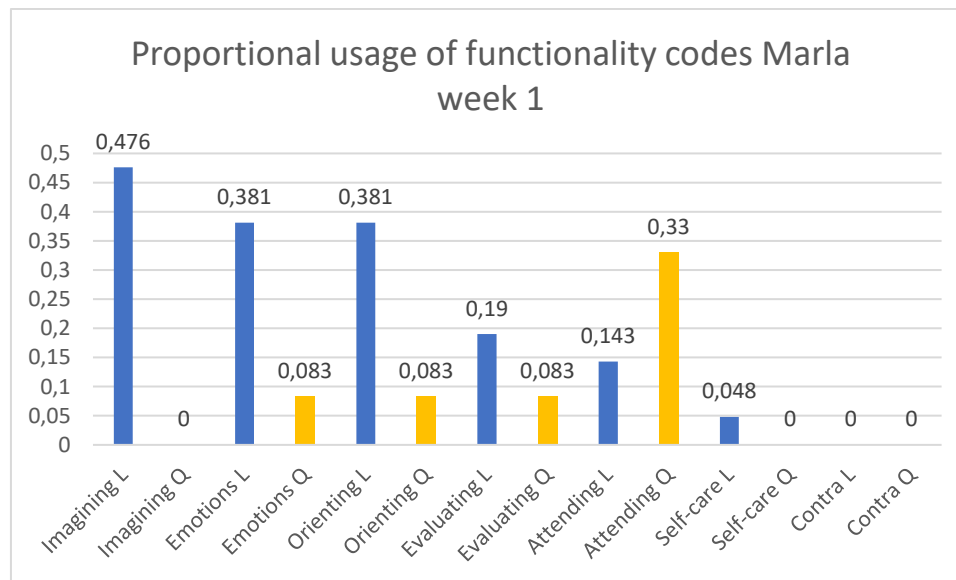


Marla

The third participant was Marla, what stood out for her was the very narrative style in which she wrote her letters. While Jonathan and Leon used to imagine situations in a way that they explain their overall expressions, feelings or actions such as planning something or participating in a party, Marla described her current situation more specifically. As can be seen in the example letter below, she started every letter by describing what she wears, what she sees and where she is very detailed. For her, 'Imagining' especially 'narrative imagining' were the most used code and subcode overall which again is in line with the overall findings. The proportional usage of 'Imagining' even increased throughout the weeks. 'Attending to oneself' was hardly used in the letters of week 1 but increased in week 2 and 3 but what stands out for week 1 is the usage of 'Emotions' as well as 'Orienting' which are both fairly high compared to the other weeks and can be observed in the letter below. In this letter, she really explained her upcoming goals and writes about her current status in acquiring those combined with emotions that are related to those. In the upcoming weeks, she hardly used any 'Orienting' codes and the amount of 'Emotions' codes decreased as well. Therefore, the link between 'Emotions' and 'Orienting' is displayed quite

nicely in the example letter. The last thing that stood out in comparison with the other letters and the overall findings was the utilization of the exercises as a ‘mindfulness’ exercise which was a subcode of ‘Self-care and well-being’ found only in the questionnaire of week 3 of Marla.

Graphic 5



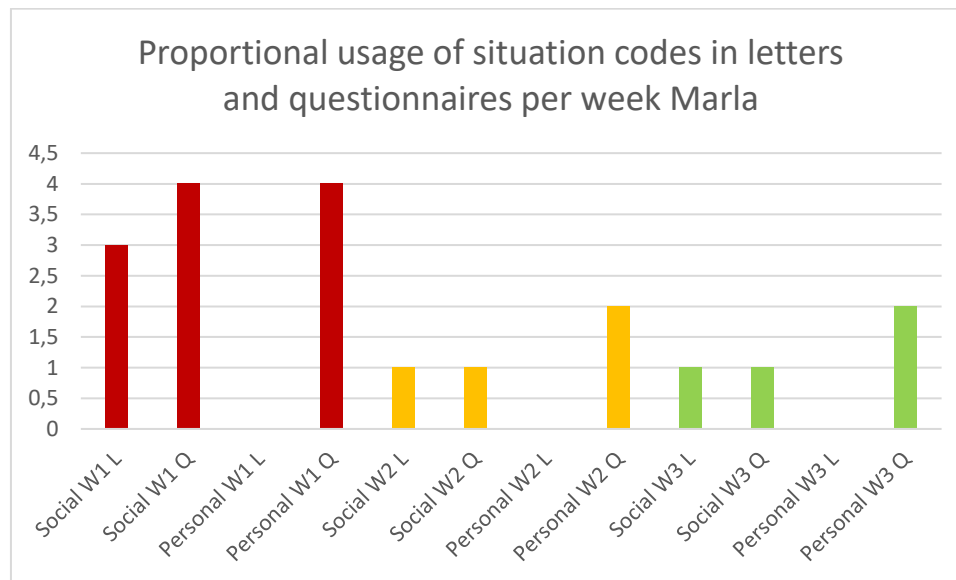
Example letter Marla (week 3):

