BACHELOR THESIS

The structure of the eudaimonic approach in wellbeing

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Abstract

Wellbeing attracts more and more attention in scientific research the last decades due to the advantages for society and health. It still is a relatively new and unexplored field in research. Contemporary scientific insights divide wellbeing into two major approaches: hedonic and eudaimonic. Social- and psychological wellbeing are the two pillars of the eudaimonic approach, which are in the main focus of this study. These constructs are related to each other and overlap to a certain degree. Until now, there is no insight in the causal connectivity of these substructures. The present study investigates the causal relations between the constructs social- and psychological wellbeing. 1662 participants have answered the MHC-SF questionnaire measuring the two constructs by 11 items. The MHC-SF was measured at four different time points over a period of nine month to enhance explanatory power. The four different moments of measurement enabled the usage of cross-lagged panel analysis. Results show a strong connection between social and psychological wellbeing. The results further lead to the assumption of an interdependent relation between the two constructs over time. Concluding the results of the present study and comparing them with the existing results, manifests that the two pillars of wellbeing are influencing each other in a great extent. Changes in one pillar of wellbeing will cause similar changes in the other.

Samenvatting

Welzijn krijgt de afgelopen decennia steeds meer aandacht in de wetenschappelijke wereld dankzij de voordelen voor de samenleving en de gezondheid. Het is een relatief nieuw en onbekend onderzoeksgebied. Huidige inzichten verdelen welzijn in twee aanpakken: hedonisch en eudaimonisch. De twee pijlers van de eudaimonische aanpak zijn sociaal en psychologisch welzijn en dit zijn de hoofdonderwerpen van dit onderzoek. Deze constructen zijn aan elkaar gerelateerd en overlappen elkaar voor een deel. Heden is er nog geen inzicht in de causale verbondenheid van deze twee constructen. Deze studie onderzoekt de oorzakelijke verbanden tussen de constructen sociale en psychologisch welzijn. 1662 deelnemers hebben de MHC-SF vragenlijst ingevuld welke deze constructen meet op 11 punten. De MHC-SF is op vier verschillende momenten in negen maanden gemeten om de verklarende kracht te versterken. Dankzij de vier verschillende meetmomenten kan een “cross-lagged panel analyse” worden gedaan. De resultaten laten een sterke correlatie zien tussen sociaal en psychologisch welzijn. Ook leiden ze tot de aanname dat de constructen onderling afhankelijk zijn in de tijd. Wanneer de resultaten van deze studie worden vergeleken met bestaande resultaten, is te zien dat de twee pilaren van welzijn elkaar zeer beïnvloeden. Veranderingen in de ene pilaar van welzijn zal zorgen voor soortgelijke veranderingen in de andere.

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Introduction

Wellbeing

There are many reasons to study wellbeing in humans. Not only did many studies point out that being happy or feeling well is one of the most desirable states in humans, but also that happy people get judged differently by others than unhappy people (King & Napa, 1998). Happy people are seen as better persons, as having a more desirable life and are even considered more likely to be admitted to heaven than unhappy people (King & Napa, 1998). To be happy also enhances other advantages like physical health (Diener & Chan, 2011; Huppert, 2009) and leads to less everyday task limitations, less sickness absence, less medication use (Bergsma, ten Have, Veenhoven, & de Graaf, 2011) and even longevity (Diener & Chan, 2011). Ryan and Deci (2001) state that how society defines wellbeing would influence government, therapy, teaching, parenting, preaching, as all such endeavors aim to change humans for the better.

By looking at our history we have been long striving to find explanations about how wellbeing is developed and how it can be achieved. Religions as well as philosophers ranging from the ancient times of the Greeks until today have tried to explain wellbeing (Helliwell & Putnam, 2004). When it comes to scientific research, the main focus in the last centuries has rather been on psychological dysfunctions and the absence of illness more than the feeling of wellbeing itself (Fava & Ruini, 2003). Until 1995, psychological articles examining negative states actually outnumbered articles examining positive states by a ratio of 17 to 1 (Diener, Suh, Lucas, & Smith, 1999). Trough identification of the already mentioned benefits of wellbeing, the focus of recent investigations is now shifting to a more positive approach for studying wellbeing in psychology, paying more and more attention to the concept of wellbeing itself (Fava & Ruini, 2003). Better knowledge of wellbeing could be used to improve or build new interventions in the healthcare system. This could probably lead to a major improvement in healing and preventing people from sickness.

