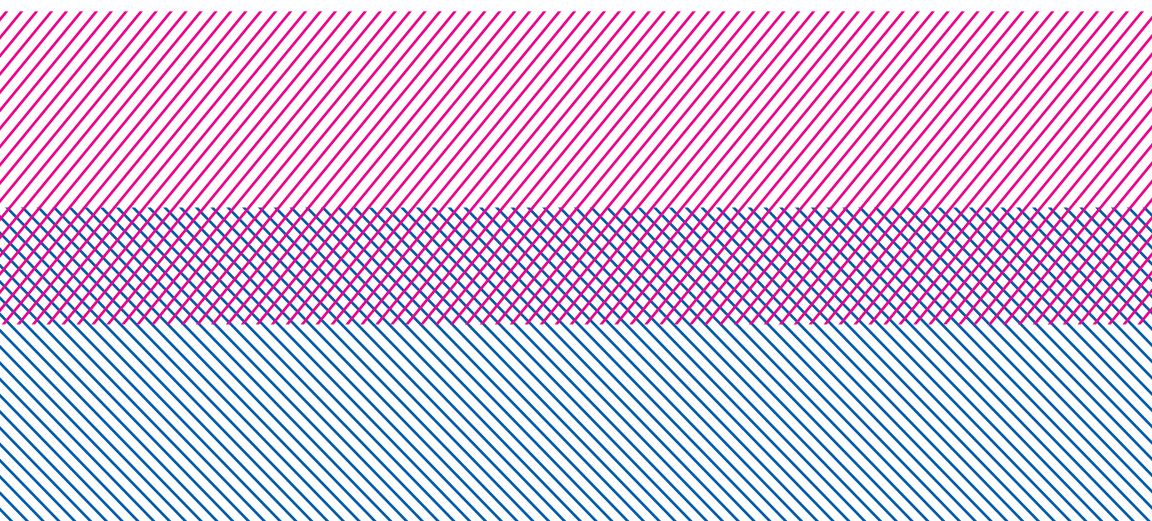


POSITIVE DESIGN

reference guide

Simon Jimenez / Anna Pohlmeier / Pieter Desmet



POSITIVE DESIGN

reference guide

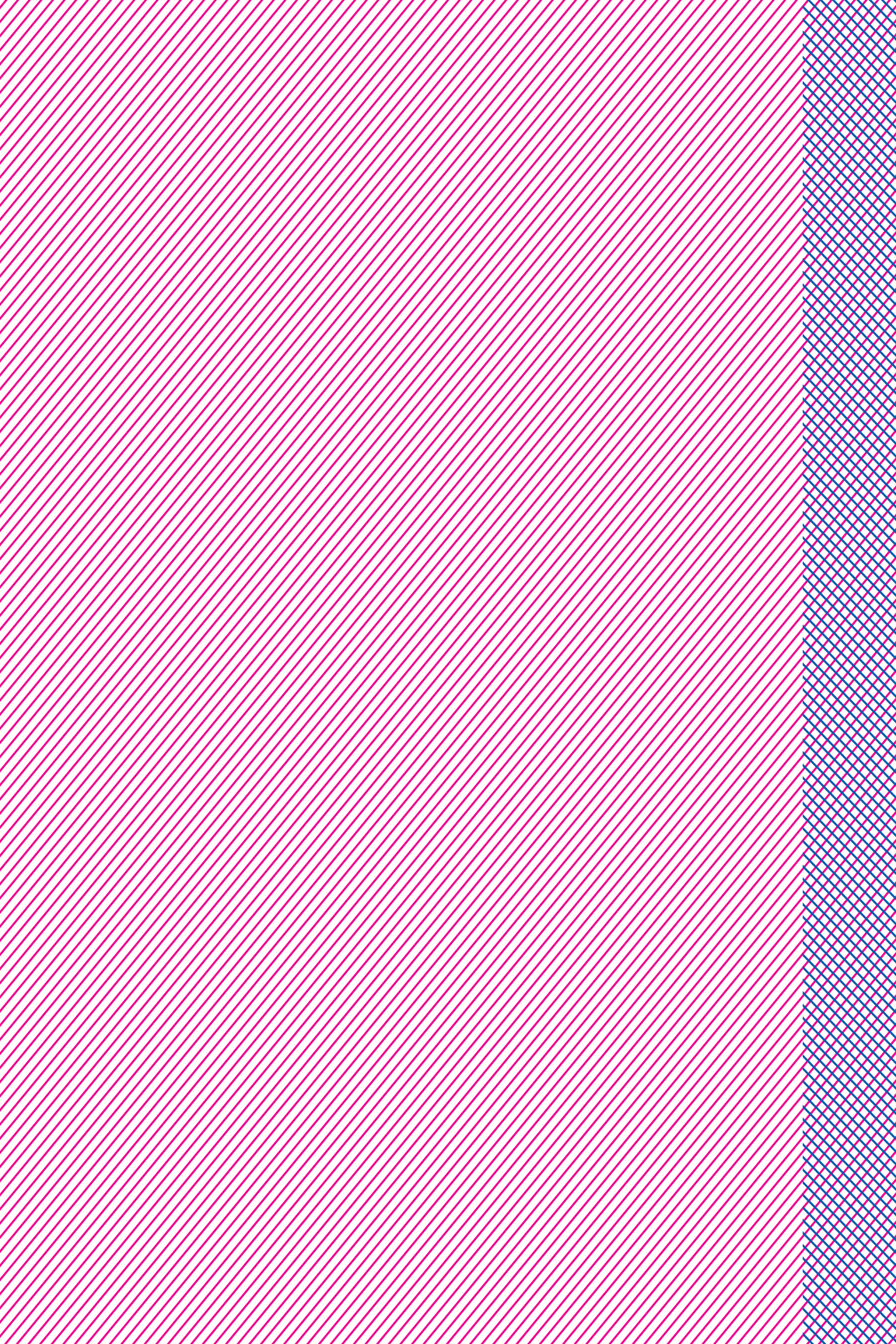
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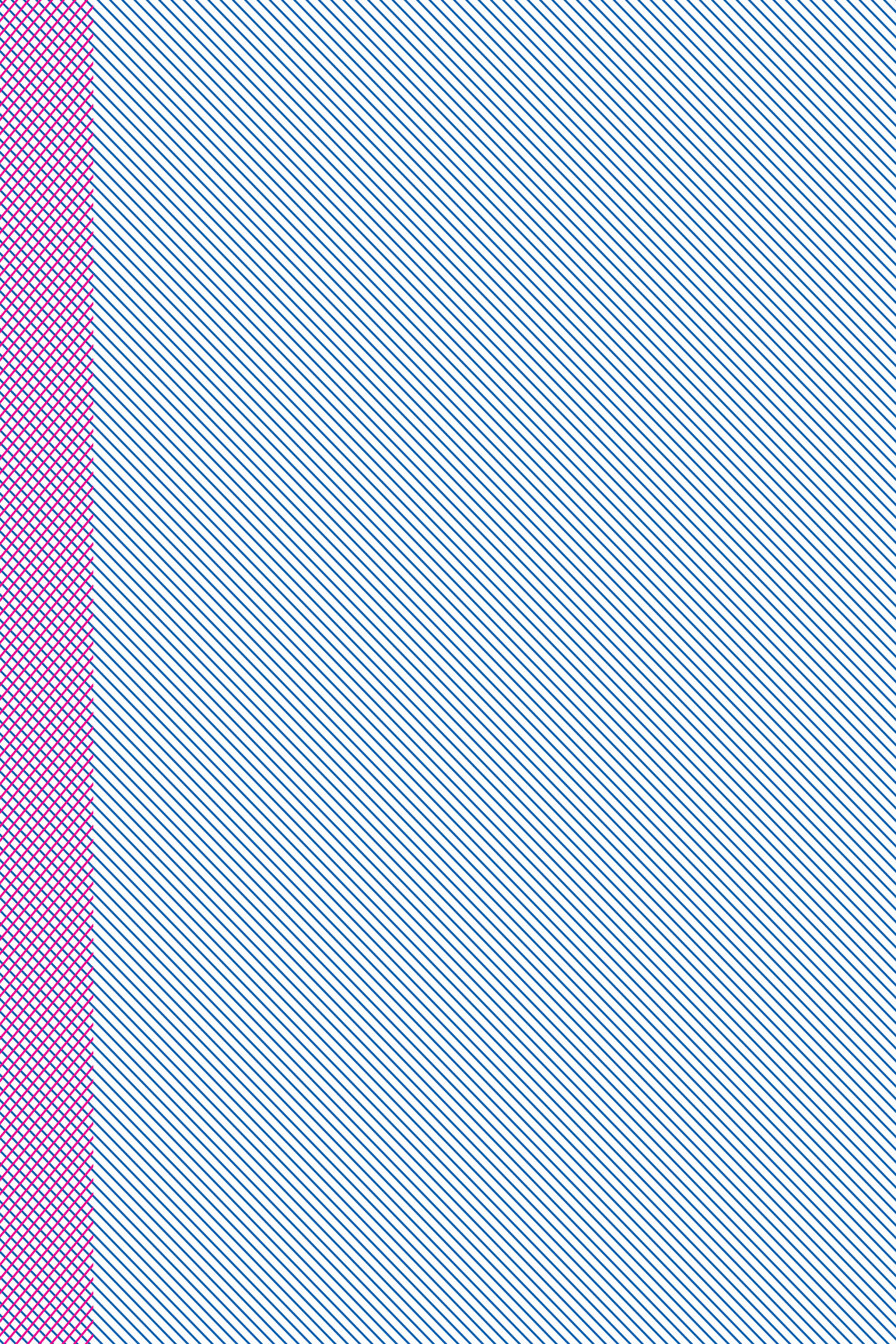
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2015





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FOREWORD

Designers wonder what people need all the time. Tapping into people's needs is the starting point of most human-centered design processes. The question that is actually far less often asked is, "what do designers need?" In reasoning about the value of research for design, we often see various misconceptions. Let's have a look at some of the more prominent ones.