Hello! I'm in the Gym right now. I'm in a Training with my gymnastics Partner elisa and we are practising for our choreo. I'm wearing a Red Sport tshirt and a long Black tight. Its warm in the gym and i'm sweating. Elisa and i achieve our goal today and we Finished our choreo. We are Not ready but the Main parts are. So i'm very exhausted but also very happy about that. I'm Not that scared of the future gymnastik test anymore because i know we are on the right way. Elisa is also happy and we can now Focus on our gymnastic choreo by ourselves. That Thing is scaring me but i know that i completed one big Part of the future test and i can now Focus on the next one. So pretend-me please dont make to much stress about this right now. You are on a good way and You dont need to be scared about the many tasks. Marla

The table below provides insights into the situation codes used per week for Marla. Overall, the usage of ‘Social situations’, as was found in the overall results, in the letters was higher than for the ‘Personal situations’. What is remarkable about Marla’s results is the usage of ‘Social situations’ in the questionnaire. In week 1, she accounted for 80% of the total ‘Social situation’

codes found in all of the questionnaires. She not only mentions ‘Personal situations’ like ‘important decision/task’ to be a situation in which she would benefit from the exercises but also links these to ‘Social situations’. She does this by providing for example ‘career-related’ examples for ‘Personal situations’: ‘‘ When You have to make a decision of your future. For example what You want to study.’’. Moreover, ‘career-related’ subcodes were the overall most frequently found codes in each of the weeks for questionnaires and letters except for the letter of week 3 that focused exclusively on ‘family/friends-related’ situations.

Graphic 6

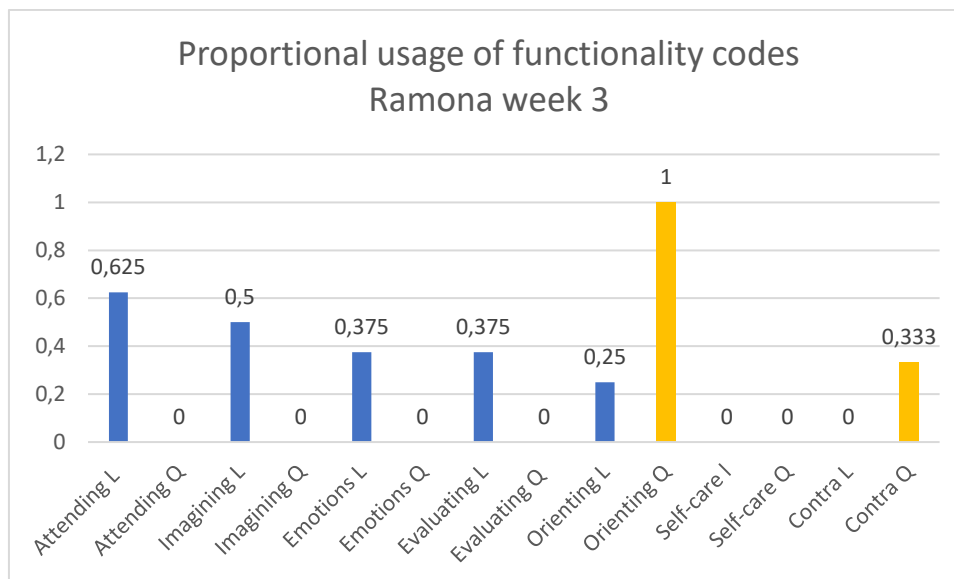


Ramona

The most remarkable aspect of Ramona’s letters which differentiates her from the other participants is the time she decided to use in writing her letters. The others all wrote in present tense to say what they are currently doing but Ramona decided to immediately address her future self by telling her in a future tense what lies in front of her. This leads to an overall high usage of ‘Attending to oneself’ that even exceeded the usage of ‘Imagining’ in week 2 and 3. No other participant had a code in one of his/her weeks that was used more frequently than ‘Imagining’. The graphic below shows a variety of codes that were used quite often with ‘Attending to oneself’ and ‘Imagining’ being the two most frequent ones. The weeks before displayed a slightly different pattern. In week 1 ‘Imagining’ was most prevalent followed by ‘Attending to oneself’ and ‘Emotions’. Week 2 showed a very large amount of ‘Emotions’ and ‘Attending to oneself’ with the lowest proportional usage of ‘Imagining’ found in every letter. Generally, it can be