In 1948, the World Health Organization (WHO) already defined health as:

“A state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity” ("Constitution of the World-Health-Organization," 1946)

Even if the WHO defined health as more than the absence of disease or infirmity, the scientific world has long neglected the factor wellbeing and the need to be studying it (Huppert, 2009). Today we are more aware of these important factors and the WHO defines the so called positive mental health as:

"A state of wellbeing in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (Brundtland, 2001)

As scientific research began to take a closer look at wellbeing, it became apparent to be a very complex construct that is anything but easy to measure, to predict and therefore to understand (Ryan & Deci, 2001). Countless factors are seemingly intervening with wellbeing: For example it has been found that happy people, in terms of the big five traits (Costa & Mccrae, 1992), seem to have common personality traits. For instance, extraversion and agreeableness are consistently positively associated with happiness in contrast to neuroticism were the opposite pattern is found (Diener et al., 1999; Huppert, 2009; Keyes, Shmotkin, & Ryff, 2002; Ryan & Deci, 2001; Steel, Schmidt, & Shultz, 2008). In addition, happy people in contrast to unhappy people seem to have attribution styles that are more self-enhancing, which could contribute to their happiness (Ryan & Deci, 2001). Huppert (2009) found some evidence of heredity of wellbeing. Also socio-demographic factors have been found to exert influence on wellbeing. Especially age and education seem to have an important impact on wellbeing (Huppert, 2009; Keyes et al., 2002).

Regardless to these intervening factors, contemporary research divides wellbeing into two major approaches. The first is the hedonic approach that often is referred to as emotional wellbeing (EWB); (Deci & Ryan, 2008; Diener & Chan, 2011; Steel et al., 2008; Steger, Kashdan, & Oishi, 2008). It has a threefold structure containing life satisfaction, positive affect and negative affect. Satisfaction is a more long-term judgment whereas the balance of positive and negative affects builds the more immediate experience (Keyes et al., 2002). EWB is also often referred to as happiness (Deci & Ryan, 2008; Keyes et al., 2002).

The second approach is the eudaimonic approach where the focus of this study was on. Eudaimonic approach is often referred to as psychological wellbeing (PWB) (Deci & Ryan, 2008; Gallagher, Lopez, & Preacher, 2009; Huppert, 2009; Keyes et al., 2002; Ryan & Deci,

2001; Steger et al., 2008). To define the concept of PWB or psychological health, several constructs have been articulated such as self-actualization, maturity, self-realization, meaningfulness and the full functioning of the person (Deci & Ryan, 2008; Fava & Ruini, 2003; Gallagher et al., 2009; Keyes et al., 2002; Ryan & Deci, 2001; Steger et al., 2008). Ryff (1989) suggests a multidimensional model of PWB that implies six psychological dimensions in order to measure PWB. The six dimensions are personal growth, environmental mastery, autonomy, purpose in life, self-acceptance and positive relations (Ryff, 1989). Eudaimonic researchers have argued that PWB influences health related processes and is essential to overall wellbeing (Ryan & Deci, 2001). The hedonic and the eudaimonic perspective seem to be related but distinct factors (Keyes et al., 2002; Ryan & Deci, 2001).

Recently, social wellbeing (SWB) has also been suggested as another distinguishable perspective within the eudaimonic approach and therefore on wellbeing (Gallagher et al., 2009). Keyes (1998) defines SWB as a five component model containing: social integration, social contribution, social coherence, social actualization, and social acceptance (Keyes, 1998). These elements indicate how individuals are overcoming social challenges and how they function in their social world. Keyes (1998) extends the eudaimonic tradition and creates a new perspective on wellbeing (Gallagher et al., 2009). SWB is not only related to PWB but also strongly to EWB (Aknin et al., 2013; Diener et al., 1999; Helliwell & Putnam, 2004; Ryan & Deci, 2001). The eudaimonic approach therefore has a two pillar structure (SWB and PWB), in which the pillars are somehow related and overlapping (Gallagher et al., 2009; Keyes, 1998). Even if the two pillar structure seems to be evident, it is not known how the different aspects of the eudaimonic approach influence each other. Research shows many different and inconsistent results of how they could be connected but until now no causal structure could be found (Gallagher et al., 2009). Gallagher (2009) states that the overlapping factors and difficulties of measurements make it more a methodological limitation than a theoretical (Gallagher et al., 2009). Keyes (2002) points out one of the biggest problems in research of the eudaimonic approach and wellbeing in general: Most research is based on single-point-in-time measurement and therefore it is difficult to capture influences and factors that could explain the actual structure of the eudaimonic approach and wellbeing (Keyes et al., 2002).