Designers are "only" in need of tools and methods.

True, designers frequently use tools and methods to structure their process and make decisions. And occasionally, researchers manage to offer the kind of instruments that can actually be used in practice. Very often, however, such dedicated tools and methods are considered limiting by the practitioner... and they end up on a dusty shelf.

Designers need to consider changes and differences.

True again, designers should have an eye for changes in society, for trends and developments that describe the flow of events. And designers may need to consider differences between people: physical differences, cultural differences, and differences in the needs and concerns that people bring into a situation. But from where do all these changes and differences stem?

Designers need to talk to users.

Surely there can be no harm in visiting people in their homes, observing them, talking to them, and asking them about their lives and aspirations. Next to empathy, these investigations could provide designers with a number of valuable insights. These insights, however, may only scratch the surface, and might actually obscure a hidden pattern.

To notice this pattern – the underlying mechanism or process – is to uncover a reliable and powerful source of knowledge and inspiration for designers. And fortunately, they (have repeatedly told me that they) want understanding; they want to understand why people act the way they act, why people feel what they feel, and what really makes them tick. Designers first need to understand these human principles before they can start to reasonably capture changes and differences; designers have a need to recognise the principles that govern our behaviour, and explain how we give meaning to the world, how our emotions are elicited, and how our sense of liking is shaped.

This precious volume offers some of the most important theories and models psychologists and design researchers have regarding people's relationships to the world in general, and the designed world in particular. Grasping these concepts will surely make you much more well-informed as a designer, and, therefore – most likely – also a much better designer.

Paul Hekkert

Professor of Form Theory at Delft University of Technology,
chair of the International Design and Emotion Society, and
co-author of *Vision in Design - A Guidebook for Innovators*.

INTRODUCTION

How does design mediate, facilitate, or foster user well-being?

What are the universal principles of human experience?

If you find yourself asking these questions, then this guide is for you.

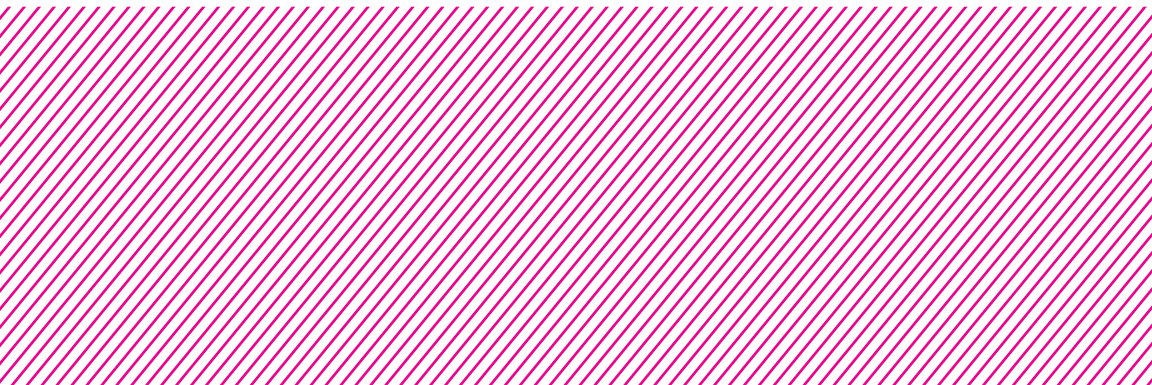
The *Positive Design Reference Guide* focuses on the why, what and how of human experience – both in general, and in relation to design for well-being. We believe that the theories explaining human experience and well-being contained in this volume can be a powerful source of design inspiration and direction. Design is about people, and the better we understand them, the better designers we will be. The concepts selected present overarching principles that allow designers to grasp the complexity and richness of human experience. They can help us frame the questions we need to ask ourselves about our users, and at the same time they can spark our creativity. These principles can support the design of relevant and appropriate products and services, and offer a language for explaining the essence of our designs

A wealth of insight about human experience and well-being can be found in psychology, whose literature represents an inexhaustible source of inspiring principles. Yet such literature comes with its own challenge: where to start? The sheer number of publications is overwhelming. A Google Scholar search query using the term “happiness” generates some 1.2 million hits, while “experience” generates over 4.5 million! These are numbers to drown in. Most practitioners and students simply do not have enough time to extensively identify the most useful theories for their project at hand. We noticed that, as a consequence, many designers tend to rely on concepts they encounter by chance, or theories they hear about from a colleague. These observations prompted us to assemble this guidebook, and provide you with a quick entry point into the variety of theories that we believe can be relevant for well-being-driven design. Consider it as a catalogue, or index. Ideally, it will energise you, and broaden the repertoire of principles you use to better comprehend human experience. You are likely to be familiar with some of the theories, but perhaps you will also discover some new ones. We would like to warmly invite you to explore its use in your design practice.

How to use this guide: The *Positive Design Reference Guide* is an initiative of the *Delft Institute of Positive Design* (DIOPD), an organisation that fosters the development of knowledge to support practitioners’ efforts to design for human flourishing. We hope this short guide becomes an inspirational addition to the body of literature relevant to experience design and design for well-being. It comprises 29 models, theories and frameworks, separated into two sections. The first section presents a collection of theories drawn from (positive) psychology, and the second section presents a collection of theories and frameworks drawn from (positive) design research. The chapters can be read in any order, or you can simply scan the table of contents or flip through the guide, looking for topics of relevance to your current design challenge. We have opted for a broad overview, rather than a deep one. For this reason, each theory is introduced with a short summary and a list key of publications that will offer more extensive explanations. We invite you to read the key publications related to those theories that capture your attention.

PART 1

PSYCHOLOGY





FURTHER READING

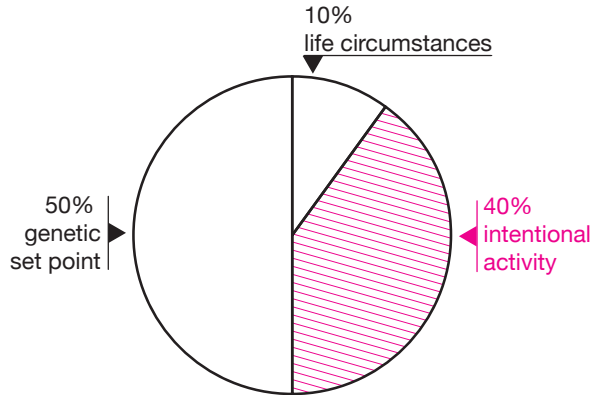
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01/ DETERMINANTS OF HAPPINESS

“The key to happiness lies not in changing our genetic makeup (which is impossible) and not in changing our circumstances (i.e., seeking wealth or attractiveness or better colleagues, which is usually impractical), but in our daily intentional activities” (Lyubomirsky, 2007, p. 22)



Sonja Lyubomirsky, Kennon Sheldon, and David Schkade identified three fundamental determinants of happiness: the genetic set point, life circumstances, and intentional activity (Martin Seligman previously introduced this as the Happiness Formula). Their model, typically displayed as a pie chart, depicts percentage estimates of the variance that each of these elements accounts for in inter-individual differences in well-being.

Genetic set point: Many studies, including twin studies, have drawn the conclusion that around 50% of variance in inter-individual happiness levels can be explained by our genetic set point. In other words, some people are ‘born happier’ than others, and these people have a greater tendency to remain as such. The set point concept implies that our innate happiness level determines, to a large extent, how happy we will be over the course of our lives.

Life Circumstances: The circumstantial factors of life, such as age, gender, marital status, income, and geographical location, account for only 10% of the variance in cross-sectional levels of well-being. These circumstances do affect our happiness to a degree; however, over time people tend to adapt to variances in their circumstances due to a phenomenon called hedonic adaptation (see chapter 07). Therefore, not only is it difficult – sometimes even impossible – to increase hap-

piness via circumstantial changes; the increase in happiness level achieved through these is only of limited impact.

Intentional activity: The remaining 40% of happiness level variance is accounted for by intentional activities that people purposefully and deliberately engage in, even when these become habitual. This determinant of happiness promises the best means of altering our happiness levels, as such activities have lasting benefits for our well-being. Researchers have shown that by choosing to engage in certain intentional activities (e.g. nurturing relations, committing to one’s goals, taking care of one’s body) or thoughts (e.g. cultivating optimism, avoiding overthinking), people can indeed become enduringly happier (see chapter 02).

The elaboration and specification of the happiness formula represents a vital framework to understand which factors determine our levels of well-being. In addition, it fosters optimism: sustainable increases of happiness are possible, despite the adverse effects of hedonic adaptation.



