

THE ROLE OF DISTINCTIVENESS FOR THE EMOTIONAL EXPERIENCE OF
NOSTALGIA

by

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Abstract

The goal of this study was to examine the discrepancy in results found by research using experimentally induced nostalgia and research investigating the effects of nostalgia in daily life. Nostalgia has been defined as a sentimental longing for the past and has become a frequently researched topic in recent years. Experimentally induced nostalgia has been shown to increase positive affect. However this effect is not found when people experience nostalgia in their daily life. Intensity was chosen as the factor causing the difference between these two types of nostalgic experiences. Experimentally induced nostalgia's positive effects on affect would therefore be attributable to the experience itself being a unique, memorable, and positive event not to the nostalgic feeling associated with it. In order to test this, nostalgia was split into two separate categories: ordinary and distinct nostalgia. Ordinary nostalgia requested that participants write about an ordinary past event that made them feel nostalgic. Whereas participants in the distinct nostalgia condition were asked to describe the most nostalgic event they could recollect. The expected result was to find a positive effect on affective ratings for the distinct nostalgia condition but not for the ordinary nostalgia condition. Two moderators were also assessed in this study: depressive symptoms and satisfaction with life which were thought to influence the affective ratings except for in the distinct nostalgia condition. Instead however no differences in affective ratings between conditions are found. Possible opportunities for future research to investigate why this study showed no significant differences in affective ratings between conditions are discussed.

Introduction

Theories of nostalgia have changed significantly throughout history. Initially nostalgia was coined as a term by Johannes Hofer (1688/1934) describing the symptoms Swiss mercenaries experienced while they were fighting away from home. Later it retained its negative connotation when Scheuchzer (1731) labelled it as a neurological disease. This attitude was maintained well in to the 20th century when it was described as a psychiatric and psychosomatic disorder (McCann, 1941). However, in recent years nostalgia has been viewed from a different, more positive perspective. Nostalgia has been defined as a sentimental longing for the past (Wildschut, et al., 2006) and has become a frequently researched topic in the last years (Sedikides & Wildschut, 2016). Sedikides et al. (2015) describes nostalgia as a bittersweet but mostly positive emotion that supports people's well-being and can even function as a buffer against psychological and physical harm.

Nostalgia's positive influence mainly comes in the form of three functions: self-oriented, existential and social. It accomplishes its self-oriented function by raising self-positivity and perceptions of a positive future (Wildschut et al. 2006). The existential function is mainly achieved by making one's perception of life more meaningful by bringing to mind important life events as a buffer (Routledge et al., 2011). The sociality function is fulfilled by recalling the important people from one's past and thus fostering social thoughts in the mind of the person experiencing nostalgia (Wildschut et al., 2006). Beyond these three functions nostalgia also generally produces positive affect while not increasing negative affect.

An important role of nostalgia is to maintain psychological and physiological homeostasis. Whenever a person encounters a harmful stimulus nostalgia can be used as a buffer against this negative influence by raising self-positivity, increasing the meaning one sees in their life, and diminishing attachment avoidance (Wildschut et al., 2010).

Experiencing negative affect (Barrett et al., 2010; Wildschut et al., 2006), loneliness (Wildschut et al. 2010), or even a negative physiological stimulus like cold (Zhou et al., 2012), all become more tolerable with higher levels of nostalgia.

In psychological research on nostalgia, the Event Reflection Task (ERT) has become commonplace in order to evoke nostalgic memories and then measure its effects on, for instance, people's optimism, consumer behaviour and prosociality (Cheung et al., 2013; Kim and Yim et al., 2018; Wildschut et al., 2014). The goal of these ERTs is to induce a feeling of nostalgia (or no feeling of nostalgia in the control condition) in the participant by having them describe a nostalgic event (or an ordinary event in the control condition) which they have experienced and then these nostalgia conditions can be compared with the control condition in order to observe the effects of experiencing nostalgia.

Recently, several of these claims about the positive influences and useful functions of nostalgia have been called into question in the paper by Newman et al. (2020). Particularly it has been postulated that the effect of nostalgia in improving well-being has been overestimated due to the methodology that is used to induce nostalgia, the ERT. In one of their studies they had participants complete both the ERT as well as a 1-week daily diary study with one half completing the ERT first and the other half completing the 1-week daily diary first (Newman et al., 2020; study 5). The latter was also used in other studies in their paper and required participants to complete a diary questionnaire at the end of each day which contained five nostalgic event items. They found that participants showed less nostalgia, positivity, meaning in life, longing for the past, positive affect and more negativity when reporting daily nostalgic events than when they reported their most nostalgic experience in the ERT. This suggests that nostalgia as it is induced by the ERT is not reflective of nostalgia as it is experienced in daily life.

The reason for this difference stated in the paper by Newman and colleagues is that the positive effects found in experimental studies of nostalgia on well-being exist because the participants are asked to recollect a unique nostalgic event. In particular the instruction of the ERT states “Please think of a nostalgic event in your life. Specifically, try to think of a past event that makes you feel most nostalgic.” (Wildschut et al., 2006; study 6). The key word in this instruction being the word most. The positivity of the nostalgic event is thus largely caused by the contents of the event itself being positive and not because evoking nostalgia made the participant experience a positive feeling.