In order to understand wellbeing as a whole it is necessary to primarily know the underlying structure of the eudaimonic approach, containing two of the three pillars of wellbeing. The present study tries to build on the indications of recent studies of Gallagher (2009) and Keyes (2002) in order to understand the eudaimonic approach better. To do so a dataset measured

with the Mental Health Continuum- short form (MHC-SF) has been used. The MHC-SF is a very reliable and valid instrument to collect data (Lamers, Westerhof, Bohlmeijer, ten Klooster, & Keyes, 2011) and therefor aids to reduce methodical measurement errors Gallagher is referring to. Additionally, it is a longitudinal dataset, collected over a time period of one year with four measurement moments. With four measurement moments over a period of time it is likely to get a more detailed picture of the constructs. The longitudinal dataset for instance enabled us to use the cross-lagged panel design as a statistical analysis to fulfill this goal. The aim of the study is not only to better describe and distinguish those two constructs but also to find connections between them, in particular, connections that could indicate any signs of causality.

Method

Procedure & participants

The data of this study originates from the LISS-panel (longitudinal internet studies for social sciences). The LISS-panel is created through CentERdata and contains over 5000 households with over 8000 members in between the households. It is a representative sample of Dutch households drawn from the population register by the governmental institution "Statistics Nederlands". The MHC-SF questionnaire has been filled out online from all the 1662 participants. If households lacked access to internet or to computers, these facilities have been made available for them. The participants filled in the questionnaire on four different measurement moments: The first measurement moment (T_0) was in December 2007; in three month intervals the other measurements have been taken (T_1=March 2008; T_2=June 2008; T_3=September 2008) (Lamers et al., 2011). 49.8 % out of these 1662 participants were male and 50.2 % were female. The majority of the participants (83.1 %) were native Dutch. The participants were classified in age, gender and whether they were native Dutch or not. Age has been divided into six groups as shown in Table 1.

Table 1: Participants characteristics

Characteristics		Percentage of participants	N° participants
Male		49.8 %	828
Female		50.2 %	834
Native Dutch		83.1 %	1381
Age-group			
	15-24	9.9 %	165
	25-34	20.7 %	344
	35-44	14.7 %	244
	45-54	15.5 %	257
	55-64	17.0 %	283
	65 +	22.2 %	369
Educational level			
	Basisonderwijs (elementary school)	30.8 %	504
	vmbo (high school)	11.8 %	193
	havo/vwo (high school)	22.3 %	365
	hbo (selective secondary school)	8.1 %	133
	wo (selective secondary school)	4.0 %	66
	Mbo (tertiary education)	22.8 %	373

Measurement

The MHC-SF is based on the MHC-Long Form. The original version contains 40 items, whereas the short form consists of only 14 items. The items measure three different constructs: EWB (three items), SWB (five items) and PWB (six items). Each item is scored on a six-point Likert scale that varies from one = "never" to six = "every day". (Keyes, 1998; Lamers et al., 2011; Ryff, 1989). Questions of the subscales are for example: "During the past month, how often did you feel that you liked most parts of your personality?" for PWB or "During the past month, how often did you feel confident to think or express your own ideas and opinions" for SWB. A full version of the questionnaire can be seen in the Appendix. MHC-SF showed good validity and reliability in more than five Dutch pilot studies (Lamers

et al., 2011). Furthermore, it was confirmed that the classification of the 14 items into the three theoretically subscales (emotional, social and psychological) is valid (Lamers et al., 2011). The subscales have also shown good internal reliability and predictive value for the corresponding subscales on later measurements ($T_0 \rightarrow T_1 \rightarrow T_2 \rightarrow T_3$) (Lamers et al., 2011). A longitudinal evaluation of the MHC-SF investigated the measurement invariance of the MHC-SF. This study used data of 1.932 Dutch adults, who filled in the MHC-SF at four time points over a period of nine months. It was found that the MHC-SF is highly reliable over time. The MHC-SF has proven to be a reliable and valid instrument to measure positive aspects of mental health (Lamers, Glas, Westerhof, & Bohlmeijer, 2012). The LISS-panel data used in this study are the same data as were used in the study of Lamers, Glas, Westerhof & Bohmleijer. The full version of the MHC-SF can be found in Appendix.

