

# Being well at well-being

A comparison of the processes contributing  
to well-being according to three models

Master Thesis



*Master Thesis by:*

Solveig de Sonnaville

Student Number: 1000721



*University of Humanistic Studies*

Supervisor: dr. Hanne Laceulle

Co-reader: dr. Froukje Pitstra

Date: 22<sup>nd</sup> of June 2018

# Table of contents

Preface .....	4
Abstract .....	5
Problem statement .....	6
Research purpose .....	8
Research relevance .....	9
Research questions .....	9
Method .....	10
Data collection .....	10
Data analysis .....	10
Subjective Well-Being .....	11
Introduction of Subjective Well-Being .....	11
Positive and negative affect .....	12
Positive global life judgments and domain satisfaction .....	14
Understanding of well-being and its underlying processes according to SWB .....	16
Evaluation of SWB .....	17
Self-Determination Theory .....	18
Introduction of the Self-Determination Theory .....	18
Organismic-dialectical metatheory .....	19
The activity tendency .....	19
The integrative tendency .....	20
Basic psychological needs .....	22
Support versus obstruction of need satisfaction .....	26
Environmental support .....	26
Optimal individual functioning .....	30
When needs are satisfied .....	35
When needs are frustrated .....	36
Understanding of well-being and its underlying processes according to the SDT .....	37
Evaluation of SDT .....	38
Limitations of the empirical basis .....	39
Theoretical friction with regard to the need for autonomy and competence .....	39
Psychological Well-Being .....	41
Introduction of Psychological Well-Being .....	41
Self-acceptance .....	42

Positive relations with others.....	44
Autonomy .....	46
Environmental mastery.....	48
Purpose in life.....	49
Personal growth.....	51
Understanding of well-being and its underlying processes according to PWB .....	53
Evaluation of PWB.....	54
Comparison of the theories .....	56
Similarities and differences between SWB and SDT.....	57
Similarities and differences between PWB and SDT.....	58
Similarities and differences between PWB and SWB.....	63
Overview of the similarities and differences.....	66
Conclusion.....	67
Discussion .....	69
Limitations of this study.....	69
Reflections on the social implications of the study.....	70
Reflections on the relation between well-being and meaning.....	72
Definition of meaning.....	72
The relation between well-being and meaning.....	73
Recommendations for further research.....	77
References .....	78
Appendix A – Basic Need Satisfaction Scale .....	85

# Preface

To contribute to a world in which all beings can live a fulfilling life, has long been a challenging purpose I aim to contribute to. This might be a broad and idealistic goal, but I experience it as a basic attitude that directs my actions in everyday life, as well as the choices I consciously make regarding my education and career. The choice to write my master thesis about well-being for example. Understanding this concept may guide us towards the creation of more fulfilling lives. I hope my thesis adds to this purpose, and – as will become clear throughout this thesis – indirectly also to my own well-being.

I am thankful I did not to stand on my own when writing this thesis. My gratitude goes out to Hanne Laceulle, my supervisor who supported my research process with valuable feedback and clear advice. Her comments have helped me to find my way in the research labyrinth I was exploring. I also thank Froukje Pitstra, my co-reader, for the comments that pushed me to perfect my thesis.

Although the completion of this thesis represents an important step in my education, it is in fact only a short phase in a much longer journey. A journey that would not have been nearly as inspiring, manageable and fun without my fellow musketeers – Eva and Ilonka – with whom I had animated discussions, made almighty summaries and sponsored Broodje Ben vigorously. I am grateful for our cooperation and friendship.

I thank my parents for their unconditional support; financially and emotionally. I have always felt like I could develop myself in whatever direction I aspired. I felt loved, valued and understood by them, which surely had a great positive effect on the well-being I experience today. I am grateful for my siblings, whose warmth, humor and talks were a welcome distraction from my research process. The more time passes by, the more I realize how lucky I am to be part of such an enormously loving family.

And finally, I thank Joyce, whom I since recently may proudly call my fiancé. At times it must have been a challenge to endure with me when I came home from working on my thesis; tired and hungry. I greatly treasure her understanding, love and lunches. My well-being flourishes when being with her.

I hope the insights in this thesis will inspire others like they inspired me.

Solveig de Sonnaville

# Abstract

The aim of this theoretical research was to gain insight in the processes that contribute to different forms of well-being. This goal was pursued by comparing three major well-being models in positive psychology: the concept of Subjective Well-Being (SWB) by Ed Diener, the model of Psychological Well-Being (PWB) by Carol Ryff and the Self-Determination Theory (SDT) by Richard Ryan and Edward Deci. The processes that underly well-being according to these models have been described, visualized and compared in order to determine their similarities and differences.

It turned out that these theories sometimes contradict each other, and at other times validate or complement one another. The most striking point of divergence was that SDT and PWB contradict SWB's assumption that the content of goals is unimportant to the well-being that results from achieving this goal. However, there are also some important points of convergence. All theories implicitly or explicitly emphasize the importance of competence and SWB and SDT agree that affect can be understood as feedback that guides our behavior in ways that are favorable to us. Both SDT and PWB underscore the importance of awareness since this helps individuals to move in the right direction. Lastly, all theories implicitly or explicitly stress the importance of creating a life that is congruent with one's needs and values.

The results of this study add to the understanding of the concept and causes of well-being, and in addition give insight in how well-being could be enhanced durably. It also points to the conceptual overlap between well-being and meaning in life, which suggests that these themes could be approached simultaneously, in order to build a life worth living.

**Keywords:** Well-being, subjective well-being, self-determination theory, psychological well-being, meaning, positive psychology

# Problem statement

Defining concepts like happiness, flourishing and well-being has been an important inquiry for philosophers and scholars in different fields throughout history (Diener, Scollon & Lucas, 2009; Jayawickreme, Forgeard & Seligman, 2012). Research on these topics exploded, however, with the rise of positive psychology. This new field within psychology was born when Martin Seligman became president of the American Psychology Association in 1996 (Seligman & Csikszentmihalyi, 2000). For a long time, the goal of psychology had been to relieve misery and cope with the disabling conditions of life. Psychologists were focusing on reducing depression, trauma, alcoholism and other kinds of suffering (Seligman, 2011). Seligman urged psychology to change this goal into a new one: *'exploring what makes life worth living and building the enabling conditions of a life worth living'* (Seligman, 2011, p. 1). Positive psychology is the name of the scientific and professional movement pursuing this goal, and its topic is well-being. It covers subjects like happiness, meaning, growth, relationships, gratitude, flow and accomplishment (Seligman, 2011). Seligman envisions positive psychology to achieve *'a scientific understanding and effective interventions to build thriving individuals, families and communities'* (Seligman, 2002, p. 7).

The great interest in well-being has resulted in a multitude of well-being theories, each with different core concepts, purposes and assumptions (Jayawickreme, Forgeard & Seligman, 2012). These theories can be very different in character. Often, for example, a distinction is made between two well-being traditions: hedonism and eudemonism (Lambert, Passmore & Holder, 2015). These two ethical philosophies have been concerned with the question how to live a good life. In hedonic tradition the focus is placed on pleasure and the absence of discomfort; the good life is a life in which the individual subjectively experiences pleasure and has no or little unpleasant experiences (Huta & Waterman, 2013). Eudaimonian theory, on the other hand, emphasizes the importance of fully developing one's potentials and engaging in activities reflecting virtue (Huta & Waterman, 2013). Both philosophies have been conceptualized and operationalized in multiple ways, especially eudaimonia (Huta & Waterman, 2013). However, often a simple difference is made within the research field of well-being: hedonia involves feeling good whereas eudaimonia involves functioning well (Keyes & Annas, 2009). Thus, within these traditions well-being refers to something fundamentally different. Therefore, well-being theories are often explicitly related to these traditions (e.g. Diener, 2000; Ryan & Deci, 2001; Ryff, 1989a). Due to this elemental difference the relations between these traditions are not always apparent. The same goes for

the well-being models related to them. The many different approaches to well-being have led to vagueness around this concept (Jayawickreme, Forgeard and Seligman, 2012).

A profound understanding of the relations between diverse models of well-being is important, however, because *'[h]aving a clear grasp of how the different theories relate to each other is vital if psychologists are to understand what well-being is, what causes it, and how it can be enhanced'* (Jayawickreme, Forgeard and Seligman, 2012, p. 338). Many authors have focused on operationalizing well-being and explicating its causes and underlying mechanisms (e.g. Deci & Ryan, 2000; Diener, Scollon & Lucas, 2009; Ryff, 2013; Sheldon & Lyubomirsky, 2004). And although the relations between these theories in general have been discussed to some extent (e.g. Deci & Ryan, 2008; Keyes, Shmotkin & Ryff, 2002), a detailed comparison of the processes contributing to well-being according to different theories is still missing within this field of research. Such a comparison would be valuable in various ways. Firstly, it adds to a comprehensive understanding of the different aspects of and approaches to well-being. Secondly it clarifies how processes contributing to different forms of well-being (hedonic and eudemonic) relate to each other. And lastly, this knowledge gives greater insight in the possibilities and constraints with regard to enhancing the well-being of individuals and societies in a durable way.

A workable starting point for this endeavor is the comparison of three well-being theories that are central to the field of positive psychology: the concept of Subjective Well-Being developed by Ed Diener (Diener, 1984), the model of Psychological Well-Being developed by Carol Ryff (Ryff, 1989a) and the Self-Determination Theory developed by Richard Ryan and Edward Deci (Deci & Ryan, 2000). To enhance the readability of this thesis, these will all three be referred to as models. The importance of these models is emphasized by the fact that they are usually included in overviews of leading well-being theories and models (e.g. Jayawickreme, Forgeard & Seligman, 2012; Lambert, Passmore and Holder, 2015). The model of Subjective Well-Being (SWB) is developed and operationalized by Ed Diener who published his first article on this topic in 1984. SWB might be the most widely used well-being construct in the field of positive psychology (Jayawickreme, Forgeard & Seligman, 2012). According to Diener, people's own evaluations of their lives are an important part of quality of life and well-being. Therefore, SWB focusses on the way that well-being is experienced by the individual, like the experience of affect and life satisfaction (Diener, 1984; 2000). With its focus on subjective experience rather than functioning well, SWB is often placed within the hedonic tradition of well-being (e.g. Ryan & Deci, 2001). However, according to Diener himself hedonistic well-being is only reflected in affect. Global



life judgements like life satisfaction however, are more closely related to eudemonic thinking, so he writes (Diener, Scollon and Lucas, 2009). Carol Ryff (1989a; 2013) has criticized SWB for neglecting positive functioning as an important part of well-being. Therefore Ryff (1989a; 1989b) put forth an alternative model of well-being which she named Psychological Well-Being (PWB). This model consists of six dimensions that constitute positive psychological functioning, like self-acceptance, autonomy and purpose in life. With her focus on positive functioning, Ryff (1989a) places PWB within the eudemonic approach to well-being. Numerous studies have evaluated and supported the reliability and validity of this model (Ryff, 2013). Richard Ryan and Edward Deci have adopted yet another approach to well-being. They observed that *'[h]umans have a potential for growth, integration, and well-being, while also being vulnerable to defensiveness, aggression, and ill-being'* (Vansteenkiste & Ryan, 2013, p. 263). In their Self-Determination Theory (SDT) they outline the mechanisms that account for people's tendencies towards the one or the other. In their theory they consider many different concepts in relation to well-being, like individual traits, motivations and contexts (Ryan & Deci, 2000). Since the primary focus of SDT is on optimal functioning, the theory is placed within the eudemonic tradition. However, it also considers the relations between human functioning and several well-being outcomes including affect (DeHaan & Ryan, 2014). This way it contributes to the endeavor of clarifying the relations between hedonic and eudemonic forms of well-being. SDT is supported by an increasing number of studies (Vansteenkiste & Ryan, 2013) and is commonly used throughout different fields ranging from (mental) healthcare to parenting to marketing (Deci & Ryan, 2000). Since the primary focus of these three models differs, their comparison is believed to add to a comprehensive understanding of well-being and its underlying processes.

## Research purpose

The aim of this research is gaining insight in the processes that contribute to different forms of well-being. This goal will be pursued by comparing three major well-being models in positive psychology: the model of Subjective Well-Being by Ed Diener, the model of Psychological Well-Being by Carol Ryff and the Self-Determination Theory by Richard Ryan and Edward Deci.



## Research relevance

Insight in the processes underlying well-being adds to the understanding of the concept and causes of well-being (theoretical relevance). It also gives insight in the possibilities and constraints with regard to enhancing the well-being of individuals and societies in a durable manner and can thus fuel effective interventions to promote well-being (social relevance). This contributes to the ambition of positive psychology to understand and promote the well-being of individuals and communities (Seligman, 2002). To add to this purpose, the implications of this thesis with regard to the enhancement of well-being will be considered in the discussion of this thesis.

The results of this study are also relevant to the field of humanistic studies, since explication of the processes underlying different well-being models ease comparison of well-being and meaning. Various scholars have been engaged with understanding the relation between these two concepts (e.g. Derkx, 2013). To this end, the understanding of well-being and its underlying processes that results from the comparison of the three models, will be related to meaning in the discussion of this thesis.

## Research questions

From this purpose arises the following research question: *What are the similarities and differences concerning the processes that contribute to well-being, according to the model of Subjective Well-Being by Ed Diener, the model of Psychological Well-Being by Carol Ryff and the Self-Determination Theory by Richard Ryan and Edward Deci?*

An answer to this main question was sought through the investigation of the following sub-questions:

1. *What processes contribute to well-being according to the model of Subjective Well-Being developed by Ed Diener?*
2. *What processes contribute to well-being according to the model of Psychological Well-Being developed by Carol Ryff?*
3. *What processes contribute to well-being according to the Self-Determination Theory developed by Richard Ryan and Edward Deci?*

# Method

To answer the research questions, I have conducted a theoretical study of the concept of Subjective Well-Being by Ed Diener, the model of Psychological Well-Being by Carol Ryff and the Self-Determination Theory by Richard Ryan and Edward Deci. Exploring these three models is a workable starting point for gaining insight in the concept of well-being. However, the choice to focus on these theories necessarily entails a loss of other perspectives on this concept. The limitations this engenders will be regarded in the chapter ‘Discussion’ of this thesis. Methodologically this study consisted of two steps which are discussed in the following paragraphs.

## Data collection

The data of this study consists of articles written by the original authors of the models, in which the models are described or reviewed. This choice is made based on the believe that the author him- or herself has the most insight in the model and its development. Simultaneously the scope of literature is hereby limited, making the endeavor achievable considering the resources available for this study. The articles were found by means of the search engines PsycINFO, Scopus and Google Scholar. The search commands consisted of the name of the respecting author (in authors) and the name of the model (in the title, abstract or keywords). Furthermore, I have looked for relevant articles in the list of references of selected articles. In the selection of relevant articles my attention went out to articles in which the theory was initially described and to articles published in the last ten years in which the theory or model is described or reviewed.

## Data analysis

The selected articles have been analyzed to gain a thorough understanding of the concepts and sub-concepts within the model, and the way they relate. Attributes of the (sub-)concepts and their relation to other concepts were distilled from the articles by hand and these overviews were used to clearly define the concepts and visualize how they relate to other concepts. In this way the processes that contribute to well-being have become visible. Through this process sub-questions 1, 2 and 3 were answered. Subsequently, the main question was answered by comparing the sub-questions and reflecting on the way they relate to each other.

# Subjective Well-Being

This section is focused on the first sub-question of this research: *What processes contribute to well-being according to the model of Subjective Well-Being developed by Ed Diener?* First, the model of Subjective Well-Being (SWB) will be introduced. Secondly, the different aspects of SWB will be described in more detail and its underlying processes will be visualized. Thirdly, the meaning of well-being according to SWB will be considered and the sub-question of this chapter will be answered. Finally, the model of SWB will be evaluated, in order to determine its strengths and weaknesses.

## Introduction of Subjective Well-Being

According to Ed Diener, people's own evaluations of their lives are an important part of well-being (Diener, 1984; Diener, 2000). For that reason he speaks of Subjective Well-Being (SWB), which might be the most widely used well-being construct in the field of positive psychology (Jayawickreme, Forgeard & Seligman, 2012). SWB is defined as '*an umbrella term used to describe the level of well-being people experience according to their subjective evaluations of their lives*' (Diener & Ryan, 2009, p. 391). SWB is a multi-faceted phenomenon; a construct that consists of four different evaluative variables: (1) the presence of positive affect, (2) the absence of negative affect, (3) positive global life judgements and (4) domain satisfaction (Diener, Scollon & Lucas, 2009; Diener, Suh, Lucas & Smith, 1999). There are different processes involved in the formation of these affective and cognitive evaluations (Diener, Scollon & Lucas, 2009), which will be discussed and visualized in this chapter. Since SWB focusses on well-being as a subjective experience, it is often placed under the hedonic tradition (Jayawickreme, Forgeard & Seligman, 2012; Lambert, Passmore and Holder, 2015). However, Diener himself argues that (global) life judgements may include eudemonic aspects of life as well (Diener, Scollon & Lucas, 2009). For example, whether someone is satisfied with his life can (partly) depend on the degree to which he feels that he has lived in accordance with his values. The four components of SWB and their underlying processes will be discussed and visualized in the following sections. First, I will elaborate on positive and negative affect, followed by positive global life judgments and domain satisfaction.

## Positive and negative affect

Positive affect (e.g. joy, love and contentment) and negative affect (e.g. sadness, anger and stress) are considered on-line (or direct) affective evaluations of events in people's lives (Diener, Scollon & Lucas, 2009). Well-being is high when in general the experience of positive – or pleasant – affect is high and the experience of negative – or unpleasant – affect is low (Diener, 2000). There are two forms of affective evaluation: emotions and moods.

*'[E]motions are generally thought to be short-live reactions that are tied to specific events or external stimuli'* (Diener, Scollon & Lucas, 2009, p. 72). Moods, on the other hand, *'are thought to be more diffuse affective feelings that may not be tied to specific events'* (Diener, Scollon & Lucas, 2009, p. 72).

Diener, Scollon and Lucas (2009) do not describe the processes through which moods are formed, however they do elaborate on the processes underlying on-line emotional reactions. When an event occurs (e.g. you meet a friend or watch the news) the individual appraises that event through processes, such as attention and interpretation. E.g., when focusing your attention on the newscaster's hair or on the story that he is telling. The information that is gained through attention is interpreted in order to obtain meaning from it. This interpretation is based on one's existing personal knowledge, like one's beliefs, expectations, motives and norms. When the event is interpreted – either consciously or unconsciously – as supportive of one's goal attainment and when the necessary resources are considered to be available the event is appraised as positive and the individual experiences positive affect. When it is interpreted as thwarting to one's goal attainment on the other hand, or the required resources are considered unavailable, a negative appraisal is given and negative affect is experienced (Diener, Scollon & Lucas, 2009). For example, imagine that you are in a train and you notice an acquaintance (attention). When you are in the mood to chat (goal) and you expect the conversation to be interesting, because you have had stimulating conversations with him before (expectation based on personal experience), you will probably appraise the situation as positive and experience positive feelings like interest, contentment and relaxation. When you are looking for some quiet time to wake up, on the other hand (goal), or you expect the conversation to be utterly boring, because last time he could not stop talking about his cat (expectation), a negative appraisal is likely to be given to the situation and you could experience negative feelings, such as irritation and fear to be seen by him and start a conversation. So different meanings can be given to the same event and this will subsequently evoke other kinds of feelings.

In addition to one's existing personal knowledge, the experience of positive and negative affect is influenced by one's personality. Personality is often defined by means of the 'Big Five' personality dimensions: Extraversion, neuroticism, agreeableness, conscientiousness, and openness (Barrick & Mount, 1991). The trait of extraversion correlates with positive affect, while negative affect is aligned with neuroticism (Tellegen, 1985). Extraversion refers to an individual's tendency to be sociable, assertive, energetic and stimulation seeking (Barrick & Mount, 1991), whereas neuroticism refers to the tendency to be sensitive to the experience of negative emotions like anxiety, depression, insecurity, anger and embarrassment. Given this definition of neuroticism, it is no surprise it correlates with negative affect. What makes the inclusion of personality in the appraising process interesting though, is the fact that evaluating an event – giving meaning to it – does not only rely on the previously developed personal knowledge, but also on individual traits. It seems plausible the process underlying affect is influenced by other traits than personality as well, like intelligence and empathy for example. Intelligence enables interpretation using a broader input of information (Reisberg, 2013), and a quality like empathy would allow other kinds of information to be taken into account, namely the assumed experiences of others. To my knowledge, other traits and qualities besides personality are not discussed in SWB literature, nonetheless it seems very likely they influence this process. However, since affirming these assumptions goes beyond the scope of this study, these traits are not included in figure 1, that visualizes the process through which the formation of positive and negative emotions takes place.