The goal of this present research is therefore to investigate what exactly the difference is between the commonly researched distinct nostalgic events on the one hand, and ordinary daily life nostalgic experiences on the other hand. Specifically, this study seeks to experimentally induce and compare distinct and ordinary nostalgic and how these two types of nostalgia compare to participants who have not been induced with nostalgia. The purpose of investigating these types of nostalgia experimentally is to determine the factor which is the cause of these two distinct types of nostalgia. Since Newman et al. (2020) by using daily diary questionnaires rather than a second similar experimental condition for their manipulation changed more than one factor between the two conditions. To be able to compare these two types of nostalgia, a new “ordinary nostalgia” condition was created in addition to the standard nostalgia ERT (Sedikides et al., 2015, Appendix B). In this ordinary nostalgia condition participants are asked to complete essentially the same task as the standard nostalgia ERT. Except in this condition the participants are requested to write about a nostalgic experience related to things that in the past were part of someone’s everyday life like clothing or media. The control condition used in this study is very similar to the control condition used in the standard ERT study design (Sedikides et al., 2015, Appendix B). In this control condition participants were requested to think about an ordinary past event with no

mention of nostalgia. This condition was then used to check if nostalgia was properly induced and whether or not the presence of nostalgia changes the effects of reflecting on past events. The distinct nostalgia ERT still asked participants to describe the most nostalgic event. Specifically, they were asked to write about things related to important life events like high school graduations and comparable events. It was expected that when participants were asked about the most nostalgic event they would bring to mind a very special and dear memory. This then causes an increase in positive affect since the participant recollected an event that was unique and positive. However when asked to recollect the ordinary nostalgic event the participant should experience no change in affect. Since the event that was recollected should be similar to an experience from their daily life like the event recollected in the control condition.

In addition, the present study tested two potential moderators of this effect. It could be that in the ordinary nostalgia condition experiencing nostalgia becomes a source of negative affect when the participant has a negative view of their current life, because the event recollected is expected to be reflective of their life which they view as negative. In order to investigate this possible negative effect of ordinary nostalgic experiences, depressive symptoms and satisfaction with life were investigated as factors that make recollecting these types of nostalgic events have a negative impact on a person's affective state. It has already been shown that habitual worriers experience increased distress when ruminating about nostalgic events (Verplanken, 2012). It was expected that people with depressive symptoms and low satisfaction with life would also experience negative consequences from nostalgia, but only when ordinary nostalgic events were recollected as these are more reflective of the state of their daily life. This effect was not expected to be present with distinct nostalgic experiences since it should be possible for everyone to be able to remember a positive nostalgic event to reflect on regardless of the general view on their current life.

Hypotheses

The first hypothesis is that distinct nostalgic events will cause higher positive affect and lower negative affect than ordinary events. Second, distinct nostalgic events will result in higher positive affect and lower negative affect for the participant compared to an ordinary non-nostalgic life event. Third, ordinary nostalgic and ordinary non-nostalgic events are equal in positive and negative affect scores. Fourth, the affect scores of participants in the distinct nostalgia condition will not be affected by the score on the two moderators: life satisfaction and depressive symptoms. On the other hand, ordinary nostalgic and ordinary non-nostalgic events will obtain higher levels of negative affect and lower levels of positive affect as levels of life satisfaction decrease and levels of depressive symptoms increase.

Method

Procedure

The entirety of this study took place online using the online survey platform Qualtrics. After giving informed consent, the participants completed two scales assessing the moderating variables, the Centre for Epidemiologic Studies Depression Scale as a measure of depressive symptom load (CES-D; Radloff, 1977), and the Satisfaction with Life Scale (Diener et al. 1985) measuring satisfaction with life, both of these scales have been used in previous research on the topic (Newman et al., 2020). In contrast with previous research these two scales were used here to measure the moderators of this study. They were measured first as we are interested in participants level of depressive symptoms and satisfaction with life before the ERT. The reason being that during the ERT participants were requested to recall a certain event of their life which might have biased their responses. A more general view of the level of depressive symptoms and satisfaction with life was preferred.

After completing these two questionnaires, participants were randomly assigned to one of three conditions of the Event Reflection Task (Appendix A). The distinct nostalgic event category, the ordinary nostalgic event category, and the control event category. All of the participants were required to write for 3 minutes before being able to continue further and the essay had to have a length between 50 and 300 words.

After having completed the essay writing task participants rated their affect on items based on the affective circumplex model (Feldman Barrett & Russel, 1998; Brandstätter, 2007; Nezlek, 2005). These measures were used to ascertain the affective consequences of writing the essay and are our dependent variables directly adopted from research by Newman et al. (2020).

Afterwards, participants answered five questions about the event reflection task they had just completed. These questions served as the manipulation check for the event reflection task. The manipulation check happened after the affect ratings since it talked about nostalgic experiences which were not induced in the control condition. Asking these questions could have caused participants in the control condition to spontaneously reminisce about a nostalgic memory too.

Finally, participants indicated basic demographic data (age and gender), were thanked, and redirected to claim their reward. The compensation for the completion of the survey was 0.90 GBP and it took an average of 9 minutes to complete.

Materials:

Moderators. In order to assess depressive symptoms the Centre for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) was used consisting of 20 items on a 1-4 Likert scale where participants had to indicate how often they had certain experiences over the course of the past week. For satisfaction with life, the Satisfaction with Life Scale (Diener

et. al. 1985) measured ratings of satisfaction with life using 5 items on a 1-7 Likert scale (1 = *Strongly disagree*, 7 = *Strongly agree*).

ERT. The ERT contained three separate categories: a distinct nostalgic, an ordinary nostalgic, and a control event category. Participants in the distinct nostalgic event category were requested to fill in the standard version of nostalgic event reflection used in nostalgia research (Sedikides et al., 2015), with some changes to the instructions. The ordinary nostalgic event category featured a changed version of the distinct nostalgia condition in order to evoke a more common everyday feeling of nostalgia compared to the strong and exceptional feeling evoked in the distinct nostalgia condition. One of the changes to this condition to separate it from the standard “distinct” nostalgia condition is by asking participants to “think of an ordinary nostalgic event in your life. Specifically, try to think of a past event that recently made you feel nostalgic.” Instead of “think of a distinct nostalgic event in your life. Specifically try to think of the past event that makes you feel most nostalgic.” Another change was to tell people about two different types of nostalgia: one which focusses on specific and meaningful life events they attended like their high school graduation; the other one focussed on everyday objects and media like old landline phones, old clothing, or tv-shows/movies they watched as a child. The participants in the distinct nostalgia condition were asked to focus on the former, the participants in the ordinary nostalgia condition on the latter. Participants in the control event category were requested to write about an ordinary event from their past with no mention of nostalgia in the task. Again this part of the study has been taken from previous research on nostalgia (Sedikides et al., 2015). This condition was then altered to be more comparable with the other two conditions in the study.