observed that the tense chosen leads to a lot of ‘self-motivation, self-empowerment’ and ‘promise’ which were the two subcodes of ‘Attending to oneself’ found in all the weeks. ‘Orienting’ has been especially high in the letter of week 2 being the most prevalent code besides ‘Attending to oneself’ as the letter served the planning of a future journey. Furthermore, ‘Orienting’ was found to be the most prevalent functionality mentioned in the questionnaires of week 2 and 3. Especially ‘goal setting’ was explained to be a functionality that was considered helpful by Ramona: ‘‘I found it helpful to write the letter because it made me realize what my goals are for my future and what I really want. It showed me that I should really try to make this dream come true and make the future a reality. Through the fact that I didn’t think about the task in advance, I intuitively came up with the situations I really desire for the future.’’ Here, she even emphasized a functionality that was not previously taken into account. She mentions that having the freedom to imagine whatever she may desire and not having excessively thought about that beforehand led her to discover what would be her real goals. ‘Orienting’ was found to be the only, but also a frequently mentioned functionality in the questionnaire of week 3. Overall, Ramona evaluated the possibility to set goals and explore options as the most important features of the exercises. ‘Self-motivation’ was also found to be relevant for her but only in the first two weeks. Week 3 was the only week that displayed usage of a ‘Contra futuring’ code in which she expressed that the imagined future would be ‘too far away’.

Graphic 7

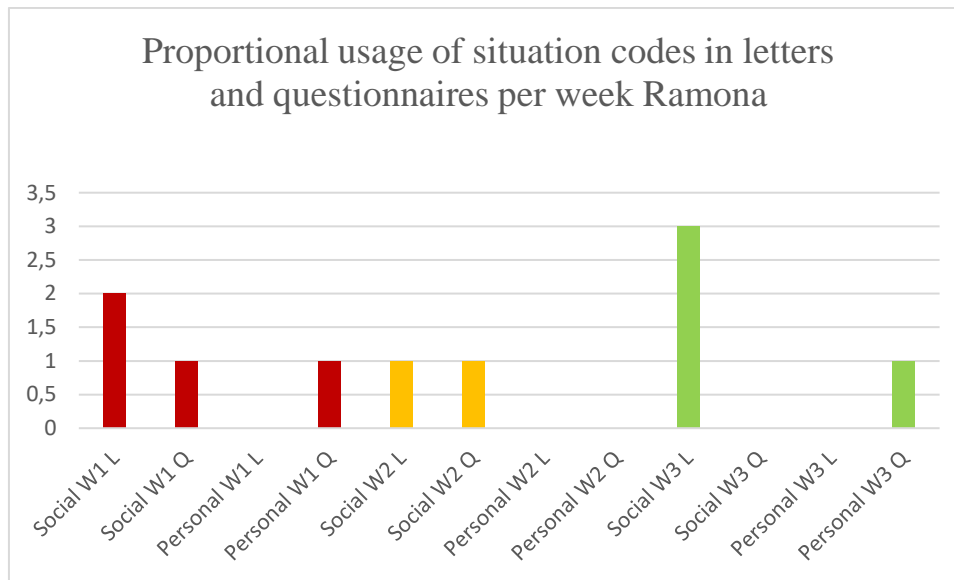


Example letter Ramona (week 3):

Dear present self, it's me again, your future self. Today I would like to tell you about a situation which lays several years ahead from now. You will live in a beautiful city somewhere in the world, in a cozy house with your family. You will be very happy because you have found a man whom you truly love and with whom you want to spend the rest of your life. And you have born the most wonderful and sweetest children that you could have imagined. Furthermore, you will live to your full potential and do a job that you enjoy and are good at. You will work together with people who are motivated and together you will work on projects that have a positive effect in some way. After all, you are proud of yourself because you have listened to your heart, remained true to yourself and trusted in yourself. See you soon, Ramona

The table below displays the overall usage of situation codes. As all of the participants did, Ramona focused on ‘Social situations’ in her letters. ‘Family/friends-related’ was utilized the most but she showed a variety of other subcodes as well. What could again be found is the utilization of a total amount of three different ‘Social Situation’ subcodes in week 3 as already found in Jonathan and Leon’s letters. As fitting situations in which she would evaluate the exercises as being helpful for her, she mentions ‘Personal situations’ such as ‘stressed/depressed situations’ especially combined with ‘career-related’ situations and ‘important decisions/tasks’.