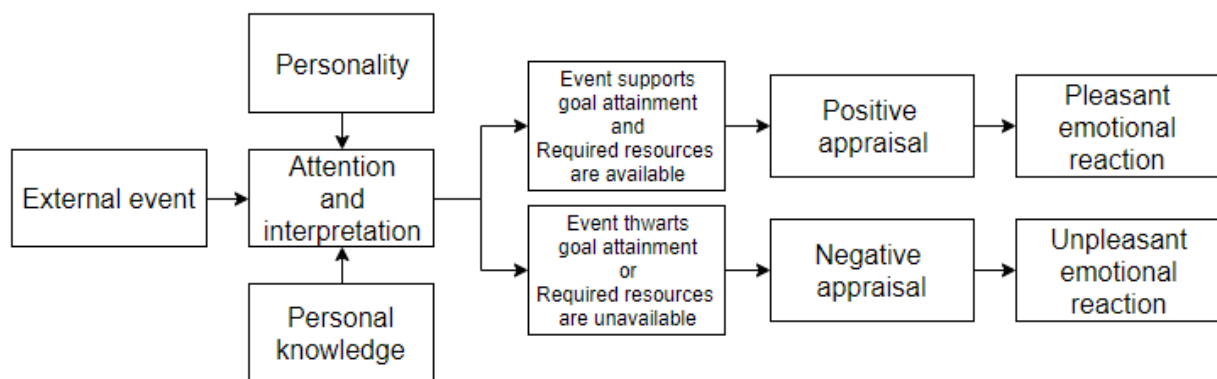


Figure 1: Process underlying positive and negative affect

Due to the different personalities (and other traits and characteristics) all individuals have and since their personal knowledge is so diverse, they differ in goals they pursue, norms they

value, and the way they perceive the world and themselves. Therefore, people's emotional reaction to the same event may vary greatly. The affective experiences during events can be stored in one's memory and be used at a later time to make judgments about one's life (Diener, Scollon & Lucas, 2009).

## Positive global life judgments and domain satisfaction

Global life judgements are cognitive evaluations regarding the quality of one's life in different respects. The judgement of 'life satisfaction' – the satisfaction with one's life as a whole – is the most commonly used measure in positive psychology, but judgements can also concern constructs like fulfillment, meaning and success. These judgements are characterized as cognitive because they are assumed to require cognitive processing (Diener, Scollon & Lucas, 2009). Diener, Scollon and Lucas (2009) describe the process through which these judgments are formed as follows: '*Presumably, individuals can [1] examine the conditions in their lives, [2] weigh the importance of these conditions, and then [3] evaluate their lives on a scale ranging from dissatisfied to satisfied*' (p. 76). These judgements are influenced by the following factors.

When examining their lives conditions [1] individuals do not include all aspects of their lives. Instead they '*use information that is salient at the time of the judgement*' (p. 76). The first question that comes to mind concerning this process is: 'What information do individuals select with regard to their lives conditions?'. People's life satisfaction judgements are quite stable over time, which implies most information that is used in the judgement process is constantly accessible and remains the same. Furthermore, information that is very important to the individual is likely to come to mind during this process (Diener, Scollon & Lucas, 2009). This information might include people's memory of important events during which they experienced positive or negative affect. For example, like a marriage proposal or a death in the family. Moreover, the information that is used in the judgement process differs across cultures and individuals, which implies that the importance that is assigned to certain life conditions is dependent on personally developed meanings (Schwartz & Clore, 1983). E.g., participants from individualistic cultures assigned greater importance to affective well-being when judging their life satisfaction than participants from collective cultures (Suh, Diener, Oishi & Triandis, 1998). Additionally, salient information might also include irrelevant factors, such as the weather and mood at times of the judgement. Schwartz and Clore (1983) conducted research which showed that these factors influence ratings of life

satisfaction, even though these factors are not seen as indicative of life satisfaction. Thus, the content that is judged in this process consists of recollected information that is important to the individual, and (to a smaller extent) of current conditions.

The way the information is used when judging one’s life [2 & 3] also depends on one’s personally developed meanings, or personal knowledge (Schwartz & Clore, 1983). For example, the weight that is given to particular pieces of information [2] varies. Like the importance that is assigned to affective well-being. Furthermore, people may use various comparison standards when judging their lives [3]. E.g., aspects of one’s life may be compared with (1) how these same aspects were in one’s past, (2) one’s desires for the future, (3) with others in one’s life or (4) with cultural norms. Thus, in judging their lives people appear to use their own criteria, which they have developed under the influence of their culture (Schwartz & Clore, 1983). The process underlying global life judgements and domain satisfaction is visualized in figure 2.

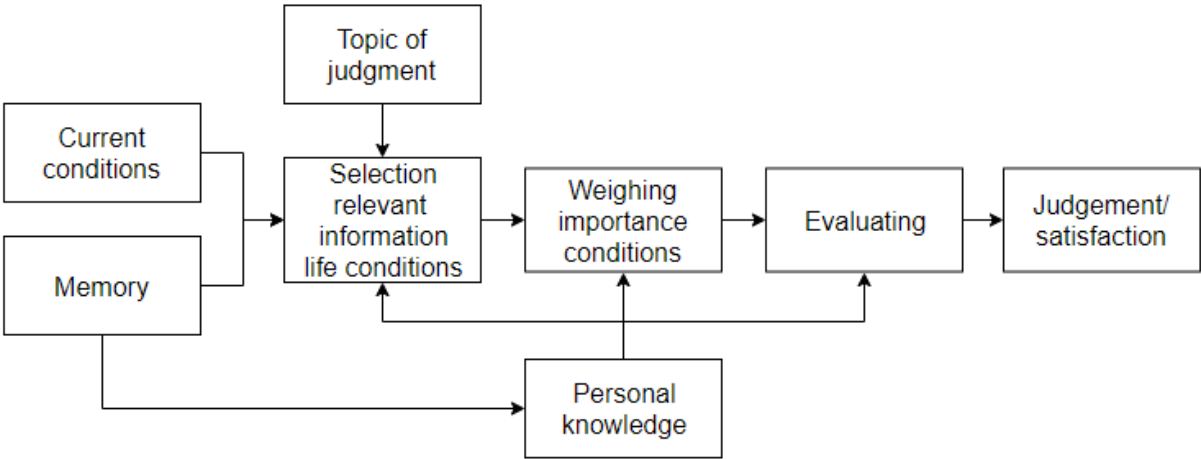


Figure 2: The process underlying global life judgements and domain satisfaction

Domain satisfaction ‘reflects a person’s evaluation of the specific domains in his or her life’ (Diener, Scollon & Lucas, 2009, p. 78). Marriage, work and health are examples of these domains. Domain satisfactions contribute to the satisfaction with one’s life as a whole, but the weight that is given to each domain may vary across individuals. Like global life judgement, domain satisfaction results from a cognitive evaluation (Diener, Scollon & Lucas, 2009). For that reason, the processes underlying domain satisfaction are supposedly the same as those of global life judgements. The only difference is the topic of judgement, which results in a selection of different information. For example, when thinking about whether you are satisfied with your life as a whole, you will probably select (partly) other information than,



when thinking about whether you are satisfied with your work. So the topic of judgement determines what information is considered to be relevant and will thus be selected. Therefore, I have added the topic of judgment in figure 2, although it is not discussed in SWB literature.

## Understanding of well-being and its underlying processes according to SWB

Within the model of SWB, well-being is understood as the positivity of one's subjective experience in terms of affect and satisfaction. SWB considers four variables of well-being: (1) Presence of positive affect, (2) absence of negative affect, (3) positive global life judgment and (4) domain satisfaction.

According to this model, these experiences are the outcome of two types of processes; one more affective, the other cognitive. Positive affect and negative affect are the result of whether we perceive an event to be supportive of our goal attainment. When an event is perceived as supportive for the attainment of one's goals and when the required resources are considered to be available, the event is appraised positively and pleasant emotions will follow. If, on the other hand, the event is perceived as thwarting of the attainment of one's goals or when the required resources are considered to be unavailable, the event is appraised negatively and unpleasant emotions will follow. In this process, our interpretation of the event is based on our existing personal knowledge and our personality. Since these differ across individuals, the affect that results from the encounter of the same event may be different per individual.

Global life judgments and domain satisfaction are the outcome of a cognitive evaluative process, by which one's life conditions are judged. The content of this process consists of the recollected information that the individual considers important. Current conditions may also be taken into account despite of the fact that they are not relevant in making these judgements. From the multiplicity of available memories, the most relevant are selected to create a perception of one's life conditions, and subsequently these conditions are weighed and evaluated to form one's judgements and satisfactions. This process is influenced

by one's personal knowledge, which includes one's self-concept, beliefs, expectancies, norms and standard (Diener, Scollon & Lucas, 2009).

## Evaluation of SWB

Subjective well-being has proved to be a convenient measure when examining people's well-being (Jayawickreme, Forgeard & Seligman, 2012). It clearly describes different aspects of how well-being can be experienced by individuals, which makes it an appealing theory. However, it also has some weaknesses, two of which will be outlined in this section.

First, with regard to affect it only describes the process underlying emotions. Emotions are often short lived and tied to a specific event or stimuli. I believe it is very interesting though, to gain insight in the way one's general affect – apart from these stimuli – is formed. What influences this affective background which we experience when our attention is not drawn to our emotions?

Secondly, the formation process of emotion is rather abstract and does not consider the content of goals. Affective evaluations are understood to be the result of a (cognitive) process, through which events are judged on their utility for goal attainment, independently from the goal content. However, Deci and Ryan (2000) have shown that the content of these goals is important to the effect their attainment has on our well-being; goal attainment contributes to well-being insofar this is satisfying of one's needs, they state. SWB literature does not address this matter, and therefore predictions and well-being interventions based solely on this theory would be inaccurate.

# Self-Determination Theory

This section is focused on the second sub-question of this research: *What processes contribute to well-being according to the Self-Determination Theory developed by Richard Ryan and Edward Deci?* This chapter starts with an introduction of the Self-Determination Theory (SDT). Secondly, the different facets of SDT will be described in more detail and its underlying processes will be visualized. Subsequently, the meaning of well-being according to SDT will be considered and the sub-question of this chapter will be answered. Finally, the SDT will be evaluated, in order to determine its strengths and weaknesses. Since SDT is a broad and comprehensive theory, consisting of several sub-theories, this chapter will be longer than those about the other models.

## Introduction of the Self-Determination Theory

The Self-Determination Theory (SDT) is developed by Edward Deci and Richard Ryan (Deci & Ryan, 2000). On their website [www.selfdeterminationtheory.org](http://www.selfdeterminationtheory.org) they state SDT is an approach to human motivation and personality. SDT started as a theory to explain different kinds of motivation that gradually developed into a broad theory that can be used as a model for eudemonic well-being (Ryan, Huta & Deci, 2008).

Within SDT eudemonic well-being is understood as living well, full functioning or optimal functioning (e.g. Deci & Ryan, 2008; DeHaan & Ryan, 2014). Ryan, Huta and Deci (2008) define it as *'a way of living that is focused on what is intrinsically worthwhile to human beings'* (p. 147). Moreover, optimal functioning has various outcomes or consequences that are also referred to as well-being or sometimes as *'indicators of well-being'*. To prevent confusion between these two kinds of well-being, SDT's eudemonic well-being will be referred to as *'optimal functioning'* and well-being outcomes of this functioning will be named *'indicators of well-being'*.

The different concepts and their relationships will be discussed in detail throughout this chapter, starting with the organismic metatheory in which SDT is embedded. This metatheory clarifies the way SDT understands the nature of human beings, in terms of their needs and tendencies as well as their relation to the environment. Subsequently, it will be considered how the satisfaction of needs can be supported and how they are obstructed. And finally, the outcomes of need satisfaction and need frustration will be discussed. This results in a structured and comprehensive overview of SDT.

Figure 3 depicts an overview of SDT in an ideal situation. The arrows represent positive relations, or influences. For example, when the environment of an individual is need supportive, one's needs generally become more satisfied. However, these relations are not absolute; the arrows represent the primary paths but cross-paths to non-optimal circumstances could also occur (Vansteenkiste & Ryan, 2013). Some could experience need frustration in need supportive environments, for example. The exact meaning of this figure will become apparent throughout this chapter.

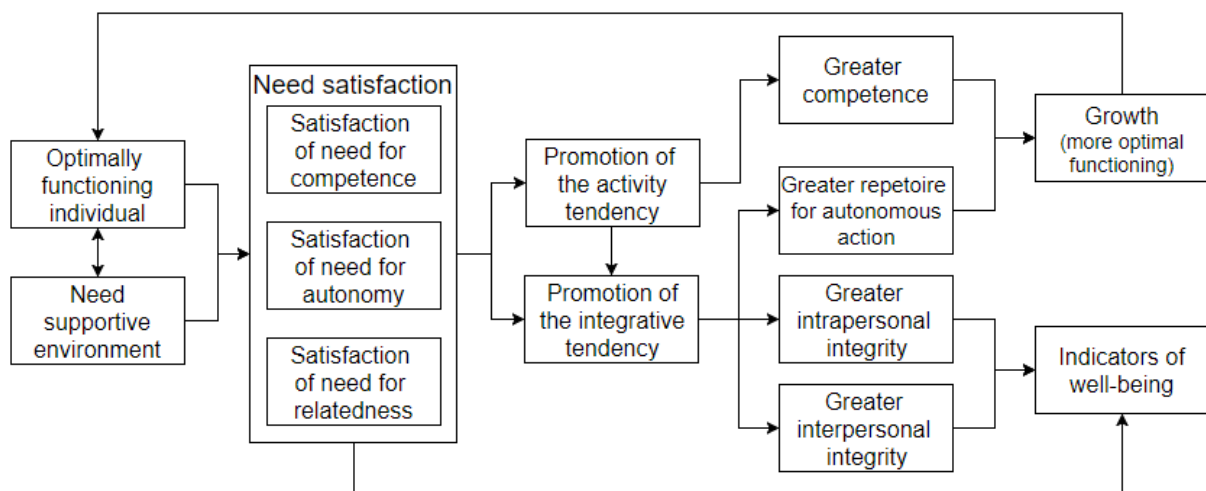


Figure 3: Overview of the Self-Determination Theory

## Organismic-dialectical metatheory

The Self-Determination Theory (SDT) is based in an organismic-dialectical metatheory (Deci & Ryan, 2000). This metatheory postulates that human organisms have adaptively developed a set of innate characteristics, that move them towards psychological well-being; they have an activity tendency, an integrative tendency and they have some basic psychological needs: the need for competence, autonomy and relatedness (Deci & Ryan, 2000).

### The activity tendency

The organismic-dialectical metatheory assumes a dialectic between human beings and their environment (Deci & Ryan, 2000; Ryan & Deci, 2000b). According to this metatheory humans are influenced and shaped by their (social) environment, and simultaneously people mold and optimize their life conditions in a way that they support their needs for well-being (Ryan & Deci, 2000b). Therefore, humans are considered proactive organisms who have the

tendency to be active and grow; they spontaneously and volitionally engage in activities they find interesting and exercise and develop their competencies, thereby gaining more influence over their internal and external environment (Deci & Ryan, 2000; Ryan, Huta & Deci, 2008; Vansteenkiste & Ryan, 2013). This human tendency is named the activity tendency. However, this tendency is only activated when the individual's basic psychological needs are satisfied. Especially the satisfaction of the need for competence and autonomy are considered to be important in this respect, and satisfaction of the need for relatedness to a lesser extent.

The activity tendency and the process it activates are visualized in figure 4. Figure 5 shows how these concepts fit within the totality of SDT. Moreover, 'Engagement in activity' in figure 4 is an important intermediate step, but it is not added to figure 5 in order to enhance its readability of this overview.

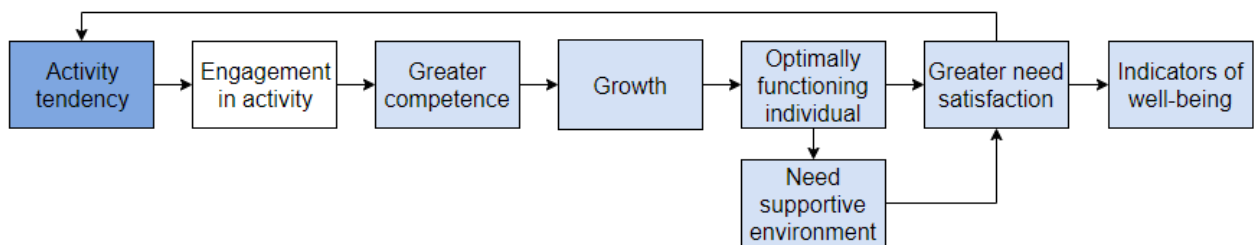


Figure 4: The process involved in the activity tendency

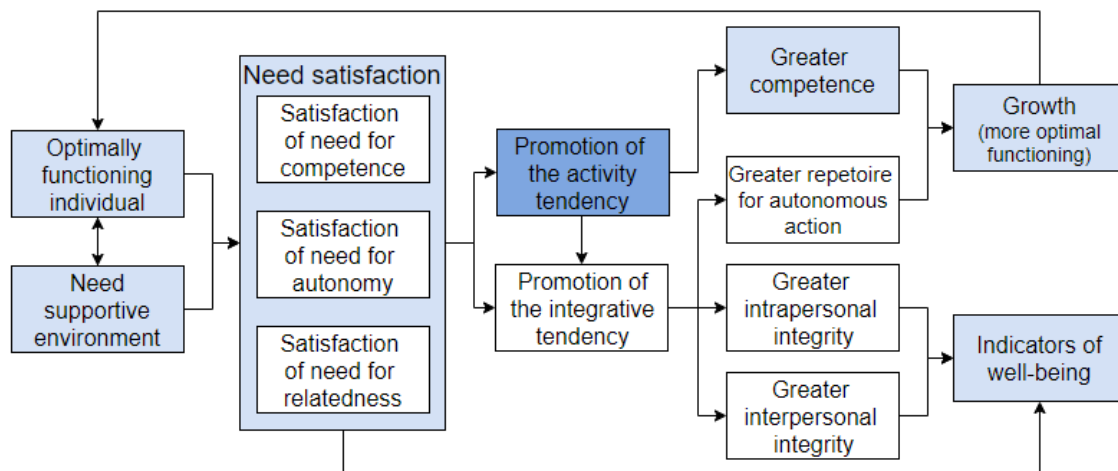


Figure 5: How the process involved in the activity tendency fits within SDT

## The integrative tendency

Organismic refers to the Latin verb *organizare*; 'to arrange in a coherent form' (Vansteenkiste & Ryan, 2013). SDT poses that there are two essential trajectories in human development: greater integration within the self – named intrapersonal integrity – and greater integration and assimilation of oneself within one's social surroundings – named interpersonal integrity (Deci & Ryan, 2000; Vansteenkiste & Ryan, 2013). Intrapersonal integrity refers to coherence

within the self with regard to psychic elements, like perceptions of the world and the self, personal values, preferences and interests. People continually refine and elaborate these elements and try to bring them into harmony with each other through the process of integration, thereby dissolving inner conflict (Deci & Ryan, 2000).

Interpersonal integrity results from the inclination of humans to integrate themselves into their social community; they pursue feeling connected within social groups (Deci & Ryan, 2000; Vansteenkiste & Ryan, 2013). The development towards interpersonal integrity is fostered by the process of internalization: ‘an active, natural process in which individuals attempt to transform socially sanctioned mores or requests into personally endorsed values and self-regulations’ (Deci & Ryan, 2000, p. 236). In this way the individual adapts to the requests of his social surrounding and becomes integrated in it.

When these internalized regulations are integrated – thus brought in harmony with other psychic elements – they become part of one’s integrated self, and one’s repertoire for autonomous action is enlarged; behaviors that were initially not volitional and self-endorsed can become so (Williams, Grow, Freedman, Ryan & Deci 1996). Hereby satisfaction of the need for autonomy is possible more often, and the individual has thus grown to function more optimally. The process of internalization and integration can be successful to a greater or lesser extent, which in turn leads to various types of regulatory processes that will be discussed in the section ‘Autonomous versus controlled regulation’ (Deci & Ryan, 2000; Vansteenkiste & Ryan, 2013).