Affect. The measure for the affective consequences of writing the essay in this study was a set of items based on the affective circumplex model (Feldman Barrett & Russel, 1998;

Brandstätter, 2007; Nezlek, 2005). Four different types of affect were measured: Positive activated (PA) assessed using the items enthusiastic, delighted, happy, glad, and excited; Positive deactivated (PD) assessed using the items calm, peaceful, relaxed, contented, and at ease; Negative activated (NA) assessed using the items stressed, angry, annoyed, tense, and nervous; and Negative deactivated (ND) assessed using the items depressed, disappointed, miserable, gloomy, and sad. On all these items participants had to indicate how much they felt like them or not on a 1-7 Likert scale (with three points being labelled: 1 = *do not feel this way at all*, 4 = *feel this way moderately*, 7 = *feel this way very strongly*). The ratings on this questionnaire assessed our dependent variables of interest.

Manipulation check. The manipulation check contained five questions three of these questions were based on earlier research (Sedikides et al., 2015) and the last two questions were added specifically to check if there was any difference in intensity between the different conditions, specifically between the ordinary and distinct nostalgia condition. These added items were: “I was immersed in my experience,” and “Right now, my nostalgic feelings are intense.” All five of these questions were rated on the same 1-7 Likert scale (1 = *Strongly disagree*, 7 = *Strongly agree*).

Participants

A total of $N = 214$ participants ($n = 108$ female, $n = 105$ male, $n = 1$ preferred not to say) were recruited for this study using Prolific Academic (<https://www.prolific.co/>). The age of the sample ranged from 18 to 57 years ($M = 28.38$ years, $SD = 8.15$ years). The number of participants in each condition was: 49 in the control condition, 86 in the ordinary nostalgia condition, 79 in the distinct nostalgia condition. As a result of an unknown allocation error in Qualtrics our conditions contain an unequal amount of participants. The decision was made to continue the analyses with these data nonetheless.

Results

The statistical analyses in this study were conducted in SPSS. Pre-registration of the hypotheses, procedures, materials and statistical analyses took place in order to comply with current standards for good research practices. Also the data and syntax that were used to obtain the results have been made available and can be retrieved from: <https://osf.io/jvh5b/>.

Manipulation check.

To see if nostalgia was successfully primed a one-factorial ANOVA was conducted on the initial three manipulation check ratings (Sedikides et al., 2015). A main effect of condition for these three ratings was found, $F(2, 211) = 4.669, p = .010, \eta_p^2 = .042$. Planned comparisons between the three different conditions revealed the expected results thus indicating that the manipulation of nostalgia worked as planned: the ordinary nostalgia condition contained higher nostalgia ratings than control, $t(133) = 1.96, p = .026, d = 0.34$; the distinct nostalgia condition also contained higher nostalgia ratings when compared to the control condition, $t(126) = 3.066, p = .003, d = 0.19$; Finally no significant difference in nostalgia ratings was found between the ordinary and distinct nostalgia condition, $t(163) = 1.18, p = .238, d = 0.53$, also see figure 1.

An ANOVA was also used to investigate if intensity of the nostalgic experience was successfully manipulated. A main effect of condition for these added two manipulation check ratings measuring the intensity of the essay writing experience was not found, $F(2, 211) = 2.479, p = .086, \eta_p^2 = .023$. So while nostalgia was successfully manipulated there is no confirmation that the intensity of the experience differed, see figure 2. Most importantly intensity ratings did not differ between ordinary ($M = 8.70, SD = 2.15$) and distinct nostalgia ($M = 8.94, SD = 2.20$).