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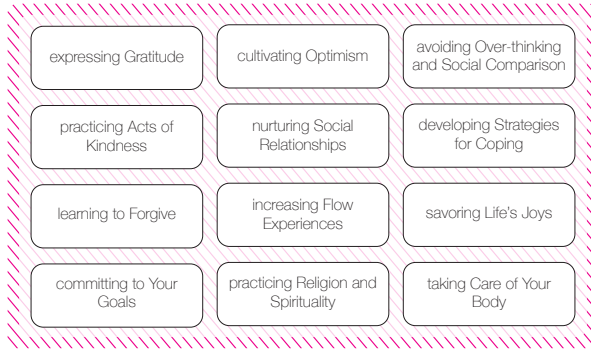
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02/ HAPPINESS-ENHANCING ACTIVITIES

*“Striving to be happy is a serious, legitimate and worthy aim”
(Lyubomirsky, 2007, p. 2)*



In her book “The how of happiness,” Sonja Lyubomirsky argues that all people have the ability to deliberately increase their happiness in both the short and the long term. She proposes that we can foster our own happiness by engaging in ‘intentional activities’. This approach is based on the premise that up to 40 per cent of inter-individual differences in happiness levels can be explained by voluntary thoughts and behaviour (see chapter 01). To provide practical guidance, she introduces twelve concrete happiness-increasing activities, including caring about social connections, managing stress, living in the present, practicing positive thinking, committing to one’s goals, and taking care of one’s body.

A special emphasis is placed on the personal suitability of such activities – called the person-activity fit. Since people have different interests, needs, values, and resources, certain activities will work for some, but not for others. A proper personal fit increases an individual’s motivation to engage in the activity, and therefore the positive contribution to their happiness.

Three ways in which a good person-activity fit can be achieved are:

Fit with sources of unhappiness: Select activities that address areas of weakness.

For example, a pessimist may benefit from cultivating optimism.

Fit with strengths: Select activities that fit personal strengths and talents.

For example, an achievement-oriented person may benefit from goal commitment.

Fit with lifestyle: Select activities that can be adapted to one’s lifestyle.

For example, someone with a hectic life can choose activities that don’t take up too much time.

For each of the twelve activities, Lyubomirsky offers suggestions on how to engage in them. For the activity ‘nurturing social relationships,’ for example, she provides five tips. The first is to commit time to spend with the people you care for (your friends, family, and partner). The second is to communicate your admiration, appreciation, and affection for them. The third is to actively take delight in and celebrate their windfalls and successes (and not only their losses and disappointments). The fourth is to manage your conflicts with them in a constructive fashion, and the fifth is to honour and respect, and possibly share, their dreams and life-goals.



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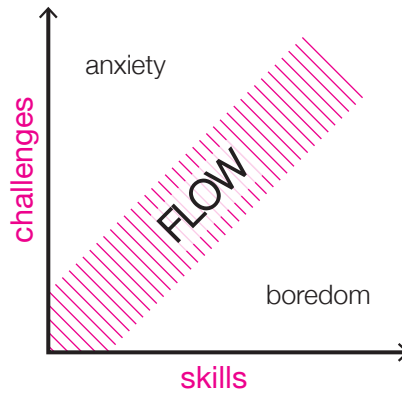
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03/ FLOW

“Viewed through the experiential lens of flow, a good life is one that is characterized by complete absorption in what one does”
(Nakamura & Csikszentmihalyi, 2002, p. 89)



Flow theory, introduced by Mihaly Csikszentmihalyi in 1990, asserts that people report the highest levels of well-being when in a state of *flow*. Flow is a state of complete absorption in the present activity in the here and now, which is intrinsically motivated (see chapter 09) and is characterised by maximum fulfilment. Noise, worries, hunger, and time seem to vanish – they no longer matter.

A key condition for an optimal flow experience is the proper balance between a person’s skills and the challenges posed by the activity. Activities in which challenges exceed our skill set result in a state of anxiousness. For example, attempting to imitate the mastery of Rembrandt could be frustrating for an amateur artist. On the other hand, when skill sets exceed challenges, the result is boredom. For a star violinist, for instance, playing Chopin’s nocturnes might be uninteresting, even tedious.

The complete, subjective immersion and concentration indicated by the flow state has the following characteristics:

- Full, deeply-focused concentration in the actions performed.
- A sense of control over the activity, and the actions. The challenges presented can be overcome using one’s strengths.
- A loss of awareness and reflective self-con-

sciousness. The activity is one’s sole and unique focus.

- A feeling that time is passing at a different pace than normal, generally faster.
- A sense that the activity is intrinsically rewarding, and that the end goal matters less than the actions performed during the state of flow.

Flow experiences typically occur spontaneously, or may also occur by chance (e.g. when one becomes suddenly completely immersed in a new book). However, flow can be deliberately achieved by engaging in activities that match one’s interests, and pose considerable yet realistic challenges. When describing activities that lead to flow, Csikszentmihalyi frequently refers to experiences that involve music, dancing, sports, arts, and the like. These activities enable participants to derive maximum enjoyment, a basic premise for the state of flow.

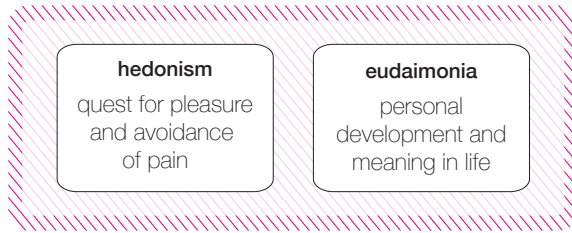


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04/ HEDONISM / EUDAIMONIA

Two pursuits of well-being: seeking pleasure vs. seeking self-actualization and life purpose



In well-being research, there is a prominent (yet much debated) distinction between two broad perspectives of well-being: hedonism versus eudaimonia. The hedonic perspective is related to the quest for pleasure and the avoidance of pain. Eudaimonia, on the other hand, is concerned with personal development and finding meaning in life, and adopts a more long-term perspective of well-being than found in hedonic pursuits. Both approaches partly overlap, and some argue that rather than opposing them, increased well-being might be found by combining the two. Yet awareness of each perspective is important, as many frameworks used in positive psychology and philosophy use them to describe and provide contrast to their theories.

Hedonism: Hedonism is the pursuit of pleasure, comfort, and appetite satisfaction for body and mind, and the conscious avoidance of pain and negative affect. Sexual relations, enjoying a good drink with friends, eating fine chocolate and enjoying a Cuban cigar are examples of consciously pursued hedonic pleasures. From the hedonic perspective, happiness is the sum of a person's momentary pleasures *per se*. The focus is on the here and now, and the presence of positive and absence of negative affect: being relaxed and free of problems, and feeling good.

Eudaimonia: Eudaimonic theories are based upon the fact that seeking and actively pursuing one's pleasures and desires is not the only (nor the safest) route to increased well-being. In the eudaimonic tradition, well-being is rooted in the development of more deeply held universal values and virtues that contribute to articulating true potential and meaning in life (see chapter 12). Consequently, this perspective embraces the engagement in meaningful activities and the pursuit of meaningful goals. Taking care of the environment, participating in (religious) rituals, developing personal talents in the arts, and being charitable are activities that not only have a momentary and distinguishable hedonic pleasure, but also have a longer and more meaningful effect on life appreciation. Carol Ryff's model of psychological well-being (see chapter 11) and Self-Determination Theory (see chapter 09) are examples of eudaimonic theories.



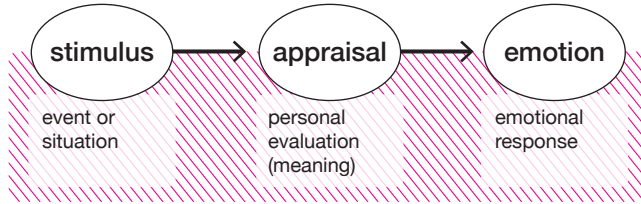
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05/ APPRAISAL THEORY

Emotions are not evoked by events, but by our personal interpretation of these events. Appraisals are sense-evaluations of the significance a stimulus has for our well-being



Cognitive theorists of emotion argue that an emotion always involves an assessment or *appraisal* of how an event may harm or benefit a person. This appraisal is an automatic evaluation of the significance a stimulus has for one's personal well-being. The central implication of the concept of appraisal is that it is not the event as such, but the meaning the individual attaches to this event that is responsible for emotion.

Appraisal is an evaluative process that serves to diagnose whether a situation confronting an individual has adaptive relevance, and if it does, to identify the nature of that relevance and produce an appropriate emotional response to it. An example would be when a friend makes a critical remark about you. Depending on the meaning you attach to this remark (i.e. your appraisal) you might experience anger (e.g. "I am being insulted"), or amusement (e.g. "This is a joke!"). The anger might serve to stimulate a confrontation with your friend, while the amusement might provoke laughter and some kind of humorous rejoinder.

An appraisal has three possible outcomes: beneficial, harmful or not relevant to one's personal well-being. These three general outcomes result in a pleasant emotion, an unpleasant emotion or an absence of emotion, respectively.

Particular types of emotions are associated with particular types of appraisals; thus, emotions can

be predicted from the nature of the coinciding appraisal. Many appraisal models advanced to date have included small sets of appraisal types to differentiate between emotions. Each appraisal type addresses a distinct evaluative issue, which can be seen as a particular 'appraisal question.'

Examples of appraisal questions are:

- Is it unexpected?
- Is it desirable?
- Is it certain?
- Is it praiseworthy?
- Who is responsible?
- What is my role?
- Do I have control?

The combined answers to these questions determine what specific emotion we experience. Pleasant surprise, for example, is evoked by events that are appraised as both unexpected and desirable, while admiration is evoked when some quality that is appraised as praiseworthy is attributed to another person.