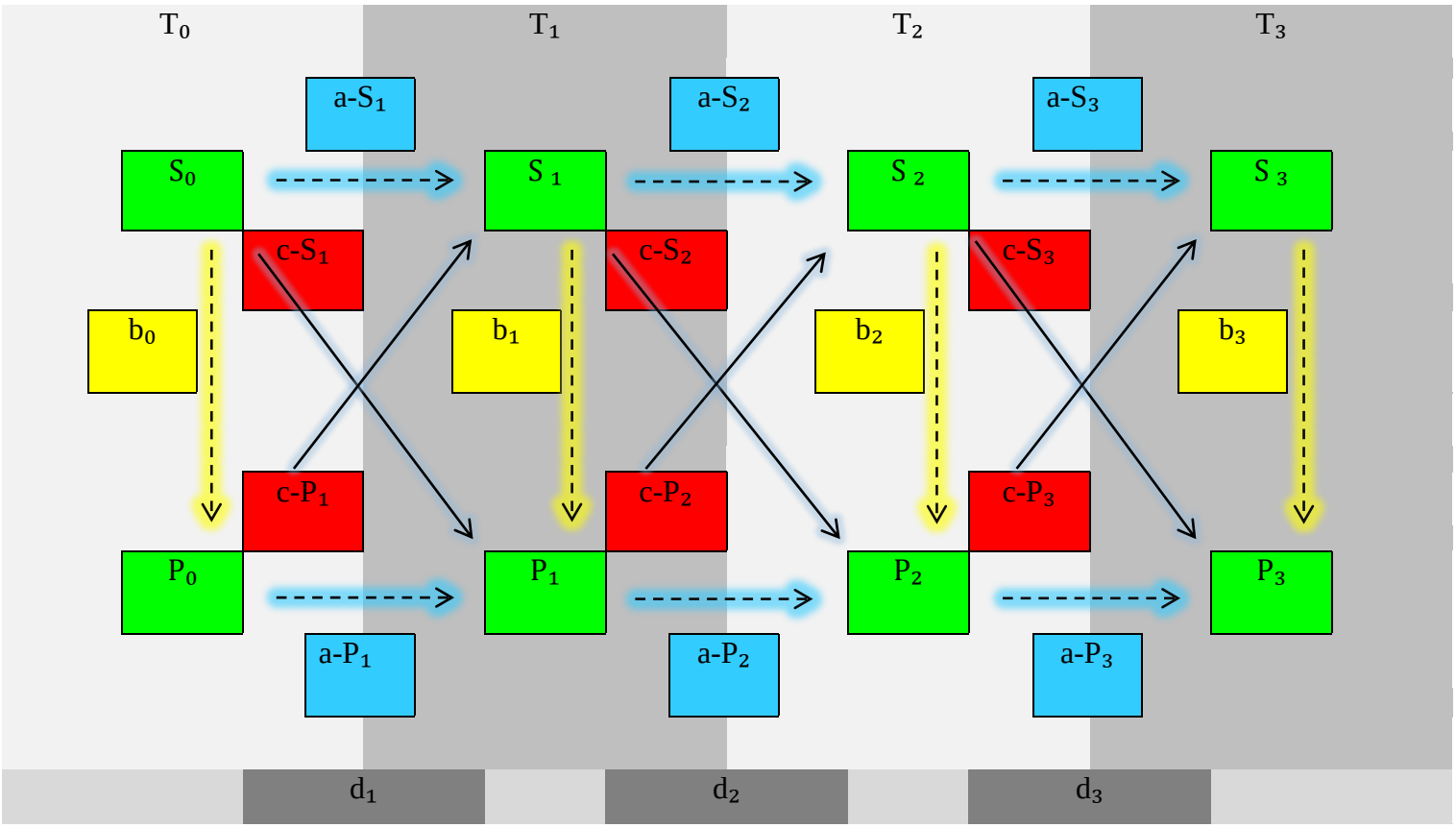
Analysis

As the research questions are related to "SWB" and "PWB", the main focus of the analysis was on these two subscales of the MHC-SF. In order to find connections that could indicate any signs of causality between the subscales, several different statistical analysis have been carried out. We started first with reliability analysis of the MHC-SF and the subscales SWB and PWB. The reliability analysis is an important step to verify the usefulness of the MHC-SF in our case. After that, the aim of the study was taken into focus. The aim of the study was to see whether one of the two variables (SWB or PWB) is causing an effect upon the other. To achieve this aim a cross-lagged correlation design was used. To give a clear description of the method, the statistical analysis will be described by Figure , below in this section. In this figure, the two variables are lined parallel to each other. The four measurement moments (T_0, T_1, T_2, T_3) of the two variables are placed next to each other (SWB = S_0, S_1, S_2, S_3; PWB P_0, P_1, P_2, P_3). The statistical methods can be divided into three major steps. The first (marked with a-S_1, a-S_2, a-S_3; a-P_1, a-P_2, a-P_3) tested the stability of the constructs itself, measuring a normal zero-order correlation between the measurement moments. The second analysis (marked with b_0, b_1, b_2, b_3) gives the cross sectional correlation between the two constructs in the four measurement moments. It is also a zero-order correlation. For the purpose of this study, the last and most important analysis is a cross time partial correlation. This correlation is the partial correlation of one measurement moment of one variable in relation to the future measurement moment of the other variable. This correlation is further corrected for the auto correlation of the future