When people experience intra- and interpersonal integrity the forces in their lives are in harmony with one another and well-being follows. If not, internal conflict arises which results in the experience of inner tension and pressure, and thus greater ill-being (Deci & Ryan, 2000). These processes are visualized in figure 6 and are related to the broader theory in figure 7. To enhance the readability of the overview in figure 7, the white intermediate steps of figure 6 are left out.

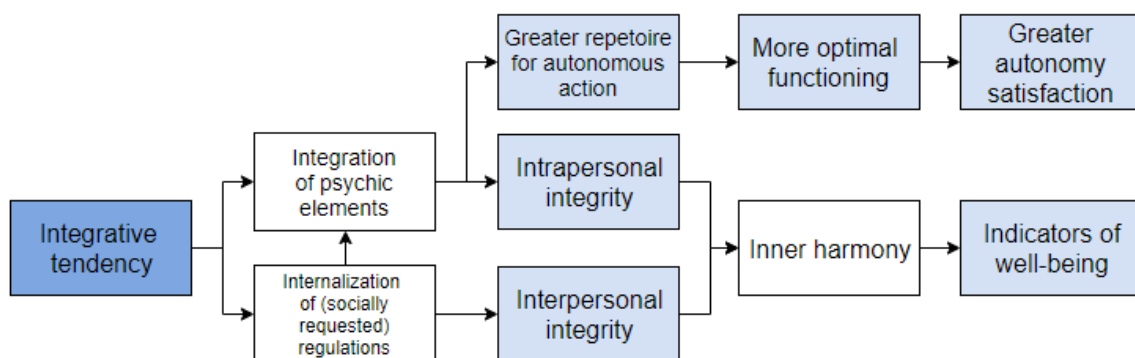


Figure 6: The process involved in the integrative tendency

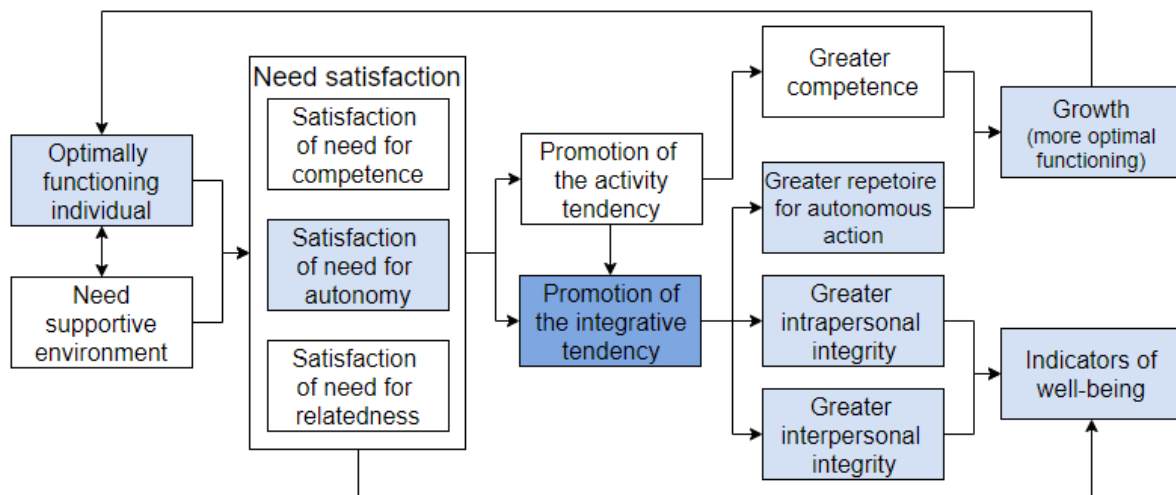


Figure 7: How the process involved in the integrative tendency fits within SDT

SDT poses that, when functioning optimally, people’s proactive tendency is aimed at increasing their integrity (Vansteenkiste & Ryan, 2013). This implies that the activity tendency does not encourage humans to engage in random activities, but it incites them to behave in ways that fit and enhance coherence within the self and strengthen inclusion within social contexts. This is visualized by the arrow from ‘Promotion of the activity tendency’ to ‘Promotion of the integrative tendency’. Moreover, this relation suggests that there are always two processes involved when engaging in an activity: it influences intra- and interpersonal integrity and simultaneously leads to greater effectiveness with regard to this activity in the future. In this way the self grows towards more optimal functioning and greater (psychological) well-being (Deci & Ryan, 2000; Ryan and Deci, 2000b).

### Basic psychological needs

Needs refer to ‘*what is essential or necessary for well-being and healthy functioning [...] their satisfaction is required for healthy human functioning across individuals and cultures*’ (Chen et al., 2015, p. 216-217). SDT poses that human beings have three basic psychological needs: the need to experience (1) competence, (2) relatedness and (3) autonomy (Deci & Ryan, 2000; Vansteenkiste & Ryan, 2013). Fulfillment of all these needs is considered to be essential for growth (more optimal functioning), integrity and well-being (Ryan & Deci, 2000b).



## 1. The need for competence

The need for competence is described as the support for the human tendency towards effectiveness or growth (Deci & Ryan, 2000). The experience of competence involves understanding how to attain valued outcomes in interaction with the environment and feeling able to effectively perform the requisite actions (Deci & Ryan, 2000; Vansteenkiste & Ryan, 2013). I have placed this need in a broader context to increase the understanding of what a sense of competence comprises and requires. This context is not distilled directly from SDT literature but is based on logical thinking and this represents my interpretation of the need for competence. An understanding of how to attain valued outcomes presupposes a perception of the actual reality – preferably an accurate one – and it also asks for a notion of the desired reality. For example, to finish your thesis (desired reality), you must understand where you are in the process and what opportunities and obstacles your situation provides (actual reality; e.g. presence or absence of literature, respondents and a supervisor). Based on the knowledge the individual has (e.g. how to do research and how to write a thesis), he can figure out what actions are needed to change the actual reality into the valued desired reality (e.g. approaching respondents, analyzing literature or interviews, articulating ideas). When one feels capable of performing the necessary action – based on one’s perceived competencies – one experiences a sense a competence with regard to the required behavior.

The structure of the need for competence is visualized in figure 8. There are dotted lines between the actual and perceived reality and competencies, because one’s competencies are understood as an aspect of reality. One should keep in mind that one’s perceptions of the actual reality and one’s actual competencies are always an interpretation, and thus imperfect.

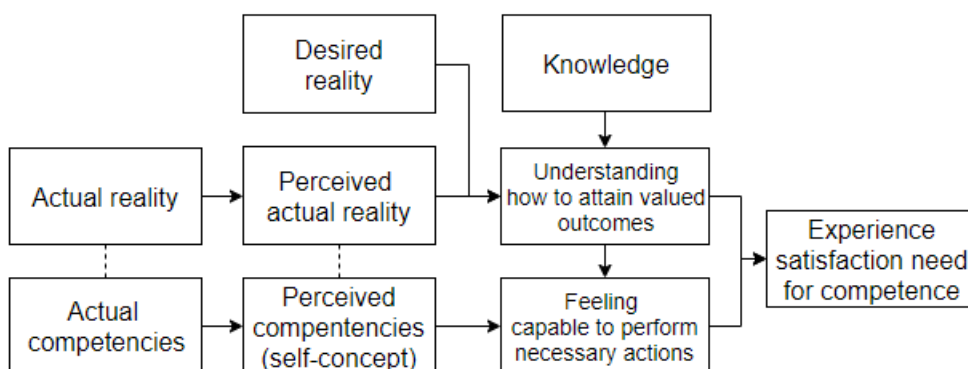


Figure 8: The process underlying the need for competence

## **2. The need for autonomy**

*'Autonomy refers to the need to experience behavior as self-endorsed and volitional.'* (DeHaan & Ryan, 2014, p. 40). It is the experience of being regulated by the self and is therefore equated with self-determination (Ryan & Deci, 2000b). In that sense it is contrasted with heteronomy, which refers to being regulated by external controls and pressures (Vansteenkiste & Ryan, 2013).

Self-endorsement and volition only occur under two conditions. First, the (potential) behavior should be experienced as congruent with one's intrapersonal integrity (Vansteenkiste & Ryan, 2013). This means that the behavior is motivated either by the experience of this behavior as inherently satisfying or by the reflective endorsement of the value of the activity (Ryan, Huta & Deci, 2008). In both cases this behavior cannot conflict with other integrated psychic elements to be fully endorsed and thus autonomous. In this way inner coherence is strengthened rather than disturbed (Deci & Ryan, 2000). Therefore, the need for autonomy can be understood as a support of the human tendency towards coherence, or intrapersonal integrity. The second condition to experience autonomy is that one should feel like the agent of the behavior. Many experiments have shown that the experience of volition decreases when external pressures and controls are applied, such as rewards and deadlines (Deci & Ryan, 2000). This has been explained by a shift of the locus of causality from internal to external (Deci, 1975). When one feels pressured, this can undermine the experience of being the origin of the behavior – of feeling like the agent of the behavior or feeling self-regulating – and this decreases one's sense of volition. Although external pressures and controls can undermine one's sense of agency this is not necessarily the case (Ryan, Huta & Deci, 2008). The key issue is whether the person feels motivated to engage in the behavior primarily because it is experienced as satisfying or valuable, or because one feels pressured.

When a person autonomously regulates oneself, one experiences freedom and coherence within the self (Ryan & Deci, 2000b). The structure of this need is visualized in figure 9.

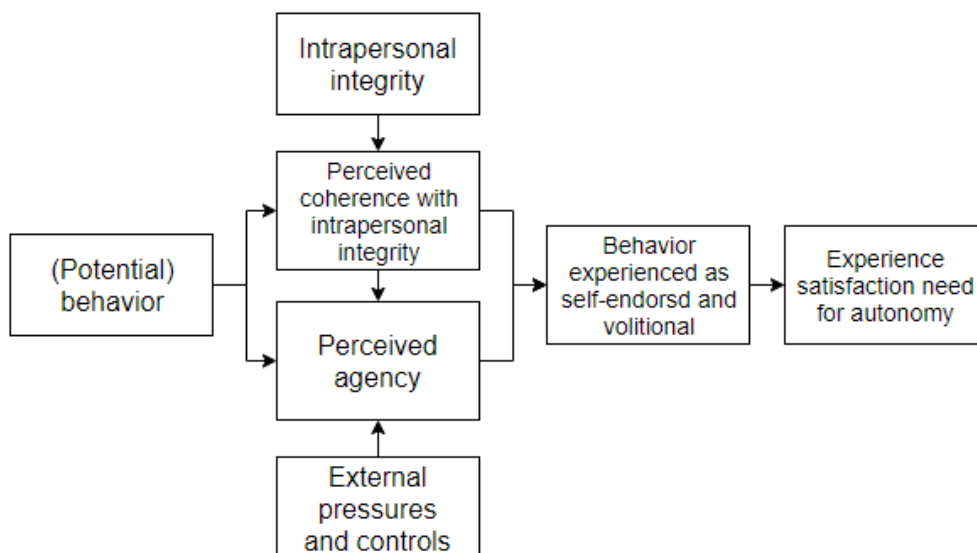


Figure 9: The process underlying the need for autonomy

Since autonomy is one of the most important concepts within SDT, it is important to keep in mind that the meaning that SDT assigns to autonomy – based on empirical findings and on traditions in phenomenological and analytic philosophy (Ryan, 1995) – differs from other common usages of the word. Some, for example, equate autonomy with independence or detachment from others, or they associate it with individualism, selfishness, free will, power or getting what you want. However, these interpretations often collide with the way SDT conceptualizes autonomy (Ryan & Deci, 2000b). To fully comprehend SDT it is important not to confuse the meaning that SDT assigns to the concept of autonomy with other uses of the word.

### 3. The need for relatedness

The need for relatedness is described as *‘the desire to feel connected to others—to love and care, and to be loved and cared for’* (Deci & Ryan, 2000, p. 231; Vansteenkiste & Ryan, 2013). *‘[R]elatedness involves developing secure and satisfying connections with others in one’s social milieu’* (Deci, Vallerand, Pelletier & Ryan, 1991, p. 327). The need for relatedness can be understood as a support for the human tendency towards achieving connection with others, or interpersonal integrity. The structure of this need is visualized in figure 10.

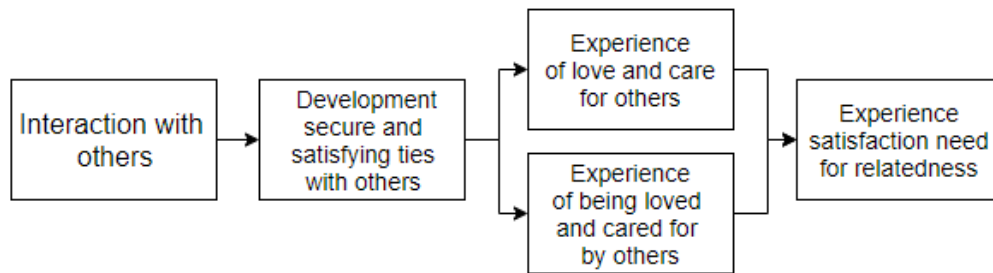


Figure 10: The process underlying the need for relatedness

The need for relatedness is different from the other needs in the sense that competence and autonomy are always tied to behaviors. One feels autonomous or competent with regard to (potential) activities. Mutual love and care (relatedness), however, can exist apart from activity, although certain behaviors can be experienced as strengthening or thwarting of this love and care.

The questions that are posited in the Basic Need Satisfaction Scale (BNSS; Deci & Ryan, 2000; Gagné, 2003) may further clarify the meaning of these needs. They can be found in Appendix A.

## Support versus obstruction of need satisfaction

As written before SDT assumes a dialectic between individuals and their environment. This means both play a role in the satisfaction of the three basic psychological needs. This section outlines how the environment and individual functioning can either contribute to or forestall the satisfaction of these needs.

### Environmental support

Environments are need supportive or thwarting to the extent that they foster or forestall an individual's need for competence, autonomy and relatedness (Vansteenkiste & Ryan, 2013). When others that are part of this environment, actively strengthen this support, needs are more likely to be satisfied. However, others can also be obstructive to the fulfillment of needs (Vansteenkiste & Ryan, 2013). It is especially harmful to the individual when their primary care givers – such as one's parents or educators – thwart satisfaction of these needs (Deci & Ryan, 2000). The outcomes of need satisfaction and frustration are specified in the sections

‘When needs are satisfied’ and ‘When needs are frustrated’. In this section the ways in which needs can be supported and obstructed by the environment will be outlined.

### **Supporting versus thwarting satisfaction of the need for competence**

SDT literature generally refers to three ways in which the need for competence can be fostered by the environment. First, the need for competence is supported when an individual is provided with challenge that optimally suits his competencies. Deci and Ryan (2000) relate this to flow theory, that states that engagement in activities that are too difficult relative to one’s skill leads to disengagement and anxiety. And when it is too easy this leads to alienation and boredom. Secondly, the individual should be provided with tools and knowledge that aid successful engagement in the activity (Niemic & Ryan, 2009). And thirdly, positive feedback enhances one’s sense of competence, whereas negative feedback diminishes it (Deci & Ryan, 2000). However, the perceived competence is only enhanced after feedback when one feels responsible for the competent performance (Deci, Vallerand, Pelletier & Ryan, 1991). I would like to add that constructive feedback which supports improvement of one’s competencies is likely to enhance one’s sense of competence in the long run, also when it is not necessarily positive.

Figure 8, which depicts the need for competence, also suggests that the need for competence can be supported in three other ways. First, by helping the individual to gain accurate perceptions of the actual reality, including awareness of one’s competencies. Secondly, by supporting the individual in becoming aware of his desired reality, and finally by aiding improvement of the individual’s actual competencies in case these are not strong enough for successful engagement in the activity.

The satisfaction of the need for competence is likely to be obstructed in environments that are opposite to this, namely unsupportive, overchallenging and critical (social) environments (Ryan & Deci, 2000b; Vansteenkiste & Ryan, 2013).

### **Supporting versus thwarting satisfaction of the need for autonomy**

As mentioned before, the need for autonomy refers to the experience of self-endorsement and volition with regard to behavior, as a result of perceiving that behavior as congruent with one’s sense of self and feeling like the agent of that behavior. SDT describes various ways in which autonomy can be supported. They are

summarized in the following list (Deci & Ryan, 2000; Grolnick & Ryan, 1989; Mageau et al., 2015; Vansteenkiste & Ryan, 2013):

- Offering a meaningful choice (within certain limits)
- Explaining reasons behind limits, demands and rules
- Being aware of, recognizing and accepting one's feelings

Although SDT literature does not explicitly describe how these supports are related to the need for autonomy, they can be better understood when looking at figure 9, in which the need for autonomy is visualized. Offering a meaningful choice allows the individual to make a decision that is congruent with his intrapersonal integrity, and it minimizes external pressures and controls. Moreover, explaining reasons behind limits, demands and rules clarifies their value. This facilitates integration by which they become part of one's intrapersonal integrity. The relation of autonomy and being aware of, recognizing and accepting one's feelings is not so obvious and I have found no literature in which this relation is elucidated. However, since feelings can be understood as psychic elements I can imagine that having one's feelings recognized and accepted by someone else, allows the individual to become more aware of them. Awareness is an important aspect of individual functioning and will be further discussed later in this paper.

The list with autonomy supports (mentioned above), that is distilled from SDT literature, can be supplemented by using the structure of autonomy visualized in figure 9. First, the social environment can support the individual to become more aware of his psychic elements and intrapersonal integrity. Secondly, it can aid with finding out what (alternative) behaviors are congruent with one's intrapersonal integrity. And finally, it may help the individual to become more competent at maintaining a sense of agency at the face of external pressures and controls.

In contrast, a sense of autonomy is thwarted when certain regulations are prescribed and demanded (Baard, Deci & Ryan, 2004). This means that the agenda of others is imposed on the individual, by externally dictating outcomes and exerting power in order to force him into engaging in the requested behaviors. This is thwarting of the need for autonomy, because it reduces the space the individual has for volitionally making choices that are congruent with one's sense of self. These controlling social environments apply force. For example, by threat of punishment, controlling use of rewards or induction of shame or guilt (Grolnick & Ryan, 1989; Mageau et al., 2015). A special form of controlling behavior is conditional regard.

This means affection and attention are provided only when expectations are met and withdrawn when they are not (Vansteenkiste & Ryan, 2013). In this case the individual must choose between satisfaction of the need for autonomy and relatedness (Deci & Ryan, 2000).

### **Supporting versus thwarting satisfaction of the need for relatedness**

The need for relatedness is satisfied when the individual feels connected to others; when one experiences mutual love and care with regard to others (Deci & Ryan, 2000). Although not explicated in SDT literature, it seems obvious that the need for relatedness is supported by the social environment when others love and care for the individual. How this love and care can be fostered is not described.

When looking at figure 10, in which the need for relatedness is visualized, two ways to foster satisfaction of this need become apparent. First, the social environment could support improvement of one's social competencies. These competencies are necessary for the development of secure and satisfying ties with others. E.g. children could learn in schools how to resolve conflict. Secondly, when an individual has insufficient satisfying contacts, the social environment could encourage him to meet new people that he could potentially interact and connect with.

SDT literature also describes various ways in which the need for relatedness can be thwarted. These include rejection, neglect, alienation and abuse by others (Ryan and Deci, 2000b; Vansteenkiste & Ryan, 2013).

The various ways in which the environment can support an individual's need for competence, autonomy and relatedness are summarized in table 1. The supports printed *italic* are derived from the structure of the needs. I have found no literature within the field of SDT that confirms these supports, but it seems likely that some of them have already been confirmed by empirical studies (outside of this field). It goes beyond the scope of this thesis to examine these supports, but it would be an interesting topic for further research.



Environmental support
<p><u>Support competence:</u></p> <ul style="list-style-type: none"> <li>- Provide optimal challenge</li> <li>- Provide required tools and knowledge</li> <li>- Provide (positive) feedback</li> <li>- Support awareness of actual reality</li> <li>- Support awareness of desired reality</li> <li>- Support improvement of required competencies</li> </ul>
<p><u>Support autonomy:</u></p> <ul style="list-style-type: none"> <li>- Offer a meaningful choice</li> <li>- Explain reasons behind limits, demands and rules</li> <li>- Be aware of, recognizing and accepting one's feelings</li> <li>- Support awareness of (integrated) psychic elements</li> <li>- Aid finding congruent (alternative) behaviors</li> <li>- Support competence at maintaining agency</li> </ul>
<p><u>Support relatedness:</u></p> <ul style="list-style-type: none"> <li>- Love and care for the individual</li> <li>- Support improvement social competencies</li> <li>- Encourage interactions with others</li> </ul>

Table 1: Possibilities for environmental support

## Optimal individual functioning

In light of SDT, optimal functioning means in short that one functions in ways that contribute to the satisfaction of the basic psychological needs (Ryan, Huta & Deci, 2008). SDT outlines three aspects of optimal functioning or eudemonic living, which will be discussed in this section: (1) pursuing intrinsically valued goals, (2) regulating oneself autonomously and (3) mindfulness (Ryan, Huta & Deci, 2008). These ways of functioning have various positive outcomes, which are mediated through the satisfaction of the basic psychological needs (Niemiec et al., 2006).

