

Identity and Well-being: The Role of Commitment Utility

Greta C. Seelos

s4621344

Department of Psychology, University of Groningen

PSB3E-BT15: Bachelor Thesis

Supervisor: Dr. Ole Gmelin

Second Evaluator: Ayça Aksu

February 25, 2024

Author note

A thesis is an aptitude test for students. The approval of the thesis is proof that the student has sufficient research and reporting skills to graduate but does not guarantee the quality of the research and the results of the research as such, and the thesis is therefore not necessarily suitable to be used as an academic source to refer to. If you would like to know more about the research discussed in this thesis and any publications based on it, to which you could refer, please contact the supervisor mentioned.

Abstract

Previous research found that a strong sense of identity can enhance well-being by supporting elements like purpose or meaning. Particularly when facing the challenges of emerging adulthood, a consistent identity can be crucial to protect well-being. The newly introduced concept of commitment utility refers to the usefulness of identity to everyday life and could play an essential role in promoting functional well-being aspects such as self-agency and autonomy. Since the concept is very new, little research exists on the topic. The present study aimed to investigate the impact of commitment utility on two different conceptualizations of well-being, namely, quality of life and functional-affective well-being. A larger impact of commitment utility on functional-affective well-being was expected as this conceptualization considered functional aspects of well-being. A sample of 90 psychology students was assessed on identity and well-being with a survey consisting of quantitative self-report measures. Simple, multiple, and multivariate linear regression analyses were conducted in the statistical analysis. The results indicated a significant effect of commitment utility on both aspects of well-being. However, the effect of commitment utility on functional-affective well-being was smaller than on quality of life, contradicting our expectations. The exploratory analysis emphasized the importance of commitment utility in the relationship between commitment strength and well-being. Further research is needed to better understand the nature of commitment utility and its relationship to different aspects of well-being and other identity processes.

Keywords: identity, emerging adulthood, well-being, commitment utility

Identity and Well-being: The Role of Commitment Utility

As the emphasis on happiness and leading a content life grows in our society, so does the focus on the factors influencing well-being. Well-being entails many concepts, such as meaning, purpose, self-agency, or autonomy, that are connected to and promoted by a strong sense of self and identity (De-Juanas et al., 2020; Renes & Aarts, 2018; Ruggeri et al., 2020). Research on this topic could have implications for designing interventions to increase well-being by facilitating the development of healthy identities. Particularly in the life phase of emerging adulthood, many young adults struggle to form a coherent and strong identity, which can be a risk factor for low well-being (Arnett, 2000). While previous studies positively linked a healthy identity to well-being through processes such as the strength of identity commitments (Berzonsky, 2003; Hatano et al., 2022; Hofer et al., 2007; Karaś & Ciecuch, 2018; Karaś et al., 2015), the nature of the relationship between well-being and identity is still not fully understood. Recently, Van der Gaag et al. (2024) proposed the concept of commitment utility, which describes the applicability of identity to real-life events and its usefulness in guiding everyday behavior. Identity commitments providing guidance in life could enhance people's sense of autonomy and self-agency, thus facilitating well-being. Nonetheless, the concept of commitment utility is very new, and little research has been conducted on it so far. The present study aims to fill this research gap by investigating the effect of commitment utility on well-being.

Identity and Well-Being

Well-being plays a crucial role in people's development and promotes positive life outcomes (Ruggeri et al., 2020). High well-being is associated with increased occupational performance and creativity, a better social life, physical health, and longevity (Ruggeri et al., 2020). Well-being entails feeling aspects relating to positive emotions, life satisfaction, and quality of life, as well as functional aspects, such as self-agency or autonomy, that refer to

adaptive psychological functioning and the ability to perform well on daily tasks and challenges (De-Juanas et al., 2020; Ruggeri et al., 2020; Schwartz et al., 2005; Vittersø, 2013). Well-being is influenced by many factors, including socioeconomic status, social support, health (Nagy-Pénzes et al., 2020), meaning in life (Feldman & Snyder, 2005), culture, religion (Grözinger & Matiaske, 2014; Rice & Steele, 2004) and identity (Thoits, 1992). Particularly, identity has received more attention in recent years as a contributing factor to well-being.

Identity is a dynamic construct and acts as an intrinsic organizing structure that provides people with a sense of coherence or continuity, enabling them to make sense of themselves and in relation to others (Erikson, 1968). Identity develops through identity processes, which describe how individuals explore, develop, and incorporate different aspects of their identity (McLean et al., 2016). The two main identity processes are exploration, referring to the consideration of different identity alternatives, and commitment, describing the degree of devotion or attachment one has to a specific identity aspect (Marcia, 1966). Claims or decisions individuals make reflecting how they think about themselves and describing aspects that are meaningful to their identity are referred to as identity commitments (Kunnen et al., 2001). Identity provides people with purpose, coherence, and behavioral guidance, promoting adaptive and goal-directed behavior (Schwartz et al., 2006; Thoits, 2012). By doing so, a healthy identity is an essential contributing and protective factor of well-being (Thoits, 2012).

Previous studies repeatedly positively linked a healthy identity to well-being. Particularly, the identity process commitment seemed to positively influence adaptive behavior, life satisfaction, happiness, self-esteem, and positive affect (Berzonsky, 2003; Hatano et al., 2022; Hofer et al., 2007; Karaś & Ciecuch, 2018; Karaś et al., 2015; Luyckx et al., 2013) and negatively correlated with depression, anxiety, negative affect, and maladaptive perfectionism (Berzonsky, 2003; Crocetti et al., 2008; Hatano et al., 2022; Luyckx et al., 2008). This positive

relationship might be traced back to the meaning-making role of identity. Identities high in commitment were found to facilitate meaning in life and promote goal- and purpose-oriented behavior (Côté & Schwartz, 2002; Negru-Subtirica et al., 2016). Burrow and Hill (2011) found a full mediation effect of purpose in the relationship between identity and well-being. Thus, by promoting purpose and meaning in life, identity can positively influence well-being.

Identity and Well-being in Emerging Adulthood

The relationship between identity and well-being is particularly important in young adults, as they face many opportunities but also challenges of identity development, which can be a risk factor for well-being (Arnett, 2000; 2007; Conley et al., 2014; Salmela-Aro et al., 2012). The period of transformation from adolescence to adulthood is referred to as emerging adulthood and ranges from age 18 to 25, or nowadays, 29 (Arnett, 2000; Arnett et al., 2014). The period is essential for identity development as the newly gained freedom and independence provide many possibilities to explore alternative identities in different domains (Arnett, 2000). However, this period also comes with many challenges for young adults as they must learn how to navigate their way to independent adult life (Arnett, 1998) and deal with uncertainty and instability in life and in their identity (Arnett, 2007). Studies found a decrease in well-being during emerging adulthood, particularly during transition phases that involve substantial life changes (Conley et al., 2014; Salmela-Aro et al., 2012). This is particularly concerning as, especially for young adults, well-being influences behavior and performance in academic, social, or occupational domains that set the stage for a healthy, fulfilling future life (Wood et al., 2018). Thus, particularly in this life phase, developing a stable identity might be beneficial for facing the challenges of emerging adulthood and contribute to life satisfaction and well-being later in life.

Commitment Utility and Functional Well-being

Although many studies have already managed to link different identity processes to well-being, there are still many gaps in identity research. In 2024, Van der Gaag et al. introduced the concept of commitment utility, which describes the usefulness of identity commitments in guiding daily actions and behaviors (Van der Gaag et al., 2024). Identity commitments vary in applicability, as they can be more narrow, only applying to specific life domains (e.g., “I am a good student”) or overarching, describing identity in more general terms relevant across many situations (e.g., “I am intelligent”) (Van der Gaag et al., 2020). Van der Gaag et al. (2024) assume overarching identity commitments to be higher in commitment utility as they can help guide behavior in diverse contexts, not just within a specific domain. Commitment utility might help individuals competently deal with everyday situations and challenges in a goal-oriented, purposeful way. Therefore, overarching identity commitments high in utility might facilitate well-being by promoting autonomy and self-agency, essential aspects of functional well-being, in various contexts in daily life. Thus, commitment utility might increase well-being by influencing, particularly, its functional aspects.