measurement moment of the other variable and its past measurement moment (correcting variable e.g.: a-S_1; auto correlation within the construct). Those correlations are marked with cS_1 cS_2, cS_3 for the predictive value correlation of SWB on PWB and cP_1, cP_2, cP_3 for the predictive value correlation of PWB on SWB. To explain the mechanism an example is shown in Figure 2 at the end of this section.

The cross time partial correlations form three pairs of coefficients in time. Each pair sits between the four measurement moments (cS_1 and cP_1 between T_0 - T_1; cS_2 and cP_2 between T_1 - T_2; cS_3 and cP_3 between T_2 - T_3). For these pairs it was tested if the observed differences between the coefficients are significant (d_1, d_2 and d_3). This is an important step to show weather the differences between the coefficients may be due to chance or actually represent a significant difference in the population (SISA).

All the variables and analyses can be combined in one model, as can be seen in Figure 1:



Tn	Measurement moment (in time)
Sn/Pn	Variables: S= SWB / P= PWB
a-Sn/a-Pn	a = zero-order correlation within the construct
bn	b= zero-order correlation between the constructs
c-Sn/ c-Pn	c= cross time partial correlations
dn	d= significant difference between c-Sn and c-Pn

Figure 1: Cross-lagged panel design of SWB and PWB

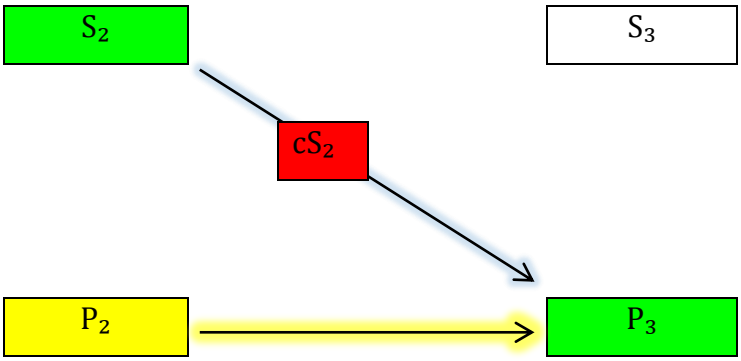


Figure 2: Example of how to obtain the cross time lagged correlations

The cross-lagged correlation cS_2 (marked in red) is the composition of S_2 in relation to P_3 (marked in green) corrected for variable P_2 (marked in yellow).

Results

Reliability

The first step of this study was to test the reliability of the MHC-SF and its constructs SWB and PWB. The Cronbach's α's are conducted at the first measurement moment (T_0). The overall reliability of the MHC-SF showed a Cronbach's α of .89. This is a very high score indicating good reliability. Furthermore the single constructs (SWB and PWB) also showed good reliability. The construct of SWB yielded a Cronbach's α of .74. The construct of PWB showed a stronger Cronbach's α of .83 and is therefore slightly more reliable than the scale of SWB. The results are summarized in Table 2.

Table 2: Reliability coefficients

Set	Cronbachs α	N° items
MHC-SF total	.89	14
SWB	.74	5
PWB	.83	6

Stability

The zero-order correlations of SWB (marked blue in Figure 1) indicate that SWB was relatively stable over time. The correlations between the four measurement moments were strong (r = .62, r = .71 and r = .72) and significant. The same was true for the stability of the construct PWB (r = .61, r = .70 and r = .73). There was also a slightly increasing trend as we look at the correlations that become stronger with each measurement moment.