### 1. Intrinsic versus extrinsic aspirations

SDT holds that the pursuit and attainment of some goals or aspirations yields greater fulfillment of the basic needs than others and are thus associated with more positive outcomes (Deci & Ryan, 2000; Kasser & Ryan, 2001). Intrinsic aspirations are closely related to the satisfaction of needs, whereas extrinsic aspirations are not. The latter are means to another end, such as attainment of external signs of worth or approval (Kasser & Ryan, 1996). Therefore, the pursuit of extrinsic aspirations is less likely to result in need satisfaction or can even be antagonistic to it when it distracts attention from actual need satisfaction (Deci & Ryan, 2000; Kasser & Ryan, 2001).

Kasser and Ryan (1996) examined various life goals and found that personal growth, affiliation and intimacy, contributing to one's community and physical health could be labeled intrinsic aspirations. On the other hand, wealth and material possessions, social recognition and fame, and image or attractiveness, were labeled extrinsic aspirations. Furthermore, results showed that placement of greater value on intrinsic, relative to extrinsic aspiration was associated with several indicators of well-being, including positive affect, vitality, self-actualization. And it was negatively related to indicators of ill-being, including negative affect, physical symptoms, depression and anxiety. In another study Kasser and Ryan (2001) found that the attainment of intrinsic goals was also associated with indicators of well-being, while the attainment of extrinsic goals was not. This is an important finding since many social-cognitive theorists, including Diener (e.g. Diener, Scollon & Lucas, 2009), have assumed that the attainment of goals is beneficial for people's well-being regardless of the content of these goals (Ryan, Huta & Deci, 2008). In their study however, Kasser and Ryan (2001) have shown that the content of these goals does matter.

In conclusion, SDT argues that a focus on the pursuit and attainment of intrinsic goals rather than extrinsic goals is an aspect of positive functioning or eudemonic living (Ryan, Huta & Deci, 2008). This kind of functioning leads to various indicators of well-being through the satisfaction of the basic psychological needs. However, SDT suggests that the content or 'what' of goals is not the only factor that influences the relation between goal attainment and indicators of well-being. The 'why' behind the behavior is also considered important; what motivates the individual to engage in certain behaviors? The importance of this 'why' of goal pursuits will be discussed next.

## **2. Autonomous versus controlled regulation**

SDT distinguishes between different types of motivation and various related regulatory processes that influence human behavior (Deci & Ryan, 2000). These regulatory processes represent the 'why' of goal pursuits and can be placed on a continuum from autonomous or self-determined to controlled or non-self-determined. In this section these regulations will be elucidated, starting at the most controlled form of regulation and ending at the most autonomous form. At the end of this section these regulatory processes will be related to optimal functioning.

Amotivation means one does not have the intention to behave because one feels incompetent to regulate oneself (Deci & Ryan, 2000). The type of regulation involved in amotivation is non-regulation:

- Non-regulation refers to a lack of regulation as a result of feeling ineffective or out of control with regard to achieving the desired outcome (Deci & Ryan, 2000). For example, you do not work on your thesis because you feel unable to acquire meaningful results.

In my opinion, this type of regulation has more to do with the need for competence than with the need for autonomy, and I would therefore exclude it from this continuum that refers to autonomous versus controlled regulation.

Extrinsic motivation implies that one is motivated for an activity because it is instrumental for a consequence that is separable from the activity itself (Deci, Vallerand, Pelletier & Ryan, 1991). One does not gain satisfaction from engaging in the activity itself, but it serves another valued purpose. This purpose and its value can be integrated into the self to a greater or lesser extent, which results in various types of extrinsic regulation:

- External regulation refers to regulation of behavior that is controlled by external contingencies (Deci & Ryan, 2000). Internalization of the value of the activity has not occurred, but behavior is engaged in to attain a consequence administered by others, like getting an external reward or avoiding punishment (Deci & Ryan, 2000; Vansteenkiste & Ryan, 2013). For example, you do not enjoy working on your thesis, but you do so because you want a good grade.
- Introjected regulation refers to behavior that is partially internalized; *'regulations are in the person but have not really become part of the integrated set of motivations, cognitions, and affects that constitute the self'* (Deci & Ryan, 2000, p. 236). One engages in behavior to attain approval or avoid disapproval of oneself or others (Vansteenkiste & Ryan, 2013). One is being controlled by one's own ego involvements and is motivated to act to gain feelings like pride or avoids feelings like guilt and shame (Deci & Ryan, 2000; Vansteenkiste & Ryan, 2013). For example, you do not enjoy working on your thesis, but you do so because otherwise you feel like a failure.
- Identified regulation arises from identifying with the value of the behavior. The individual recognizes this value and accepts it as his own (Deci & Ryan, 2000).

For example, you do not enjoy working on your thesis, but you do so because you believe it will help you to develop a greater sense of well-being in your life, which is something you value.

- Integrated regulations are fully integrated within the individual. The value of the behavior is not only identified, but these identifications are also fully synthesized and coherent with other aspects of one's self, like one's identity and other values (Deci & Ryan, 2000; Vansteenkiste & Ryan, 2013). In the last example it could be the case that working on your thesis conflicts with the perception of yourself as a party animal, since you cannot go clubbing five times a week anymore. Integrated regulation would require solution of this inner conflict, for instance by shifting your identity or by finding a way to uphold this identity while also working on your thesis.

Intrinsic motivation means one engages in the behavior for its own sake; one finds the performance of the activity inherently interesting and pleasurable (Deci, Vallerand, Pelletier & Ryan, 1991; Vansteenkiste & Ryan, 2013). These activities are usually characterized by novelty optimal challenge (Deci & Ryan, 2000). There is one type of regulatory process associated with intrinsic motivation:

- Intrinsic regulation refers to engagement in behavior because one finds it interesting and pleasurable (Deci, Vallerand, Pelletier & Ryan, 1991). For example, you work on your thesis because you enjoy it since you are interested in the topic.

Within SDT intrinsic motivation is seen as a manifestation of the activity and growth tendency. It is thus fostered by the satisfaction of needs.

Behavior	Nonself-determined ↔					Self-determined
Type of motivation	Amotivation	Extrinsic Motivation				Intrinsic Motivation
Type of regulation	Non-regulation	External Regulation	Introjected Regulation	Identified Regulation	Integrated Regulation	Intrinsic Regulation
Locus of causality	Impersonal	External	Somewhat External	Somewhat Internal	Internal	Internal

Table 2: Autonomous and controlled regulation. Source: Deci & Ryan (2000).

The different types of motivation and regulation are visualized in the figure 11. Amotivation, external regulation and introjected regulation are referred to as controlled regulation, whereas internalized regulation, integrated regulation and intrinsic regulation are referred to as autonomous regulation (Deci & Ryan, 2000). As could be understood from this section, more autonomous regulations are further integrated and thus more congruent with one's sense of self; they are experienced as more inherently pleasurable or valuable (Vansteenkiste & Ryan, 2013). The locus of causality is also more internal; the experience of agency is greater. More autonomous regulations are thus more satisfying of one's need for autonomy, whereas it is frustrated by controlled regulation. The relative autonomy (or 'why') of the regulation of behavior is related to well-being outcomes as described later in this paper. In addition, more autonomous regulation styles are associated with more effective performance and greater behavioral persistence (Deci & Ryan, 2000). Thus the 'what' and 'why' of goal pursuits both influence well-being outcomes.

In conclusion, autonomous regulation is seen as an aspect of optimal functioning within the field of SDT. It satisfies the need for autonomy and is positively related to various positive outcomes, including indicators of well-being.

### **3. Mindfulness or awareness**

*'Mindfulness is defined as awareness of what is occurring in the present moment, and is characterized by an open and receptive processing of events, both internal and external.'* (Ryan, Huta & Deci, 2000, p. 158). Defined as such, mindfulness has shown to enhance autonomous regulation and its associated benefits (Brown, Ryan & Creswell, 2007). This can be understood by the idea that being mindful leads to a more accurate perception of one's external world and also one's internal world (or integrated sense of self), like one's emotions, motives, values, goals, needs, identities, and beliefs (Weinstein, Przybylski, & Ryan, 2013). Being aware of what is actually occurring, enables making meaningful decisions that are congruent with the self and therefore supports autonomous regulation (Ryan, Huta & Deci, 2008; Vansteenkiste & Ryan, 2013). Imagine for example, that you are in doubt which one of two topics you will write your thesis about. When you bring your attention to your motivations to choose, you might become aware of the fact that you feel a bit pressured by one of the professors to write it on a topic he is interested in. You could also notice that you are

genuinely interested in the other topic, and that it gives you joy to find out more about it. With this awareness you are more likely to choose the topic that is coherent with your interests, needs and values.

Thus the last aspect of positive functioning that is explicated by SDT literature is mindfulness. It can be understood as a necessary condition for autonomous regulation, and thus enhances positive outcomes through the support of the need for autonomy.

Although SDT literature does not refer to other aspects of optimal functioning, it seems likely that satisfaction of needs is also supported by other qualities and competencies. For example, by knowledge and competencies to attain specific outcomes, but also by creativity, courage and social competencies in general.

## When needs are satisfied

Satisfaction of the three basic psychological needs is considered the nutriment of the activity and integrative tendency (Deci & Ryan, 2000; Vansteenkiste & Ryan, 2013). Therefore it fosters growth and integrity, as became clear when discussing the organismic dialectical metatheory. In addition, need satisfaction is associated with various indicators of well-being, which are discussed in this section.

One of the indicators of well-being is the presence of positive affect and the absence of negative affect, also referred to as hedonic well-being (DeHaan & Ryan, 2014). Positive affect (e.g. pleasure and inner peace) follows when needs are satisfied and negative affect (e.g. anger and anxiety) when they are thwarted (Ryan, Huta & Deci, 2008). General hedonic well-being follows from the experience of need satisfaction in general, but also daily fluctuations in hedonic well-being result from momentary experience of need satisfaction (Howell, Chenot, Hill & Howell, 2011; Sheldon, Ryan & Reis, 1996). Affect can thus be understood as informational feedback of whether one is doing well with regard to the satisfaction of needs (DeHaan & Ryan, 2014). Although hedonic well-being (presence of positive affect and absence of negative affect) is an important indicator of optimal functioning it is not an infallible one, since it can be triggered by other antecedents than need satisfaction as well (DeHaan & Ryan, 2014). These alternative routes to hedonic well-being may collide with SDT's conception of positive functioning. Positive affect might be experienced, for

example, through exploitation of others, selfishness, drugs and consumerism (Ryan, Huta & Deci, 2008). Although these routes can lead to the experience of short term positive affect, they are likely to be detrimental to the self, others and the environment in the long run. In conclusion, hedonic well-being is indicative of optimal functioning and satisfaction of needs, but it can also be enhanced in the short run, by regulations that are detrimental to the individual or its environment in the long run. Therefore focusing primarily on positive functioning is more likely to produce stable and enduring (hedonic) well-being than an exclusive focus on short term affect optimization (Ryan, Huta & Deci, 2008).

Other indicators of well-being include satisfaction with life, which – like affect balance – is part of Diener’s model of Subjective Well-Being (Chen et al., 2015; Vansteenkiste & Ryan, 2013). Other consequences that are often viewed of indicators of eudemonic well-being are positive relationships, meaning, self-esteem and self-actualization (Kasser and Ryan, 1996; Ryan, Huta & Deci, 2008; Vansteenkiste & Ryan, 2013). These outcomes are closely related to four of the six dimensions of Ryff’s model of Psychological Well-Being; namely positive relationships, purpose in life, self-acceptance and personal growth. Subjective vitality is also used often as an indicator of eudemonic well-being in relation to SDT (Kasser and Ryan, 1996; Martela & Ryan, 2016; Sheldon, Ryan & Reis, 1996). Subjective vitality is defined as ‘*a sense of psychological and physical energy that is available to the self for life pursuits*’ (Ryan, Huta & Deci, 2008, p. 161). Yet another outcome is physical health, and since health can be understood to support optimal functioning this relation is likely to be reciprocal (Ryan, Huta & Deci, 2008). Still other indicators of well-being include greater creativity, smoother identity development, more engagement in work and education, enhanced brain functioning, less emotional exhaustion and less depression (Ryan & Deci, 2000b; Vansteenkiste & Ryan, 2013). The satisfaction of needs thus leads to many indicators of well-being.

## When needs are frustrated

Until now the processes involved in SDT have been described in ideal cases. However, when environments are thwarting of one’s needs or when one is malfunctioning, needs are more likely to be unsatisfied or even thwarted. When the basic psychological needs are unsatisfied, people first try to find new routes to need satisfaction (Deci & Ryan, 2000). When they are unsuccessful at this, they do not experience the positive outcomes of need satisfaction and two consequences are likely to follow. Firstly, they pay immediate costs leading to greater ill-

being, including inner conflict, negative affect, depression, somatization and alienation (Deci & Ryan, 2000; Vansteenkiste & Ryan, 2013). Secondly, when needs are persistently blocked people are likely to engage in compensatory behaviors and develop need substitutes to accommodate the experience of need frustration (Vansteenkiste & Ryan, 2013). Although these maladaptations are protective responses that might be the best accommodation at that moment – offering some protection from threat and the most possible satisfaction of needs in the nonsupportive situation – they are associated with less than optimal well-being and performance. These accommodations can continue to thwart need satisfaction, even in situations in which need satisfaction is possible (Deci & Ryan, 2000).

Figure 11 gives an overview of SDT in case needs are thwarted. Like figure 3 – which shows the ideal processes – this figure shows the most likely relations between concepts. In reality however, these relations are not absolute (Vansteenkiste & Ryan, 2013). For example, one might still gain a degree of need satisfaction when one is malfunctioning and/or lives in a need thwarting environment.

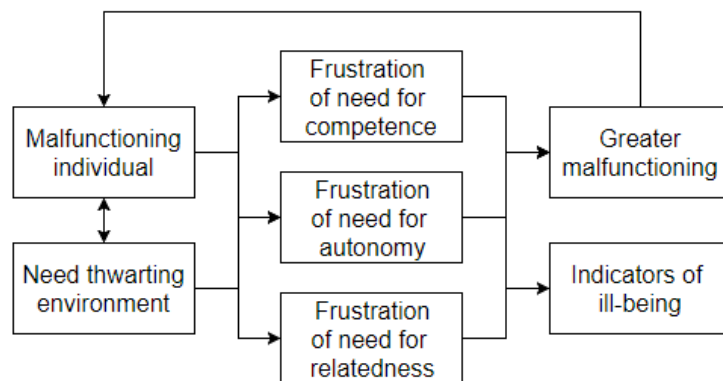


Figure 111: Processes underlying ill-being

## Understanding of well-being and its underlying processes according to the SDT

Within Self-Determination Theory, well-being is understood as optimal functioning. SDT can thus be characterized as an eudemonic approach to well-being. It presents a broad theory from which this optimal functioning is understood. According to SDT, humans ideally develop towards intra- and interpersonal integrity. When integrity is achieved, inner conflict is absent and one thus experiences inner harmony. Integrity can be understood as an ideal end-state, an ideal state of being. Optimal functioning then involves those functionings that optimally move the individual towards integrity.



Now let us consider the processes that are involved in well-being according SDT, to get a more concrete idea of what this optimal functioning comprises. SDT holds that humans have two tendencies that move them towards integrity: the integrative tendency and the activity tendency. The integrative tendency impels the individual to integrate one's psychic elements into a coherent whole. This also includes integration of (socially requested) regulations, resulting in greater intra- as well as interpersonal integrity. The activity tendency incites the individual to engage in activities that are congruent with one's intrapersonal integrity, including the integration of psychic elements. This results in greater competence with regard to those activities (growth), and greater integrity. However, although these tendencies are believed to be innate characteristics of human beings, SDT hold that their activation requires satisfaction of people's basic psychological needs for competence, autonomy and relatedness. The satisfaction of these needs depends on a combination of the optimality of one's functioning and the opportunities that are provided by one's environment. Optimal functioning can thus be understood in terms of the extent to which this functioning satisfies one's needs. Since need satisfaction fosters the activity and integrative tendency, and these tendencies cultivate more optimal functioning and integrity, optimal functioning is part of a self-affirmative process.

As was described, optimal functioning can be understood as functioning in ways that optimally support need satisfaction. In other words, optimal functioning involves volitionally choosing to engage in activities that are perceived as interesting, pleasurable and/or valuable (autonomy satisfaction), feeling capable of successfully engaging in those activities (competence satisfaction) and experiencing love and care from and for others (relatedness satisfaction). SDT has identified three aspects of optimal functioning that are considered to result in the satisfaction of these needs: pursuing intrinsically valued goals, regulating oneself autonomously and mindfulness or awareness.

In addition to well-being as optimal functioning, SDT considers various indicators of well-being. These indicators of well-being are an outcome of need satisfaction and integrity and include positive affect, life satisfaction and vitality. Since these indicators of well-being result from need satisfaction and integrity, they are also indicators of optimal functioning.

## Evaluation of SDT

Self-determination theory provides a framework that helps to understand how individuals can improve their well-being and how the environment can support doing this. It has been applied

to different fields and has proved to be helpful in optimizing individual functioning and enhancing indicators of well-being (Deci & Ryan, 2000; Vansteenkiste & Ryan, 2013). Like every theory however, it has some weaknesses and points of friction, the most important of which will be discussed in this section.

### **Limitations of the empirical basis**

SDT is based in empirical research. The advantage of this, is that this theory is embedded in our empirical reality, but its disadvantage is that the research results only present correlations between concepts. The rationale behind the operationalization of these concepts, however, is not problematized and the underlying processes that influence these associations are not clarified. The different facets of the concepts and their underlying processes thus remain unclear to a significant extent. Take competence for example, which has been associated with indicators of well-being like positive affect. The theory does not give insight in how being competent at something leads to positive affect. Greater insight in underlying processes would allow more precise predictions to be made.

Another effect of this empirical basis – as opposed to a framework that has been build up theoretically – is that it is sometimes unclear how the different concepts relate to each other. SDT argues for example, that satisfaction of the basic psychological needs is essential for growth, integrity and well-being. This seems to imply that those outcomes are of the same order. But in my interpretation and visualization of SDT literature integrity can be seen either as an antecedent or as an aspect of well-being, since integrity implies inner harmony and thus absence of conflict and its associated negative affects. To fully understand how well-being is influenced, the relations between these kinds of concepts need to be clear.

### **Theoretical friction with regard to the need for autonomy and competence**

The above-named limitations of the empirical basis of the SDT has resulted in confusing conceptualizations with regard to the needs for autonomy and competence.

Firstly, it seems unsuitable to think of autonomy as a need. Deci and Ryan (2000) write that humans have a need for autonomy, competence and relatedness, just like plants need water and sunshine to grow. This suggests that needs have to be fulfilled by receiving something in order to flourish. However, when considering what satisfaction of the need for autonomy means, characterizing it as a need seems unfit. The need for autonomy is said to be satisfied when one experiences one's behavior as volitional and self-endorsed; when one

freely engages in behavior because it is perceived as interesting, pleasurable and valuable. In other words, satisfaction of the need for autonomy actually means that one autonomously regulates oneself; that one regulates the self, based on what one really wants because it seems interesting, pleasurable or valuable. Autonomy is thus not something that can be fulfilled by receiving, but it is something we must do; something we must actively pursue. Since autonomy refers to a way of doing or regulation rather than something that has to be fulfilled by receiving it is confusing to call it a need.

Secondly, the place of the 'need for autonomy' within SDT also causes confusion with regard to the relation between need satisfaction and the promotion of the activity tendency. SDT argues that satisfaction of the need for autonomy, competence and relatedness results in promotion of the activity tendency. And intrinsic motivation is understood as a manifestation of this activity tendency, but at the same time it is considered to be the most autonomous type of regulation. In other words, SDT implies that to spontaneously engage in behavior for the sake of interest and pleasure (intrinsic motivation as a manifestation of the activity tendency) one should engage in behavior out of interest and pleasure (intrinsic motivation as a type of regulation that implies satisfaction of the need for autonomy). This way of circular reasoning results in theoretical friction within SDT.