Graphic 8



Overall change over the weeks per code

To sum it up, the comparison between the usage of the different codes throughout the weeks and the two different kinds of data that were obtained by the participant revealed the following results that are going to be discussed in the discussion/conclusion section below.

In the letters, ‘Imagining’ has been the most prevalent code in all of the weeks with the highest proportional usage in week 3. Especially ‘narrative imagining’ was used excessively, with ‘anticipated reminiscence’ being used in week 1 and 3. However, the questionnaires revealed that ‘Imagining’ was not at all perceived to be the function that made futuring or writing the letters helpful for the participants.

The same accounts for ‘Emotions’. This code was highly prevalent in the letters. Especially ‘satisfaction/gratefulness’ was used multiple times throughout the weeks with the greatest proportion in week 3. ‘Excitement’ as well as ‘Hopes/dreams/wishes’ were the other codes that accounted for the high overall usage of ‘Emotions’. However, the questionnaires revealed that ‘Emotions’ were not the functionality perceived as helpful for the participants. Only week 1 displayed some usage of ‘Emotions’ while it was not coded at all in week 2 and 3. What is remarkable about this code is its almost exclusive use of subcodes that can be interpreted as positive. ‘Dissatisfaction’ was not used at all while the overall low usage of ‘worries/concerns’ or ‘uncertainty’ was especially found in letters which immediately refuted its relevance. As an example, Marla wrote the following sentences in her second letter of week 1 ‘*we can now Focus*

on our gymnastic choreo by ourselves. That Thing is scaring me but i know that i completed one big Part of the future test and i can now Focus on the next one. So present-me please don't make too much stress about this right now.'

'Attending to oneself' was quite relevant throughout all the weeks in the letters. Especially 'Self-motivation' was of high prevalence in week 1 and 2 but dropped in the third week. Over the course of the weeks, the proportional usage of 'moral advice' increased while 'practical advice' decreased. 'Promise' was found to be most prevalent in week 3. The questionnaires revealed partly similar outcomes. The prevalence of 'Attending to oneself' was especially high in week 1, remained relevant in week 2 and was almost absent in week 3. This emphasizes the perceived helpfulness of 'Attending to oneself' especially in week 1 but also in week 2. What was similar to the letter is the use of 'self-motivation' which was the most prominent subcode in not only the letters but also the questionnaires. Different to the findings of the letters was the usage of 'reminder' in the questionnaires. This subcode has been the second most prevalent one in week 1 and 2 while seeing no usage in any of the letters.

'Orienting' was used slightly less than the previous code but remained relevant in letters of all weeks. Its highest proportional usage was in week 2. What was remarkable when comparing the subcodes used in throughout the different weeks, is that 'goal setting' was prevalent in all weeks but especially in week 2. Moreover, 'monitoring goal directed behaviour' has almost solely been found in week 1 and 'purpose value orientation' was irrelevant in week 1 but saw a decent amount of usage in the following weeks. Comparing these results with the ones of the questionnaires, it becomes clear that 'Orienting', besides 'Attending to oneself' has been the most found functionality in the questionnaires. This indicated the high evaluation of the helpfulness of this function by the participants. The great difference between 'Attending to oneself' and 'Orienting' is that 'Orienting' does not decrease throughout the weeks but instead gains relevance as 'Attending to oneself' becomes less relevant. The most found subcode in the questionnaires has been 'goal setting'. Its proportional usage increases throughout the weeks. Complimenting the results of the letters, 'monitoring goal directed behaviour' was the most used function in week 1 but became irrelevant in the course of the weeks. 'Exploring options' which was hardly found in the letters, has been used from week 2 on in the questionnaires. The results for 'purpose value orientation' has been quite similar to the ones found in the letters.

‘Evaluating’ was another code that was used in letters of all of the weeks even though it was less prevalent than the previously discussed ones. The subcode that stood out was ‘positive reinterpretation’ which was found to be prevalent in all of the weeks, while ‘praising oneself’ stood out to be utilized a lot in week 2 leading to ‘Evaluating’ being overall most used in week 2. However, the questionnaires revealed that ‘Evaluating’ was almost solely perceived as helpful in week 1 in which a great variety of subcodes were used. The subcode that was used the most has been the same as for the letters.