Since the concept of commitment utility was only recently introduced, no previous studies investigated its relationship to well-being. Nonetheless, the importance of autonomy and self-agency to well-being was repeatedly established in past studies (Cherewick et al., 2023; De-Juanas et al., 2020; Ryan & Deci, 2000; Weiting, 2015). Moreover, the notion that identity can guide and promote adaptive behavior and facilitate autonomy is nothing new. Rise et al. (2010) found a moderate correlation between identity and behavioral intention when investigating the role of identity regarding the theory of planned behavior. Hagger et al. (2007) also examined the link between identity and behavior in a theory of planned behavior framework and found that identity indirectly influenced three types of health behavior and intentions through subjective norms, perceived behavioral control, and attitudes. Alfrey et al.

(2023) found that identity influenced behavior, although not on a direct path, but rather through intention strength.

Overall, it becomes clear from the literature that identity directly or indirectly influences and guides our behavior and thus might contribute to well-being by providing people with self-agency and autonomy. Nonetheless, to truly understand the role identity plays in influencing everyday behavior, more research is needed, and studies on commitment utility might bring new insights to the topic.

The Current Study

In the current study, we examined whether the utility of overarching identity commitments positively affected the well-being of emerging adults. The study utilized two different conceptualizations of well-being. First, well-being as quality of life, considering purely one feeling aspect of well-being, and functional-affective well-being, taking into account both functional and feeling aspects of well-being. Based on previous research highlighting the role of identity in guiding adaptive behaviors in daily life (Alfrey et al., 2023; Hagger et al., 2007; Rise et al., 2010) and emphasizing the significance of purpose, agency, and autonomy for well-being (Cherewick et al., 2023; De-Juanas et al., 2020; Ryan & Deci, 2000; Weiting, 2015), we hypothesized that commitment utility would positively influence both quality of life and functional-affective well-being by fostering these well-being aspects. Secondly, we predicted that commitment utility would have a stronger effect on functional-affective well-being, as it considers the functional aspects of well-being, which we hypothesized would particularly benefit from high commitment utility. These hypotheses were investigated by an online study using quantitative self-report measures assessing 90 first-year psychology students at a Dutch university on their identity processes, including commitment utility and well-being.

Method

The sample was recruited via online advertisements and was awarded with course credit. Participation was voluntary. The Ethics Committee of Psychology of the University of Groningen approved the study (PSY-2324-S-0060), and the students provided informed consent to participate.

Materials

Several (adapted) questionnaires were employed in this study: the (Shortened) Twenty Statements Test, the Groningen Identity Development Scale-Landscape version (GIDS-L), the Manchester Short Assessment of Quality of Life (MANSA) inventory, and the Warwick Edinburgh Mental Well-Being Scale (short version). Sexual and gender identity were investigated by using items drawn from DeChants et al. (2021).

Commitment Statement Task. This task consisted of three stages. First, the shortened version of the Twenty Statements Test by Kuhn and McPartland (1954) asked for ten statements to be written in the format of “I am...” (see appendix A). This repeated for each domain and once for a general sense of self, completing this test a total of four times. The domains were (1) Dating, Sexual and Romantic Relationships, (2) Education and Career, (3) a flexible domain in which any theme could be written about, and (4) a general domain. Second, a commitment statement had to be formulated (see Appendix B). Lastly, an adapted version from Van der Gaag et al. (2024) of the GIDS-L was filled in four times - three times using a version we termed the “GIDS-L Specific,” and once using a version we termed the “GIDS-L General” (see Appendix C). Both questionnaires were reduced from 32 items to 15, with three items measuring commitment strength (e.g., Are you certain of this commitment?) ($M \alpha = .80$, $Min = .72$, $Max = .90$), three measuring broad exploration (e.g. Are you searching for a different commitment?) ($M \alpha = .85$, $Min = .83$, $Max = .87$), three measuring in-depth exploration (e.g., Do you try to learn new things to develop this commitment?) ($M \alpha = .71$, $Min = .59$, $Max = .88$), three measuring commitment utility (e.g., Does this commitment give you

direction in your life?) ($M \alpha = .76$, $\text{Min} = .57$, $\text{Max} = .86$), two measuring valence of commitment (e.g., Do you have positive feelings about this commitment?), and one measuring satisfaction with domain (for Cronbach's alpha values, see Appendix D). The items were rated on a scale from 0 to 100, with zero being “No (rarely),” “Never,” “Little,” or “Very unsatisfied,” and 100 being “Yes (often),” “Often,” “A lot,” “As much as possible,” or “Very satisfied.”

Domain Importance. To assess domain importance the IMP was used. A 7-point Likert scale ranging from 1 (not important) to 7 (extremely important) based on Scroggs and Vennum (2021) was used to assess the importance of each domain.

Quality of life. The Manchester Short Assessment of Quality of Life (MANSA) inventory was employed to assess Quality of Life through satisfaction in life, education, relationships, and mental health. The current study exclusively utilized the items limited to quality of life, hence employing a shortened version of the MANSA inventory (see Appendix E). The MANSA used a 7-point Likert scale ranging from 1 (Couldn't be worse), to 7 (Couldn't be better). An example item from the MANSA scale was: “How satisfied are you with your life as a whole today?”. The Cronbach's Alpha was found to be 0.74 (Priebe et al., 1999).

Mental Well-Being. The Shortened Warwick Edinburgh Mental Well-Being Scale (SWEMWBS) was used to investigate both the functional and feeling aspects of mental well-being (see Appendix F). The WEMWBS used a 5-point Likert scale ranging from 1 (None of the time) to 5 (All of the time). A sample question was, “I've been feeling relaxed about the future.” A recent study found a Cronbach's Alpha of 0.87 with a test-retest reliability of 0.79 (Sabanci, 2019).

Demographics. Questions regarding their demographics about age, mother tongue, and nationality were asked at the start of the survey (see Appendix G). Questions regarding the

highest level of education and previously completed apprenticeships were asked near the end of the survey.

Gender and Sexual Identity. Sexual and gender identity items were drawn from a survey by DeChants et al. (2021). A question regarding their sexuality was asked with options including but not limited to straight, gay, bisexual, pansexual, and asexual. Gender identity had options including but not limited to girl or woman, boy or man, nonbinary, genderfluid or genderqueer, etc. For both gender and sexual identity, participants could indicate whether they understood the question, whether they weren't sure of their identity, or whether they preferred not to answer.

Procedure

The survey was implemented and conducted through Qualtrics, a digital survey tool, and took approximately 50 minutes to complete. The data collection process took place in January 2024. Before starting the survey, participants were provided with an information sheet outlining the study's purpose, risks, and data treatment and asked to confirm their agreement before starting the survey. Furthermore, they were asked to provide basic demographic information, including age, nationality, and native language.

The main study consisted of three parts. First, participants were asked to provide information about their identity in three specific domains by completing the short version of the Twenty Statement Test (TST-Short) and formulating a commitment statement summarizing their identity in the particular domain. In the free domain, participants were additionally asked to name the domain they chose to talk about. Secondly, the participants were assessed with qualitative measures on the variables commitment strength, exploration in depth, exploration in depth, commitment utility, valence of commitment, and satisfaction with the domain. Moreover, participants were asked to rate the personal importance of the three specific domains

to their identity. Subsequently, participants were asked to talk about their general identity, not specified to any particular domain, by using the same procedure as for the specific domains.

In the third part of the study, participants provided information about their previous education, their gender and sexual identity, and their relationship status. Finally, they were assessed on their well-being with two qualitative scales. At the end of the survey, they were asked whether they filled out the survey seriously and whether they would like to provide their email for further questions. There was no debriefing, as the participants were not deceived during the study.