Thirdly, the characterization of competence as a need also seems inappropriate. The need for competence is considered to be satisfied when one feels able to attain valued outcomes. This implies that competence is valuable because it is instrumental for achieving something else (valued outcomes). In my view, competence can therefore better be understood as a condition for optimal functioning than as a basic psychological need.

# Psychological Well-Being

This section is focusses on the third sub-question of this research: *What processes contribute to well-being according to the model of Psychological Well-Being developed by Carol Ryff?* First of all, the model of Psychological Well-Being (PWB) will be introduced. Subsequently, the different dimensions of PWB will be described in more detail and its underlying processes will be visualized. After that, the meaning of well-being according to PWB will be considered, answering the sub-question of this chapter. Finally, the model of PWB will be evaluated, in order to determine its strengths and weaknesses.

## Introduction of Psychological Well-Being

Carol Ryff developed the model of Psychological Well-Being as an alternative approach to study successful aging. She argued that previous ideas about successful aging and well-being were limited and that new conceptions were needed about what it means to function positively in the second half of life (Ryff, 1989a). Therefore she developed '*new criteria for successful aging and new directions for expanding our vistas of what lies ahead at the end of the journey*' (Ryff, 1989a, p. 36). These criteria are the result of the integration of various life-span developmental theories, clinical theories on personal growth and mental health literature (Ryff, 1989a). Ryff (1982, 1985) found that these theories spoke of similar well-being features and she integrated the major points of convergence into the six dimensions of Psychological Well-Being (PWB). These dimensions are self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life and personal growth. They represent '*different aspects of positive functioning*' (Ryff, 1989b, p. 1072), '*ideal end-states of the fully functioning person*' or '*goals for complete development*' (Ryff, 1989a, p. 44). Ryff (1989b) argued that these dimensions are not only useful for studying successful aging, but that they also define essential features of well-being in general. These components of well-being were neglected in the study of well-being at that time, which focused largely on reports of positive affect and life satisfaction (Ryff, 2013; Ryff, & Keyes, 1995). With its focus on positive functioning PWB is generally characterized as an eudemonic approach to well-being, which does justice to the '*meaning-making, self-realizing, striving aspects of human beings*' (Ryff, 2013, p. 12). According to the model of PWB well-being is considered to be optimal, when one has successfully achieved the ways of functioning, end-states or goals that are

described in the dimensions of well-being. In the following sections these dimensions will consecutively be defined, discussed and visualized.

## Self-acceptance

Self-acceptance according to the definition of theory-guided dimensions of well-being by Ryff (2013):

- High scorer:
  1. Possesses a positive attitude toward the self
  2. Acknowledges and accepts multiple aspects of self, including good and bad qualities
  3. Feels positive about past life
- Low scorer:
  4. Feels dissatisfied with self
  5. Is disappointed with what has occurred in past life
  6. Is troubled about certain personal qualities
  7. Wishes to be different than what he or she is

Ryff and Singer (2008) note that self-acceptance entails more than the common view of self-esteem. Self-esteem usually refers to *'the positivity of the person's global evaluation of the self'* (Heine, Lehman, Markus & Kitayama, 1999, p. 767). Self-acceptance, however, involves *'a kind of self-evaluation that is long-term and involves awareness, and acceptance of, both personal strengths and weaknesses'* (Ryff & Singer, 2008, p. 21). Discussing the similarities and differences between self-esteem and self-acceptance may clarify the meaning of self-acceptance.

Self-esteem and self-acceptance both refer to an evaluation of the self. The process by which we evaluate is described and visualized in the chapter about Subjective Well-Being. But while one's life (domain) was the topic of judgment in that chapter, the self is the topic of judgment, when evaluations are made with regard to self-esteem and self-acceptance. As we have seen the outcome of this process depends on the information we select (resulting in our perception of the self, or self-concept) and on the personal knowledge we use to evaluate this information (e.g. our beliefs, values and standards). An evaluation becomes more positive as the self-concept approximates or even exceeds the evaluation standards that are used.

High self-esteem refers to positive evaluations of the self. So when we want to optimize self-esteem it is useful to select information about the self (create a self-concept) that matches our conception of our 'ideal self'. An 'ideal self' can be understood as '*a goal (or standard or aspiration) of what one would like to become*' (Reeve, 2015, p. 248). However, various authors point to the risks of inflating self-esteem in this way, since it can lead to self-aggrandizement and it is easily falsified by new experiences reflecting the real self (e.g. Carson & Langer, 2006; Reeve, 2015).

Self-acceptance, on the other hand, refers to accepting all aspects of the self in a durable way. Basing our perception of the self on selective information is therefore nonoptimal; this would exclude aspects of the self and would not be durable, since it can be easily falsified. Imagine for example that you base your perception of your tennis qualities only on your success experiences. You will probably feel like a rather talented tennis player (self-esteem), but every time you make a mistake during tennis this self-perception is questioned. In order to enhance full self-acceptance, one should therefore strive towards realistic self-perception, including one's strengths and weaknesses. This realistic self-perception should in turn be accepted. In my understanding, this is the outcome of using the evaluation standard of the 'ought self' instead of the 'ideal self'. The 'ought self' is described as '*a goal (or standard or aspiration) specifying what one or others believe you should or must have or do or be*' (Reeve, 2015, p. 248). This conception does not comprise our ideas about when we are the best, but about when we are good enough. True self-acceptance follows when our perception of the self matches our real self, and when this perception meets our conception of the ought self.

When we do not accept parts of ourselves we can either change these aspects (e.g. become more competent or more honest) – and thus the perception of the self – or we can change our conception of the ought self; let go some of the standards we impose on ourselves. Some aspects of ourselves are difficult – if not impossible – to change, like our emotional reactions, our personality traits and our skin color. In this case changing one's conception of the ought self is the only path to self-acceptance. The aspects of the self that cannot be changed need to be integrated in our perception of the 'ought self', or otherwise inner conflict will endure. This requires finding new ways to give meaning to your experiences and acquired knowledge. In fact, I would argue for limiting our conception of the ought self to those aspects that we truly value. Or, in terms of Self-Determination Theory, aspects which value we have not only internalized, but also integrated. This way we may still strive to become our ideal self, but it does not crush our self-acceptance when nonessential goals are not achieved.

The process of self-acceptance is visualized in figure 12 and can result in the aspects described in point 1, 2, 4, 6 and 7 of Ryff's (2013) definition of self-acceptance at the beginning of this section. When this self-evaluation process results in point 1 and 2 this means one accepts oneself. When it results in point 4 this indicates a lack of self-acceptance, which in turn might lead to the experiences described in point 6 and 7.

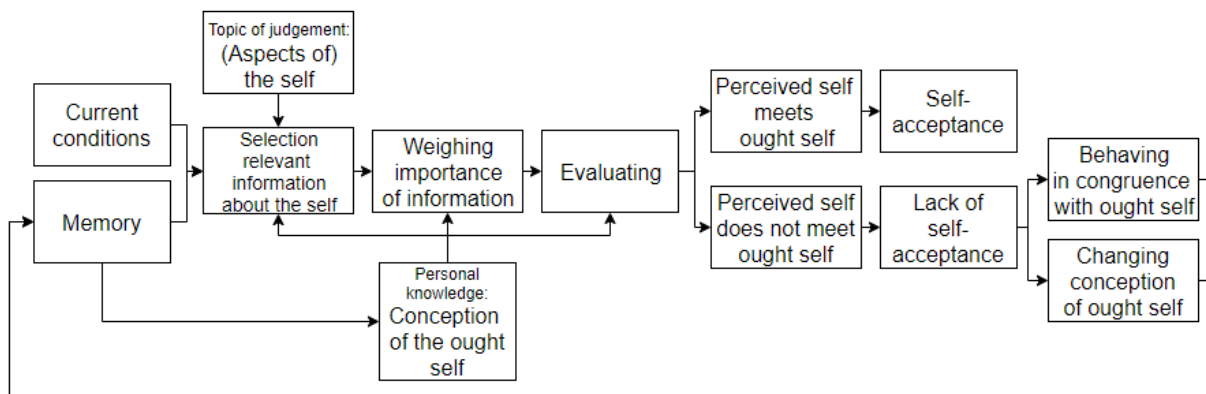


Figure 12: The process underlying self-acceptance

An interesting question with regard to self-acceptance is what ‘the self’ comprises. Scholars have formulated many different answers to this question. Point 3 and 5 – which refer to the acceptance of one’s past life – would be considered part of self-acceptance according to some, but one’s past life would not be seen as part of the self by others. Answering this question goes beyond the scope of this thesis, but it is important to keep in mind that this ‘self’ is a construct which limits are debated.

## Positive relations with others

Positive relations with others according to the definition of theory-guided dimensions of well-being by Ryff (2013):

- High scorer:
  1. Has warm, satisfying, trusting relationships with others
  2. Is concerned about the welfare of others
  3. Capable of strong empathy, affection and intimacy
  4. Understands give and take of human relationships
- Low scorer:
  5. Has few close, trusting relationships with others

6. Finds it difficult to be warm, open, concerned about others
7. Is isolated and frustrated in interpersonal relationships
8. Not willing to make compromises to sustain important ties with others

*‘For most positive psychologists, the pursuit of high-quality relationships is a rock-bottom fundamental to well-being’* (Reeve, 2015, p. 457). Within Ryff’s model of PWB, positive relationship with others not only refers to having these relationships, but also to aspects that are necessary to build these relationships. In this section the elements of this dimension will be discussed, although Ryff herself does not elaborate on these elements any further.

Having either sufficient or insufficient warm, satisfying, trusting relationship with others (point 1, 5 and 7) refers to the quantity and quality of the interpersonal relationships one has developed. It is an achievement or outcome, although it is not discussed in PWB literature what the exact qualities of such relationships are. One of these qualities might be that one is concerned with the welfare of the other (point 2 and 6). However, concern is defined by the Merriam Webster dictionary as *‘marked interest or regard usually arising through a personal tie or relationship’*. Defined like this, concern for the other appears to be a result rather than a quality of the relationship. Furthermore, this valuing of the welfare of the other is likely to motivate behaviors that are strengthening of the relationship. One might, for example, be willing to accompany a friend to the hospital when needed.

One’s willingness to make compromises to sustain important ties with others (point 8) supposedly depends on the value the individual assigns to the relationship and to one’s (adjusted) goal. When the individual assigns more value to the relationship in combination with the adjusted goal, than to the unadjusted goal, this results in the willingness to compromise. Compromising is in turn likely to lead to behavior that is strengthening (or at least not undermining) of the relationship, while the unwillingness to compromise is likely to undermine the relationship. Thus, behavior that is strengthening of the relationship can result from being concerned for the welfare of the other (valuing the welfare of the other) or from valuing the relationship. It can thus result from altruistic as well as more egocentric motives.

Lastly, one’s abilities for strong empathy, affection, intimacy and one’s understanding of the give and take of human relationships (point 3 and 4) can be understood as competencies that are necessary to develop warm, satisfying, trusting relationships with others. The relations between the different concepts involved in positive relationship are visualized in figure 13.



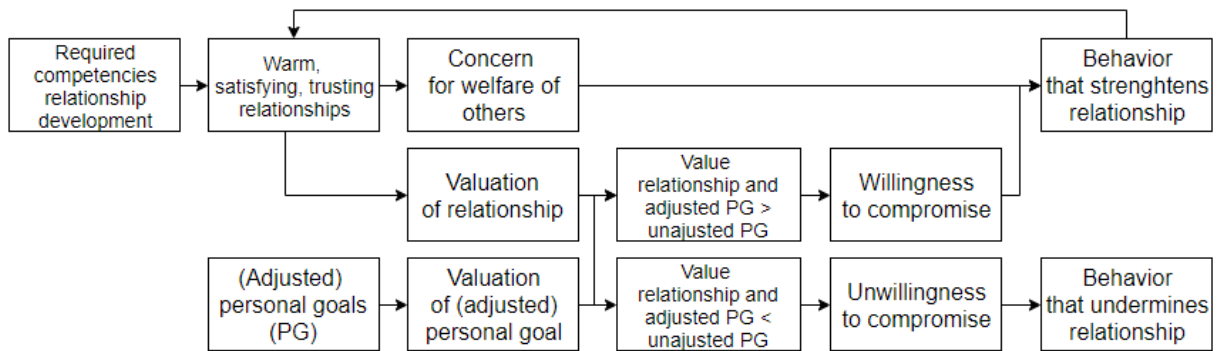


Figure 13: Process underlying positive relations

## Autonomy

Autonomy according to the definition of theory-guided dimensions of well-being by Ryff (2013):

- High scorer:
  1. Is self-determining and independent
  2. Able to resist social pressures to think and act in certain ways
  3. Regulates behavior from within
  4. Evaluates self by personal standards
- Low scorer:
  5. Is concerned about the expectations and evaluations of others
  6. Relies on judgments of others to make important decisions
  7. Conforms to social pressures to think and act in certain ways

The meaning of autonomy in the model of Psychological Well-Being and Self-Determination Theory is not the same. To get an understanding of what autonomy means in PWB it is helpful to discuss their similarities and differences. Deci and Ryan (2008) describe this as follows:

*‘Ryff and colleagues have used the concept of autonomy as one of the six aspects of psychological wellness, defining autonomy as self-determination, independence, and the regulation of behavior from within. Although the term “autonomy” as defined in self-determination theory (Ryan and Deci, 2000) involves self-determination and self-regulation, assuming those terms are interpreted as meaning a sense of volition and consent, autonomy is quite different from the concept of independence. Independence*

*means not relying on others, whereas autonomy as used in self-determination theory means acting with the experience of choice. Thus, it is quite possible to be autonomous (volitional) while relying on others rather than acting independently of them. Accordingly, there is only a partial intersection of the ideas of autonomy expressed in the articles by Ryff and Singer and by Ryan, Huta, and Deci.’ (Deci & Ryan, 2008, p. 7).*

SDT and PWB both hold that autonomy refers to a way of self-regulation. However, when determining the defining features of self-regulation, they focus on aspects that are quite different. Within SDT, self-regulation means that one’s behavior is volitional and self-endorsed. SDT thus focuses on an experiential aspect of self-regulation with regard to behaviors. PWB on the other hand, seems to put self-reliance at the center of autonomous self-regulation. Through point 4, 6 and 7 it becomes clear that the key question is whether the individual relies on his own judgements or on those of others when evaluating, making decisions and regulating one’s behavior. PWB thus focusses on a process-oriented aspect of self-regulation with regard to behaviors, as well as to making decisions and evaluations. The difference between SDT and PWB in the aspects that are defining for autonomy becomes especially visible in point 6, ‘relying on the judgment of others to make important decisions’. This is considered non-autonomous in the model of PWB since it is not self-reliant but is not necessarily so in SDT since relying on others can be volitional and self-endorsed according to Deci and Ryan (2008).

Within the autonomy dimension of Ryff point 1, 3 and 4 refer to self-reliant regulation, whereas point 6 and 7 involve other-reliant regulations. Point 2 – being able to resist social pressures – refers to an ability that is necessary to be self-reliant. And finally, being concerned about the expectations and evaluations of others (point 5) means that value is placed on positive evaluations by others as an outcome of the behavior. The valuation of this outcome makes other-reliant regulation more likely, since living up to the expectations of others implies conforming to these expectations and positive evaluations are more likely to follow when one conforms to the other’s wishes. For example, you do not like smoking but still do so because others will think you are cool, which is something that is important to you. These kinds of regulations are not based on one’s own judgements about what is positive and desirable, but on the judgement of others. The process of autonomy according to PWB is visualized in figure 14. I have added a concern with one’s own judgments, interests, pleasures

and values (blue box) to emphasize that self-reliance is central to autonomous self-regulation according to PWB.

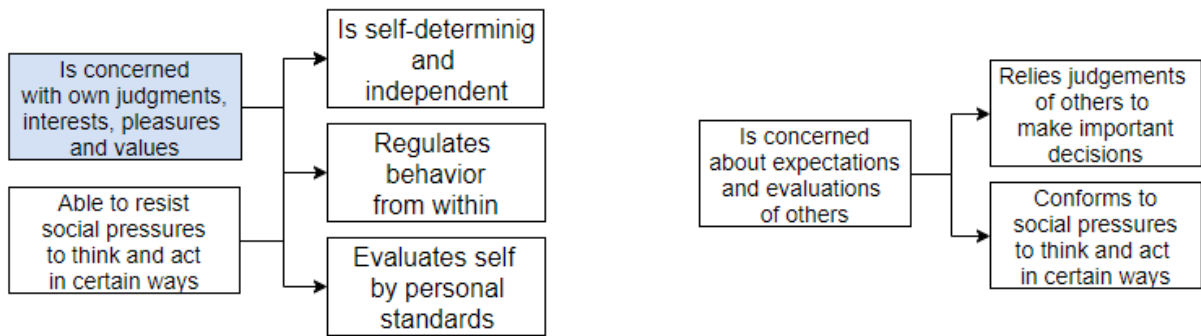


Figure 1412: Process underlying autonomy

## Environmental mastery

Environmental mastery according to the definition of theory-guided dimensions of well-being by Ryff (2013):

- High scorer:
  1. Has a sense of mastery and competence in managing the environment
  2. Controls complex array of external activities
  3. Makes effective use of surrounding opportunities
  4. Able to choose or create contexts suitable to personal needs and values
- Low scorer:
  5. Has difficulty managing everyday affairs
  6. Feels unable to change or improve surrounding context
  7. Is unaware of surrounding opportunities
  8. Lacks sense of control over external world

Ryff and Singer (2008) write that this dimension has parallels with constructs like self-efficacy. This can be seen through point 1, 2, 5, 6 and 8, which refer to the (sense of) control one has over the environment; to the extent to which (one feels) one is able to achieve one's goals. However, Ryff and Singer (2008) go on saying that: '*the emphasis on finding or creating a surrounding context that suits one's personal needs and capacities is unique to environmental mastery*' (Ryff & Singer, 2008, p. 22-23). This statement in combination with point 4 – the ability to choose or create contexts suitable to personal needs and values –

appears to prescribe a goal toward which the individual is supposed to work by using his mastery, namely the creation of an environment that is suitable for one's needs and values; an environment that is congruent with his values and in which the individual is able to satisfy his needs. For example, an environment in which the individual can have contact with loved ones (need) and in which people care for the environment (value). In light of this goal, point 3 and 7 can be understood as the individual's awareness of opportunities for creating such an environment.

Thus, in summary it can be said that environmental mastery means that one is aware of opportunities for creating an environment in which one is able to satisfy one's needs and which is congruent with one's values, and that one is able to exploit these opportunities. This process is visualized in figure 15.

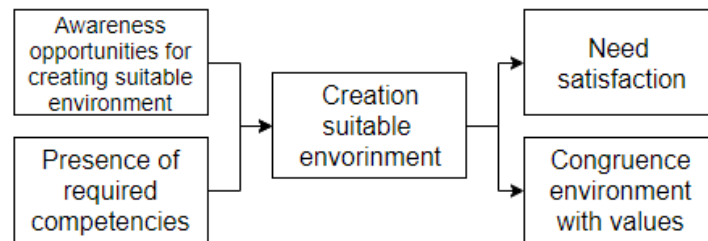


Figure 135: Process underlying environmental mastery

## Purpose in life

Purpose in life according to the definition of theory-guided dimensions of well-being by Ryff (2013):

- High scorer:
  1. Has goals in life and a sense of directedness
  2. Feels there is meaning to present and past life
  3. Holds beliefs that give life purpose
  4. Has aims and objectives for living
- Low scorer
  5. Lacks a sense of meaning in life
  6. Has few goals or aims
  7. Lacks sense of direction
  8. Does not see purpose in past life
  9. Has no outlooks or beliefs that give life meaning

Ryff does not define what a sense of meaning, purpose or directedness comprises. Therefore I have based my understanding of this concept on the aspects (points) of purpose in life listed above, on the questions in the Ryff Scales of Psychological Well-Being and on Viktor Frankl's book 'Man's search for meaning', on which this dimension draws heavily (Ryff & Singer, 2008).

According to Frankl we experience meaning when we find purpose in our lives; when we recognize that past or present experiences and actions in our life contribute to something that is bigger than ourselves, something we value. During Frankl's stay in concentration camp Auschwitz for example, the idea that he would give lectures in the future based on his current experiences gave him purpose. His current experiences became meaningful because he discovered a way in which they could contribute to something valuable in the future. In other words, we human beings need to feel like we are contributing or will contribute to something we value. Frankl's finding that people who lack purpose become depressed, anxious and bored, suggests that a sense of purpose is a need indeed.