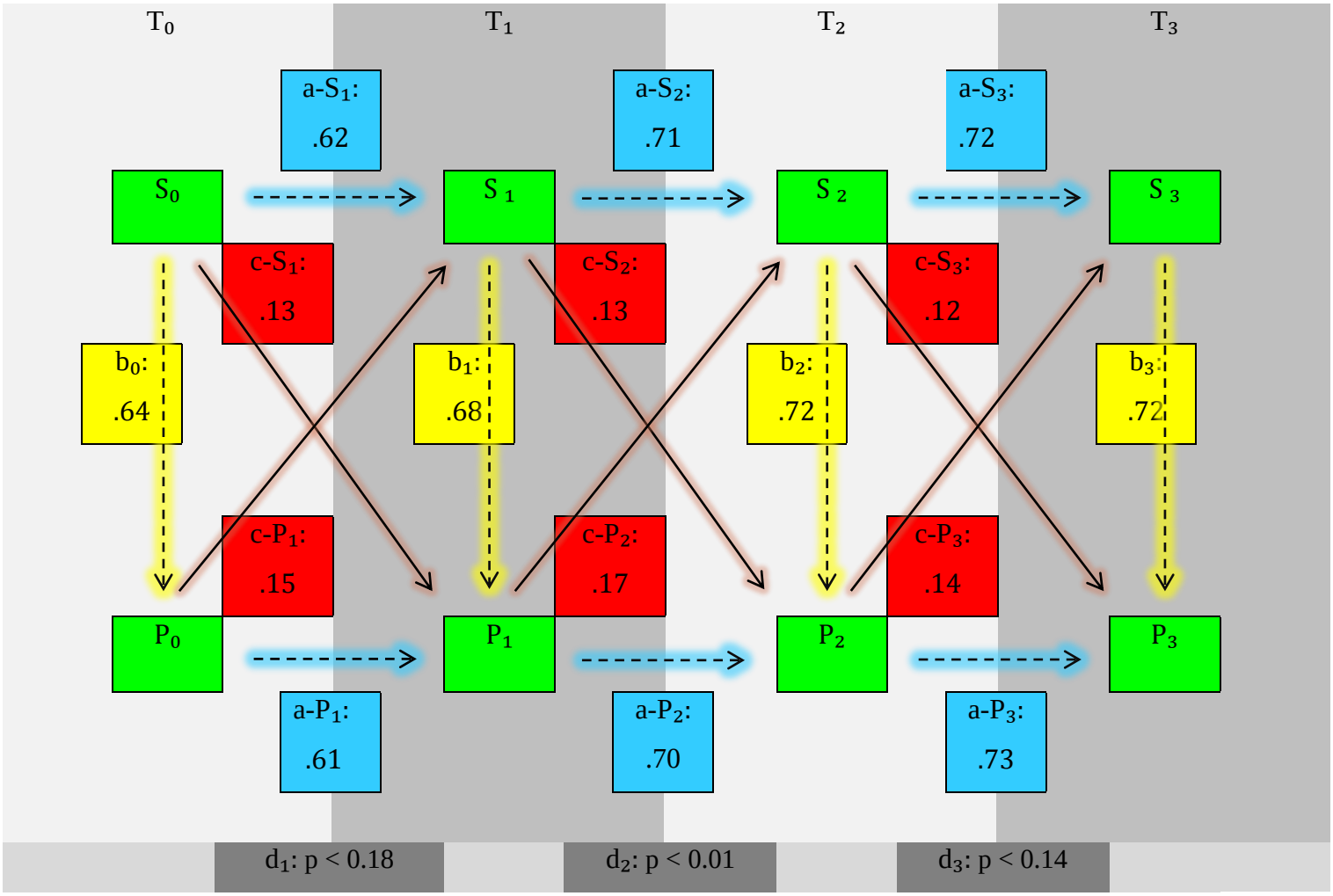
Cross sectional correlation

The cross sectional correlation of the two constructs SWB and PWB (marked yellow in Figure 1.) were similar to the correlations within the constructs itself, strong (r = .64, r = .68, r = .72 and r = .72). This indicates a strong relatedness of the two constructs at all points in time. As in the stability correlation of the same constructs described above,

here also the phenomenon of a slight increase in the magnitude of the correlation over time was found.

Cross time lagged correlation

The cross time lagged correlations as described in the analysis section, can indicate whether one construct influences the other. The correlations are partial correlations and are corrected of the influence of the construct itself over time. A relatively stable effect of SWB on PWB was found (c-S_1 $r = .13$; c-S_2 $r = .13$; c-S_3 $r = .12$). On the other hand, the effect of PWB on SWB was also found to be relatively stable (c-P_1 $r = .15$; c-P_2 $r = .17$; c-P_3 $r = .14$). In every case the partial correlation of PWB on SWB was slightly higher than the other way around. The tests of significant difference between the cross time partial correlation coefficients gave following results: There were no significant differences between the correlation coefficients of the first pair (cS_1 and cP_1 between T_0 - T_1; d_1: $p < 0.18$). The second coefficient pair (cS_2 and cP_2 between T_1 - T_2) showed significant differences (d_2: $p < 0.01$). The last pair (cS_3 and cP_3 between T_2 - T_3) showed, same as the first pair, no significant difference between their coefficients (d_3: $p < 0.14$).