Statistical Analysis Plan

The current study investigated the effect of commitment utility on two different conceptualizations of well-being. The statistical analysis concentrated on three variables: the independent variable, commitment utility, and the two dependent variables, well-being defined as quality of life and functional-affective well-being. The scores on each item of the MANSA were averaged to get the final quality of life score. The raw scores of all items of the SWEMWBS were summed up and then transformed to metric scores according to a conversion table (Stewart-Brown & Janmohamed, 2008) to get the final score for functional-affective well-being. Commitment utility was measured by three questions of the GIDS-L (see Appendix C), the scores of which were averaged to get one final score.

The statistical analysis was performed using IBM SPSS (Version 28) and JASP (Version 0.17.2.1). Preceding the statistical analysis, the data was checked for the assumptions, including linearity, homoscedasticity, independence of residuals, and normality. Moreover, the data was checked for outliers by checking the cook's distance. The law of large numbers ($N = 90$) ensured meaningful results in case of minor non-adherence to the assumptions. After a preliminary descriptive analysis of the data, the study's hypotheses were tested.

To test the first hypothesis, predicting a positive effect of commitment utility on both quality of life and functional-affective well-being, two simple linear regression analyses were performed. To test the second hypothesis, stating that commitment utility would have a larger effect on functional-affective well-being than on quality of life, a multivariate regression analysis was performed. This analysis was chosen since the variance explained by commitment utility in the two dependent variables was assumed to overlap. Moreover, correlations between the three main variables were obtained.

In a post-hoc exploratory analysis, the established relationship between commitment strength and well-being was investigated by regressing commitment strength separately on both conceptualizations of well-being. Subsequently, the effect of commitment strength on both well-being concepts controlling for commitment utility was examined by performing two separate multiple linear regression analyses.

Results

Participants

The sample consisted of 90 first-year psychology students (Female = 71.1%, $N = 64$, Male = 25.6%, $N = 23$, Other = 3.3%, $N = 3$) from a Dutch University between the ages 18-29 ($M = 19.6$, $SD = 1.4$, $Min = 18$, $Max = 25$). The initial sample included 97 participants; however, the responses of seven participants were deleted due to age, lack of informed consent or serious responding, or failure to complete the survey. The majority of the participants were Dutch ($N = 49$) and German ($N = 19$); participants of other nationalities were also included in the sample.

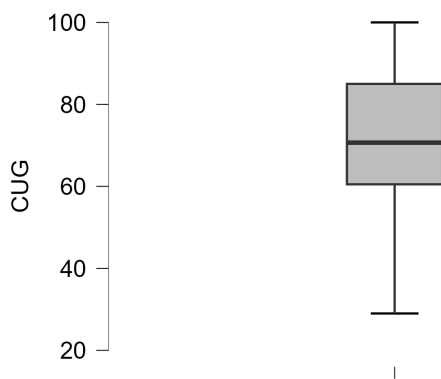
Preliminary Descriptive Analysis

The independent variable commitment utility displayed a slightly left-skewed distribution approaching a normal distribution (see Figure 1) with a mean value of 71.260 ($SD = 17.181$, $Min = 29.00$, $Max = 100.00$). Males scored somewhat higher on commitment utility

than females ($M_{Men} = 76.181, SD_{Men} = 15.943, M_{Women} = 70.266, SD_{Women} = 17.023$), however, the differences were not significant ($t(2,87) = -1.366, p = 0.526$). The three participants who selected “other” or were unsure about their gender identity ($M_{Other} = 53.111, SD_{Other} = 20.402$) did not score significantly differently on commitment utility than men ($t(2,87) = 2.194, p = 0.093$) or women ($t(2,87) = 1.717, p = 0.269$).

Figure 1

Distribution of Commitment Utility



Quality of life showed a left-skewed distribution (see Figure 2) with a mean of 5.173 ($SD = 0.755, Min = 2.875, Max = 6.500$). There were no significant differences between the scores of men and women ($M_{Men} = 5.333, SD_{Men} = 0.748, M_{Women} = 5.162, SD_{Women} = 0.703, t(2,87) = -0.767, p = 1.000$). However, participants who identified as “other” or were unsure about their gender identity ($M_{Other} = 4.125, SD_{Other} = 1.305$) scored significantly lower than men ($t(2,87) = 2.608, p = 0.032$) but not significantly different from women ($t(2,87) = 2.394, p = 0.056$).

Figure 2

Distribution of Quality of Life



Functional-affective well-being was distributed approximately normal (see Figure 3) with a mean of 22.080 ($SD = 3.760$, $Min = 14.750$, $Max = 29.310$). There were no significant differences between men and women ($M_{Men} = 23.388$, $SD_{Men} = 4.328$, $M_{Women} = 21.777$, $SD_{Women} = 3.400$, $t(2,87) = -1.724$, $p = 0.265$). The three people unsure about their gender or identifying as “other” ($M_{Other} = 18.087$, $SD_{Other} = 3.036$) did not significantly differ from men ($t(2,87) = 2.318$, $p = 0.068$) or women ($t(2,87) = 1.700$, $p = 0.278$). Gender differences for all three variables were tested by conducting an ANOVA with post-hoc tests utilizing the Bonferroni correction, comparing the three groups “female,” “male,” and “other.”

Figure 3

Distribution of Functional-affective Well-being



Commitment utility displayed a moderate positive correlation with quality of life, as well as with functional-affective well-being. The two well-being conceptualizations were

moderately and positively correlated, yet not highly correlated. Overall, all three variables in focus of the study were significantly and positively correlated (see Table 1).

Table 1

Correlations

Variable	1	2	3	4	5	6
1. Commitment Utility	1.000					
2. MANSA	.446*	1.000				
3. (S)WEMWBS	.372*	.605*	1.000			

* $p < .001$

Main Statistical Analysis

Hypothesis 1

The first hypothesis predicted a positive effect of commitment utility on both quality of life and functional-affective well-being. Before testing the hypothesis, assumption checks were performed (see Appendix H). The linearity assumption was fulfilled, as shown by scatterplots displaying the correlations between commitment utility, quality of life, and functional-affective well-being. Homoscedasticity and independence of residuals were checked by plotting the residuals versus the predicted values, which displayed approximate adherence to the assumptions. The assumption of normality of the residuals was met, as displayed by two normal Q-Q plots. According to Cook's distance (>1), no outliers were found.

The first hypothesis was tested by performing two simple linear regression analyses (see Appendix I). First of all, a positive and statistically significant effect of commitment utility on quality of life was found ($F(1,88) = 21.351, p = < .001$). Commitment utility

explained 19.5% ($R^2 = .195$) of the variance in quality of life, meaning that higher scores on commitment utility co-occurred with higher scores on quality of life. Secondly, a positive and statistically significant effect of commitment utility on functional-affective well-being was established ($F(1,88) = 13.839, p < .001$). Commitment utility explained approximately 13.6% of the variance in functional-affective well-being ($R^2 = .136$), signifying that higher scores on commitment utility went along with higher scores on functional-affective well-being.

Hypothesis 2

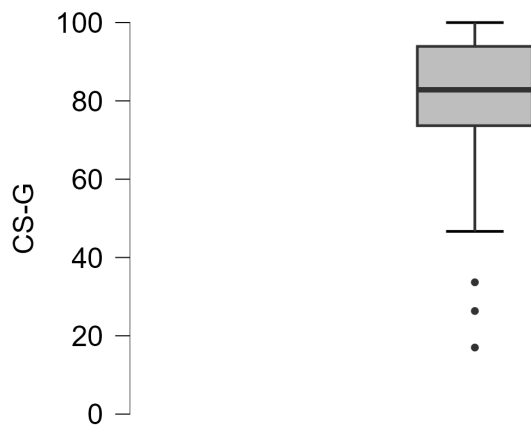
In order to test the second hypothesis, which predicted the effect of commitment utility to be higher on functional-affective well-being than on quality of life, a multivariate analysis with two dependent variables was performed (see Appendix J). The analysis showed a significant effect of commitment utility on quality of life ($F(1,88) = 4.814, p < .001$) and a nonsignificant effect of commitment utility on functional-affective well-being when quality of life was already considered as a dependent variable ($F(1, 88) = 0.836, p = .722$). This indicated that the effect of commitment utility was higher on quality of life than on functional-affective well-being, thus not supporting the hypothesis. Because of the overlap between the well-being concepts, indicated by their moderate correlation, commitment utility does not explain much variance unique to functional-affective well-being and remains only a significant predictor of quality of life.