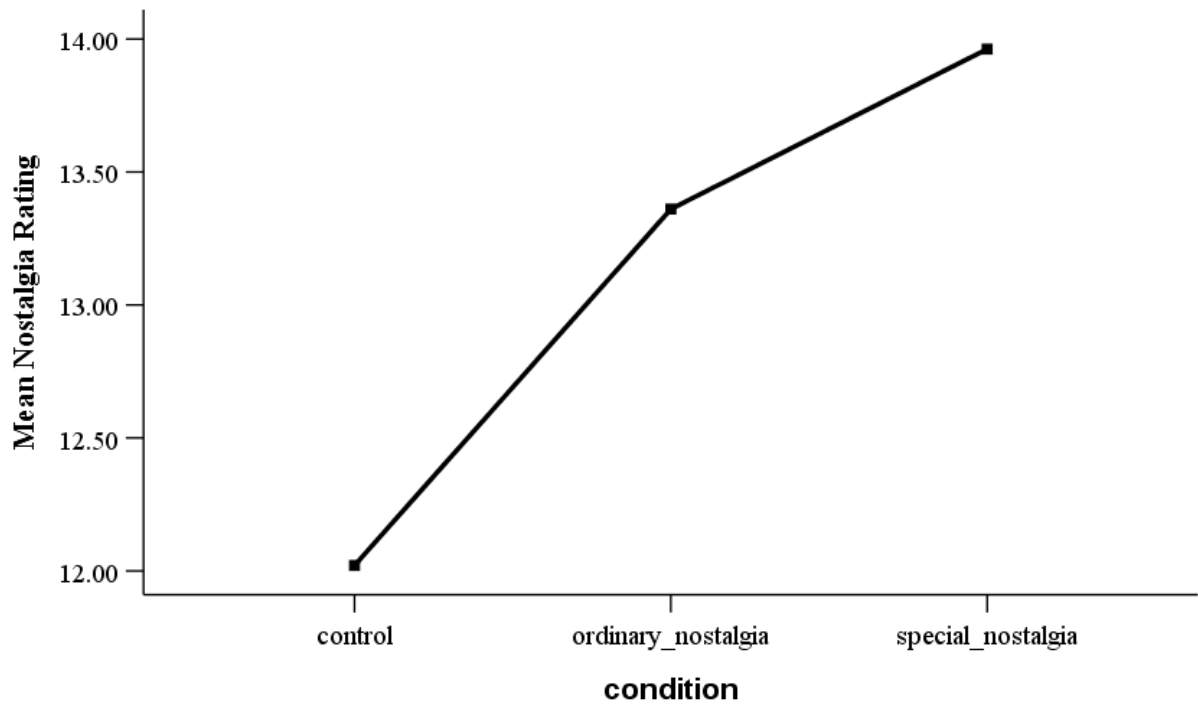


Figure 1. Mean rating on manipulation check items of level of nostalgia experienced from the essay writing task.

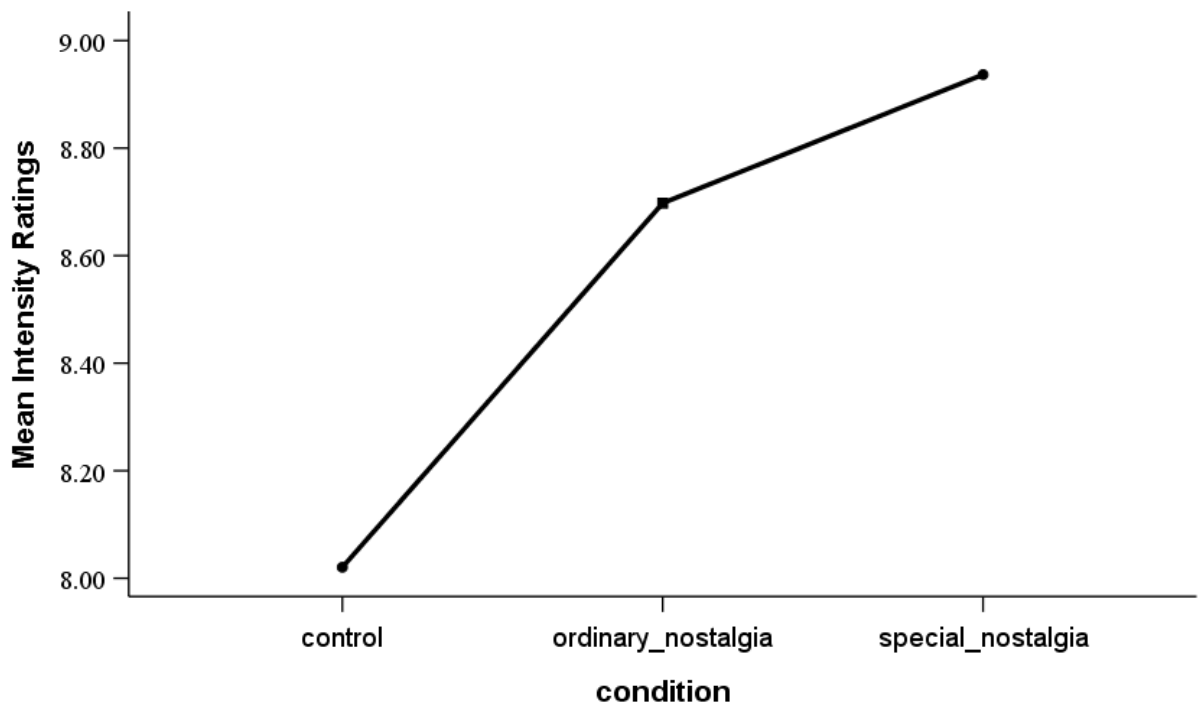


Figure 2. Mean rating on manipulation check items of level of intensity experienced from the essay writing task.

Affect

There are 4 different categories of affect in the affective circumplex model: positive activated, positive deactivated, negative activated, negative deactivated. For each of these four categories an ANOVA was performed in order to assess whether the ratings on these factors differed between conditions. Yet no difference in affect ratings was found between conditions for any of the four categories: Positive activated, $F(2,211) = 0.20, p = .818, \eta_p^2 < .01$; Positive deactivated, $F(2,211) = 0.76, p = .470, \eta_p^2 < .01$; Negative activated, $F(2,211) = 2.21, p = .112, \eta_p^2 = .02$; Negative deactivated, $F(2,211) = 0.65, p = .512, \eta_p^2 < .01$. So, whether the participant wrote an essay about a normal ordinary, nostalgic ordinary, or distinct nostalgic memory did not change any of their affect ratings.

Depression

There were two moderators assessed in this study: depressive symptoms and satisfaction with life. It was expected that these two variables would have an influence on the affective ratings for the control and ordinary nostalgia condition but not the distinct nostalgia condition. First, depressive symptoms were examined which were measured using the CES-D. An increase in the score on the CES-D was thought to both decrease positive affect and increase negative affect. However these analyses were mainly preformed in order to assess whether or not there was an interaction effect between depressive symptoms and condition. It was expected that participants in both the control and ordinary nostalgia condition would be negatively affected by this experience if they had depressive feelings. The reason being that a negative outlook on life would make reminiscing about a regular life bring to mind the life they are unsatisfied with. Distinct nostalgic events however were expected to increase positive affect and decrease negative affect no matter the level of depressive symptoms, because special events will always be seen as nice regardless of someone's general look on their current life.