‘Self-care and well-being’ was hardly found in the letters but was found to be quite significant in the questionnaires. Especially ‘enjoyment’, which was not coded once in the letters, has been utilized multiple times in both week 1 and 2, indicating that pure enjoyment of futuring or writing the letter was perceived to be an important function. ‘Resilience’, which was the only subcode found in the letters has also been coded in week 1 and 2. What is remarkable about the results of questionnaires is its twist of subcodes used from week 1 and 2 to week 3. While exclusively emphasizing ‘enjoyment’ and ‘resilience’ in the first two weeks, the only subcode found in week 3 has been ‘mindfulness’.

‘Contra futuring’ was a code that has not been found once in the letters. Nevertheless, it was of great significance in the findings of the questionnaires. Throughout the weeks, the perceived helpfulness of the letters as well as futuring decreased while the proportional usage of ‘Contra futuring’ increased rapidly. ‘Perceived inapplicability’ being coded twice was the only subcode found in week 1 but starting in week 2, ‘too far away’ was increasing in its usage. This indicates that the imagined future self was increasingly evaluated as being too far away from the current one as the weeks and thus the timespans increased. In week 3, almost half of the sentences coded referred to ‘contra futuring’. What is remarkable is the decrease of ‘Attending to oneself’ which is almost equal to the increase of ‘Contra futuring’ codes found.

‘Personal situations’ were almost absent in the letters while ‘Social situations’ were prevalent throughout all the weeks. Contradictory, the usage of ‘Personal situations’ was found to be significantly more prevalent in week 1 and 3 of the questionnaires. ‘important decisions/tasks’ was the situation that was perceived as benefiting the most from making use of futuring or writing letters in week 1 and 2 of the questionnaires. Besides that, the subcode ‘stressed/depressed situations’ was found in each week and had the highest proportion in week 3 indicating that being in such a situation would make futuring or writing a letter from the future

helpful. ‘Social situations’ were found quite often in the letters, mostly the participants wrote about family/friends related situations, but the relevance of ‘career-related’ situations increased in week 2 and 3. In the questionnaires, the participants indicated which kind of situations would benefit from making use of the intervention and the majority of ‘Social situation’ codes found in every week were ‘career-related’. The proportional usage of ‘Social situations’ decreased throughout the weeks. What can be considered remarkable is that the total usage of ‘career-related’ and ‘important decisions/tasks’ subcodes decreased throughout the weeks as well as ‘Attending to oneself’ did while ‘Orienting’ increased. Besides that no clear relationship between specific situation codes and functionalities was found. For example, the participants used ‘goal setting’ in ‘leisure activity-related’ as well as in ‘career-related’ situations. The same accounted for most other codes. What was found to be remarkable in the comparison of the individual letters of each participant is the high variety of ‘Social situation’ subcodes in week 3 that 3 out of 4 participants displayed. Every one of those wrote about three different ‘Social situations’, covering many aspects of their future life. This was not found in any of the other weeks.

Conclusion and Discussion

‘How does the difference in timespan between current and imagined self, relate to the functionalities and situations of imagining possible selves by writing letters from the future?’ has been the research question of this study. The general answer to this question is that there has been a change in functionalities relating to the different timespans used per week. The situations explained in the letters remained stable over the course of the weeks. The questionnaires further revealed a significant increase of criticism towards the exercise as the timespan increased as well as the finding that personal situations such as ‘tackling complicated tasks’ was found to be a frequently mentioned situation that may benefit from futuring. All the findings will be explained in more detail in the following abstracts

Imagining

Imagining was the most prominent functionality. Especially ‘narrative imagining’ was used the most frequently especially in week three. This goes against literature that emphasizes the fact that imagining a future that lies this many years ahead is unusual and thus more difficult (Zaleski & Przepiorka (2015)). A possible explanation for the frequent use of the imaginative function may

be the instructions received before the actual writing of the letters through the guided meditation that can be found in the method section. Here, it is explicitly mentioned that they should imagine and elaborate on the future scenario as vividly as possible. Nevertheless, this does not explain the highest overall usage of this specific functionality in the third week which was related to the longest future timespan. Another possible explanation would be that the difficulty of imagining a future scenario which is so far ahead in the future (Zaleski & Przepiorka, 2015) triggered the excessive usage of ‘narrative imagining’ as an aid for the participants to actually be able to imagine such a situation. More research on this topic would be needed in order to confirm or deny the hypothesis that difficulties in imagining a future scenario may lead to some kind of compensatory behaviour. Lastly, the study by Bluoin-Hudon & Carleton (2017) offers a possible explanation by suggesting that the participants simply became better at the task over the course of the weeks as they experienced a weekly training over the three weeks that may have resulted in the most vivid imaginations in the last week in which they had the most experience of the exercise. In their study, a regular mental imagery condition led to an increase of vividness in the imagination of the participants