Exploratory Analysis

To better understand commitment utilities' effect on well-being, we investigated its role as a newly introduced identity concept in the already established relationship between commitment strength and well-being. Commitment strength displayed a left-skewed distribution (see Figure 4) with a mean of 81.226 (SD = 16.764, Min = 17.000, Max = 100.000).

Figure 4

Distribution of Commitment Strength



First, two simple linear regression analyses were conducted, regressing commitment strength first on quality of life and secondly on functional-affective well-being (see Appendix K). Commitment strength positively and significantly predicted quality of life ($F(1,88) = 7.736, p = .007, R^2 = 0.081$) and functional-affective well-being ($F(1,88) = 5.772, p = .018, R^2 = 0.062$). Subsequently, two multiple regression analyses were performed regressing commitment strength and commitment utility, first on quality of life, then on functional-affective well-being (see Appendix K). Commitment strength and commitment utility had a significant and positive effect on quality of life ($F(1,88) = 10.718, p < .001, R^2 = 0.198$). However, when controlling for commitment utility, the effect of commitment strength on quality of life became insignificant ($t(87) = 0.514, p = 0.609$), while commitment utility remained the main significant predictor ($t(87) = 3.560, p < .001$). Furthermore, commitment strength and commitment utility significantly and positively predicted functional-affective well-being ($F(1,88) = 7.013, p = .002, R^2 = 0.139$). As for quality of life, commitment utility was the only significant predictor of functional-affective well-being ($t(87) = 2.794, p = .006$), while commitment strength's effect became insignificant when controlling for utility ($t(87) = 0.546, p = 0.587$). Overall, the effect of commitment strength on both well-being concepts was reduced when controlling for commitment utility.

Discussion

The present study aimed to investigate the effect of the utility of overarching identity commitments on two different aspects of well-being: quality of life and functional-affective well-being. Commitment utility, the usefulness of identity commitments in everyday life, was hypothesized to positively influence well-being by promoting autonomy and self-agency. Commitment utility was expected to particularly positively affect the functional aspects of well-being as it provides the individual with guidance on daily behavior, facilitating people's psychological functioning in daily life. To answer these questions, we provided 90 first-year psychology students with quantitative self-report measures assessing them on different identity processes, including commitment utility and two well-being scales.

Findings

The results were in line with our first hypothesis, stating that commitment utility would have a positive effect on quality of life and functional-affective well-being by providing individuals with behavioral guidance and thus promoting functional well-being aspects such as autonomy and self-agency. These findings match with results of previous studies linking identity to adaptive behavior (Alfrey et al., 2023; Hagger et al., 2007; Rise et al., 2010) and, in turn, promoting autonomy and self-agency, crucial aspects of well-being (Cherewick et al., 2023; De-Juanas et al., 2020; Ryan & Deci, 2000; Weiting, 2015). The present study established a more direct link between identity, behavior and autonomy, and well-being through commitment utility, contracting the results of the different previous findings into one relationship. The exploratory analysis further highlighted the importance of commitment utility to well-being. While our findings were in line with previous studies positively linking commitment strength to well-being (Berzonsky, 2003; Hatano et al., 2022; Hofer et al., 2007; Karaś & Ciecuch, 2018; Karaś et al., 2015), our results indicated an even stronger association and effect of commitment utility on well-being. These findings add to previous identity theory

and emphasize the possible importance of commitment utility when examining the relationship between identity and well-being.

However, the results did not support the second hypothesis, predicting a larger effect of commitment utility on functional-affective well-being, as this well-being conceptualization not only focused on feeling but also on functional aspects of well-being. Previous studies emphasized the importance of autonomy and self-agency to functional well-being (Cherewick et al., 2023; De-Juanas et al., 2020; Ryan & Deci, 2000; Weiting, 2015) and suggested that identity plays an essential role in guiding adaptive behavior (Alfrey et al., 2023; Hagger et al., 2007; Rise et al., 2010) leading to the theoretical assumption that commitment utility by guiding adaptive behavior would promote autonomy and self-agency and thus functional well-being. The present findings contradicted this theoretical framework as they showed a larger influence of commitment utility on quality of life, a purely feeling aspect of well-being (Ruggeri et al., 2020). These findings might have been influenced by the well-being measures utilized in the study. While the SWEMWBS assessed both functional and feeling aspects, the MANSA only measured one concept connected to the feelings aspects of well-being, namely, quality of life. Using measures solely assessing either functional or feeling aspects would have provided a clearer comparison between the two different well-being aspects. The moderate positive correlation between quality of life and functional-affective well-being indicated that they assess distinct constructs. This excludes the possibility that commitment utility simply affected overall well-being and that the differences in its effect on the two different well-being concepts were due to chance.

Implications

The previously presented results expand on existing identity theory by incorporating the newly introduced concept of commitment utility into a well-being framework. Our findings indicate that commitment utility might play a crucial role in both quality of life and

functional-affective well-being. Furthermore, while previous studies often emphasized the importance of commitment strength in well-being (Berzonsky, 2003; Hatano et al., 2022; Hofer et al., 2007; Karaś & Ciecuch, 2018; Karaś et al., 2015), the findings of our exploratory analysis suggest that commitment utility might be even more important. The previously established relationship between commitment strength and well-being might be more complex than assumed, and the role of commitment utility in this relationship has to be further investigated. These results extend the knowledge we have about the nature of identities' influence on well-being by adding a new identity process to the framework.

Commitment utility had a larger effect on quality of life than on functional-affective well-being, contrary to our initial expectations. Individuals high in commitment utility might not exhibit higher psychological functioning but might simply display higher satisfaction with their identities and behavioral coherence. Therefore, they might experience less dissonance between their self-image and their actions. Cognitive dissonance describes a state of psychological discomfort when people's actions do not match their beliefs or ideas (Festinger, 1962). People high in utility might act more according to their beliefs about themselves and might thus experience less discomfort. Cognitive dissonance can be maladaptive to well-being by producing negative affect and negatively influencing subjective health (Cheung & Tang, 2010). Contrary to our hypothesis, commitment utility might not be as much related to aspects of functional well-being such as autonomy or agency but might be more related to individuals' feelings and evaluations of their behavior and identity. Thus, people behaving in accordance with their identity might experience less dissonance and discomfort, and subsequently a higher quality of life.

Strengths and Limitations

The current study had several strengths. First of all, by including qualitative measures, we stimulated participants to engage more deeply with their identities, providing context for

the subsequent quantitative assessment. Without those qualitative questions, the quantitative measures might have appeared too abstract, not relating to the actual identity aspects of the participants. Thus, by providing context through qualitative measures, we increased the applicability and relevance of our results to real life. Secondly, by timing the participants' responses and checking the seriousness of their answers, we were able to filter out individuals only taking part in the survey in order to receive the course credit compensation. By doing so, we ensured the authenticity of the responses, increasing the validity and reliability of our findings.

However, there were also multiple limitations. The measure of commitment utility, along with the GIDS-L, was only recently introduced by Van der Gaag et al. (2021) and thus still lacks external validation from other studies. This creates uncertainty regarding the construct validity of commitment utility. Additionally, the adaptation of the GIDS-L from a semi-structured interview to a self-report measure for this study may have introduced inconsistencies with the original format, creating uncertainty about the data's reliability and validity. Furthermore, the nature of the well-being scales was not optimal to test our research question, as both scales included feeling aspects of well-being, and feeling and functional aspects could not effectively be separated and compared. Using well-being questionnaires purely assessing either functional or feeling aspects would enable a more precise comparison between commitment utilities' effect on the two different well-being aspects. Finally, the use of a convenience sample of psychology students, mainly a WEIRD sample, limited the generalizability of our results to emerging adults from other societal groups or cultures.