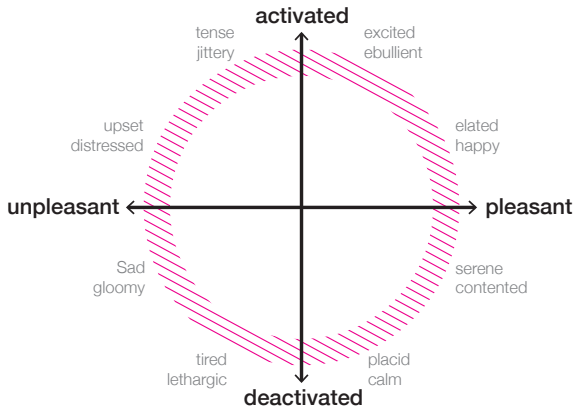
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06/ CIRCUMPLEX MODEL OF AFFECT

Core affect is a “neurophysiological state that is consciously accessible as a simple, non-reflective feeling that is an integral blend of hedonic (pleasure–displeasure) and arousal (sleepy–activated) values” (Russell, 2003, p. 147)



The term *affect* refers to all types of subjective experiences that have a subjective valence, i.e. experiences engendering perceived goodness or badness, pleasantness or unpleasantness. James Russell introduced the concept of *core-affect* by combining affect with physiological arousal into a circular, two-dimensional model. The experience of core-affect is a single, integral blend of these two dimensions, whose position can be plotted on the circumplex structure. The horizontal axis represents valence (ranging from unpleasant to pleasant), and the vertical axis represents arousal (ranging from calm to excited).

We are always experiencing core affect; from the moment we wake up to the moment we fall asleep, our core affect constantly responds to a wide variety of internal stimuli (e.g. hormonal changes, nutritional deficiencies) and external stimuli (e.g. events, people, objects, weather).

Core affect can be neutral (the central point of the circumplex), moderate, or extreme (the periphery). Changes can be short-lived or long-lasting, and can be the focus of attention (in the case of intense core affect), or a part of the background (in the case of mild core affect). Core affect can be experienced in relation to a particular stimulus, as in emotion, but can also be experienced with no relation to a particular stimulus, as in mood. Occasionally, the cause of

a change in core affect is obvious, while at other times we can undergo a change in core affect without knowing why.

Core affect theory offers a simple, yet powerful way to organize product affect, because all possible affective responses to products (e.g. seeing, buying, using, owning, thinking about, repairing) can be described in terms of core affect. The activated unpleasantness of heated irritation in response to a failing computer, the calm pleasantness in conjunction with the soothing experience of sliding into a warm bath, the activated pleasantness from the exhilaration of ice skating, the calm unpleasantness of sadness from the memory of a broken crystal vase – all can be plotted on the circumplex model.

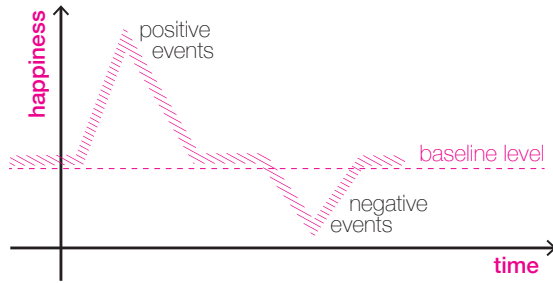


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07/ HEDONIC TREADMILL

People who strive for happiness through buying things are a bit like rats running on a treadmill



In the 1970's, Philip Brickman and Donald Campbell coined the term "Hedonic Treadmill" to describe people's tendency to maintain a stable baseline level of happiness despite both positive and negative external events. Improved circumstances may be rewarding at first; however, their impact on happiness diminishes over time because we rapidly get used to them. This is caused by what is known as the *hedonic adaptation effect*. Hedonic adaptation means that people are built with a natural (and automatic) ability to adapt to new circumstances. This has an important benefit: it ensures that negative feelings do not last forever. However, this also means that positive feeling also do not last forever.

Due to hedonic adaptation, improving a person's circumstances will not have a lasting impact on their happiness level because this level is doomed to a predetermined set point (see chapter 01). Furthermore, if every goal achieved immediately results in higher aspirations, people's strivings might end up being a zero sum phenomenon. Think about the joy of getting a new car, the satisfaction of being accepted to a certain university, or the euphoria of attending a music concert. These events make us feel good for a time; however, the initial joy eventually fades.

Brickman and Campbell used the treadmill metaphor to describe the pursuit of increased well-being, perhaps by acquiring new possessions or striving for higher income, while constantly returning to hedonic neutrality. From

this standpoint, happiness achieved through interaction with enjoyable products is potentially short-lived; people who strive for happiness through buying things (a bigger house, a more expensive TV screen, a newer smart phone, more jewellery, etc.) are a bit like rats on a treadmill: running and running, but not really getting anywhere.

Ed Diener, Richard Lucas, and Christie Scollon revised the original theory in the following five ways:

1. Set points are usually not hedonically neutral, but, on average, fairly positive.
2. Set points are not the same for everyone. Different people have different set points.
3. A person might have multiple set-points, e.g. for affect and life satisfaction.
4. Although somewhat limited, circumstances can have an enduring effect on one's happiness level.
5. People differ in the rate and extent of adaptation.

As discussed in chapter 01 (determinants of happiness), happiness that is transient likely occurs during adaptation to altered circumstances, while a longer-lasting sense of well-being can be garnered through intentional activities (such as nurturing relations, cultivating overthinking, and committing to one's goals).



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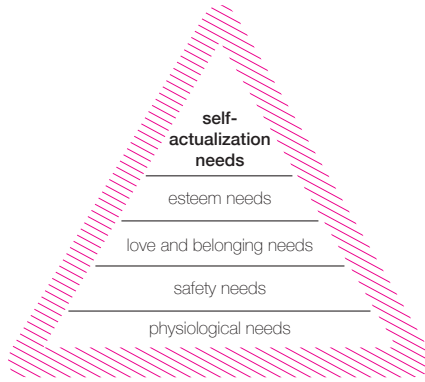
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08/ MASLOW'S HIERARCHY OF NEEDS

A theory of human motivation that suggests that a hierarchy of basic and higher-order needs drives human behaviour



Maslow's hierarchy of needs is a theory of human motivation originally proposed by psychologist Abraham Maslow in 1943. His intention was to increase our understanding of the conditions that contribute to human flourishing. According to Maslow's theory, people are motivated to first fulfil certain basic needs before moving on to other, higher-order needs – self-actualization being the highest. Maslow proposed a five-level set of needs, commonly depicted as a pyramid, in which the lower levels represent our most basic needs, with self-actualization positioned at the top.

Physiological needs are fundamental human requirements for survival, including the needs for food, water, sleep, air, and sex.

Safety needs are important for human survival, but not as critical as physiological needs; they include personal security, stability, dependency, protection, and the need for law and order.

Love and belonging needs are the desires to be related to and cared about by others; and to give and receive love from family, friends, and the community in general.

Esteem needs refer to the desire to have high self-esteem, self-respect, and the esteem of others. These needs are associated with being respected, socially recognized, and with showing mastery and personal growth.

Self-actualization needs are at the top of Maslow's hierarchy, and are concerned with recognizing and fulfilling our true potential.

This hierarchy suggests that someone who has reasonably satisfied his/her basic physiological and safety needs is most probably looking to fulfil desires related to love and belonging (higher in rank). Likewise, someone lacking the fulfilment of basic needs, such as shelter and security, will not seek to satisfy higher-level needs before these deficiencies have been addressed.

Maslow focused particular attention on the need for self-actualization, located at the top of the hierarchy. This need refers to our desire to become what we are capable of and destined to become, in any arena of life. For instance, a painter is always looking for career self-actualization, and a loving mother always gives her best to her role. Characteristics of self-actualized people include: acceptance and realism, problem-solving ability, spontaneity, autonomy, and appreciation. The order of Maslow's hierarchy has drawn criticism for being distinctly individualistic, and not considering differences in priorities found in other, more collectivistic cultures.

Maslow's work on needs and self-actualization was part of the mid-20th century emergence of humanistic psychology. This psychological perspective highlights human potential, self-actualization, and in general, an individual's 'positive side'.



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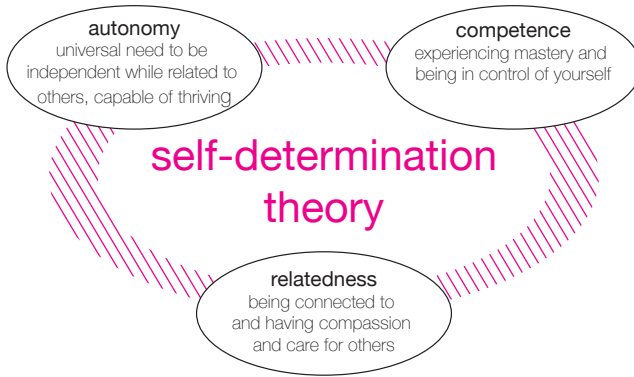
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09/ SELF-DETERMINATION THEORY

Self-determination theory is concerned with the intrinsic and extrinsic motivations of human beings, and the universal psychological needs associated with these



Self-determination theory (SDT) is a theory of human motivation that was introduced by psychologists Richard Ryan and Edward Deci, and further developed by other social scientists in recent years. SDT studies the impetus to behave in 'good', healthy ways, and delineates factors that influence this behaviour, known as intrinsic and extrinsic motivations.

Intrinsic motivation: When engaging in intentional activities, people are intrinsically motivated if they are moved by personal interest or deep-seated values. Intrinsic motivation is accompanied by feelings of curiosity, and a drive to carry out an activity (see chapter 03). For example, if a painter paints, this engagement is likely the result of a self-motivated, autonomous decision to seek out the effects to be procured through painting.

Extrinsic motivation: When engaging in intentional activities, people are extrinsically motivated if they are moved by external factors such as reward systems, grades, evaluations, or the opinions they fear others might have of them. Extrinsic motivations are divided into four types, depending on the degree to which they are perceived as autonomous: external (least autonomous), introjection, identification, and integration.