Emotions

‘Emotions’ was the functionality that was used the second most often. What stood out for this functionality was the almost exclusive use of positive emotions such as ‘satisfaction/gratefulness’. This may be related to the fact that the participants were asked to imagine a best possible future scenario because it is known that imagining the future usually entails both positive and negative emotions (Matthew & Stolarski, 2015). Additionally, the fact that the researcher knew all of the participants personally may have accounted for the fact that they simply did not want to reveal any negative aspects towards the researcher. Internal processes that serve the self-regulation often account for generating emotions. People tend to suppress emotions that they prefer not to present to significant others (Matthews & Stolarski, 2015). Lastly, it may be that all of the participants were simply very satisfied with what they imagined in the future and did not think of anything that may have evoked negative emotions. Moreover, research on imagining best possible selves revealed the optimism about future events and scenarios that such exercises trigger which is in line with the very positive emotions experienced by the participants of this study (Meevissen, Peters & Alberts, 2011).

‘Attending to oneself’ was the third most used functionality found in this study. Its usage in the letters was highest in week 2 while its perceived usefulness (found in the questionnaires) decreased from week to week. This may suggest the conclusion that attending to oneself from a desired future self becomes harder or at least less effective the further away the possible future self lies in the future. More research on this topic will be necessary. This can be done by adding questions that are specifically created for this issue. Moreover, self-motivation has been the most prominent subcode which was found very dominant in week 1 and 2 but decreased in week 3. This suggests the motivational power of proximal goals to be higher than the one of distal goals (Zaleski & Przepiorka, 2015)

Orienting

‘Orienting’ was found to be most prevalent in week two but relevant in all of the weeks suggesting that especially goal setting, which was the most used subcode, plays a significant role in futuring. Literature on this topic was in line with the findings of this study concerning the life domains futuring was used in which were predominantly career- as well as family related (Zaleski & Przepiorka, 2015). This may also be an indicator for the highest proportional usage found in week 2 as a one to five-year future timespan for the participants, which were students aged 22.5 on average, was the most fitting one to set educational goals. The article by Seigner & Lens (2015) also suggested the distinction between exploring options and committing to a certain goal. While goal setting was found in all of the weeks, exploring options was only found in week one and two, suggesting the link to educational goals that fit these timespans for the participants. Lastly, ‘Orienting’ was found to be highly evaluated in terms of perceived usefulness and even increased over the course of the weeks. This suggest an increase of perceived usefulness of especially goal setting the further away the future time perspective goes. More research on this topic will be necessary.

Evaluating

‘Evaluating’ was the next functionality. This one saw rather low overall usages in both letters and questionnaires. The highest proportional usage was found in week 1 which may be explained with the article of Mitchell (1997) that suggests the positive evaluation of future events compared to the perception of the event when it actually happens. Some of the participants mentioned looking forward to certain events such as vacations in their near future, therefore the ‘Evaluation’

code may have been most prevalent in week 1. The low usage of this code was in line with the findings of the questionnaire that did not reveal great perceived usefulness for this code.

Self-care and well-being

‘Self-care and well-being’ has hardly been relevant in the letters. Nevertheless, it has been found out that it plays a role in the perceived usefulness of futuring. What has not yet been covered in any literature on futuring was the finding that pure enjoyment of the task was found to be quite prevalent in the evaluation of the usefulness of the exercise. People seem to enjoy thinking about possible future selves. Nevertheless, this was only found to be the case for week 1 and 2 which is quite in line with the findings for ‘Contra futuring’.

Contra futuring

‘Contra futuring’ was a function that should indicate the limitation and downfalls of futuring using ‘Letters from the future’ and was only relevant in the questionnaires. Those revealed a clear increase over the course of the weeks. While in week 1, nothing negative about the exercises was found in the letters, ‘contra futuring’ has been highly prevalent in week 3. This is in line with the findings of perceived enjoyment, that were reduced to zero in week 3 which received the most ‘criticism’. Mostly, the participants perceived the imagined future scenario as ‘too far away’ to have an influence on their current lives. This is in line with the suggestions of ‘Zaleski & Przepiorka (2015) that people tend to not think more than one year ahead of time in their regular lives. Moreover, it suggests proximal goals to be perceived as more effective than distal ones when it comes to the goals of this specific age group. More research on this topic will be necessary.