Future Research

Future research might attempt to validate the GIDS-L and the measure of commitment utility. Furthermore, future research should examine the relationship between commitment utility and specific aspects of well-being, such as autonomy or purpose and meaning in life, as

commitment utility could differ in its effect on different aspects of well-being. Studies should investigate commitment utility's effect on the functional and feeling aspects of well-being separately by utilizing well-being scales purely assessing functional or feeling aspects to get a better comparison between the two well-being aspects. Finally, based on the findings of the exploratory analysis, the role of commitment utility in the relationship between commitment strength and well-being could be examined.

Conclusion

In conclusion, the present study found a significant positive effect of the utility of overarching identity commitment on both quality of life and functional-affective well-being in emerging adults. Contrasting our expectations, the effect of commitment utility on quality of life was larger than on the second well-being conceptualization. Commitment utility seems to be a prominent factor in well-being and might even play a bigger role than the more established concept of commitment strength. The nature of the relationship between commitment utility and different aspects of well-being remains unclear, and further research has to be conducted to broaden our understanding of the topic.

References

- Alfrey, K.-L., Waters, K. M., Condie, M., & Rebar, A. L. (2023). The role of identity in human behavior research: A systematic scoping review. *Identity: An International Journal of Theory and Research*, 23(3), 208–223.
<https://doi-org.proxy-ub.rug.nl/10.1080/15283488.2023.2209586>
- Arnett, J. J. (1998). Learning to stand alone: The contemporary American transition to adulthood in cultural and historical context. *Human Development*, 41(5-6), 295–315.
<https://doi.org/10.1159/000022591>
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *The American Psychologist*, 55(5), 469-480
- Arnett, J.J. (2007). Emerging Adulthood: What Is It, and What Is It Good For?. *Child Development Perspectives*, 1: 68-73.
<https://doi.org/10.1111/j.1750-8606.2007.00016.x>
- Arnett, J. J., Žukauskienė, R., & Sugimura, K. (2014). The new life stage of emerging adulthood at ages 18–29 years: Implications for mental health. *The Lancet Psychiatry*, 1(7), 569–576. [https://doi-org.proxy-ub.rug.nl/10.1016/S2215-0366\(14\)00080-7](https://doi-org.proxy-ub.rug.nl/10.1016/S2215-0366(14)00080-7)
- Berzonsky, M. D. (2003). Identity style and well-being: Does commitment matter? *Identity: An International Journal of Theory and Research*, 3(2), 131–142.
<https://doi-org.proxy-ub.rug.nl/10.1207/S1532706XID030203>
- Burrow, A. L., & Hill, P. L. (2011). Purpose as a form of identity capital for positive youth adjustment. *Developmental psychology*, 47(4), 1196–1206.
<https://doi.org/10.1037/a0023818>
- Cheung, F., & Tang, C. (2010). The influence of emotional dissonance on subjective health and job satisfaction: Testing the stress–strain–outcome model. *Journal of Applied Social Psychology*, 40(12), 3192–3217.
<https://doi-org.proxy-ub.rug.nl/10.1111/j.1559-1816.2010.00697.x>

- Cherewick, M., Dahl, R. E., Bertomen, S., Hipp, E., Shreedar, P., Njau, P. F., & Leiferman, J. A. (2023). Risk and protective factors for mental health and wellbeing among adolescent orphans. *Health Psychology and Behavioral Medicine, 11*(1).
<https://doi-org.proxy-ub.rug.nl/10.1080/21642850.2023.2219299>
- Conley, C. S., Kirsch, A. C., Dickson, D. A., & Bryant, F. B. (2014). Negotiating the transition to college: Developmental trajectories and gender differences in psychological functioning, cognitive-affective strategies, and social well-being. *Emerging Adulthood, 2*(3), 195–210.
<https://doi-org.proxy-ub.rug.nl/10.1177/2167696814521808>
- Côté, J. E., & Schwartz, S. J. (2002). Comparing psychological and sociological approaches to identity: Identity status, identity capital, and the individualization process. *Journal of Adolescence, 25*(6), 571–586. <https://doi-org.proxy-ub.rug.nl/10.1006/jado.2002.0511>
- Crocetti, E., Rubini, M., & Meeus, W. (2008). Capturing the dynamics of identity formation in various ethnic groups: Development and validation of a three-dimensional model. *Journal of Adolescence, 31*(2), 207–222.
<https://doi-org.proxy-ub.rug.nl/10.1016/j.adolescence.2007.09.002>
- DeChants, J., Green, A.E., Price, M.N, & Davis, C. (2021). *Measuring Youth Sexual Orientation and Gender Identity*. West Hollywood, CA: The Trevor Project.
- De-Juanas, Á., Romero, T. B., & Goig, R. (2020). The relationship between psychological well-being and autonomy in young people according to age. *Frontiers in Psychology, 11*. <https://doi-org.proxy-ub.rug.nl/10.3389/fpsyg.2020.559976>
- Erikson, E. H. (1968). *Identity: youth and crisis*. Norton & Co.
- Feldman, D. B., & Snyder, C. R. (2005). *Hope and the Meaningful Life: Theoretical and*

- Empirical Associations Between Goal-Directed Thinking and Life Meaning. *Journal of Social and Clinical Psychology*, 24(3), 401–421.
<https://doi-org.proxy-ub.rug.nl/10.1521/jscp.24.3.401.65616>
- Festinger, L. (1962). Cognitive dissonance. *Scientific American*, 207(4), 93–107.
<https://doi.org/10.1038/scientificamerican1062-93>
- Grözinger, G., & Matiaske, W. (2014). The direct and indirect impact of religion on well-being in Germany. *Social Indicators Research*, 116(2), 373–387.
<https://doi-org.proxy-ub.rug.nl/10.1007/s11205-013-0308-9>
- Hatano, K., Luyckx, K., Hihara, S., Sugimura, K., & Becht, A. I. (2022). Daily identity processes and emotions in young adulthood: A five-day daily-diary method. *Journal of Youth and Adolescence*, 51(9), 1815–1828.
<https://doi-org.proxy-ub.rug.nl/10.1007/s10964-022-01629-x>
- Hagger, M. S., Anderson, M., Kyriakaki, M., & Darkings, S. (2007). Aspects of identity and their influence on intentional behavior: Comparing effects for three health behaviors. *Personality and Individual Differences*, 42(2), 355–367.
<https://doi-org.proxy-ub.rug.nl/10.1016/j.paid.2006.07.017>
- Hofer, J., Kärtner, J., Chasiotis, A., Busch, H., & Kiessling, F. (2007). Socio-cultural aspects of identity formation: The relationship between commitment and well-being in student samples from Cameroon and Germany. *Identity: An International Journal of Theory and Research*, 7(4), 265–288.
<https://doi-org.proxy-ub.rug.nl/10.1080/15283480701600744>
- Karaś, D., & Ciecuch, J. (2018). The relationship between identity processes and well-being in various life domains. *Personality and Individual Differences*, 121, 111–119.
<https://doi-org.proxy-ub.rug.nl/10.1016/j.paid.2017.09.027>
- Karaś, D., Ciecuch, J., Negru, O., & Crocetti, E. (2015). Relationships between identity and