For these analyses the conditions were contrast-coded. The ordinary nostalgia and ordinary non-nostalgia conditions were coded -0.5 and the distinct nostalgia condition was coded 0.5. The expected main effects of depressive symptoms were found for all the different forms of affect. As can be seen in Table 1, the main effects show that an increase in depressive symptoms correlated with an increase in negative and a decrease in positive affect. However no significant interaction effect was found. Table 1 shows that while depressive symptoms did influence the ratings on the various affect measures as expected, there were no differences in these influences of depressive symptoms for both groups across all measures as all interaction effects showed non-significant results.

Table 1. Overview of multiple regression analyses between depressive symptoms and condition, and the four types of measured affect.

Effect	Coeff.	t	p-value	95% CI
<i>Criterion: PA</i>				
Depressive symptoms	-2.269	4.856	< .001	[-3.191, -1.348]
Condition	0.703	.740	.460	[-1.170, 2.576]
Depressive symptoms*Condition	-0.610	.652	.515	[-2.452, 1.233]
<i>Criterion PD:</i>				
Depressive symptoms	-2.656	5.825	< .001	[-3.555, -1.757]
Condition	0.031	.033	.974	[-1.797, 1.858]
Depressive symptoms*Condition	-0.451	.494	.622	[-2.249, 1.247]
<i>Criterion NA:</i>				
Depressive symptoms	3.093	7.092	< .001	[2.233, 3.953]
Condition	-0.279	-.314	.754	[-2.027, 1.469]
Depressive symptoms*Condition	1.539	1.765	.079	[-.180, 3.259]
<i>Criterion ND:</i>				
Depressive symptoms	3.985	9.194	< .001	[3.131, 4.839]
Condition	0.175	.198	.843	[-1.563, 1.912]
Depressive symptoms*Condition	0.153	.176	.860	[-1.556, 1.861]

Note: PA = Positive activated affect, PD = Positive deactivated affect, NA = Negative activated affect, ND = Negative deactivated affect.

Satisfaction with life

An increase in the score on the Satisfaction with Life Scale was thought to increase positive affect and decrease negative affect. Just like depressive symptoms satisfaction with life was thought to have increased effectiveness on affect in the ordinary nostalgia and control condition compared to the distinct nostalgia condition. In contrast with depressive symptoms, satisfaction with life was thought to increase positive affect and decrease negative affect. In table 2 can be seen that satisfaction with life showed significant main effects with all 4 being in the direction that was expected. Meaning that satisfaction with life was correlated positively with positive affect and negatively with negative affect. Just as with depressive symptoms however none of the interaction effects were significant meaning that these relations are equally strong across both groups. So since the interactions were significant for neither depressive symptoms nor satisfaction with life the fourth hypothesis that these two factors influence affect only for the control and ordinary nostalgia condition is rejected.

Table 2. Overview of multiple regression analyses between satisfaction with life and condition, and the four types of measured affect.

Effect	Coeff.	T	p-value	95% CI
<i>Criterion: PA</i>				
Satisfaction with life	2.982	6.681	< .001	[2.102, 3.862]
Condition	0.313	.343	.732	[-1.484, 2.109]
Satisfaction with life*Condition	1.071	1.199	.232	[-0.689, 2.830]
<i>Criterion PD:</i>				
Satisfaction with life	2.897	6.504	< .001	[2.019, 3.775]
Condition	-0.343	.377	.707	[-2.135, 1.450]
Satisfaction with life*Condition	-0.416	.467	.641	[-2.172, 1.340]
<i>Criterion NA:</i>				
Satisfaction with life	-1.931	4.148	< .001	[-2.849, -1.104]
Condition	0.025	.026	.979	[-1.850, 1.899]
Satisfaction with life*Condition	-0.374	.401	.689	[-2.209, 1.462]
<i>Criterion ND:</i>				
Satisfaction with life	-2.667	5.562	< .001	[-3.613, -1.722]
Condition	0.577	.589	.557	[-1.354, 2.507]
Satisfaction with life*Condition	-0.512	.534	.594	[-2.403, 1.379]

Note: PA = Positive activated affect, PD = Positive deactivated affect, NA = Negative activated affect, ND = Negative deactivated affect.

Discussion

This study's purpose was to examine the way that ordinary nostalgic and distinct nostalgic experiences differ in their influence on people's feelings. Particularly, affect was measured in order to demonstrate these differences. For this purpose three separate conditions were created to assess the differences in affect. In the control condition participants wrote about an ordinary event that happened in the past; in the ordinary nostalgia condition participants wrote about an ordinary event from the past that gave them nostalgic feelings; the final condition was the distinct nostalgia condition where participants were asked to describe the most nostalgic event they had ever experienced.

These conditions were based on previous research by Sedikides et al. (2015). They instead used only two conditions: a similar control condition and a nostalgia condition that just like our distinct nostalgia condition requested the most nostalgic experience. They found that participants in the nostalgia condition had increased self-positivity, saw life as more meaningful, had more positive perceptions of the future, and showed a larger degree of sociality when compared to the control condition. The splitting of the nostalgia condition into two separate conditions was an idea that came from a paper by Newman et al. (2020). In this paper they investigated the difference between nostalgia as it occurs in daily life and nostalgia as it is induced in the lab. Daily life experiences of nostalgia and their effects were acquired by answering questionnaires containing questions about well-being and the occurrence of nostalgic experiences. For the nostalgia as it was induced in the lab they used the same Event Reflection Task as Sedikides et al. (2015). Results for both days with and without nostalgic experiences were collected for the analyses. Newman and colleagues did not find reduced negative affect, raised self-esteem, and increased meaning in life when comparing days with nostalgic events with ordinary days. However, nostalgia when induced experimentally did show a significant improvement when compared to either daily report.