To experience purpose and meaning we should hold beliefs about what is valuable (point 3 and 9), which is thus a condition for the experience of purpose in life. Based on Frankl's description I understand the difference between meaning and purpose as follows. Purpose refers to that what we value; a valued goal we work towards or an outcome of our experiences and actions. This purpose or value is not always apparent. We have to search for it sometimes before we can find how our actions and experiences can contribute to those things we value. Purpose is thus the result of a meaning giving or meaning finding process. When this purpose is located in the future this gives us a sense of directedness; it gives us something valuable we can work towards (point 1, 4, 6 and 7). To my understanding meaning results from contributing to your purpose, or the expectancy to do so in the future. This meaning can be related to one's past, present or future or to one's life in general (point 2, 5 and 8). We experience our past life as meaningful when we feel like we have contributed to our purposes or values in the past, and in the same sense we may feel our future life will be meaningful when we have found a purpose to work towards and when we feel competent to contribute to this purpose. Presumably, the greater we perceive our contribution to those things we value, the more meaning we experience.

However, according to Frankl it is not enough to experience meaning in one's past life. We need to feel like our future life will be meaningful as well; to stay motivated for life we need a purpose in the future. I have visualized this dimension in figure 16. This figure might suggest that meaning is only experienced after one has achieved concrete results that

contribute to one's purpose. However, I understand every step that is necessary to contribute to what is valued as a contribution to what is values. This way present experiences and actions (like Frankl's concentration camp experiences) can become meaningful even before concrete results are achieved.

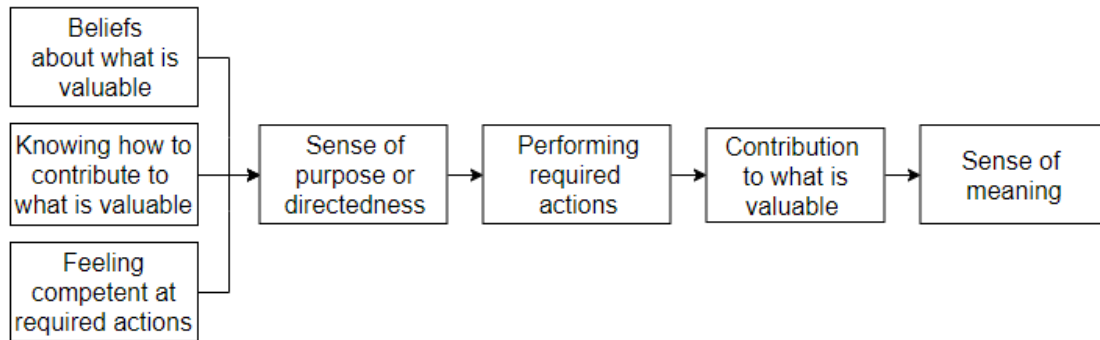


Figure 146: Process underlying purpose in life

## Personal growth

Personal growth according to the definition of theory-guided dimensions of well-being by Ryff (2013):

- High scorer:
  1. Has a feeling of continued development
  2. Sees self as growing and expanding
  3. Is open to new experiences
  4. Has sense of realizing his or her potential
  5. Sees improvement in self and behavior over time
  6. Is changing in ways that reflect more self-knowledge and effectiveness
- Low scorer:
  7. Has a sense of personal stagnation
  8. Lacks sense of improvement or expansion over time
  9. Feels bored and uninterested with life
  10. Feels unable to develop new attitudes or behaviors

According to Ryff (1989a) optimal development does not only mean that the dimensions which were discussed in this chapter are achieved, but also that the individual grows and

develops his potential. *'The ability to adapt to an ever changing world requires such continued personal change'* (p. 44).

Adaptation and development requires openness to (new) experiences. This aspect of personal growth is inspired by Rogers (1963), who proposes that openness to experience is a characteristic of the fully functioning person. This openness is contrasted with defensiveness, which he describes as a distorted symbolization in awareness in a response to (anticipated) incongruence with the structure of the self. For example, a man might deny feeling afraid when he feels he should be masculine. When an individual is open to experience, on the other hand, stimuli are freely experienced. This way the individual gains undistorted awareness of his internal and external world and can adapt to his circumstances. This condition for personal growth is reflected in point 3; being open to experience. This description seems to imply that openness to experience is also related to self-acceptance. Because when you accept all aspects of the self, a defensive reaction to new information is unnecessary.

Personal growth has a close link with self-actualization as described by various authors (Ryff & Singer, 2008). Jahoda (1958) describes self-actualization as developing your potential capacities and being devoted to a mission in life or a vocation. And according to Jung (1954) self-actualization refers to *'the fullest, most complete differentiation and harmonious blending of all aspects of man's total personality'* (p. 96). Roger's description of openness to experience and Jahoda and Jung's definition of self-actualization come together in one of Maslow's (1962) characterizations of self-actualization. He describes it as *'ongoing actualization of potentials, capacities and talents, as fulfillment of mission (or call, fate, destiny or vocation), as a fuller knowledge of, and acceptance of, the person's own intrinsic nature, as an unceasing trend toward unity, integration or synergy within the person'* (p. 23). In other words, personal growth involves actualizing our potentials, capacities and talents; realizing our life mission; increasing awareness of our internal world; and increasing acceptance and integration of all aspects of the self. When one grows towards realizing these aspects this is assumed to result in the experiences described in point 1, 2, 4, 5 and 6.

When one lacks personal growth on the other hand, this is likely to result in point 7, 8 and 9. When this lack of development is accompanied by the feeling that one is unable to develop new attitudes or behaviors (point 10), this personal stagnation is likely to endure.

The process involved in personal growth is visualized in figure 17.

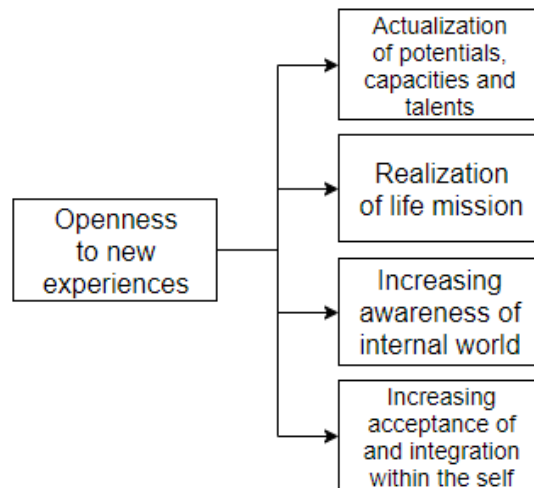


Figure 17: Process underlying personal growth

Since personal growth relates to various areas in life, it can be related to the other dimensions of well-being. Realizing your life mission relates to purpose in life, since your life mission can be understood as the purpose you feel personally responsible for. Increasing awareness of your internal world (self-awareness) and acceptance of all aspects of the self relates to self-acceptance. A sense of personal growth can thus result from development in different well-being dimensions, and presumably also from improvement in other areas in life.

## Understanding of well-being and its underlying processes according to PWB

The model of Psychological Well-Being focusses on well-being as optimal functioning. Well-being is conceptualized as a multidimensional concept. PWB holds that these dimensions represent ‘*different aspects of positive functioning*’ (Ryff, 1989b, p. 1072), ‘*ideal end-states of the fully functioning person*’ or ‘*goals for complete development*’ (Ryff, 1989a, p. 44).

The first dimension is self-acceptance, which ideally means that we are aware of all aspects of ourselves (‘positive’ as well as ‘negative’) and that the self-perception that results from this awareness, meets our perception of the ‘ought self’ (or the other way around). It is thus the result of an evaluation process.

The second dimension – positive relationships – refers to having sufficient warm, satisfying, trusting relationships. These relationships require certain competencies like the ability for empathy, affection and intimacy and an understanding of the give and take of



human relationships. When relations are positive, this is likely to result in behaviors that further strengthen these relationships.

Autonomy is the third well-being dimension that has been discussed. It refers to basing your evaluations, decisions and behaviors on your own judgements rather than those of others. It results from being concerned with one's own judgements, interests, pleasures and values and requires the ability to resist social pressures.

Fourth came environmental mastery, which involves awareness of opportunities for creating a suitable environment and the competency to exploit these opportunities. In the ideal case one's control over the environment is used for creating an environment in which one is able to satisfy one's needs and which is congruent with one's values according to PWB.

Purpose in life was discussed fifth, and involves the perception that our present or future actions and experiences will contribute to something that we value. It requires having beliefs about what is valuable, knowing how to contribute to this and feeling capable to do so. Contributing to what one considers valuable result in a sense of meaning.

Finally, personal growth was discussed, which refers actualizing our potentials, capacities and talents; realizing our life mission; increasing awareness of our internal world; and increasing acceptance and integration of all aspects of the self. According to PWB this requires being open to new experiences. Together these six dimensions clarify the end-states that are achieved by the fully functioning person.

## Evaluation of PWB

Ryff's model of Psychological Well-Being is based on a broad range of literature and illuminates some important dimensions that are involved in optimal functioning. However, some points of critique can also be made.

The way Ryff presents her model suggests that the dimensions define what eudemonic well-being, or optimal functioning, is. However, in my view these dimensions can better be understood as characteristics of the optimally functioning individual. This becomes apparent when looking at the definitions of these dimension in which a variety of phenomena are discussed, many of which do not refer to ways of functioning. For example, she defines circumstances or end-states (e.g. 'has warm, satisfying and trusting relationships' and 'is unaware of surrounding opportunities') and ways of functioning (e.g. 'is self-determining and independent' and 'makes effective use of surrounding opportunities'). But she also speaks of valuations (e.g. 'is concerned about the welfare of others'), evaluations (e.g. 'feels dissatisfied

with the self'), feelings (e.g. 'feels bored and uninterested with life'), capacities (e.g. 'capable of strong empathy, affection and intimacy'), aspirations (e.g. 'wishes to be different than what he or she is') and perceptions about reality (e.g. 'feels there is meaning to present and past life'). In my view, these phenomena can be understood as characteristics that optimally functioning individuals demonstrate. Therefore they can better be characterized as indicators of optimal functioning. This conclusion can also be drawn when looking at the underlying processes of the dimensions. Take self-acceptance for example. As we have seen, accepting the self is the result of an evaluation process. Self-acceptance implies that who one is or how one functions is congruent with how one thinks one should be or function. Self-acceptance is thus a result of a way of functioning, rather than a way of functioning in itself.

Furthermore, PWB does not consider a theoretical framework that substantiates what makes functioning optimal. What are the criteria for characterizing a way of functioning as optimal? The only criterion Ryff seems to have applied, is whether the indicators have been related to optimal functioning or well-being by other authors.

Lastly, the exclusive focus on characteristics of optimally functioning individuals has resulted in an understanding of eudemonic well-being that is sometimes a bit shallow in the sense that its underlying processes are not considered. The definitions of the six dimensions are often focused on outcomes of a certain way of living instead of the processes that lead to these outcomes. In this chapter I have tried to give insight in some of these underlying processes by visualizing them. The lack of insight in these underlying processes has also resulted in the absence of a theoretical framework in which the relationships between (the underlying processes of) these dimensions are considered. Ryff (1989b) and Ryff and Keyes (1995) have calculated the correlation between the six dimensions and conducted a factor analysis in order to determine the interrelations between these dimensions, but a theoretical explanation for their results is missing.

# Comparison of the theories

So far I have discussed Diener's model of Subjective Well-Being, Deci and Ryan's Self-Determination Theory and Ryff's model of Psychological Well-Being. I have tried to clarify the processes that contribute to well-being according to these models. In this chapter I will explore the similarities and differences with concern to these underlying processes, thereby answering the main research question of this thesis: *What are the similarities and differences concerning the processes that contribute to well-being, according to the model of Subjective Well-Being by Ed Diener, the model of Psychological Well-Being by Carol Ryff and the Self-Determination Theory by Richard Ryan and Edward Deci?*

To understand the differences and similarities between these theories it is important to keep in mind that the meaning that is assigned to well-being, and the way it is subsequently approached is quite different per theory. Therefore, this will be outlined briefly before turning to the comparison of their underlying processes.

In the model of SWB, well-being is understood as the positivity of the subjective experience of the individual in terms of affect and satisfaction. Therefore this model considers what factors influence these experiences. Within both SDT and the model of PWB, on the other hand, well-being refers to the optimality of one's functioning. However, the way this concept is approached is quite different. PWB focusses on the characteristics optimally functioning individuals demonstrate, which are regarded as ideal end-states or goals of the fully functioning person. In my view the definitions of PWB's dimensions can be understood as indicators of optimal functioning. However, this model lacks a theoretical basis that substantiates what makes functioning optimal. SDT, on the other hand, represents a broad theory of optimal functioning. It presumes that the ideal state of human beings is a state of integrity. The optimality of one's functioning is related to achieving this state. SDT considers the innate characteristics of human beings, the processes that are optimal and non-optimal, and the antecedents and outcomes of these processes. SDT is thus a very comprehensive theory that explores many different aspects of optimal functioning.

The similarities and differences between the processes that underly well-being according to the theories arise from these particular meanings and approaches.

## Similarities and differences between SWB and SDT

Although the model of SWB and SDT approach well-being very differently, some of their concepts can be related to each other. These relations are shown in table 3 and will be discussed in this section.

<b>SDT</b>	<b>SWB</b>
Affect is understood as guidance for behavior	Affect is understood as guidance for behavior
Need satisfaction →	(Expected) goal attainment →
Indicators of well-being (including positive affect)	Positive affect
Satisfaction need for autonomy →	
Intrapersonal integrity (IAI) →	Congruence between one's life conditions and one's values and standards →
Indicators of well-being (including positive life judgements and domain satisfaction)	Positive life judgements and domain satisfaction
Satisfaction need for competence	Competence as a resource for goal attainment

*Table 3: Relations between SDT and SWB*

As became clear Subjective Well-Being focusses primarily on well-being as a subjective experience, while Self-Determination Theory focusses on the functioning of the individual when defining well-being. However, the theories both hold that individual functioning and experience are interrelated: the experience of positive and negative affect is understood as functional feedback that guides one's behaviors in ways that are favorable to the individual (Diener, Scollon & Lucas, 2009; DeHaan & Ryan, 2014). So the experience of affect is a result of, and provides guidance for one's functioning.

However, these models express a different understanding with regard to the processes underlying these affects. SWB holds that affects are dependent on whether one perceives an event as supporting or thwarting of the attainment of one's goals (Diener, Scollon & Lucas, 2009). In contrast, Deci and Ryan (2000) argue that affect is determined by the extent to which attainment of the goal satisfies or thwarts one's needs for autonomy, competence and relatedness. In other words, according to SWB affect results from goal attainment and thus provides feedback of whether the individual is achieving one's goals, and according to SDT affect is the result of need satisfaction and thus provides feedback of whether one is on the right track with regard to satisfying one's needs. Kasser and Ryan (1996; 2001) have presented convincing evidence that supports the assumption that the content of goals does matter indeed. Their results show that the pursuit and attainment of intrinsic goals – goals that

reflect need satisfaction – is associated with several indicators of well-being, including positive affect, and negatively correlates with indicators of ill-being, including negative affect.

The process underlying global life judgements and domain satisfactions according to SWB can also be related to SDT. According to SWB positive evaluations follow from congruence between one's perceived life conditions and one's values and standards. This congruence can be understood as an aspect of intrapersonal integrity, which is central to SDT. Intrapersonal integrity refers to coherence within the self with regard to psychic elements, including the perceptions of one's life, one's values and one's standards. The movement towards intrapersonal integrity (which is incited by satisfaction of the need for autonomy) is thus likely to result in positive global life judgements and domain satisfaction. Indeed, studies have shown that autonomy satisfaction and intrapersonal integrity are associated with indicators of well-being, including life satisfaction and an optimal affect balance (Chen et al., 2015; Deci & Ryan, 2000).

SDT's need for competence can also be related to SWB, which views being competent as a resource that supports goal attainment. It is thus indirectly related to well-being experiences. A difference however, is that SDT focusses on feeling competent rather than being competent. Yet they are related, since being competent is likely the result in feeling competent. Furthermore, feeling competent is not only as a means to achieve one's goals in SDT, but satisfaction and frustration of this need is believed to result in the experience of positive and negative affect regardless of goal attainment.

One last difference is that SWB's main focus is on experience, thus it only considers conditions that result in these experiences. SDT, on the other hand, is much a much broader theory that explores the cyclic process that leads to (more) optimal functioning. Apart from the point discussed above, this process is not examined within the model of SWB.

## Similarities and differences between PWB and SDT

The similarities and differences between PWB and SDT will be considered per dimension.

The relations between these models are shown in table 4 and will be discussed in this section.

SDT	PWB
Satisfaction need for autonomy → Intrapersonal integrity (IAI)	Autonomy Self-acceptance Realization of life mission (PG)
Satisfaction need for relatedness → Interpersonal integrity (IRI)	Positive relations with others
Satisfaction need for competence	Environmental control Actualization of potentials, capacities (PG)
Activity tendency	Purpose in life
Integrative tendency → Intrapersonal integrity (IAI)	Acceptance and integration within the self
Mindfulness and awareness	Awareness of internal world (PG)
	Personal growth (=PG)

Table 4: Relations between SDT and PWB

### Self-acceptance

Self-acceptance is not discussed within SDT, however, Ryan and Deci (2000b) do address self-esteem. Self-esteem is similar to self-acceptance in the sense that it results from evaluating the self. However, it is also different from it, since self-acceptance involves an evaluation of a realistic self-perception which is compared to one's conception of the ought self. When discussing self-esteem Ryan and Deci (2000b) distinguish between fragile and secure self-esteem. Fragile self-esteem involves positive feelings about oneself that are contingent on certain outcomes and which results in a continuous search for evidence of worth. Secure self-esteem on the other hand, *'reflects positive feelings of worth that are well anchored and do not require promoting oneself or feeling superior to others'* (Ryan & Deci, 2000b, p. 326). Ryan and Deci (2000b) believe that secure self-esteem can be understood as an indicator of eudemonic well-being. Since self-acceptance is quite similar to secure self-esteem, I believe they would also view self-acceptance as such.

Self-acceptance can also be understood as an aspect of intrapersonal integrity, since it implies inner harmony with regard to the self-concept and one's evaluation standards. Therefore it is placed besides intrapersonal integrity in the table.

However, there is also some friction between the theories with regard to self-acceptance. According to Ryff (1989a) the dimensions of well-being represent *'goals for complete development'* (p. 44). In contrast, Ryan and Deci (2000b) are against pursuing self-esteem as a goal, because this would likely lead to fragile self-esteem. In fact, many studies have shown that a focus on shallow self-esteem, for example by giving a lot of compliments, can be detrimental to well-being (Reeve, 2015). Ryan and Deci (2000b) argue that secure self-

esteem is a byproduct of successfully satisfying your basic psychological needs, and that it should not be seen as a need or goal.

### **Positive relations with others**

Having positive relations with others (PWB) satisfies the need for relatedness (SDT), and these concepts are thus interrelated. Having positive relations can also be understood as an important aspect of interpersonal integrity – integration and assimilation of oneself within one’s social surroundings – and is therefore placed besides this concept in the table.

However, there is a major difference between the place of these relationships within these two models. PWB understands these relationships as an aspect or indicator of eudemonic well-being, while SDT views having these relationships as an antecedent of eudemonic well-being (Ryan & Deci, 2000b); to function optimally one has to feel connected to others. Here a general difference between PWB and SDT becomes visible: in contrast to SDT, PWB does not distinguish between antecedents and outcomes. Its dimensions are based on the characteristics of fully functioning individuals. However, it does not clarify how these dimensions relate to each other or what processes underly these dimensions. In this thesis I have tried to clarify some of these relations. This general difference can be understood when thinking of the purpose of these well-being concepts. Ryff’s goal is to measure positive relations, and she thus specifies competencies, behaviors and experiences that involved in such relationships. Ryan and Deci, on the other hand, focus on the individual’s experience when the need for relatedness is satisfied. This experience is later related to other concepts like the activity and integrative tendency and well-being. Since these goals are quite different it is hardly possible to compare the details of the processes underlying positive relations and the need for relatedness.

### **Autonomy**

As was discussed in the chapter on PWB, its concept of autonomy differs from SDT’s conceptualization of it. Within SDT autonomy means that one’s behavior is volitional and self-endorsed, while PWB emphasizes that self-reliance is its defining feature. These conceptualizations overlap substantially, but they disagree on the question of whether volitionally relying on someone else’s advice must be characterized as autonomous regulation.