- well-being in Italian, Polish, and Romanian emerging adults. *Social Indicators Research*, 121(3), 727–743.
<https://doi-org.proxy-ub.rug.nl/10.1007/s11205-014-0668-9>
- Kuhn, M. H., & McPartland, T. S. (1954). Twenty Statements Test. *American Sociological Review*. <https://doi.org/10.1037/t05100-000>
- Kunnen, E. S., Bosma, H. A., Van Halen, C. P. M., & Van der Meulen, M. (2001). A self-organizational approach to identity and emotions: An overview and implications. In H. A. Bosma & E. S. Kunnen (Eds.), *Identity and emotion: Development through self-organization*. (pp. 202–230). Cambridge University Press.
<https://doi-org.proxy-ub.rug.nl/10.1017/CBO9780511598425.017>
- Luyckx, K., Soenens, B., Goossens, L., Beckx, K., & Wouters, S. (2008). Identity exploration and commitment in late adolescence: Correlates of perfectionism and mediating mechanisms on the pathway to well-being. *Journal of Social and Clinical Psychology*, 27(4), 336–361.
<https://doi-org.proxy-ub.rug.nl/10.1521/jscp.2008.27.4.336>
- Luyckx, K., Klimstra, T. A., Duriez, B., Van Petegem, S., Beyers, W., Teppers, E., & Goossens, L. (2013). Personal identity processes and self-esteem: Temporal sequences in high school and college students. *Journal of Research in Personality*, 47(2), 159–170.
<https://doi-org.proxy-ub.rug.nl/10.1016/j.jrp.2012.10.005>
- Marcia, J. E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology*, 3(5), 551–558.
<https://doi-org.proxy-ub.rug.nl/10.1037/h0023281>
- McLean, K. C., Syed, M., & Shucard, H. (2016). Bringing identity content to the fore: Links to identity development processes. *Emerging Adulthood*, 4(5), 356–364.
<https://doi-org.proxy-ub.rug.nl/10.1177/2167696815626820>

- Nagy-Pénczes, Gabriella & Ferenc, Vincze & Biro, Eva. (2020). Contributing Factors in Adolescents' Mental Well-Being -The Role of Socioeconomic Status, Social Support, and Health Behavior. *Sustainability*, 12. 10.3390/su12229597.
- Negru-Subtirica, O., Pop, E. I., Luyckx, K., Dezutter, J., & Steger, M. F. (2016). The meaningful identity: A longitudinal look at the interplay between identity and meaning in life in adolescence. *Developmental psychology*, 52(11), 1926–1936.
<https://doi.org/10.1037/dev0000176>
- Priebe, S., Huxley, P., Knight, S., & Evans, S. (1999). Application and results of the Manchester Short Assessment of Quality of Life (MANSA). *International Journal of Social Psychiatry*, 45(1), 7–12.
- Renes, R. A., & Aarts, H. (2018). The sense of agency in health and well-being: Understanding the role of the minimal self in action-control. In D. de Ridder, M. Adriaanse, & K. Fujita (Eds.), *The Routledge international handbook of self-control in health and well-being*. (pp. 193–205). Routledge/Taylor & Francis Group.
<https://doi-org.proxy-ub.rug.nl/10.4324/9781315648576-16>
- Rice, T. W., & Steele, B. J. (2004). Subjective well-being and culture across time and space. *Journal of Cross-Cultural Psychology*, 35(6), 633–647.
<https://doi-org.proxy-ub.rug.nl/10.1177/0022022104270107>
- Rise, J., Sheeran, P., & Hukkelberg, S. (2010). The role of self-identity in the theory of planned behavior: A meta-analysis. *Journal of Applied Social Psychology*, 40(5), 1085–1105. <https://doi-org.proxy-ub.rug.nl/10.1111/j.1559-1816.2010.00611.x>
- Ruggeri, K., Garcia-Garzon, E., Maguire, Á., Matz, S., & Huppert, F. A. (2020). Well-being is more than happiness and life satisfaction: A multidimensional analysis of 21 countries. *Health and Quality of Life Outcomes*, 18.
<https://doi-org.proxy-ub.rug.nl/10.1186/s12955-020-01423-y>

- Ryan, R. M.; Deci, E. L. (2000). "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being". *American Psychologist*. **55** (1): 68–78. doi:10.1037/0003-066X.55.1.68. hdl:20.500.12749/2107. PMID 11392867. S2CID 1887672.
- Sabancı, A. Ş. (2019). Warwick-Edinburgh mental iyi oluş ölçeği: öğretmenler için türkçe formunun geçerlik ve güvenirlik çalışması. *Journal of Turkish Studies, Volume 14 Issue 3*(Volume 14 Issue 3), 1713–1730.
<https://doi.org/10.29228/turkishstudies.22098>
- Salmela-Aro K., Taanila A., Ek E., Chen M. (2012). Role configurations in young adulthood, antecedents, and later wellbeing among Finns born in 1966. *Longitudinal and Life Course Studies*, 3, 228–242.
- Schwartz, S. J., Côté, J. E., & Arnett, J. J. (2005). Identity and Agency in Emerging Adulthood: Two Developmental Routes in the Individualization Process. *Youth & Society*, 37(2), 201-229. <https://doi.org/10.1177/0044118X05275965>
- Schwartz, S. J., Montgomery, M. J., & Briones, E. (2006). The Role of Identity in Acculturation among Immigrant People: Theoretical Propositions, Empirical Questions, and Applied Recommendations. *Human Development*, 49(1), 1–30.
<https://doi-org.proxy-ub.rug.nl/10.1159/000090300>
- Scroggs, B., & Vennun, A. (2021). Gender and sexual minority group identification as a process of identity development during emerging adulthood. *_Journal of LGBT Youth_, _18_(3), 287–304. <https://doi.org/10.1080/19361653.2020.1722780>*
- Stewart-Brown, S., & Janmohamed, K. (2008, June). *Warwick-Edinburgh Mental Well-being Scale (WEMWBS) User Guide, Version 1*. Warwick-Edinburgh Mental Well-being Scale (WEMWBS) User Guide Version 1.
<http://www.mentalhealthpromotion.net/resources/user-guide.pdf>

- Thoits, P. A. (1992). Identity structures and psychological well-being: Gender and marital status comparisons. *Social Psychology Quarterly*, 55(3), 236–256.
<https://doi-org.proxy-ub.rug.nl/10.2307/2786794>
- Thoits, P. A. (2012). Role-Identity Salience, Purpose and Meaning in Life, and Well-Being among Volunteers. *Social Psychology Quarterly*, 75(4), 360-384.
<https://doi.org/10.1177/0190272512459662>
- Van der Gaag, M. A. E., De Ruiter, N. M. P., Kunnen, S. E., & Bosma, H. (2020). The landscape of identity model: An integration of qualitative and quantitative aspects of identity development. *Identity: An International Journal of Theory and Research*, 20(4), 272–289. <https://doi-org.proxy-ub.rug.nl/10.1080/15283488.2020.1821154>
- Van der Gaag, M., Famiglini, M., Kunnen, S., & Bosma, H. (2021). Groningen Identity Development Scale: Landscape Version (GIDS-L).
- Van der Gaag, M. A. E., Gmelin, J. O. H., De Ruiter, N. M. P., (2024). *Beyond Identity in Separate Domains: the Nature and Utility of Overarching Commitments*. Unpublished manuscript. Faculty of Behavioral and Social Sciences, University of Groningen
- Vittersø, J. (2013). Functional well-being: Happiness as feelings, evaluations, and functioning. In S. A. David, I. Boniwell, & A. Conley Ayers (Eds.), *The Oxford handbook of happiness*. (pp. 227–244). Oxford University Press.
- Weiting, N. (2015). Processes underlying links to subjective well-being: Material concerns, autonomy, and personality. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 16(6), 1575–1591.
<https://doi-org.proxy-ub.rug.nl/10.1007/s10902-014-9580-x>
- Wood, D., Crapnell, T., Lau, L., Bennett, A.G., Lotstein, D., Ferris, M., & Kuo, A.A. (2018). Emerging Adulthood as a Critical Stage in the Life Course.

Appendix A

[TST-short] Shortened 20 Statements Test (General Identity)

Please give as many different statements as possible to answer the question, “Who am I?” in relation to who you are in general. Give these answers as if you were saying them to yourself, not to somebody else. You may repeat statements you have given before if you feel they describe you best.