The reason for this discrepancy according to the paper was due to the fact that experiments inducing nostalgia ask for the most nostalgic experience and it is the positivity of these extreme events that makes recollecting them a positive experience not the nostalgic feeling that comes with it.

In this study, nostalgia was also induced using the ERT for all three conditions. However, there was no significant difference between these conditions on affect ratings. Contrary to our predictions which stated that participants in the distinct nostalgia condition would show increased positive and decreased negative affect when compared to the ordinary nostalgia and control condition. The only significant difference between the three conditions was that participants in the control condition felt less nostalgic than participants in the ordinary and distinct nostalgia condition. This also meant that the distinct nostalgia condition did not score higher on the items measuring the intensity of the experience.

Finally, two moderators (depressive symptoms and satisfaction with life) were assessed. The idea was that these two moderators would influence the affect ratings for the control and ordinary nostalgia condition, but not the distinct nostalgia condition. Instead these two variables showed no moderating effect. It appears that regardless of the type of event recollected the influence of the two moderators on emotional affect stays the same. This result together with the effect of condition on affect not showing any significant differences indicates that nostalgia had no significant influence on people's affective state despite the manipulation check indicating it was successfully manipulated. In the next section potential reasons for these findings and directions for future research are discussed.

Limitations and future research

The discrepancy between the results of this study and the findings of Newman and colleagues (2020) could be because the everyday nostalgic experiences captured in their studies were not similar to the ordinary nostalgia condition of this paper. The important

change in this study was to experimentally manipulate the difference between daily nostalgic experiences and the typical ERT induced nostalgia on a specific variable. The variable that has been chosen in this study is intensity. This variable was manipulated between the two nostalgia conditions by having them focus on two different types of nostalgic event, an ordinary and a distinct one. The ordinary nostalgia condition primarily focussed on getting people to write about nostalgic objects and media. While the distinct nostalgia condition retained the focus on writing about the most nostalgic event a person could recollect. The idea was that this would make the ordinary nostalgic experience feel less positive and unique.

It is however possible that intensity of the nostalgic experience was not manipulated strongly enough. While the manipulation check on the three items taken from Sedikides and colleagues (2015) which measured whether or not nostalgia had been effectively manipulated showed significant results, this result was not found for the two questions that were added which measured the intensity of the experience. There are several possible reasons for this. One is that these two questions were not enough to give a proper indication of whether or not the manipulation was effective. On the hand this is quite possible given that the two added measures were not verified beforehand. On the other hand these questions do clearly ask the participants about the intensity of their experience in a sensible way. So it is possible that intensity was measured correctly. Instead it was the manipulation between the ordinary and distinct condition that was not different enough to induce two separate forms of nostalgia. One explanation is that participants were not able to come up with a memory of them having an ordinary nostalgic experience as these are not as memorable as intense nostalgic experiences. This leads to participants in the ordinary nostalgia condition recollecting and writing down more intense nostalgic experiences since they come to mind more easily. The suggestion for future research would be to change the wording of the ordinary nostalgia condition to specifically focus on a nostalgic experience that someone had the previous week.

This could eliminate the problem of participants providing the most memorable nostalgic experience since it is the only one they can recollect. It also provides a potential alternative explanation for the discrepancy between the two different types of nostalgia. It should be possible for most participants to have a nostalgic experience to recall as research has shown these type of experiences to be quite common with 80% of participants stating they experience nostalgia at least once a week (Wildschut et al., 2006). Another explanation is that problem exists because participants in the ordinary nostalgia condition wanted to recall a distinct nostalgic event since it would make them feel better, since these are likely to be more positive compared to an ordinary nostalgic event.

The final explanation is that the changes in the ERT between the ordinary nostalgia condition and the distinct nostalgia condition were not appropriate to create two separate conditions. However, this explanation has its flaws. First, care was taken to make the two conditions similar except with regard to the changes in definition and type of memory requested. This rules out a lot of other potential influences muddling the impact of the two separate manipulation tasks. Second, these changes are congruent with the changes applied between the nostalgia condition and the control condition of the ERT as it was developed by Wildschut et al. (2006). Since in this task it is assumed that asking for a specifically nostalgic past event rather than any ordinary past event and providing information about what exactly nostalgia is by telling participants the dictionary definition is enough to separate these two categories. This is not dissimilar from the approach that was taken to separate ordinary from distinct nostalgia in this study. The participants were asked to either focus on specifically an ordinary nostalgic event or the most nostalgic event and they were also given information about what exactly might cause the specific type of nostalgia requested from them. While these conditions function similarly there is still the possibility that the strength of the difference is not comparable. Reflecting on nostalgic objects or media from the past was

expected to create a significantly less intense nostalgic experience than important past life events like a graduation. Therefore telling participants to focus on nostalgia related to objects or media from the past was expected to cause less positive and more negative affect than telling participants to focus on nostalgia related to important life events. However it is possible that people feel quite a strong sense of nostalgia for objects or media from the past. In order to check this hypothesis it is advised to study not only the manipulation check but also the contents of the essays written in order to assess if this manipulation creates two separate experiences of nostalgia.

It should be pointed out that it is still possible for other factors than the manipulation issue to have contributed to the results which have been found. For instance it could also be that there is no noticeable difference in intensity between the two types of nostalgia recollected. The reason being that intensity is not the variable which determines the difference between daily life experiences of nostalgia and nostalgia as it is typically induced in the lab. It was chosen as the most likely variable separating these two types of nostalgic experiences since Newman et al. (2020) pointed to the use of the phrase “think of a past event that makes you feel most nostalgic” in the ERT. The paper then continues to explain that a focus on specifically the most nostalgic event is what differentiates it from a more common nostalgic experience. Thus, the change between the two conditions focussed on evoking a more mundane and common nostalgic experience for the ordinary nostalgia condition while the distinct nostalgia condition retained the focus on the most nostalgic event.