Situations

The situations that were found to be used in letters complimented literature on this topic. As Zaleski & Przepiorka (2015) suggested, mostly career- and family-related situations were described in the letters. The usage of this kind of situations did not significantly change over the course of the weeks. Moreover, Markus & Nurius (1987) stressed the importance of imagining possible selves when it comes to making important decisions. This is in line with the findings on ‘personal situations’ that were especially perceived as useful in the questionnaires. A clear link between situation and functionality codes was hard to identify. While most of the functionalities

changed between the timespans, the situation codes that were most frequently used in all of the weeks remained the same.

Strength and limitations of the study

There are several factors that may have negatively influenced the results or made it hard to generalize the findings. First, the sample consisted of only 21-22 years old students. It needs to be investigated how other age groups or people of other educational background utilize futuring and 'Letters from the future'. Moreover, it was found that the majority of the participants did not realize the difference between futuring and the actual writing of the letters. In the questionnaires it was separately asked about perceived helpfulness of futuring and writing the letters.

Additionally, they were asked to explain their opinion by answering an open question. Most of the participants tended to answer both questions with the exact same sentence or even wrote answers like: 'I already answered this question'. Therefore, a distinction in helpfulness between futuring and writing the letters could not be made. Also, the coding of the letters and questionnaires can be considered quite subjective. Even though there were two people who came up with the coding scheme and discussed when to use which code, validity and reliability of the findings would benefit from cross-coding of multiple researchers. Lastly, it needs to be mentioned that four participants were the bottom limit for this study and even though the overall findings of the participants were generally equal there were still significant differences between the participants and a larger variety of participants may have led to different and more generalizable results. Same accounts for the number of letters. Originally, it was intended that each participant writes two letters and answers to questionnaires per week. Difficulties with the application that was used may have accounted partly for the fact that only one participant wrote all six letters while the others only wrote four to five ones.

Considerations for future research

As already mentioned, the findings only apply to 21-22 years old students and other age groups and educational backgrounds should be considered when further researching on this topic.

Additionally, more relevant research on the differences between future timespans needs to be done. Therefore, it can be researched upon the question which plans, hopes or desired actions benefit from proximal goal setting and which benefit from distal ones. Moreover, the role of negative emotions in such exercises needs to be explored by conducting a study with participants

in different states of life and especially with participants that are unknown to the researcher. Additionally, it needs to be stressed how findings on the differences in effectiveness of certain functionalities can be utilized in interventions, therapies or studies that make use of futuring using narratives of possible selves. This way, participants or patients can benefit from these findings. Furthermore, the role of situations needs to be discussed in more detail. Now, it was mainly discussed which functions profit from what kind of future timespan. Adding to that, it was explored which kind of situations are described in the letters and which kind of situations are thought to profit from this kind of exercise. Nevertheless, future research may explore more in detail how different functionalities are related to the certain situations and especially which situations profit from which timespans. For example, if tackling a complicated task becomes more successful when imagining further ahead or vice versa. Adding to that, the functionalities that make, for example, tackling important tasks successful should be researched more extensively. This could eventually lead to deeper knowledge of how futuring can help people with very specific kinds of problems or situations.

Final remarks

What can be concluded from this study is that manipulating the timespan used in futuring exercises influences the functionalities of the letters. Moreover, the functionalities that were regarded as useful changed with an increase of the timespan. Lastly, it was found that situations covered in the letters were rather stable and that the situations that were seen as potentially profiting from the exercise were predominantly personal situations in which a difficult decision or task was faced. What this study contributed to the research field is the manipulation of timespan. Previous studies either focused in past, present and future as timespans that relate to certain functionalities or had a stable future timespan in which functionalities of futuring were discussed. This study aimed at discovering differences of functionalities in different future timespans and did not only cover one functionality but was open for every kind of function that could be discovered. What makes these findings important is its potential usage in all kinds of settings that make use of futuring using narratives of possible selves. Extensive knowledge of how future timespans influences functionalities of futuring may result in an improvement of the whole method and a more tailored approach towards whoever makes use of it or may benefit from it. Lastly, it needs to be stressed that futuring using narratives of possible selves is not only an effective method as many studies already found out but also a highly enjoyable one as could

also be experience as a researcher in this study. It is a topic that is yet to be fully explored which not only calls for future research on this topic but also emphasizes the potential of this method.