SDT suggests that the most powerful intrinsic motivations are increased when our conditions support three universal psychological needs: autonomy, competence, and relatedness. These needs drive motivations that support our sense of growth and, ultimately, foster our well-being. If not satisfied, they can lead to pathology, and to low levels of well-being (ill-being).

The need for **autonomy** represents our inherent desire to experience a sense of control, choice and psychological freedom when carrying out an activity.

The need for **competence** represents our inherent desire to effectively interact with our environment, and feel in control of our activities.

The need for **relatedness** represents our inherent desire to feel connected to others, to be a member of a group, and to experience a sense of closeness, care, and intimacy.

Self-determination theory has been applied in many domains, including education, work environment, relationship dynamics, as well as physical and psychological health. In each domain, SDT focuses on how intrinsic and extrinsic motivations affect mental health, and overall well-being.



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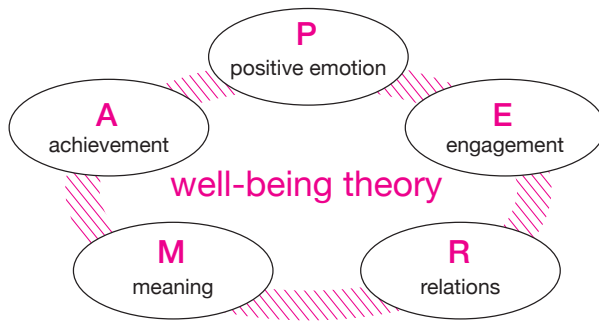
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10/ WELL-BEING THEORY (PERMA)

“Well-being theory denies that the topic of positive psychology is a real thing; rather the topic is a construct – well-being – which in turn has several measurable elements, each a real thing, each contributing to well-being, but none defining well-being” (Seligman, 2011, p. 15)



In 2011, Martin Seligman introduced the PERMA framework for well-being, comprising five key elements: positive emotion (P), engagement (E), positive relationships (R), meaning (M), and accomplishment (A). Seligman proposed that each element contributes independently to well-being, each is pursued for its own sake, and each can be measured separately from the others. When experienced together, these five constituents of well-being form a solid foundation upon which humans can flourish.

Positive emotion: (The pleasant life, hedonics). Positive emotion can be experienced in relation to the past (satisfaction, contentment, pride, serenity), the present (bodily pleasures, bliss, glee, comfort) and the future (optimism, hope, confidence, trust, faith). In general, positive emotions occur alongside other components of the framework, e.g. feeling love and affection toward significant others. However, as positive emotions can equally be pursued solely to obtain their intrinsic effects, they have been included as an independent contributor to well-being.

Engagement: (The good life). Engagement is a state of immersion in the present moment – in the here and now – known as the state of *flow* (see chapter 03). Flow is experienced when our greatest strengths and virtues are optimally challenged, ideally in various life domains such as work, love and study.

Positive relationships: Positive relationships are believed to be crucial to people’s sense of well-being, as individuals’ most frequently reported instances of happiness occur while interacting with others. This element connotes meaningful, healthy relationships with the people around us, such as friends, partners, family, and colleagues.

Meaning: (The meaningful life). Meaning comes from belonging to and serving, something bigger than the self. This constituent of well-being is connected to the pursuit of worthwhile achievements such as friendship, ethical behaviour, spirituality and philanthropy.

Achievement: Achievement – or accomplishment – is the act of attaining a desired goal (academic success, wealth, safety, personal growth) through sustained and deliberate effort.

Seligman’s well-being theory was preceded by his earlier “Authentic Happiness” theory. There are two key differences between them. Firstly, in Authentic Happiness, only positive emotions, engagement, and meaning were considered crucial to our sense of happiness; while in well-being theory, relationships and achievement have been added. Secondly, while the goal of Authentic Happiness was to maximize *happiness* in people’s lives, well-being theory strives to increase the *well-being* that emerges when we flourish. Here, happiness is viewed to be an aspect of positive emotions.



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11/ SIX DIMENSIONS OF PSYCHOLOGICAL WELL-BEING

Six key components of positive functioning in human beings



In 1989, Carol Ryff introduced a multidimensional model of well-being that encompasses six dimensions of positive psychological functioning: self-acceptance, positive relations, autonomy, environmental mastery, purpose in life, and personal growth. With these dimensions, Ryff sought to integrate existing theories of optimal human functioning in a unified, multidimensional model of well-being. Her theory advances the idea that these dimensions represent the core of positive psychological functioning in human beings, and that each is responsible for promoting both psychical and emotional health.

Self-acceptance: Self-acceptance entails positive present and past self-evaluation, including acceptance of good and bad qualities. It is, in sum, the positive attitude one holds toward oneself.

Positive relations with others: This dimension is concerned with the amount and quality of the relationships one has with others. It is related to how much one cares about the welfare of other people, and the amount of empathy one feels for them.

Autonomy: Autonomy is the sense of being self-determinant; that is, being independent and displaying strongly self-regulating behaviour in all aspects of life. A person showing autonomy evaluates him- or herself by personal standards, and not by the approval of others.

Environmental mastery: Environmental mastery makes reference to the capacity to effectively manage one's life, to make good use of external opportunities, and to seek contexts that are in line with one's own values and needs – and hence suitable for one's actualization.

Purpose in life: Purpose in life involves believing that one's life is meaningful and worthwhile, as well as having goals that provide structure and direction, and being able to perform according to these. It confers a sense of directedness and intentionality.

Personal growth: This dimension refers to self-realization and the fulfilment of one's true potential. It entails a sense of ongoing development and growth.

Ryff's theory is generally considered as an eudaimonic perspective on well-being (see chapter 04), as it focuses on optimal human functioning and on self-actualization, and not solely on momentary joy and fleeting happiness. In addition to the theory, Ryff developed the 'psychological well-being scales.' This self-report questionnaire assesses an individual's psychological well-being in each of the six facets.

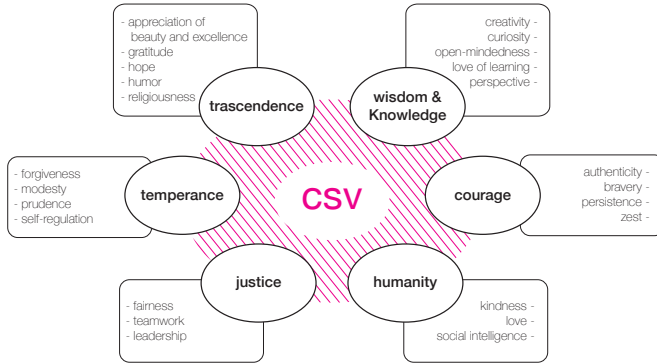


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12/ CHARACTER STRENGTHS AND VIRTUES

“We believe that character strengths are the bedrock of the human condition, and that strength-congruent activity represents an important route to the psychological good life.” (Peterson & Seligman, 2004, p. 4)



Character strengths and virtues (CVS), a classification introduced by Christopher Peterson and Martin Seligman, presents twenty-four strengths of character and six (core) virtues that promote individual and collective magnanimity, and contribute to the well-being of individuals and communities. Peterson and Seligman developed their classification to provide a theoretical framework for the study of positive human functioning, and to supplement available frameworks that predominantly focus on mental disorders.

Virtues are positive psychological traits that are universally considered as integral to good character, and their exercise supports the perception that someone is a good person. The CVS includes six core virtues, all of which can be found in the tenets of every major religious and cultural tradition:

Wisdom and knowledge: strengths enabling one to acquire knowledge, and use it sensibly.

Courage: strengths allowing one to accomplish personal goals despite internal or external opposition.

Humanity: strengths that develop positive relationships with others, by caring and being cared for.

Justice: strengths that foster a sustaining relationship between oneself and the community.

Temperance: strengths enabling the exercise of restraint and moderation in activity and being.

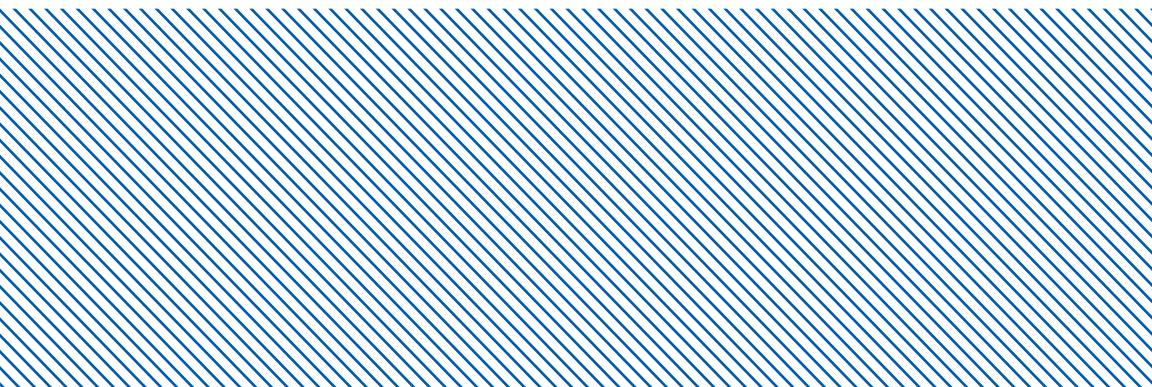
Transcendence: strengths that connect meaning with something greater than the self.

Each virtue is subdivided into different *character strengths* through whose exercise the virtue is manifested or achieved. For example, the virtue of humanity can be achieved by working on qualities such as kindness, love and social intelligence, and the virtue of love is exercised through creativity, curiosity, love of learning, open-mindedness, and perspective. It has been suggested that people have a selection of so-called signature strengths, i.e. character strengths that an individual can identify as ‘very much his/her own’, similar to personal traits. Displaying signature strengths is considered especially fulfilling.