When comparing the visualization of autonomy based on PWB (figure 14) and SDT (figure 9) some other differences become visible. PWB focusses on what autonomy is and

what it requires, while SDT focusses on the experience of autonomy satisfaction and puts the concept of autonomy in a broader context. For example, SDT relates autonomy to one's intrapersonal integrity. This can again be understood in the light of the differing purposes of these theories, which makes it hard to directly compare the details of these concepts.

Another difference between the understanding of autonomy of these two models is that autonomy, like positive relationships, is viewed as an indicator of eudemonic well-being within PWB while SDT understands autonomy satisfaction as its antecedent (Ryan & Deci, 2000b).

### **Environmental mastery**

PWB's dimension of environmental mastery is very similar to SDT's need for competence. The difference is that environmental mastery refers to *being* and *feeling* competent, while the need for competence is satisfied by *feeling* competent. This perception might overlap with someone's actual competence to a greater or lesser extent.

Furthermore, the conceptualization of environmental mastery conveys that according to PWB, one's behaviors should be aimed at creating contexts that are suitable to one's needs and values, while SDT emphasized that one's behaviors should be congruent with one's needs and values. So according to PWB there should be congruence between one's *environment* and one's needs and values, while SDT hold that there should be congruence between one's *behaviors* and one's needs and values.

One last difference is that environmental mastery is viewed as an indicator of well-being within PWB while SDT understands competence satisfaction as an antecedent of eudemonic well-being (Ryan & Deci, 2000b).

### **Purpose in life**

Purpose in life is not explicitly discussed in SDT either. However, when looking at the meaning of this dimension some striking similarities stand out. According to Frankl, humans need a purpose in life in order to be motivated for living. As can be seen from figure 16, this requires having beliefs about what is valuable, knowing how to contribute to what is valued and feeling competent at performing the required actions. This process has many parallels with SDT's understanding of the activity tendency. According to this theory – that started as a theory on human motivation – one should feel autonomous and competent with regard to an activity in order to be motivated for it. Autonomy satisfaction means that one endorses the value of this activity (one thus has beliefs about what is valuable) and the need for



competence is satisfied when one understands how to attain valued outcomes and feels able to perform required actions. The process that underlies purpose in life (PWB) and the activity tendency (SDT) is thus practically the same. The only difference is that the activity tendency is related to being motivated for a specific activity, while purpose is related to being motivated for life in general.

### **Personal growth**

PWB and SDT both address personal growth, but they assign a different meaning to it. However, when comparing these meanings some interesting similarities stand out.

Within SDT personal growth is understood as (more) optimal functioning. Three aspects of optimal functioning are addressed: pursuing intrinsically valued goals, regulating oneself autonomously and awareness. However, the meaning of optimal functioning should be considered in light of its complete theoretical framework; it is related to the whole process that underlies eudemonic well-being, which is visualized in figure 3.

Within PWB personal growth refers to the experience of development with regard to different areas of life, which can be related to SDT. [1] Actualization of potentials, capacities and talents can be understood as increasing one's competence, which contributes positively through the rest of the SDT processes. [2] Realization of life mission implies that one's actions are congruent with one's intrapersonal integrity; with one's beliefs, values and identity. This indicates that one is pursuing intrinsically valued goals and that one regulates oneself autonomously, which are two aspects of optimal functioning according to SDT. Inner coherence is also enhanced by this. [3] Increasing awareness of one's internal world is related to mindfulness and awareness in general, which is also seen as an aspect of optimal functioning within SDT. Awareness (of one's internal world) is necessary to make choices that are congruent with one's intrapersonal integrity. In other words, awareness allows autonomous functioning and increases one's intrapersonal integrity. [4] Acceptance and integration within the self relates to the integrative tendency as presented in SDT, and it results in intrapersonal integrity.

So although the theoretical framework of PWB and SDT is very different, many of these concepts overlap. Having a sense of personal growth could thus be understood as an indicator of increased eudemonic well-being in light of SDT. However, it should be noted that although the areas of personal growth can be related to SDT concepts, personal growth is also a dimension in itself, since it refers to a sense of development in these areas. PWB understands this experience to be an important aspect of well-being.

## Similarities and differences between PWB and SWB

The similarities and differences between PWB and SWB will be considered per dimension. The relations between these models are shown in the table below and will be discussed in this section.

SWB	PWB
Life and domain satisfaction	Self-acceptance
Possible goal content and evaluation standards → positive affect and life and domain satisfaction	Positive relations with others Purpose in life
Competence as a resource for goal attainment	Environmental mastery

Table 5: Relations between SWB and PWB

### Self-acceptance

Since self-acceptance results from an evaluating process, its underlying process is very similar to the process of global life judgements and domain satisfaction as portrayed in the model of SWB. In fact, one might argue that one's relation with oneself could be seen as a life domain. Since the satisfaction in different life domains contributes to one's life satisfaction in general this would mean that self-acceptance contributes to life satisfaction as well. This notion is coherent with the finding that self-acceptance correlates with life satisfaction with a factor ranging from 0.42 to 0.73 (Ryff, 1989b; Ryff, Lee, Essex & Schmutte, 1994; Ryff & Keyes, 1995). This suggest that the relation one has with oneself (in terms of self-acceptance) is an important life domain.

### Relations with others

The relationships with others is not explicitly addressed in the model of SWB. However, it is plausible that this dimension influences SWB in two manners. Firstly, studies have shown that relationships with others is a central aspect of the life of human beings, also in relation to their well-being (Reeve, 2015, p. 457). As such, one's relationships with others can be seen as an important life domain, which can thus be evaluated resulting in satisfaction with regard to this domain. Coherent with this line of thought is Ryff and Keyes' (1995) finding that positive relationships and life satisfaction in general correlate modestly with a factor ranging from 0.35 to 0.43.

Secondly, it seems likely that positive relations with others is an important goal for many people. When someone has many positive relations with others this means this goal is

being achieved, which thus results in positive affect. This is coherent with Ryff's (1989b) finding that one's affect balance correlates with positive relations with a factor of 0.30.

The dimension of positive relations with others thus gives content to the abstract goals and evaluation standards discussed in the model of SWB. When these goals are achieved and when one's perceived life conditions match these evaluation standards this results in Subjective Well-Being in the form of positive affect and satisfaction.

### **Autonomy**

Within the model of SWB the concept of autonomy is not regarded. According to this model it is thus unimportant whether goals are pursued because they are valued by the individual or because one feels pressured to achieve them. Within SDT literature the neglect of the 'why of goal pursuits' within SWB is seen as a weakness of this model (e.g. Deci & Ryan, 2000).

### **Environmental mastery**

Within the model of SWB the concept of environmental mastery is implicit. However, environmental mastery might influence one's Subjective Well-Being in two ways. Firstly, in relation to global life judgement and domain satisfaction, being able to control one's environment is likely to result in greater satisfaction, since one can actively manipulate one's surroundings to match one's evaluation standards. This idea is coherent with the finding that environmental mastery correlates with life satisfaction with a factor of 0.39 to 0.61 (Ryff & Keyes, 1995). Secondly, in relation to one's affects, SWB holds that the affect one experiences depends on whether one interprets an event as supportive of goal attainment and on whether one perceives the necessary resources to be available. Environmental mastery can be understood as a resource since it is used to achieve one's goals, leading to a more positive affect balance. This line of thought is supported by the finding that environmental mastery and affect balance correlate by a factor of 0.62 (Ryff, 1989b).

However, while SWB focusses on abstract goals, PWB emphasizes the importance of using one's environmental mastery to '*choose or create contexts suitable to personal needs and values*' (Ryff, 2013). So like SDT, PWB gives content to the abstract goals that are conceptualized in the model of SWB by proposing goals should be coherent with one's needs and values.

### **Purpose in life**

Purpose in life is not addressed in the model of SWB, which assumes that the quality of one's affect is dependent on whether an event is supportive or thwarting of one's goals. However, it does not consider the possibility of and outcomes when someone lacks these goals in the first place.

It is hard to say what purpose in life means in relation to life and domain satisfaction. When having a purpose in life is an important need or value of the individual, it seems likely that this shapes one's evaluation standards. Having a purpose in life would then become one of the conditions that contributes to life satisfaction. This interpretation is coherent with the correlations between purpose in life and life satisfaction of 0.59 and 0.55 that were respectively found by Ryff (1989) and Ryff, Lee, Essex and Schmutte (1994). However, Ryff and Keyes (1995) found a correlation of only 0.10. It is unclear why this difference is so big.

### **Personal growth**

Personal growth is not addressed in the model of SWB. Since personal growth is related to the other dimensions one might expect it to be an important contributor to life satisfaction and affect balance. However, Ryff and Keyes (1995) have found only weak correlations between personal growth and life satisfaction with a factor ranging from 0.18 to 0.38. And Ryff (1989b) found a weak correlation between personal growth and affect balance with a factor of 0.25. The weakness of these correlations might be explained by the fact that personal growth does not measure the extent to which one has developed one's competencies, has realized one's life mission and is aware and accepting of the different aspects of the self, but it is an indication of whether these aspects in present time have improved relative to these aspects in the past.

## Overview of the similarities and differences

The relations between the well-being models of SDT, SWB and PWB are summarized in the table below. It should be noted that this table is focused on the similarities rather than the differences between the theories.

<b>SDT</b>	<b>SWB</b>	<b>PWB</b>
Affect is understood as guidance for behavior	Affect is understood as guidance for behavior	
Need satisfaction →	(Expected) goal attainment →	
Indicators of well-being (including positive affect)	Positive affect	
Satisfaction need for autonomy →		- Autonomy
Intrapersonal integrity (IAI) →	Congruence between one's life conditions and one's values and standards →	- Self-acceptance - Realization of life mission (PG)
Indicators of well-being (including positive life judgements and domain satisfaction)	Positive life judgements and domain satisfaction	
Satisfaction need for relatedness →		
Interpersonal integrity (IRI) →		Positive relations with others
Indicators of well-being		
Satisfaction need for competence	Competence as a resource for goal attainment	- Environmental control - Actualization of potentials, capacities (PG)
Activity tendency		Purpose in life
Integrative tendency → Intrapersonal integrity (IAI)		Acceptance and integration within the self
Mindfulness and awareness		Awareness of internal world (PG)
		Personal growth (=PG)

Table 6: Relations between all models

# Conclusion

The aim of this research was to gain insight in the processes that contribute to different forms of well-being. Insight in the processes underlying well-being adds to the understanding of the concept and causes of well-being, and in addition it gives insight in how well-being could be enhanced durably. In order to achieve this goal, I have discussed, visualized and compared three well-being models: Diener's model of Subjective Well-Being, Deci and Ryan's Self-Determination Theory and Ryff's model of Psychological Well-Being. This has resulted in an overview of the similarities and differences between these models, answering the main research question. What can be concluded from these results?

The different meanings and approaches to well-being make it a challenging concept to explore. However, some similarities and differences have been identified. It turned out that these models sometimes contradict each other, and at other times validate or complement one another. The most striking points of divergence are the following two. Firstly, SDT and PWB contradict SWB's assumption that the content of goals is unimportant to the well-being that results from achieving them. Secondly, SDT argues that the dimensions of well-being as proposed by PWB are not aspects but indicators of optimal functioning. In other words, PWB does not define what optimal functioning comprises, but it is focused on characteristics that optimally functioning individuals demonstrate, including feelings, evaluations and aspirations.

The theories also complement each other in different areas. SDT and PWB suggest what goal contents would add to well-being for example. They argue that one's goals should be congruent with one's needs and values. One should, for example, foster positive relationships with others, as well as with oneself. Secondly, SDT provides a theoretical basis that substantiates what makes functioning optimal, by introducing the concept of integrity as the ultimate goal. This background theory is missing in the model of PWB, but its dimensions are coherent with the concept of integrity. Lastly, PWB complements SWB by suggesting that the relationship with yourself might be an important life domain.

Finally, there are some important points of convergence regarding the models. All theories implicitly or explicitly emphasize the importance of competence. Developing one's competencies can thus be understood as an important life goal. Secondly, SWB and SDT both suggest that affect can be understood as feedback that guides our behavior in ways that are favorable to us. This brings me to the third point; the importance of awareness (of one's

internal world) is underscored by both SDT and PWB. Being aware of sensations like affects helps us to move in the right direction. All theories have some notion of what direction this should be. They all implicitly or explicitly stress the importance of creating a life in accordance with one's (needs and) values. According to SDT and PWB this results in the desirable state of intrapersonal integrity; a state in which acceptance and integration within the self is realized and maintained.

These models thus provide us with various clues about what well-being is, and how it can be enhanced durably. When compared and combined, these models hopefully point us in the right direction. The limitations and implications of these results will be considered in the discussion that now follows.

# Discussion

The research questions of this thesis have now been answered. In this chapter the limitations of this study will be discussed, as well as the relevance of these results. Lastly, some recommendations for further research will be made.

## Limitations of this study

This research has several limitations. Firstly, the processes underlying well-being in each model were not always explicit. Therefore the descriptions and visualizations of these processes are not solely based on the information provided by the authors, but also on my own interpretation of these models and of secondary resources. This was especially true for the model of PWB. Due to the available time for this research, its depth is limited. It would be interesting to analyze related theories more extensively in order to determine what processes underlie well-being and how they can be optimized.

In addition, the well-being models of Subjective Well-Being, Self-Determination Theory and Psychological Well-Being are only reviewed critically to a limited degree, since the aim of this research was not to determine the legitimacy of these models, but to compare them. The most important inconsistencies within these models that were discovered have been discussed in the evaluation section of each model, but they have not been taken into account when the models were compared.

Thirdly, comparing the models turned out to be a challenging endeavor, since the understanding and approach of well-being within these models was significantly different. The discussion of the similarities and differences between the models are therefore somewhat disjointed instead of forming a coherent and logical whole.

Lastly, the choice to focus on these three models was practical, but necessarily resulted in the exclusion of other perspectives on well-being, such as Keyes' (1998) model of social well-being, Seligman's (2011) PERMA model and the architecture of sustainable happiness developed by Lyubomirsky, Sheldon and Schkade (2005). The scope of this thesis is thus limited. Although there is some overlap between well-being models, the focus of this paper may have resulted in a distorted image of well-being. When other models would have been selected, the relation between well-being and meaning (discussed later in this thesis) might have turned out differently, for example, since a considerable amount of theories focus on happiness as an affect rather than meaning in life when regarding well-being.



## Reflections on the social implications of the study

The results of this thesis give greater insight in the concept and causes of well-being. They indicate that well-being as positive experience (hedonic well-being) and well-being as functioning (eudemonic well-being) are interrelated; positive experience follows from optimal functioning. A question that is of great social relevance is how well-being can be enhanced durably according to the three theories that have been discussed in this thesis. This question goes beyond the scope of my thesis, nonetheless it will be regarded briefly in this section in order to make a start for this important endeavor. It should be noted however, that these reflections are not exhaustive and still miss a solid substantiation. Therefore further research is necessary.

The central message that resulted from this study is that well-being involves living life in accordance with our needs and values. This might seem obvious, but often times these elements do not primarily guide our behaviors. Instead, we focus our efforts at achieving goals that are set by others, like increasing the revenue of the company we work for. Or trying to be the perfect in the eyes of others, forgetting what we ourselves consider to be important. When we want to increase the well-being of our society we should support the youth to become aware of their needs and values. To base their actions on what interest them, fulfills them, is valued by them. However, the opposite is true for most youngsters. In schools we push them to invest greatly in unendorsed goals. I recently started working in a secondary school and it struck me that many students do not enjoy or value most classes they attend. With reward and punishment we try to motivate them to do what we consider to be important for them, to learn what society needs them to master. Being connected to your interests, needs and values is not convenient in such an environment at all. Thus to increase the well-being of our society, it might be necessary to rethink our school system.

Several conditions are required to achieve congruence between one's life and one's needs and values. Firstly, creating this congruence – or intrapersonal integrity in terms of SDT – should be a major life goal when one wants to achieve well-being. Well-being can only be achieved when we successfully satisfy our needs and when we live in accordance with our values. This principle is rather abstract; what is the content of these needs and values? This may differ per individual, however, SDT concretizes three needs that are considered to be universal: competence, autonomy, relatedness. This means that besides pursuing goals that are congruent with specific individual needs and values, people should (1) strive towards developing their competencies in personally important areas in life, (2) strengthen the courage

to create a life that is congruent with their needs and values despite of the expectations of others and (3) aim to build satisfying relationships with others.

The strivings listed above require life skills, like specific competencies, courage and the competency to build strong relationships. In addition, the creation of a congruent life requires several other general life skills. Firstly, awareness is an important life skill. Through awareness of our sensations – like our (physical) feelings and thoughts – we gain knowledge about our needs, values, competencies and our environment. Through awareness we create an image of what the world is like, who we are ourselves, how we want our reality to be and how we can manipulate our conceived reality. Within SWB this knowledge is referred to as personal knowledge that we use to interpret external events and evaluate our life (domains). Secondly, creativity is an essential life skill. We may be aware of what the world is like and of what we need and value, but we can only create a life that is congruent with these elements when we creatively find (alternative) routes towards achieving our goals in life. When the bullying of our classmates frustrates our need for relatedness we should invest in other ways to satisfy this need. We might find comfort in the arms of others, or we might confront these bullies to put an end to it all. However it may be, we need to creatively consider what solutions are at hand, and which one suits us best considering the challenge at hand.

In addition, to contribute to a world in which people can live a life that is congruent with who they are, the least we can do is allowing people to follow their needs and values, even though these might differ from our own. Unless, of course, this hinders others in doing so. And if we want to make an active contribution, we might invest in creating and improving environments in which people's integrity is fostered, for example by offering the environmental supports that were discussed in the chapter on SDT.

In short, the models that have been discussed in this thesis point to several conditions that are required for achieving well-being in a durable manner. The ultimate goal might be to create a life that is congruent with our needs and values. To achieve this goal, we must be skilled at becoming aware of our internal and external reality, including our needs and values. In addition, we must become creative and competent at finding and following strategies for achieving congruence in different areas in life. And lastly, we should invest in creating an environment that is supportive of people's integrity in order to enable the achievement of well-being for all. These insights can be used for developing interventions that promote well-being. This way this thesis contributes to Seligman's (2000) ambition of positive psychology to understand and promote the well-being of individuals and communities.

## Reflections on the relation between well-being and meaning

The results of this study are also relevant to the field of humanistic studies, since various scholars within this field have been engaged with understanding the relation between well-being and meaning (e.g. Derkx, 2013). To this end I will briefly discuss the implicit and explicit role of meaning within the examined well-being models. First I will give a definition of meaning, and subsequently I will compare this concept to the well-being models that have been discussed in this thesis. It should be noted that – like the reflections on the social implications of this study – these reflections lack the thoroughness that characterized the comparison of the well-being theories that were central in this thesis.

### Definition of meaning

Different scholars have defined what the concept of a meaningful life comprises. In this thesis I will use the definition of Derkx (2013), who has distinguished seven needs for meaning. The first need for meaning is *purpose*. The need for purpose is satisfied when one feels that activities in the present are connected to something that is positively valued in the future. This positively valued thing can be a goal but also an inner fulfillment, like the positive state of mind that results from some achievement. The second need is *moral worth* or *moral justification*, which refers to the desire of humans to perceive their acts and way of living as right or good or as having positive value. This way of acting and living also includes the goals or purposes they strive for. Thirdly, Derkx mentions the need for *self-worth*, which refers to valuing who one is and what one does positively. This valuation can result from the perception that one is better than others with respect to one or more aspects of life, and that this is recognized by respected others. However, it can also result from comparing the group one is part of – like a religion or a nation – to another group (Derkx, 2013). The fourth need is the need for *competence*; having a sense of control or efficacy. People need to feel life is based on their decisions, rather than experiencing life as happening to them. There are two forms of control: one can manipulate one's environment to make it congruent with what one desires, or one can adapt oneself to this environment. The latter form of control is called interpretive control 'by which understanding why something happens produces an experience of competence, even when one cannot change what in fact happens' (Derkx, 2013, p. 44). The previous four needs are based on Baumeister (1991), but to get a sharper image of what a meaningful life comprises Derkx (2013) adds three other needs. The fifth need is the need for *comprehensibility*. Derkx (2013) follows Mooren (1998) in the idea that humans need to have

a sense of coherence. They create stories to replace chaos with order; to understand their world and the events happening to them. This ‘*makes life comprehensible and manageable, and provides identity and continuity*’ (Derkx, 2013, 44). Sixth comes the need for *connectedness*, which refers to the need for contact and union with others, and abandonment to others. This need can be fulfilled by building satisfying relationships, but also by working towards a better world in which case the individual feels connected to impersonal others. According to Alma and Smaling (2009) – on which this need is based – this requires experiencing the other as another and not as an extension piece of yourself. The last need for meaning – which is also based on Alma and Smaling (2009) – is the need for *transcendence*. This is described as ‘*going beyond what is regular, expected, well-known and safe, exploring and reaching for what is new, different and unknown*’ (Derkx, 2013, p. 46). In line with Viktor Frankl’s work, transcendence can also be understood as letting go of one’s personal interests in order to contribute to something that is morally valued by the individual. Or it can refer to relating oneself to a structure that is bigger than the self, like the cosmos, a movement or a family.