A possible alternative could be that actively pursuing nostalgia has positive effects while involuntarily experiencing nostalgia has negative effects regardless of the contents. A possible way to quantify this is by comparing people who score higher on the Personal Inventory of Nostalgic Experiences scale (PINE; Newman et al., 2020) compared to the Southampton Nostalgia Scale (SNS; Barrett et al., 2010; Routledge et al., 2008) as a measure

of nostalgia. Since one of the important differences between these two scales is the lack of questions relating to actively seeking out nostalgic experiences in the PINE.

The next limitation is a common one which relates to the population chosen for this study. While there was an almost equal spread between men and women, the mean age for this study was fairly young and while there were older participants it did not go above 57 years. This is worth noting since it has been hypothesized before that older people feel nostalgic more often and receive more benefits from nostalgic experiences than younger people (Newman et al. 2020). It is not uncommon for the participants in nostalgia research to range from 20 to 80 years old or even broader (Wildschut et al. 2006; Hepper, Robertson, Wildschut, Sedikides, & Routledge, 2014). The suggestion for future research would be to use either a sample with more age variation or to use samples of several specific age groups across multiple studies when performing experiments similar to this one.

Another angle to look at is the dependent variable. Affect was used as the sole dependent variable in this study. In previous studies on nostalgia other variables have also been used to measure the impact of nostalgia: like the self-positivity, existential, and sociality functions (Sedikides et al., 2015) as well as well-being, meaning in life, regret and rumination (Newman et al., 2020). Affect was chosen as a variable since both the Newman and Sedikides paper used it as a dependent variable. The other two being self-esteem and meaning in life which are not as good choices for investigating the bittersweet experience of nostalgia. However there has been previous research in which the nostalgia condition did not show an increase in positive affect ratings with the control condition (Cheung et al., 2013, Study 3; Stephan et al., 2014, Study 4 and 5; Zhou, et al., 2012; Study 2, 3, and 4). So experiencing nostalgia does not always lead to an increase in positive affect. This inconsistent relation between nostalgia and positive affect is something which has not yet been fully investigated, despite it being of crucial importance to the implications of experiencing nostalgia.

Conclusion

Intensity as a factor was unable to explain the differences as found by Newman et al. (2020) between the daily life experiences of nostalgia and nostalgia when induced in the lab. Moreover no significant positive effects of nostalgia were found at all even when participants were asked to describe the most nostalgic event they could recall. Nostalgia did not display the bittersweetness commonly associated with it in research on the topic. Therefore it is important for future research to determine if there are positive effects of nostalgic experiences on affect. Only after this has been determined can the underlying causes and potential moderators be fully investigated.

References

- Barret, F. S., Grimm, K. J., Robins, R. W., Wildschut, T., Sedikides, C., & Janata, P. (2010). Music-evoked nostalgia: Affect, memory, and personality. *Emotion, 10*, 390-403. doi:10.2466/pms.1995.80.1.131.
- Brandstätter, H. (2007). The time sampling diary (TSD) of emotional experience in everyday life situations. In J. Allen & J. Coan (Eds.), *The handbook of emotion elicitation and assessment* (pp. 318–331). New York, NY: Oxford University Press.
- Cheung, W. Y., Wildschut, T., Sedikides, C., Hepper, E. G., Arndt, J., & Vingerhoets, A. J. J. M. (2013). Back to the future: Nostalgia increases optimism. *Personality and Social Psychology Bulletin, 39*, 1484–1496. doi:10.1177/0146167213499187.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49*, 71-75. doi:10.1207/s15327752jpa4901_13.
- Feldman Barrett L., & Russell, J. A. (1998). Independence and bipolarity in the structure of current affect. *Journal of Personality and Social Psychology, 74*, 967–984. doi:10.1037/0022-3514.74.4.967.
- Hepper, E. G., Wildschut, T., Sedikides, C., Ritchie, T. D., Yung, Y.-F., Hansen, N., Zhou, X. (2014). Pancultural nostalgia: Prototypical conceptions across cultures. *Emotion, 14*, 733–747. Doi:10.1037/a0036790.
- Hofer, J. (1934). Medical dissertation on nostalgia (C.K. Anspach, Trans.). *Bulletin of the History of Medicine, 2*, 376–391, Original work published 1688.
- Kim, Y.K., & Yim, M.Y.C. (2018). When nostalgia marketing backfire: Gender differences in the impact of nostalgia on youthfulness for older consumers. *Applied Cognitive Psychology, 32*, 815-822. doi:10.1002/acp.3459.