The main distinction of Peterson and Seligman’s classification, in contrast to philosophical thinking and humanistic psychology, is its reliance on empirical research. Each of the twenty-four character strengths is supported by scientific research demonstrating that it can be reliably identified and measured across different cultures and backgrounds. The authors suggest that we have a ‘good character’ if we display at least one to two of the character strengths from a virtue group.

PART 2

DESIGN



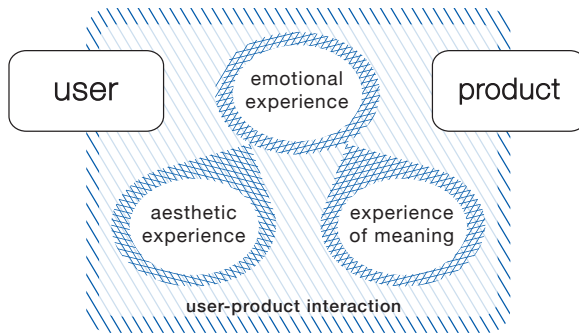


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13/ FRAMEWORK FOR PRODUCT EXPERIENCE

“We experience the unity of sensuous delight, meaningful interpretation, and emotional involvement, and only in this unity do we speak of an experience” (Desmet & Hekkert, 2007, p. 5)



Pieter Desmet and Paul Hekkert introduced a general framework for product experience that applies to all the affective responses that might be experienced in human-product interaction. The framework includes three distinct components, or levels, of product experiences: The degree to which all our senses are gratified by products (aesthetic experience), the meaning we attach to them (experience of meaning), and the feelings and emotions elicited by an appraised relational meaning of products (emotional experience). All three components have their own underlying, lawful process.

Aesthetic Experience: At the aesthetic level, under consideration is a product’s capacity to delight one or more of our sensory modalities. A product can be beautiful to look at, make a pleasant sound, feel good to touch, or smell nice (see chapter 14). When the user is pleased by the sensuous shape of a vase, the faint, harmonic sound of a smartphone, or the soft and fluffy texture of a seat, these experiences are aesthetic ones.

Experience of Meaning: Through cognitive processes like interpretation, memory retrieval and association, we are able to recognize metaphors, assign personality or other expressive characteristics, and assess the personal or symbolic significance of products (see chapter 25). Examples are assessments of luxury, elegance, and robustness. Perceiving a coffee maker as

playful, a mobile phone as sexy (and at the same time perfectly clear and understandable) or a new car as a model straight out of the sixties are all examples belonging to the experience of a product’s meaning.

Emotional Experience: The emotional level involves those experiences typical to emotional psychology and everyday parlance such as love and anger, which are elicited by the appraised relational meaning of products (see chapter 05). When the user is disappointed by the limited memory capacity of an MP3 player, inspired by an innovative zero-emission car engine design, or frustrated by the complexity of a user interface, we can identify these experiences as emotional experiences.

User experiences may activate other levels of experience: an experienced meaning may give rise to emotional responses and aesthetic experiences, and vice versa. Emotions can be elicited by all objective and subjective product qualities, including aesthetic experiences and experiences of meaning. The product experience framework illustrates the complex and layered nature of affective product experience. In addition, it indicates that it is possible to distinguish patterns, both in the types of affective product experiences, and in the cognitive processes that underlie these experiences.



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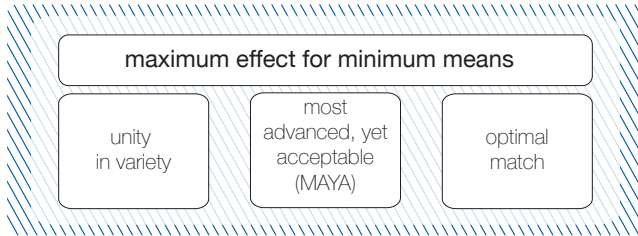
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14/ FOUR PRINCIPLES OF PRODUCT AESTHETICS

*“To trace the pattern underlying our aesthetic responses, we have to ask ourselves a simple, but very complicated question: why do we like things?”
(Hekkert, 2006, p. 161)*



Paul Hekkert proposed four general principles of aesthetic pleasure that apply to aesthetic product experience, i.e. the (dis)pleasure that results from sensory perception in human-product interaction. In agreement with evolutionary psychology, he argues that we aesthetically prefer environmental patterns and features that are beneficial for the development of both our sense functions and our survival in general. These four principles can explain (dis)pleasure related to all sensory modalities: vision, sound, touch, smell, taste, and the mind.

Principle 1. Maximum effect for minimum means: Our senses want to function as economically as possible. If we can smell, see, hear, or decide something faster or using less effort, we will prefer this over a more demanding alternative. We like to expend as little means as possible, such as effort, resources or brain capacity, to achieve the highest possible effect in terms of survival, reproduction or learning. Thus, a visual pattern is pleasing to the eye when relatively simple design features reveal a wealth of information, such as in caricatures or impressionistic paintings. Principle 1 is the overarching principle; the other three are closely allied to it.

Principle 2. Unity in variety: We tend to see things that are closely distributed, or look, sound, or feel the same, as belonging together. This perceptual tendency of grouping and discerning relations allows us to detect objects and meaningful wholes. In order to perceive con-

nections and relationships, our sensory systems must detect order in chaos, or unity in variety. We therefore find it aesthetically pleasing when product designs support order through symmetry, contrast, rhythm, or harmony, for example.

Principle 3. Most advanced, yet acceptable (MAYA): On the one hand, people prefer familiarity, and are attracted to the most typical examples of a category. On the other hand, people are also attracted by new, unfamiliar and original things. The third principle proposes that we tend to prefer products with an optimal combination of both aspects: products that *combine* typicality (the product is recognizable and familiar) with novelty (the product is original and innovative).

Principle 4. Optimal match: Products are always multi-modal; they address various senses simultaneously. When driving a car, we see the dashboard, hear the engine roar and the clicking of the instruments, feel the steering wheel and road holding, and smell the leather upholstery. The fourth principle is concerned with the relationship between these various sensory impressions: Because we tend to prefer consistency of impressions, we enjoy products that convey similar messages to all our senses.

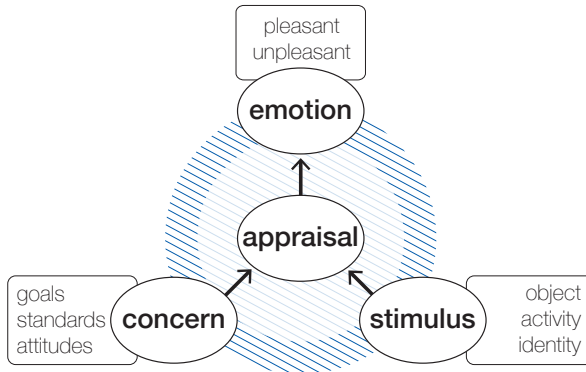


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15/ A BASIC MODEL OF PRODUCT EMOTION

Emotions are an expression of our values; to design for emotion is to design for values



Emotions are not only subjective, they are *systematic*: Even though emotions differ from person to person, the underlying process that elicits them is organised and universal. Once we have discerned this underlying process, we can understand and even predict emotional outcomes. Our emotions reveal what we want, what we value, and what we aspire to in life: our *concerns*. We are only emotional about things that support or threaten our concerns. Hence, design for emotions is actually design for concerns.

We constantly appraise products in terms of their relevance to our concerns. If a product clashes with our concerns, we will experience a negative emotion, and if it satisfies our concerns we will experience a positive emotion. Designing for emotion therefore requires an understanding of what is important to the specific group of users being designed for, i.e. its potential significance to an individual. Although basic values are essentially universal (e.g. to be safe, to belong, to have self-respect), they can in fact be translated into a complex set of goals, needs, and expectations according to a given usage narrative. This narrative may include the physical and social context and the personal history of the person experiencing the emotions.

Drawing on appraisal theory (see chapter 05), Pieter Desmet developed a foundational model of product emotion that distinguishes three types of concerns, and three types of product stimuli.

There are different kinds of concerns:

Goals: What we want to achieve or see happen.

Standards: How we believe we and others should behave.

Attitudes: The dispositional liking or disliking for particular (product) qualities.

Products can act as stimuli in at least three different ways:

Object: Interacting (e.g. seeing, touching, hearing) with the product as such.

Activity: The activity that is facilitated or enabled by the product.

Identity: The effect of the product on our self-perception.

When the three concerns and three stimulus types are combined, they create a nine-source matrix of product emotions, which fosters a wide repertoire of design opportunities. The mindset cultivated by this framework can provide guidance and structure to emotion-driven design.



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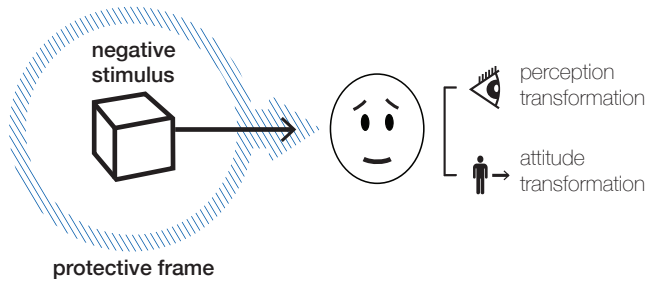


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17/ DESIGN FOR RICH EXPERIENCES

A mix of positive and negative emotions characterises many of life's most unique and interesting experiences



Steven Fokkinga developed an approach to design for rich user experiences. Surprisingly, these experiences specifically involve *negative emotions*. It is often assumed that people only want to experience positive emotions, and want to keep negative emotions at bay. However, if you consider riding rollercoasters (fear), listening to rap music (anger) or watching tearjerker movies (sadness), we quickly discover that this assumption is only partly true. Somehow, all these experiences in entertainment and art involve negative emotions; yet the end result is pleasant, worthwhile, or both.