Tn	Measurement moment (in time)
Sn/Pn	Variables: S= SWB / P= PWB
a-Sn/a-Pn	a = zero-order correlation within the construct
bn	b= zero-order correlation between the constructs
c-Sn/c-Pn	c= cross time partial correlations
dn	d= significant difference between c-Sn and c-Pn

Figure 1: Cross-lagged panel design of SWB and PWB

Discussion and Conclusion

The aim of the study was to find correlations that could indicate causality between the two constructs (SWB and PWB) representing the eudaimonic approach. Previous studies point out that the constructs are related but also distinct from each other (Gallagher et al., 2009; Keyes et al., 2002). This structure leads to the assumption of causal connections between the two constructs that could possibly exist. The results of the cross-lagged panel design in this study suggest that an interdependent causality between the constructs SWB and PWB exists.

The zero order longitudinal correlations of the constructs SWB and PWB were very stable over the four measurement moments indicating that the constructs are relatively stable traits over time. The same is true for the zero order cross sectional correlations between the constructs SWB and PWB. This is an indication for a strong relatedness between the two constructs. Regarding the cross time lagged correlations, it was shown that the constructs have a sign connection with the other over time. The cross time lagged correlations indicated a correlation between .120 up to .169. It is to consider that these correlations are on top of the zero order correlation of the construct itself. This is an indicator for a substantial influence of one construct upon the other. However, the differences between the coefficients of the cross time lagged correlations were only found significant between two measurement moments (between T_1 - T_2). Without significance, the differences of the coefficients are likely happened by chance or error rather than representing actual differences within the population.

The correlations of SWB on PWB and the other way around were still very similar to each other. Further, the connections between the two constructs remain extremely strong even if significant differences between the correlation- coefficients could only be found between two measurement moments. With no dominant construct but still strong relatedness and connectivity of the constructs SWB and PWB, it seems that the constructs are interdependent. This interdependency indicates reciprocal effects between SWB and PWB. This would explain findings of previous studies labeling the two pillars as distinct but related in single point in time measurements (Gallagher et al., 2009; Keyes et al., 2002). The assumption is that change in one of the two constructs (SWB and PWB) would lead to a change in the other. For example as a person would experience social rejection or anything else that would lower his/her SWB score, also the scores in the other pillar (PWB) would decrease. So basically the

eudaimonic approach can be seen as a complex structure build on two pillars that are interdependent.

By using the sample of the LISS- panel, the present study attempts to cope with limitations of previous studies of Gallagher (2009) and Keyes (2002). The Data was drawn from the population register of the governmental institution "Statistics Nederlands" and therefore is a representative sample of Dutch household with reduced likelihood of sample errors.

A second attempt to cope with methodological limitations is the usages of the MHC-SF. Lamers et al. (2011) argue for a good validity and reliability of the questionnaire making it an adequate instrument to measure the eudaimonic approach. However, regardless the advantages the MHC-SF implies, it also has several characteristics that are more critical. A shorter questionnaire might be an advantage over the original version of the MHC consisting of 40 items. On the other hand, if there are only 11 items for the two constructs SWB and PWB there is a lower opportunity to measure all dimensions within the two constructs (five items for the five dimensions of SWB and six items for the sic dimensions of PWB. With one item per dimension the questionnaire gives a broad indication of SWB and PWB but to dig deeper into the particular dimensions more items would be an advantage. Further, all the 11 items are asked in a positive manner. For the participants, 11 items that are asked in a more or less similar way could be answered in a similar pattern. This effect could be the reason of the overlapping results within and between the constructs rather than a causal structure of the eudaimonic approach. Measurements with the original version of the MHC containing 40 items could provide further information on that topic.

Another limitation is the assessment of the construct SWB. This construct was the weakest of the three constructs of wellbeing and showed some statistical limitations (Lamers, 2012). In the present study, the reliability coefficient was .74. That was significantly lower than that of PWB or the total MHC-SF. Further research on SWB could lead to an improvement of the construct that in fact would enhance studies over the eudaimonic approach.