Reference list

Barreto, M. L. (2012). Coping with life events through possible selves. *Journal of Applied*

Social Psychology, 42(7). doi:10.25148/etd.fi14050440

Boniwell, I., & Osin, E. (2015). Time Perspective Coaching. In: Stolarski, M., Fieulaine, N., & van Beek, W. (ED.), *Time Perspective Theory; Review, Research and Application* (pp. 451-469). Switzerland: Springer, Cham.

Carelli, M.G., Wiberg, B., & Åström, E. (2015). Broadening the TP Profile: Future Negative Time Perspective. In: Stolarski, M., Fieulaine, N., & van Beek, W. (Ed.), *Time Perspective Theory; Review, Research and Application* (pp. 87-97). Switzerland: Springer, Cham.

Cunningham, K.F., Zhang, J.W., & Howell, R.T. (2015). Time Perspectives and Subjective Well-Being: A Dual-Pathway Framework. In: Stolarski, M., Fieulaine, N. & van Beek, W. (Ed.), *Time Perspective Theory; Review, Research and Application* (pp. 403-415). Switzerland: Springer, Cham.

Haase, E.S. (2019). *Analyzing change in future thought with Letters from the Future*. Retrieved from: <https://essay.utwente.nl>

Hooker, K., & Kaus, C. R. (1994). Health-related possible selves in young and middle adulthood. *Psychology and Aging*, 9, 126– 133.

King, A. (2001). The health benefits of writing about life goals. *Personality and Social Psychology Bulletin*, 27(7), 798-807.

Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist*, 41, 954– 969

Matthews, G., & Stolarski, M. (2015). Emotional Processes in Development and Dynamics of Individual Time Perspective. In: Stolarski, M., Fieulaine, N., & van Beek, W. (Ed.), *Time Perspective Theory; Review, Research and Application* (pp. 268-286). Switzerland: Springer, Cham.

Melges, Frederick Towne. 1982. *Time and Inner Future. A Temporal Approach to Psychiatric Disorders*. New York: John Wiley and Sons

Meevissen, Y. M., Peters, M. L., & Alberts, H. J. (2011). Become more optimistic by imagining a best possible self: Effects of a two week intervention. *Journal of Behavior Therapy and Experimental Psychiatry*, 42(3), 371-378.
doi:10.1016/j.jbtep.2011.02.012

Mitchell, T. R. (1997). Temporal Adjustments in the Evaluation of Events: The “Rosy View”. *Journal of Experimental Social Psychology*, 33, 421–448.

Oettingen, G., & Mayer, D. (2002). The motivating function of thinking about the future: Expectations versus fantasies. *Journal of Personality and Social Psychology*, 83(5), 1198-1212. doi:10.1037//0022-3514.83.5.1198

Peters, L. M., Flink, I. K., Boersma, K., & Linton, S. J. (2010). Manipulating optimism: can imagining a best possible self be used to increase positive future expectancies? *The Journal of Positive Psychology*, 5(3), 204-211.

Seginer, R., & Lens, W. (2015). The Motivational Properties of Future Time Perspective Future Orientation: Different Approaches, Different Cultures. In: Stolarski, M., Fieulaine, N., van Beek, W. (Ed.), *Time Perspective Theory; Review, Research and Application* (pp. 287-304). Switzerland: Springer, Cham.

Sools, A. (2020). Back from the future: a narrative approach to study the imagination of personal futures. *International Journal of Social Research Methodology*, 00(00), 1–15.
<https://doi.org/10.1080/13645579.2020.1719617>

Sools, A., Borgmann, T., & Kleine, E. de. (2016). De zin van vervreemdende toekomstverbeelding. *Tijdschrift Voor Positieve Psychologie*, (3), 78–85.

Sools, A. & Mooren, J.H. (2012) Towards narrative futuring in psychology. Becoming resilient by imagining the future. *Graduate Journal of Social Science* 9: 203-226.

Sools, A., Tromp, T., & Mooren, J.H. (2015). Mapping letters from the future: Exploring narrative processes of imagining the future. *Journal of Health Psychology*.

Thomson, R. (2007). The qualitative longitudinal case history: practical, methodological and ethical reflections. *Social Policy and Society*, 6(4), 571–582. doi: <https://doi.org/10.1017/S1474746407003909>

Zaleski, Z., & Przepiórka, A. (2015). Goals Need Time Perspective to Be Achieved. In: Stolarski, M., Fieulaine, N. & van Beek, W. (Ed.), *Time Perspective Theory; Review, Research and Application* (pp. 323-335). Switzerland: Springer, Cham.