Fokkinga's approach to design for rich experiences includes three necessary steps: choosing an appropriate negative emotion, finding a way to elicit that emotion through design, and making sure that there is a protective frame around the experience.

1. Choosing a specific negative emotion:

Negative emotions enrich experiences because they have unique effects on people's physiology, perceptions and behaviour. For instance, fear produces adrenaline, makes time seem to pass slower, changes people's focus and fires up their imagination. In contrast, sadness makes people more passive, reflective and meticulous. By knowing the context of a design (e.g. the dentist's waiting room, a family dinner), designers can select a specific negative emotion that appropriately enriches user experience.

2. Eliciting the emotion: The second step is to find a specific way to evoke the selected emotion. Any emotion can be evoked by a certain set of circumstances, or *appraisals* (see chapter 05). For instance, fear is evoked by a perceived threat, frustration by an obstacle, and sadness by a loss. In addition, there are several direct and indirect ways for the product or service to elicit the negative emotion. Knowing the appraisal of the selected emotion, and uncovering the unique possibilities inherent in the user context will enable designers to elicit the emotion through the design.

3. Protective frames: The negative emotions that are part of rich experiences are somehow pleasant and/or worthwhile. However, negative emotions can be simply unpleasant as well, like the feeling of being in a car accident (fear) or when stepping in something mucky (disgust). The difference between pleasant and unpleasant situations lies in the presence of a "protective frame", a concept borrowed from Michael Apter's reversal theory. The protective frame is a mental construct that creates a psychological distance between the person and the object of his/her emotion. Designers can make use of four different strategies to evoke a protective frame in users: Representation, shielding, control, and perspective.



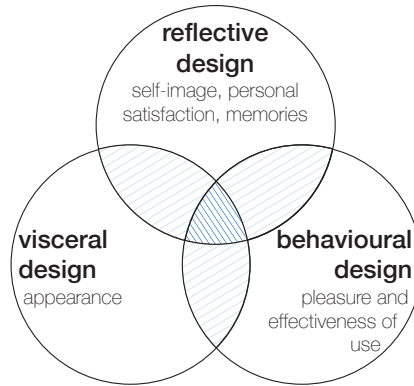
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18/ THREE LEVELS OF EMOTIONAL DESIGN

“The emotional side of design may be more critical to a product’s success than its practical elements.” (Norman, 2004, p. 5)



In his book “Emotional Design”, Donald Norman proposed that people’s emotional responses to design can be broken down into three main components – visceral, behavioural and reflective – that correspond with three levels of information processing in the brain. The central idea advanced in the book is that in order to be successful, a design should excel at stimulating all three levels of human response.

Visceral design: Visceral affect is the most elementary emotional response. At this level, people make rapid (unconscious) judgments about what is good or bad, safe or dangerous. These hardwired, biologically determined responses are consistent across people and cultures. Examples are the impulse to reject bitter substances, the tendency to like highly saturated colours, and the general preference for symmetric shapes. Design at this level is concerned with product appearance (in terms of visual appearance, taste, touch, sound, and smell) (see chapter 14).

Behavioural design: Behavioural emotions emerge from the execution of routine behaviours and skills. An example is riding a bicycle, which involves the performance of routine actions to control balance and speed. Expectations play a central role at this level. Products that behave as they are expected to evoke more

positive experiences than products that display an unexpected behaviour. Behavioural design is concerned with the pleasure and effectiveness of using the product.

Reflective design: Reflective emotions are the most sophisticated, because they involve high-level cognitive processes that require specific skills, such as an ability to form generalizations, make plans, or solve problems. This degree of cognitive processing is responsible for the rich emotional experiences that we assume are unique to humans: representations of the present, past, or future, and feelings of relief or hope might be called forth. Design at this level is concerned with self-image, personal satisfaction, and memories. Emotions are often evoked by a design’s symbolic meaning (see chapter 25).

Each emotional level not only contributes differently to human functioning, it also modulates the others. Hence, it is possible to experience positive emotions towards an ‘ugly’ product thanks to its symbolic qualities, even though at the visceral level the product might evoke unpleasant feelings.



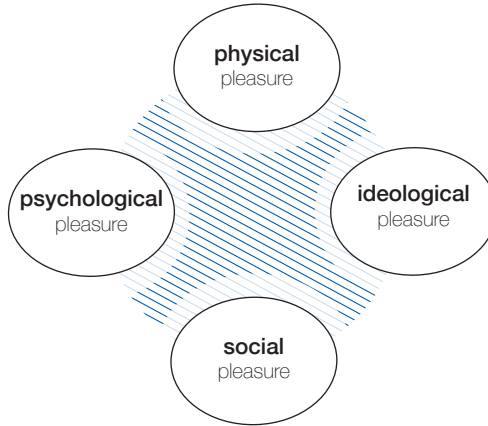
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19/ FOUR TYPES OF PRODUCT PLEASURE

“Pleasure with products accrues from the relationship between a person and a product. Pleasurability, then, is not simply a property of a product but of the interaction between a product and a person”

(Jordan, 2000, p. 11)



In 2000, Patrick Jordan introduced a pleasure framework to the design discipline that includes four basic sources of human pleasure: physical, social, psychological, and ideological. The framework was originally created by anthropologist Lionel Tiger, and Jordan demonstrated that each of these pleasures could be experienced in human-product interaction.

Physical pleasure is the pleasure derived from enjoyable stimulation of our senses. A smart phone can generate pleasure with by its elegant appearance, and travellers in a hotel lobby can experience pleasure from its soft music, pleasing fragrance, and warm lighting.

Social pleasure is the enjoyment derived from social relationships and interactions. Design can facilitate such human contact, and support a sense of belonging. An expressive necklace can initiate a conversation, and a coffee corner can function as a focal point for social gatherings.

Psychological pleasure is the enjoyment derived from cognitive reactions, and has to do with the mental demands associated with a product's use. A word processing program that is easy to operate is more pleasurable than one that delays results because it is cumbersome and illogical.

Ideological pleasure is the enjoyment derived from having values, and being true to them. Products can support and symbolise one's beliefs about what is right or wrong. For example, a product made from biodegradable materials is a source of pleasure to those who value a sustainable lifestyle.

The main contribution of the pleasure framework is that it enables designers to consider the full spectrum of pleasure and displeasure that people might experience during human-product interaction. Besides being a useful resource during an original idea generation process, the framework can also be used to analyse existing designs when identifying opportunities for new ones. Although Jordan's book focuses on product design, these pleasures apply across all design disciplines, including service, graphic, or web design. Since the publication of the book *Designing Pleasurable Products*, the framework has become one of the most influential resources available to experience-driven designers.



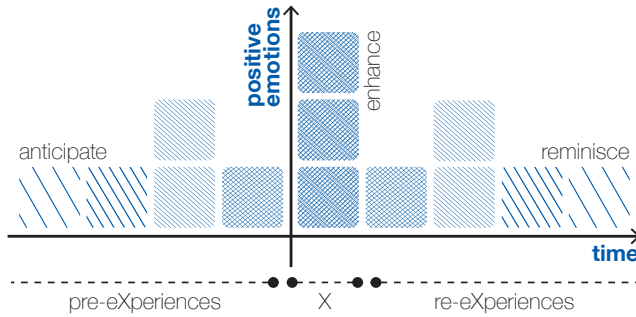
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20/ PROLONGING POSITIVE EXPERIENCES

Design for prolonged pleasurable experiences



Designing pleasurable products and services has become an important area within the field of user experience design. Corresponding approaches generally focus on how to evoke positive emotions, and how this relates to the properties of a design. Yet, knowledge of the temporal dynamics at play during emotional experiences in human-product interaction and, in particular, of how to prolong positive experiences through design is limited. Anna Pohlmeier addressed this gap by introducing a process-based approach derived from emotion regulation theory: Savouring as a design principle.

Fred Bryant and Joseph Veroff conceptualized savouring as constructively paying attention to one's positive emotions – to realize and acknowledge the good. It is therefore not about pleasure per se, but about its underlying processes: how do people deal with positive experiences in order to optimize a positive emotional experience? For example, one can imagine the regained beauty of an old table while restoring it, relive memories by looking through photographs of last year's vacation, or take the time and focus to appreciate a new gift. As savouring has been found to decelerate hedonic adaptation (see chapter 07), it is a vital area for product designers striving for more sustainable forms of product experiences to explore.

User experience is not constrained to a single use situation, but is rather a continuous and dynam-

ic flow of experiences. For example, the user experience lifecycle model ContinUE (Continuous User Experience) by Anna Pohlmeier captures various phases of a user experience: anticipated, real-time, reflective, repetitive, retrospective, and prospective. Each of these phases can bring pleasure. As schematically shown in the graph above, the emotional impact of an experience can be expanded temporally, by extending pleasure from the real-time experience (x) to phases of anticipation, reflection, and reminiscence. In addition, pre-, re-, and original experiences can be enhanced through a number of behavioural and cognitive savouring strategies, such as self-congratulation.

Consequently, design can trigger, amplify, and facilitate users' attending to pleasure and thereby enlarge a positive emotional experience in duration and intensity:

- A product or service can trigger attentiveness to a pleasurable experience, e.g. reminder, reflection cues.
- Design can amplify awareness, e.g. highlighting the positive, reducing distractors.
- Design can facilitate optimal emotion regulation, e.g. by providing additional means of communication to share good news with others.
- Savouring strategies in design can be applied to enrich a human-product interaction as such, as well as to enhance external positive events.