As became clear throughout this section Derkx (2013) has defined the meaningful life by presenting seven needs for meaning: purpose, moral worth, self-worth, competence, comprehensibility, connectedness and transcendence. He holds that when one succeeds to satisfy these needs, one will probably experience one’s life as meaningful.

### **The relation between well-being and meaning**

The relation between concepts involved in a meaningful life and well-being are discussed in this section and visualized in table 7.

Moral worth refers to the desire of human to perceive their acts and way of living as right or good or as having positive value (Derkx, 2013). This implies that one’s acts and way of living are congruent with one’s values and standards. This is part of one’s intrapersonal integrity (SDT) and almost equal to congruence between one’s life conditions and one’s values and standards (SWB). Therefore it is placed besides these concepts in the table. One can conclude that satisfaction of the need for moral worth not only adds to the meaning one experiences in life, but also to enhanced indicators of well-being (SDT) and positive global life judgements and domain satisfactions (SWB). Living life in congruence with one’s integrated values is thus of major importance to both well-being and meaning in life.

The need for self-worth refers to valuing who one is and what one does positively (Derks, 2013). This definition is similar to that of self-esteem, which has been discussed in the section ‘Similarities and differences between PWB and SDT’. As became clear from this section, self-esteem (and thus also self-worth) can be understood as an aspect of intrapersonal integrity, resulting in indicators of well-being (SDT). In relation to SWB self-worth can be interpreted as a domain satisfaction, as was argued in the section ‘Similarities and differences between PWB and SWB’. Regarding the self positively can thus be seen as an aspect of well-being, as well as a meaningful life.

<b>SDT</b>	<b>SWB</b>	<b>PWB</b>	<b>Meaning</b>
Satisfaction need for autonomy →  Intrapersonal integrity →  Indicators of well-being (including positive life judgements and domain satisfaction)	Congruence between one’s life conditions and one’s values and standards →  Positive life judgements and domain satisfaction	- Autonomy  - Self-acceptance - Realization of life mission (PG)	- Need for moral worth - Need for self-worth
Satisfaction need for relatedness →  Interpersonal integrity →  Indicators of well-being		Positive relations with others	Need for connectedness
Satisfaction need for competence	Competence as a resource for goal attainment	- Environmental control - Actualization of potentials, capacities (PG)	Need for competence (adapting environment to self)
Activity tendency		Purpose in life	Need for purpose
Integrative tendency → Intrapersonal integrity (IAI)		Acceptance and integration within the self	Need for competence (adapting self to environment) - Need for comprehensibility
Mindfulness and awareness		Awareness of internal world (PG)	
		Personal growth (=PG)	
			Transcendence

Table 7: Relations between well-being and meaning in life

The need for connectedness refers to the need for contact and union with others, and abandonment to others (Derks, 2013). It overlaps with SDT’s need for relatedness and PWB’s

notion of positive relations with others, in the sense that it emphasizes the importance of building positive and satisfying relationship with others. Having these relationships can thus be understood as an element of both well-being and meaning. However, the theories diverge on the idea that people should abandon themselves to others. Neither Derkx (2013) nor Alma and Smaling (2009) – on which this need is based – explain the necessity of abandoning the self to others in relation to meaning. Therefore it is unclear to me how this idea relates to well-being.

The need for competence refers to having a sense of control or efficacy (Derkx, 2013). According to Derkx (2013) this control can take two forms: accommodating your environment to you or adapting yourself to your environment. In the first sense, competence (as control over your environment) is central to all well-being theories. According to SDT feeling competent is a need which satisfaction is required for the activation of one's tendencies, within PWB competence is understood as a characteristic of the fully functioning person and according to SWB competence is a requirement for goal attainment. In the second sense (adapting the self to the environment) competence can be related to SDT's integrative tendency. This form of competence involves changing your interpretation of the environment, in order to feel competent. In other words, intrapersonal integrity is maintained by molding one's perceptions until they form a coherent whole. Since intrapersonal integrity results in indicators of well-being (SDT) this form of competence is also related to well-being. Being competent can thus be viewed as a condition that is required to achieve well-being as well as meaning.

The need for purpose is satisfied when one feels that activities in the present are connected to something that is positively valued in the future (Derkx, 2013). This converges with PWB's dimension of purpose in life. A difference is that PWB explicates some conditions for purpose in life which can be tied to SDT's activity tendency. However, this is not the case for Derkx need for purpose. Another difference is that Derkx notes that this value can relate to an external goal, but also to a form of inner fulfillment. This is not explicated in PWB, but it is not in conflict with it either. The need for purpose thus converges with PWB's dimension of purpose in life, although the processes underlying these concepts are not explicated and can thus not be compared thoroughly. It can be viewed as a dimension that is important to well-being, as well as meaning in life.

The need for comprehensibility refers to the need to have a sense of coherence; the need to understand your world and the events happening to you (Derkx, 2013). Ryan and Deci (2000b) refer to peoples '*fundamental desire to comprehend and make sense of their life*

*experiences*' (p. 325) as a need for meaning in structural terms. For them this also includes a sense of coherence. They state that this type of meaning can be understood in terms of internalization and integration which are induced by people's integrative tendency. They thus imply that satisfaction of need for comprehensibility is achieved by moving towards intrapersonal integrity. A sense of coherence can also be related to PWB's notion of integration within the self. In addition, having an understanding of the world can also be related to the (need for) competence and to environmental mastery, since effectively managing one's world requires having some understanding about how this world is and how desired outcomes can be achieved. So again one can conclude that both a life of well-being and a life of meaning, require having a sense of coherence and an understanding of the world.

The last need for meaning is the need for transcendence, which can refer to three different phenomena. Firstly, it can refer to the exploration of that what is new, unknown and unexpected. In this respect transcendence is related to SDT's activity tendency; human's tendency to volitionally engage in activities and explore that what seems new and interesting. Secondly, it refers to letting go of one's personal interests in order to contribute to something that is morally valued by the individual. In this respect it transcendence relates to moral worth (meaning), purpose in life (PWB) and autonomy satisfaction (SDT). Thirdly, transcendence can refer to relating oneself to a structure that is bigger than the self, like the cosmos, a movement or a family. Derkx (2013) poses that in this sense, transcendence is related to connectedness. When the bigger structure refers to a social structure transcendence refers to interpersonal integrity. When it refers to a non-social structure however, like the cosmos or a god, transcendence cannot be related to well-being concepts. In many respects, transcendence can thus be related to different well-being concepts, but it differs from well-being when it refers to relating oneself to a bigger non-social structure.

In conclusion, the similarities between meaning in life and well-being outweigh the differences. Meaning in life differs from well-being with its notion of abandonment to the other as an aspect of connectedness, relating the self to a non-social structure as an aspect of transcendence and the characterization of all of the meaning dimensions as needs. However, the processes and concepts involved in a meaningful life overlap substantially with those of well-being as proposed by the studied models. Both require living life in congruence with one's values, regarding the self positively, feeling related to others, being and feeling competent, having valued goals to strive towards and creating a sense of coherence. This suggests that these themes could be approached simultaneously.

## Recommendations for further research

Although often times a distinction is made between eudemonic and hedonic well-being, I would argue for studying functioning and (affective) experiences together. What processes underly well-being experiences? And what experiences follow from optimal functioning? How do the concepts that are discussed in this thesis relate to each other exactly? This way the relations become clear between the many concepts that have been discussed in this thesis, like one's experiences, motives, competencies, needs, values, tendencies and functionings.

The results of this thesis have shown that in order to cultivate well-being one should be aware of one's internal world and be competent of performing actions that are required for creating a life that is congruent with one's needs and values. In order to realize this, insight is needed in how this can best be achieved. How can we become more aware of our internal world, including our sensations, needs and values? How can we arrange our lives in a way that is congruent with these needs and values? How can we develop the competencies that are required to enhance well-being? I would recommend further research to focus on these questions, since answers to these questions can help to enhance the functioning and fulfillment of individuals, societies and human kind in general. This way we can build a life worth living.



# References

Alma, H. A., & Smaling, A. (Red.). (2009). *Waarvoor je leeft. Studies naar humanistische bronnen van zin*. Amsterdam: Uitgeverij SWP.

Baard, P. P., Deci, E. L., & Ryan, R. M. (2004). Intrinsic need satisfaction: A motivational basis of performance and well-being in two work settings. *Journal of applied social psychology, 34*(10), 2045-2068.

Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: a meta-analysis. *Personnel Psychology, 44*(1), 1-26.

Baumeister, R. F. (1991). *Meanings of life*. Guilford Press.

Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry, 18*, 211–237.

Carson, S. H., & Langer, E. J. (2006). Mindfulness and self-acceptance. *Journal of rational-emotive and cognitive-behavior therapy, 24*(1), 29-43.

Chen, B., Mouratidis, A., Ryan, R. M., Sheldon, K.M., Soenens, B., Van Petegem, S. & Verstuyf, J., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Van der Kaap-Deeder, J., Duriez, B., Lens, W., & Matos, L. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and Emotion, 39*, 216-236.

Deci, E. L. (1975). *Intrinsic motivation*. New York: Plenum.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological inquiry, 11*(4), 227-268.

Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies, 9*(1), 1-11.

- Deci, E. L., Vallerand, R. J., Pelletier, L. G. & Ryan, R. M. (1991). Motivation and Education: The Self-Determination Perspective. *Educational Psychologist*, 26(3 & 4), 325-346.
- DeHaan, C. R., & Ryan, R. (2014). Symptoms of wellness: Happiness and eudaimonia from a self-determination perspective. In Sheldon, K. & Lucas, R. E. (Eds.), *Stability of happiness: Theories and evidence on whether happiness can change* (pp. 37-55). Cambridge, US: Academic Press.
- Derks, P. (2013). Humanism as a meaning frame. In: A. B. Pinn (ed.). *What is humanism, and why does it matter?* (pp. 42-57). Durham: Acumen.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95, 542-575.
- Diener, E. (2000). Subjective well-being: The science of happiness, and a proposal for a national index. *American Psychologist*, 55, 34-43.
- Diener, E., & Ryan, K. (2009). Subjective well-being: a general overview. *South African Journal of Psychology*, 39(4), 391-406.
- Diener, E., Scollon, C. N., & Lucas, R. E. (2009). The evolving concept of subjective well-being: The multifaceted nature of happiness. In *Assessing well-being* (pp. 67-100). Springer Netherlands.
- Diener, E., Suh, E. M., Lucas, R. E. & Smith, H.L. (1999). Subjective Well-Being: Three Decades of Progress. *Psychological Bulletin*, 125(2), 276-302.
- Gagné, M. (2003). The role of autonomy support and autonomy orientation in prosocial behavior engagement. *Motivation and Emotion*, 27, 199-223.
- Grolnick, W. S., & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of educational psychology*, 81(2), 143.

Heine, S. J., Lehman, D. R., Markus, H. R., & Kitayama, S. (1999). Is there a universal need for positive self-regard?. *Psychological Review*, *106*(4), 766-794.

Howell, R. T., Chenot, D., Hill, G., & Howell, C. J. (2011). Momentary happiness: The role of psychological need satisfaction. *Journal of Happiness Studies*, *12*(1), 1-15.

Huta, V., & Waterman, A. S. (2013). Eudaimonia and its distinction from hedonia: Developing a classification and terminology for understanding conceptual and operational definitions. *Journal of Happiness Studies*, *15*(6), 1425-1456.

Jahoda, M. (1958). *Current concepts of positive mental health*. Basic Books Inc.

Jayawickreme, E., Forgeard, M. J., & Seligman, M. E. (2012). The engine of well-being. *Review of General Psychology*, *16*(4), 327.

Jung, C. G. (1954). *The development of personality: Papers on child psychology, education, and related subjects*. New York: Princeton University Press.

Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals, *Personality and Social Psychology Bulletin*, *22*, 280–287.

Kasser, T., & Ryan, R. M. (2001). Be careful what you wish for: Optimal functioning and the relative attainment of intrinsic and extrinsic goals. *Life goals and well-being: Towards a positive psychology of human striving*, 116-131.

Keyes, C. L. M. (1998). Social well-being. *Social Psychology Quarterly*, *61*, 121-140.

Keyes, C. L. M. & Annas, J. (2009). Feeling good and functioning well: Distinctive concepts in ancient philosophy and contemporary science. *The Journal of Positive Psychology*, *4*, 197-201.

Keyes, C. L., Shmotkin, D., & Ryff, C. D. (2002). Optimizing well-being: the empirical encounter of two traditions. *Journal of personality and social psychology*, *82*(6), 1007-1022.

Lambert, L., Passmore, H. A., & Holder, M. D. (2015). Foundational frameworks of positive psychology: Mapping well-being orientations. *Canadian Psychology/Psychologie canadienne*, 56(3), 311-321.

Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology*, 9(2), 111-157.

Mageau, G. A., Ranger, F., Joussemet, M., Koestner, R., Moreau, E., & Forest, J. (2015). Validation of the Perceived Parental Autonomy Support Scale (P-PASS). *Canadian Journal of Behavioural Science*, 47, 251-262.

Martela, F., & Ryan, R. M. (2016). The Benefits of Benevolence: Basic Psychological Needs, Beneficence, and the Enhancement of Well-Being. *Journal of personality*, 84(6), 750-764.

Maslow, A. H. (1962). *Towards a Psychology of Being*. New York: Van Nostrand

Mooren, J. H. M. (1998). Trauma, Coping and Meaning of Life: Humanist Counselling of Post-Traumatic Stress. *Praktische Humanistiek*, 7(3), 21-29.

Niemiec, C. P., Lynch, M. F., Vansteenkiste, M., Bernstein, J., Deci, E. L., & Ryan, R. M. (2006). The antecedents and consequences of autonomous self-regulation for college: A self-determination theory perspective on socialization. *Journal of adolescence*, 29(5), 761-775.

Niemiec, C. P., & Ryan, R. M. (2009). Autonomy, competence, and relatedness in the classroom: Applying self-determination theory to educational practice. *Theory and Research in Education*, 7, 133-144.

Reeve, J. (2015). *Understanding Motivation and Emotion*. New York: John Wiley & Sons.

Reisberg, D. (2013). *Cognition: Exploring the Science of the Mind* (5<sup>th</sup> ed). New York, US: W.W. Norton & Company.

Rogers, C. R. (1963). The concept of the fully functioning person. *Psychotherapy: Theory, Research & Practice*, 1(1), 17.

Rosenberg, M. (1979). *Conceiving the Self*. New York: Basic Books.

Ryan, R. M. (1993). Agency and organization: Intrinsic motivation, autonomy and the self in psychological development. In J. Jacobs (Ed.), *Nebraska symposium on motivation: Developmental perspectives on motivation* (Vol. 40, pp. 1–56). Lincoln: University of Nebraska Press.

Ryan, R. M. (1995). Psychological needs and the facilitation of integrative processes, *Journal of Personality*, 63, pp. 397–427.

Ryan, R. M., & Deci, E. L. (2000a). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist*, 55, 68-78.

Ryan, R. M., & Deci, E. L. (2000b). The darker and brighter sides of human existence: Basic psychological needs as a unifying concept. *Psychological Inquiry*, 11, 319-338.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudemonic well-being. *Annual review of psychology*, 52(1), 141-166.

Ryan, R. M., Huta, V., & Deci, E. L. (2008). Living well: A Self-Determination Theory Perspective on Eudaimonia. *Journal of Happiness Studies*, 9, 139-170.

Ryff, C. D. (1982). Successful aging: a developmental approach. *Gerontologist*, 22, 209-214.

Ryff, C. D. (1985). Adult personality development and the motivation for personal growth. In D. Kleiber & M. Maehr (Eds), *Advances in motivation and achievement: Vol. 4. Motivation and adulthood* (pp. 55-92). Greenwich, Coun.: JAI Press.

Ryff, C. D. (1989a). Beyond Ponce de Leon and life satisfaction: New directions in quest of successful ageing. *International journal of behavioral development*, 12(1), 35-55.

Ryff, C. D. (1989b). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of personality and social psychology*, 57(6), 1069-1081.

Ryff, C. D. (2013). Psychological well-being revisited: Advances in the science and practice of eudaimonia. *Psychotherapy and psychosomatics*, 83(1), 10-28.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of personality and social psychology*, 69(4), 719-727.

Ryff, C. D., Lee, Y. H., Essex, M. J., & Schmutte, P. S. (1994). My children and me: Midlife evaluations of grown children and self. *Psychology and Aging*, 9, 195-205.

Ryff, C. D., & Singer, B. H. (2008). Know thyself and become what you are: A eudemonic approach to psychological well-being. *Journal of Happiness Studies*, 9, 13-39.

Schwarz, N., & Clore, G. L. (1983). Mood, misattribution, and judgments of well-being: Informative and directive functions of affective states. *Journal of personality and social psychology*, 45(3), 513.

Seligman, M. E. P. (2002). Positive psychology, positive prevention, and positive therapy. In C. R. Snyder & S. Lopez (Eds.), *Handbook of positive psychology* (pp. 3–9). Oxford, England: Oxford University Press.

Seligman, M. E. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Simon and Schuster.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive Psychology: An Introduction. *American Psychologist*, 55, 1–20.

Sheldon, K. M., & Lyubomirsky, S. (2004). Achieving sustainable new happiness: Prospects, practices, and prescriptions. *Positive psychology in practice*, 127-145.

Sheldon, K. M., Ryan, R., & Reis, H. T. (1996). What makes for a good day? Competence and autonomy in the day and in the person. *Personality and social psychology bulletin*, 22(12), 1270-1279.

Suh, E., Diener, E., Oishi, S., & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. *Journal of Personality and Social Psychology, 74*, 482–493.

Tellegen, A. (1985). Structures of mood and personality and their relevance to assessing anxiety, with an emphasis on self-report. In A. H. Tuma & J. D. Maser (Eds.), *Anxiety and the anxiety disorders* (pp. 681–706). Hillsdale, NJ: Erlbaum.

Vansteenkiste, M., & Ryan, R. M. (2013). On psychological growth and vulnerability: Basic psychological need satisfaction and need frustration as a unifying principle. *Journal of Psychotherapy Integration, 23*(3), 263-280.

Weinstein, N., Przybylski, A. K., & Ryan, R. M. (2013). The Integrative Process: New Research and Future Directions. *Current Directions in Psychological Science, 22*(1), 69-74.

Williams, G. C., Grow, V. M., Freedman, Z. R., Ryan, R. M., & Deci, E. L. (1996). Motivational predictors of weight loss and weight-loss maintenance. *Journal of Personality and Social Psychology, 70*, 115–126.

# Appendix A – Basic Need Satisfaction Scale

To determine one's need satisfaction, the following questions are posited in the Basic Need Satisfaction Scale (Deci & Ryan, 2000; Gagné, 2003). The (R) behind a question indicates the score should be reversed when calculating one's total score.

## Competence

- 3. Often, I do not feel very competent. (R)
- 5. People I know tell me I am good at what I do.
- 10. I have been able to learn interesting new skills recently.
- 13. Most days I feel a sense of accomplishment from what I do.
- 15. In my life I do not get much of a chance to show how capable I am. (R)
- 19. I often do not feel very capable. (R)

## Autonomy

- 1. I feel like I am free to decide for myself how to live my life.
- 4. I feel pressured in my life. (R)
- 8. I generally feel free to express my ideas and opinions.
- 11. In my daily life, I frequently have to do what I am told. (R)
- 14. People I interact with on a daily basis tend to take my feelings into consideration.
- 17. I feel like I can pretty much be myself in my daily situations.
- 20. There is not much opportunity for me to decide for myself how to do things in my daily life. (R)

## Relatedness

- 2. I really like the people I interact with.
- 6. I get along with people I come into contact with.
- 7. I pretty much keep to myself and don't have a lot of social contacts. (R)
- 9. I consider the people I regularly interact with to be my friends.
- 12. People in my life care about me.
- 16. There are not many people that I am close to. (R)
- 18. The people I interact with regularly do not seem to like me much. (R)
- 21. People are generally pretty friendly towards me.