The present study focused especially on what Keyes (2002) refers to: One of the major limitations of existing research that is responsible for that lack of insight of causality in the eudaimonic approach. Keyes (2002) points out that most studies are single-point in time measurements. Causality can only be observed throughout process in time. The present study picked up this hint to shed more light upon the two-folded structure of the eudaimonic approach by comparing the two pillars and their influences to each other over time. The data

is collected at four different measurement moments and was analyzed using a cross-lagged time analysis. This method has clear advantages in contrast to single-point in time measurements. However, it is to mention that the statistical analysis of the present study was executed with separate correlational analyses. Therefore every correlation in this study was measured in single steps. An integrated cross-lagged path model takes every measurement into account and does not calculate them in isolated apart moments. A cross-lagged path model where all the correlations are integrated at once could give more accurate results. The cross-lagged time analysis itself may not be the best option to investigate the causal structure of the eudaimonic approach. The model tries to identify causal connections with correlational analyses. Causality can never be proven throughout correlations. Therefore this model can only serve as an indicator not as solution. To indicate causality, an experiment with controlled conditions would be an good opportunity. To find and create an experiment that is capable of isolating and manipulating the constructs of the eudaimonic approach on the other hand is not easy.

Longitudinal data are a good way to obtain a more detailed view on the influences between the constructs of SWB and PWB (Keyes et al., 2002). An interesting question is how to determine the time gaps between the measurement intervals. The present study is based on four measurement moments spread over one year. It is possible, that SWB and PWB are more reactive over time and measurements in shorter intervals could provide crucial information in understanding the eudaimonic approach. The opposite could also be true and a spreading of the measurement moments over several years could lead to further insights of the eudaimonic approach. Future research should use different intervals of measurement in order to observe possible differences to this study.

This study observed eudaimonic characteristics in general. Factors of the individuals like the big five traits of Costa and Mccrae (1992), attritional styles (Ryan & Deci, 2001) as well as age and education (Huppert, 2009) do not play a role. The focus was on the causal structure of the eudaimonic approach, but it is to mention that taking these factors into account could lead to more insight.

With only SWB and PWB taken into account, the present study is only representative for the eudaimonic and not for the hedonic approach (EWB). Different findings between the hedonic and eudaimonic approach are possible. The explanatory power of this study is limited to the eudaimonic approach. Indications for further research on the topic of wellbeing are, to take all

three constructs (EWB, SWB and PWB) into account in order to understand wellbeing as a whole. Data show extreme relatedness of the three constructs. To understand the connectivity of the three constructs they should at least be monitored together. It might be useful to isolate a single construct to get a better understanding of it, but when it comes to the interdependent relation of wellbeing it should be considered to investigate in all the connections not only two of them.

The nature of wellbeing is complex and in the beginning of exploration. Every human strives to experience wellbeing. The advantages of understanding wellbeing might be enormous. The connection of wellbeing and pathology is in its nature very strong. The fact that we can possibly enhance wellbeing for individuals and in our society trough scientific research should be enough motivation to investigate in this field of research.

"We are shaped by our thoughts; we become what we think. When the mind is pure, joy follows like a shadow that never leaves." - Buddha

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Appendix

Please answer the following questions about how you have been feeling during the past month. Place a check mark in the box that best represents how often you have experienced or felt the following:

During the past month, how often did you feel …	NEVER	ONCE OR TWICE	ABOUT ONCE A WEEK	ABOUT 2 OR 3 TIMES A WEEK	ALMOST EVERY DAY	EVERY DAY
1. happy	0	1	2	3	4	5
2. interested in life	0	1	2	3	4	5
3. satisfied with life	0	1	2	3	4	5
4. that you had something important to contribute to society	0	1	2	3	4	5
5. that you belonged to a community (like a social group, or your neighborhood)	0	1	2	3	4	5
6. that our society is a good place, or is becoming a better place, for all people	0	1	2	3	4	5
7. that people are basically good	0	1	2	3	4	5
8. that the way our society works makes sense to you	0	1	2	3	4	5
9. that you liked most parts of your personality	0	1	2	3	4	5
10. good at managing the responsibilities of your daily life	0	1	2	3	4	5
11. that you had warm and trusting relationships with others	0	1	2	3	4	5
12. that you had experiences that challenged you to grow and become a better person	0	1	2	3	4	5
13. confident to think or express your own ideas and opinions	0	1	2	3	4	5
14. that your life has a sense of direction or meaning to it	0	1	2	3	4	5