I am _____

I am _____

I am _____

I am _____

I am _____

I am _____

I am _____

I am _____

I am _____

I am _____

Appendix B

Commitment Statement (General)

“Next we would like you to write down one sentence that reflects your idea of who you are as a person in general. This sentence is called your “overarching commitment statement”. Your commitment statement should summarize your understanding of yourself as a person, in general. It can be the central theme that you see across your three commitment statements you wrote earlier, but doesn’t have to be. The overarching commitment statement should describe the core of the kind of person that you are. This can be difficult, but there are no wrong answers.” [Text Response]

Appendix C

Overarching Version of the GIDS-L Questionnaire (Sub-scales Selected)

	#	Item	Anchors (0, 50, 100)
Commitment Strength	1	Are you certain of this commitment?	Yes, Somewhat, No
	2	Are you sure that this commitment is right for you?	Yes, Sometimes, No
	3	Are you convinced that your commitment fits you well?	Yes, Sometimes, No
Commitment Utility	4	Does this commitment help you deal with many different types of situations?	Yes, Somewhat, No
	5	Do you know how to act because of this commitment?	Yes, often Sometimes No, rarely
	6	Does this commitment give you direction in your life?	A lot Sometimes yes, sometimes no No
Exploration in Breadth	7	Are you trying to develop a different commitment?	Yes, often Sometimes No, rarely
	8	Do you try to find a commitment that fits you better than the one you have now?	Yes Sometimes No
	9	Are you searching for a different commitment?	Yes, often Sometimes No, rarely
Exploration in Depth	10	Do you actively try to further explore this commitment?	Yes, often Sometimes No, rarely
	11	Do you try to learn new things to develop this commitment?	Yes, often Sometimes No, rarely
	12	Do you try to learn more about your commitment?	Yes, often Sometimes No, rarely
Valence	13	Do you have positive feelings about this commitment?	Yes Somewhat No
	14	Do you have negative feelings about this commitment?	Yes Somewhat No
Life Satisfaction	15	How satisfied are you with your life?	Very satisfied Somewhat satisfied Very unsatisfied

Appendix D

Cronbach's Alpha Values

	Commitment Strength	Broad Exploration	Exploration in-depth	Commitment Utility
GIDS-LS-Dating	0.735	0.855	0.626	0.798
GIDS-LS-Education	0.718	0.870	0.587	0.565
GIDS-LS-Free	0.897	0.825	0.758	0.862
GIDS-LGeneral	0.851	0.856	0.876	0.795
Mean	0.800	0.852	0.712	0.755
Minimum	0.718	0.825	0.587	0.565
Maximum	0.897	0.870	0.876	0.862

Appendix E

[MANSA] Manchester Short Assessment of Quality of Life

#	Question
1	How satisfied are you with your life as a whole?
2	How satisfied are you with your education?
3	How satisfied are you with the number and quality of your friendships?
4	How satisfied are you with the people that you live with (or if you live alone, how satisfied are you with living alone)?
5	How satisfied are you with your sex life?
6	How satisfied are you with your relationship with your family?
7	How satisfied are you with your health?
8	How satisfied are you with your mental health?

Note. Likert scale (1-7): Couldn't be worse, Displeased, Mostly Dissatisfied, Mixed, Mostly Satisfied, Pleased, Couldn't be better

Appendix F

[SWEMWBS] Warwick Edinburgh Mental Well-Being Scale (Short Version)

“Below are some statements about feelings and thoughts. Please select the answer that best describes your experience of each over the last 2 weeks.”

#	Question
1	I’ve been feeling optimistic about the future
2	I’ve been feeling useful
3	I’ve been feeling relaxed
4	I’ve been dealing with problems well
5	I’ve been thinking clearly
6	I’ve been feeling close to other people
7	I’ve been able to make up my own mind about things

Note. Likert Scale (1-5): None of the Time, Rarely, Some of the Time, Often, All of the time

Appendix G

Demographic Questions

“How old are you?” [Text Response]

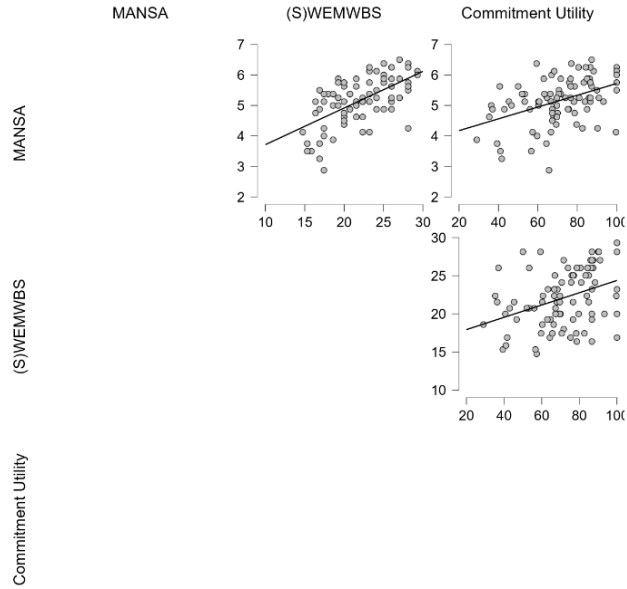
“What is your nationality?” [Text Response]

“What is your mother tongue?” [Text Response]

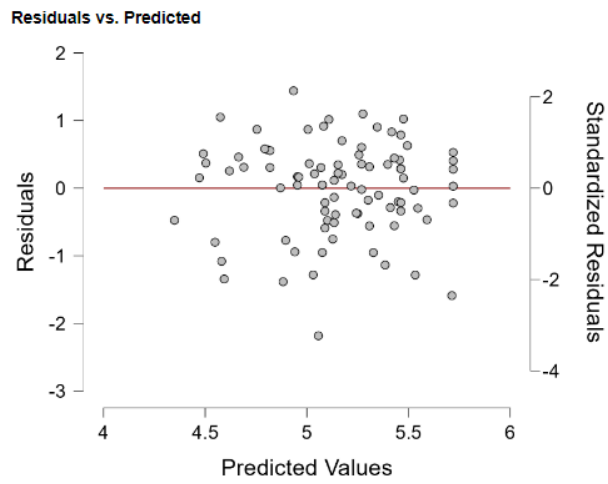
Appendix H

Assumption Checks

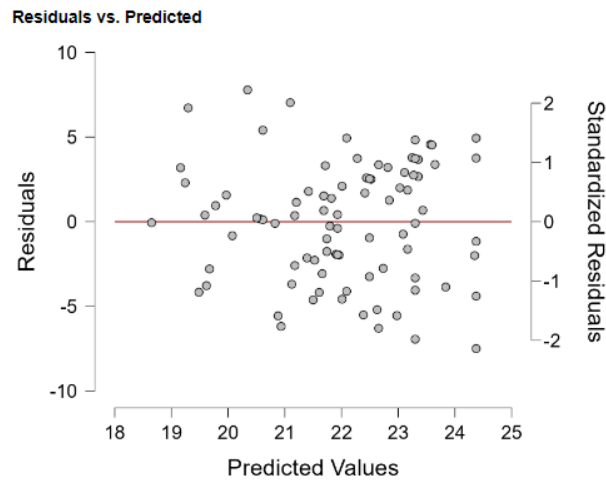
Scatterplots (Commitment Utility - Quality of Life - Functional - Affective Well-being)



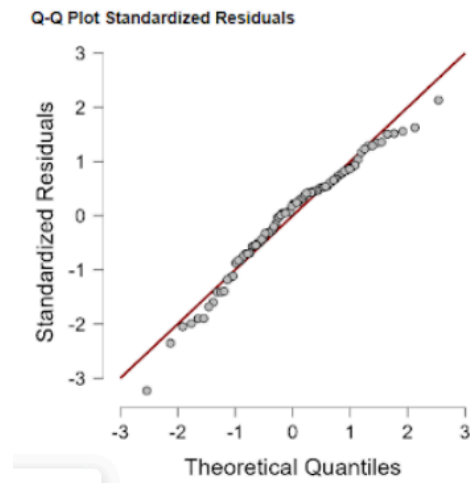
Residuals vs. Predicted Values Plot - Commitment Utility - Quality of Life