- McCann, W. H. (1941). Nostalgia: A review of the literature. *Psychological Bulletin*, 38, 165–182. <http://dx.doi.org/10.1037/h0057354>.
- Newman, D.B., Sachs, M.E., Stone, A.A., & Schwarz, N. (2020). Nostalgia and well-being in daily life: An ecological validity perspective. *Journal of Personality and Social Psychology*, 118, 325-347. doi:10.1016/bs.aesp.2014.10.001.
- Newman, D. B., Schwarz, N., Stone, A. A. (2020). Global reports of well-being overestimate aggregated daily states of well-being. *The journal of Positive Psychology*, , 1-10. doi:10.1080/1743960.2020.1725608.
- Nezlek, J. B. (2005). Distinguishing affective and non-affective reactions to daily events. *Journal of Personality*, 73, 1539–1568. doi:10.1111/j.1467-6494.2005.00358.x.
- Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385–401. doi:10.1177/014662167700100306.
- Routledge, C., Arndt, J., Sedikides, C., & Wildschut, T. (2008). A blast from the past: The terror management function of nostalgia. *Journal of Experimental Social Psychology*, 44, 132–140. Doi:10.1016/j.jesp.2006.11.001.
- Routledge, C., Arndt, J., Wildschut, T., Sedikides, C., Juhl, J., Vingerhoets, A. J. J. M., & Schlotz, W. (2011). The past makes the present meaningful: Nostalgia as an existential resource. *Journal of Personality and Social Psychology*, 101), 638–652 doi:10.1037/a0024292
- Sedikides, C., & Wildschut, T. (2016). Past forward: Nostalgia as a motivational force. *Trends in Cognitive Sciences*, 20, 319-321. doi:10.1016/j.tics.2016.01.008.
- Sedikides, C., Wildschut, T., Routledge, C., Arndt, J., Hepper, E.G., & Zhou, X. (2015). To nostalgize: Mixing memory with affect and desire. *Advances in Experimental Social Psychology*, 51, 189-273. doi:10.1016/bs.aesp.2014.10.001.

- Stephan, E., Wildschut, T., Sedikides, C., Zhou, X., He, W., Routledge, C., et al. (2014). The mnemonic mover: Nostalgia regulates avoidance and approach motivation. *Emotion, 14*, 545-561. doi:10.1037/a0035673.
- Verplanken, B. (2012) When bittersweet turns sour: Adverse effects of nostalgia on habitual worriers. *European Journal of Social Psychology, 42*, 285-289. doi:10.1002/ejsp.1852.
- Wildschut, T., Bruder, M., Robertson, S., Van Tilburg, W. A. P., & Sedikides, C. (2014). Collective nostalgia: A truly group-level emotion that confers unique benefits on the group. *Journal of Personality and Social Psychology*. Advance online publication. doi:10.1037/a0037760
- Wildschut, T., Sedikides, C., Arndt, J., & Routledge, C. (2006). Nostalgia: Content, triggers, functions. *Journal of Personality and Social Psychology, 91*, 975–993. doi:10.1037/0022-3514.91.5.975.
- Wildschut, T., Sedikides, C., Routledge, C., Arndt, J., & Cordaro, F. (2010). Nostalgia as a repository of social connectedness: The role of attachment-related avoidance. *Journal of Personality and Social Psychology, 98*, 573–586. doi:10.1037/a0017597.
- Zhou, X., Wildschut, T., Sedikides, C., Chen, X., & Vingerhoets, A. J. J. M. (2012). Heartwarming memories: Nostalgia maintains physiological comfort. *Emotion, 12*, 678–684. doi:10.1037/a0028236.
- Zhou, X., Wildschut, T., Sedikides, C., Shi, K., & Feng, C. (2012). Nostalgia: The gift that keeps on giving. *Journal of Consumer Research, 39*, 39-50. doi:10.1086/662199.

Appendix A: INSTRUCTIONS FOR THE EVENT REFLECTION TASK**Part 1a) General instructions nostalgia conditions**

According to the Oxford Dictionary, “nostalgia” is defined as a “sentimental longing for the past.” Your task now will be to write about a nostalgic experience.

Nostalgia can be evoked by many different memories. People can feel nostalgia when they think about very specific events they witnessed in the past like their high school graduation or other meaningful events they attended. But people also feel nostalgia when thinking about everyday objects and events from their past like old landline phones, clothing from past decades, or tv shows/movies they watched as a child.

Part 1b) General instructions control condition

Your task will be to write about an ordinary event in your life. This ordinary event could be about many different things. It could be about a typical interaction you’ve had with people or a common activity that you have engaged in. As long as it is an event that has happened to you in your own life.

Part 2a) Specific instructions distinct nostalgia condition

Given that so many things can inspire nostalgia, we would like to ask you to focus specifically on nostalgic experiences of the former kind. This standardizes what our participants write about and makes our data more comparable.

So please think of a distinct nostalgic event in your life. Specifically, try to think of the past event that makes you feel most nostalgic. As mentioned above, classic examples of such events are high school graduations etc., that is, life events that were very important to you in

the past. But you are of course free to come up with any event that fits this definition. But please try to adhere to the definition we provided above.

Part 2b) Specific instructions ordinary nostalgia condition

Given that so many things can inspire nostalgia, we would like to ask you to focus specifically on nostalgic experiences of the latter kind. This standardizes what our participants write about and makes our data more comparable.

So please think of an ordinary nostalgic event in your life. Specifically, try to think of a past event that recently made you feel nostalgic. As mentioned above, classic examples of such events are things (e.g., clothing) or media (e.g., TV shows), that is, things that were part of your everyday life in the past. But you are of course free to come up with any object or event that fits this definition. But please try to adhere to the definition we provided above.

Part 2c) instructions control condition (continued)

Please bring to mind an ordinary event in your life. Specifically, try to think of a past event that is ordinary. Bring this ordinary experience to mind. Immerse yourself in the ordinary experience. How does it make you feel? Please spend a couple of minutes thinking about how it makes you feel. Please write down four keywords relevant to this ordinary event (i.e., words that describe the experience).

Part 3) General instructions (continued)

Using the space provided below, for the next few minutes, we would like you to write about the event. Immerse yourself into this experience. Describe the experience and how it makes you feel.

Bring this experience to mind. Immerse yourself in the experience. How does it make you feel? Please spend a couple of minutes thinking about how it makes you feel. Please write down four keywords relevant to this nostalgic memory (i.e., words that describe it). Using the space provided below, for the next few minutes, we would like you to write about the event.

Remember your essay needs to be between 50 to 300 words long and you have at least 3 minutes to complete it.