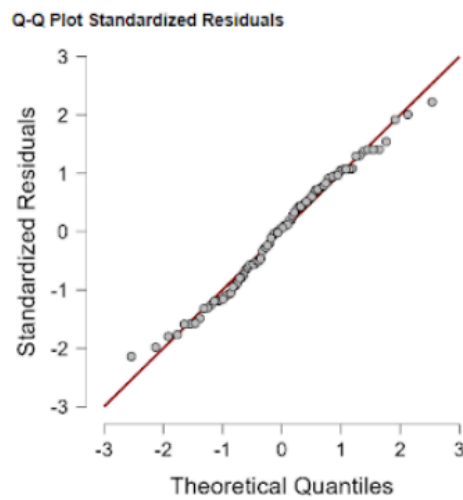
Residuals vs. Predicted Values Plot: Commitment Utility - Functional - Affective Well-being



Normal Q-Q Plot - Commitment Utility - Quality of Life



Normal Q-Q Plot: Commitment Utility - SWEMWBS



Appendix I

Simple Linear Regression Analyses (Hypothesis 1)

Commitment Utility Regressed on Quality of Life

Model Summary - MANSA

Model	R	R ²	Adjusted R ²	RMSE
H ₀	0.000	0.000	0.000	0.753
H ₁	0.442	0.195	0.186	0.679

ANOVA

Model		Sum of Squares	df	Mean Square	F	p
H ₁	Regression	9.851	1	9.851	21.351	< .001
	Residual	40.601	88	0.461		
	Total	50.452	89			

Note. The intercept model is omitted, as no meaningful information can be shown.

Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p
H ₀	(Intercept)	5.163	0.079		65.049	< .001
	Commitment Utility	0.019	0.004	0.442	4.621	< .001
H ₁	(Intercept)	3.789	0.306		12.395	< .001
	Commitment Utility	0.019	0.004	0.442	4.621	< .001

Commitment Utility Regressed on SWEMWBS

Model Summary - (S)WEMWBS

Model	R	R ²	Adjusted R ²	RMSE
H ₀	0.000	0.000	0.000	3.768
H ₁	0.369	0.136	0.126	3.523

ANOVA

Model		Sum of Squares	df	Mean Square	F	p
H ₁	Regression	171.743	1	171.743	13.839	< .001
	Residual	1092.063	88	12.410		
	Total	1263.806	89			

Note. The intercept model is omitted, as no meaningful information can be shown.

Coefficients

Model		Unstandardize d	Standard Error	Standardized	t	p
H ₀	(Intercept)	22.047	0.397		55.5 05	< .001
	Commitment Utility	0.081	0.022	0.369	3.72 0	< .001
H ₁	(Intercept)	16.313	1.585		10.2 89	< .001
	Commitment Utility	0.081	0.022	0.369	3.72 0	< .001

Appendix J

Multivariate Regression Analysis: Commitment Utility Regressed on Quality of Life and Functional - Affective Well-being (Hypothesis 2)

Multivariate Tests

Effect		Value	<i>F</i>	Hypothesis df	Error df	Sig
Intercept	Pillai's Trace	0.998	5994.912	2.000	24.000	<.001
	Wilks' Lambda	0.002	5994.912	2.000	24.000	<.001
	Hotelling's Trace	499.576	5994.912	2.000	24.000	<.001
	Roy's Largest Root	499.576	5994.912	2.000	24.000	<.001
Commitment Utility	Pillai's Trace	1.504	1.183	128.000	50.000	.0252
	Wilks' Lambda	0.031	1.752	128.000	48.000	.014
	Hotelling's Trace	13.969	2.510	128.000	46.000	<.001
	Roy's Largest Root	12.604	4.924	64.000	25.000	<.001

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig
Corrected Model	MANSA	46.665	64	0.729	4.814	<.001
	SWEMWBS	861.471	64	13.460	0.836	.722
Intercept	MANSA	1891.511	1	1891.511	12488.654	<.001
	SWEMWBS	35262.616	1	35262.616	2191.124	<.001
Commitment Utility	MANSA	46.665	64	0.729	4.814	<.001
	SWEMWBS	861.471	64	13.460	0.836	.722
Error	MANSA	3.786	25	0.151		
	SWEMWBS	402.335	25	16.093		
Total	MANSA	2449.078	90			
	SWEMWBS	45011.889	90			
Corrected Total	MANSA	50.452	89			
	SWEMWBS	1263.806	89			

Appendix K

Exploratory Analysis

Simple Linear Regression: Commitment Strength Regressed on Quality of Life

Model Summary - MANSA

Model	R	R ²	Adjusted R ²	RMSE
H ₀	0.000	0.000	0.000	0.753
H ₁	0.284	0.081	0.070	0.726

ANOVA

Model		Sum of Squares	df	Mean Square	F	p
H ₁	Regression	4.077	1	4.077	7.736	0.007
	Residual	46.375	88	0.527		
	Total	50.452	89			

Note. The intercept model is omitted, as no meaningful information can be shown.

Coefficients

Model		Unstandardize d	Standard Error	Standardized	t	p
H ₀	(Intercept)	5.163	0.079		65.0 49	< .001
	Commitment Strength	0.013	0.005	0.284	2.78 1	0.00 7
H ₁	(Intercept)	4.126	0.381		10.8 39	< .001
	Commitment Strength	0.013	0.005	0.284	2.78 1	0.00 7

Simple Linear Regression: Commitment Strength Regressed on Functional - Affective

Well-being

Model Summary - (S)WEMWBS

Model	R	R ²	Adjusted R ²	RMSE
H ₀	0.000	0.000	0.000	3.768
H ₁	0.248	0.062	0.051	3.671

ANOVA

Model		Sum of Squares	df	Mean Square	F	p
H ₁	Regression	77.789	1	77.789	5.772	0.018
	Residual	1186.017	88	13.477		
	Total	1263.806	89			

Note. The intercept model is omitted, as no meaningful information can be shown.

Coefficients

Model		Unstandardize d	Standard Error	Standardized	t	p
H ₀	(Intercept)	22.047	0.397		55.5 05	< .001
	Commitment Strength	0.056	0.023	0.248	2.40 2	0.01 8
H ₁	(Intercept)	17.518	1.925		9.10 1	< .001
	Commitment Strength	0.056	0.023	0.248	2.40 2	0.01 8

**Multiple Linear Regression: Commitment Utility and Commitment Strength Regressed
on Quality of Life**

Model Summary - MANSA

Model	R	R ²	Adjusted R ²	RMSE
H ₀	0.000	0.000	0.000	0.753
H ₁	0.445	0.198	0.179	0.682

ANOVA

Model		Sum of Squares	df	Mean Square	F	p
H ₁	Regression	9.974	2	4.987	10.718	< .001
	Residual	40.478	87	0.465		
	Total	50.452	89			

Note. The intercept model is omitted, as no meaningful information can be shown.

Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p
H ₀	(Intercept)	5.163	0.079		65.049	< .001
H ₁	(Intercept)	3.675	0.379		9.686	< .001
	Commitment Utility	0.018	0.005	0.409	3.560	< .001
	Commitment Strength	0.003	0.005	0.059	0.514	0.609

**Multiple Linear Regression: Commitment strength and Commitment Utility Regressed
on Functional - Affective Well-being**

Model Summary - (S)WEMWBS

Model	R	R ²	Adjusted R ²	RMSE
H ₀	0.000	0.000	0.000	3.768
H ₁	0.373	0.139	0.119	3.537

ANOVA

Model		Sum of Squares	df	Mean Square	F	p
H ₁	Regression	175.465	2	87.733	7.013	0.002
	Residual	1088.341	87	12.510		
	Total	1263.806	89			

Note. The intercept model is omitted, as no meaningful information can be shown.

Coefficients

Model		Unstandardize d	Standard Error	Standardized	t	p
H ₀	(Intercept)	22.047	0.397		55.5 05	< .001
H ₁	(Intercept)	15.683	1.967		7.97 2	< .001
	Commitment Utility	0.073	0.026	0.333	2.79 4	0.00 6
	Commitment Strength	0.015	0.027	0.065	0.54 6	0.58 7