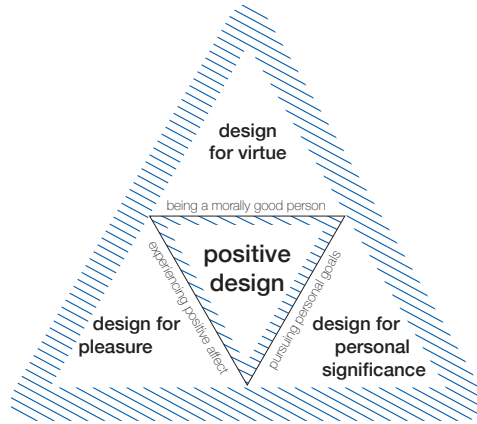
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21/ POSITIVE DESIGN FRAMEWORK

Design that stimulates human flourishing combines ingredients of design for pleasure, personal significance, and virtue



Positive Design is an effect-driven approach; its intended effect is to enable and/or stimulate human flourishing. The Positive Design Framework, introduced by Pieter Desmet and Anna Pohlmeier in 2013, is a reductionist framework comprising three main ingredients to design for people's well-being, and argues that human flourishing can be achieved through designs that harmoniously integrate all three. Furthermore, the authors specify five characteristics of Positive Design that have important implications for the corresponding design process.

In the framework, three main components of subjective well-being are identified. These are based on well-established tenets in positive psychology and philosophy: pleasure, personal significance, and virtue. In design, each component can be seen as an ingredient that can contribute to people's well-being. The corresponding foci differ in scope, methodological emphasis, and outcome. Yet, each in its own right can be regarded as a variant of design for well-being:

Design for Pleasure: Subjective well-being that is achieved by the sum of a person's momentary pleasures: *"Am I enjoying myself?"*

Design for Personal Significance: Subjective well-being that is achieved by addressing personally held values and goals. It relates to pursuing goals and acknowledging achievements: *"Am I achieving something?"*

Design for Virtue: Subjective well-being that is achieved by living a virtuous life. Here, the emphasis shifts to morality: *"Am I behaving honourably?"*

'Flourishing' is not just another word for subjective well-being. It further entails proper functioning and living a balanced life. Hence, positive design targets the overlap of pleasure, personal striving, and moral values, i.e. the model's centroid (see graph above). This can be achieved by combining the different ingredients, or by emphasizing one or two elements, as long as the three do not conflict with one another.

The five characteristics of positive design can be summarized as follows:

Positive Design aims to achieve a **long-term impact** in people's lives by enabling them to flourish, and thereby to find **balance** between pleasure and meaning, short- and long-term goals, and individual and societal concerns. The focus is on seeking supportive **possibilities** in a design solution, rather than on looking for a 'quick fix' by reducing an immediate problem. A 'one-size-fits-all' approach does not seem appropriate in the field of subjective well-being. Rather, a **personal fit** should be achieved through a thorough understanding of potential users and their context. Last but not least, **active user involvement** is required for the design to exert its intended effect. Involving users in the design process itself is therefore recommended.



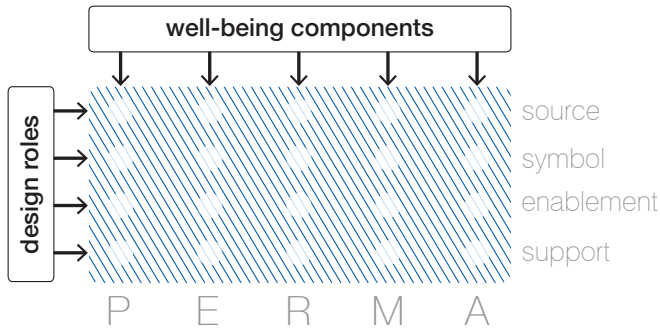
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22/ DESIGN WELL-BEING MATRIX

The Design Well-Being Matrix illustrates an extended opportunity-space of design for well-being



Design's ability to contribute to human flourishing is sometimes viewed rather sceptically. This is partly due to two preconceived notions: that the effect of design can only be determined by its material value (design as the *source* of happiness), and that its main well-being-related contribution is via an increase in short-term pleasure. The Design Well-Being Matrix was developed to illustrate the diversity of possibilities to design for happiness by widening the space for opportunity in considering two nuanced dimensions:

1. A range of roles that design can play.
2. A variety of well-being components (pleasure being only one of them).

The matrix is primarily intended to highlight potential starting points and strategies to inspire designers to take an open and systematic approach, rather than a restricted one. Furthermore, it can also serve as a categorization scheme.

Roles of design: The taxonomy of design (for well-being) roles in the matrix underscores its shift from focusing on the material and tangible to the experiential and intangible. Design can be more than a direct source of happiness. In fact, design appears to have an especially pronounced potential to contribute to well-being in an indirect, facilitating capacity.

1. **Source:** The design itself is the actual source of what makes a person happy.
2. **Symbol:** The design is a symbolic representation of something or someone that makes a

person happy. It consequently functions as a proxy and cognitive cue.

3. **Enablement:** The design's role is to mediate an experience or activity that in turn brings happiness.

4. **Support:** The design supports happiness-enhancing thoughts and behaviour, e.g. by providing tips and feedback. While *enablement* makes a specific activity/experience possible, supervisory *support* is given on a more general level. It motivates a person to pursue a pleasurable and meaningful life.

Well-being components: Happiness is a multi-componential concept. Therefore, different determinants of well-being can be targeted. Originally, the matrix included the five components of PERMA (see chapter 10) to exemplify the diversity of touch points that go beyond the single combination of source-pleasure. However, the matrix is largely open to the inclusion of any list of well-being components, e.g. dimensions of psychological well-being, self-determination theory (SDT).

The dimension of well-being components dimension specifies *what* to aim for, i.e. the desired effect, while the dimension of design roles specifies *how* design can contribute, i.e. how to obtain the desired effect. In a design, different design/well-being groupings can be included in isolation as well as in combination.



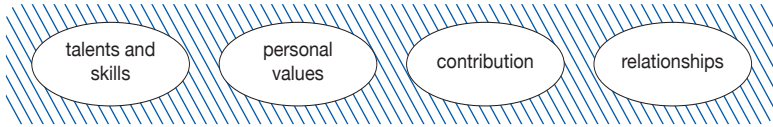
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23/ FOUR INGREDIENTS OF MEANINGFUL ACTIVITIES

Key components that turn ordinary activities into meaningful ones



Buying new products can create bursts of happiness. However, as soon as we get used to them, the happiness effects tend to fade away, leaving us wanting more (see chapter 07). It has been argued that in order to become happier, it is less effective and sustainable to change *what we own*, than to change how we behave (*what we do*): the daily actions under our voluntary control (see chapter 01). An opportunity for design is to design for meaningful activities: Design products and services that inspire, enable, and facilitate activities that are meaningful to the individual. Well-being researchers have identified (at least) four key ingredients for meaningful activities: talents & skills, personal values, contributions, and relationships. These ingredients are universal, and often associated with behaviour that is considered noble and morally just.

1. Talents & skills: Activities that require individuals to use and develop their personal talents and skills contribute more to happiness than those that do not. Skills development stimulates personal growth, which has been shown to be a strong indicator of happiness.

2. Personal Values: Activities that are rooted in one's core values contribute more to one's happiness than those that are not. Moreover, pursuing goals that conflict with personal values (e.g. getting a promotion at the cost of a respected colleague) creates psychological tension that will have a negative effect on one's happiness.

3. Contributions: Activities that enable one to contribute to someone or something have an especially strong effect on one's happiness. Contributions can be both immediate (e.g. helping another person) as well as delayed (e.g. adopting a sustainable lifestyle to 'save the planet').

4. Relationships: Activities can contribute to our happiness when they strengthen our sense of belonging. These can be activities that enable or require us to deepen our relationships with the people that we care about, or activities that provide a context for developing new friendships.



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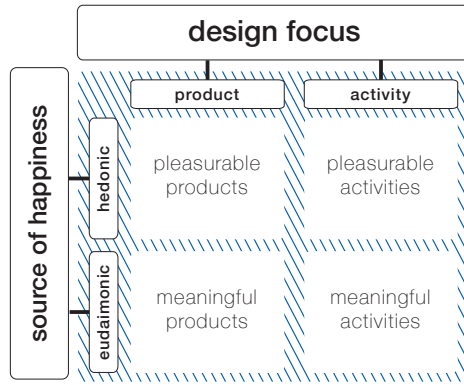
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24/ FOUR OPPORTUNITIES TO DESIGN FOR WELL-BEING

Enjoyment and happiness represent fundamentally different phenomena



Noting that a wide variety of initiatives in the domain of well-being-driven design exist, Pieter Desmet proposed that these initiatives be clustered into four basic opportunities. These opportunities to design for well-being are separated into two dimensions (design source and design focus), while a third dimension (design direction) identifies two directions within each design opportunity.

Design source: The designer can be inspired by two sources of well-being: *hedonism* or *eudaimonia*. This dimension represents well-being that is either achieved via the experience of pleasure and comfort, or with having purpose and pursuing self-realization (see chapter 04).

Design focus: The designer can focus on a *product* or on an *activity*. This dimension represents design goals to either redesign an existing product, or introduce an intervention into an existing activity (e.g. commuting to work, shopping for groceries). In the second case, the result may be a redesign, but it can also be the introduction of a new design.

Design direction: The designer can solve a *problem* or create a *possibility*. This dimension represents the intention to either decrease ill-being or increase well-being.

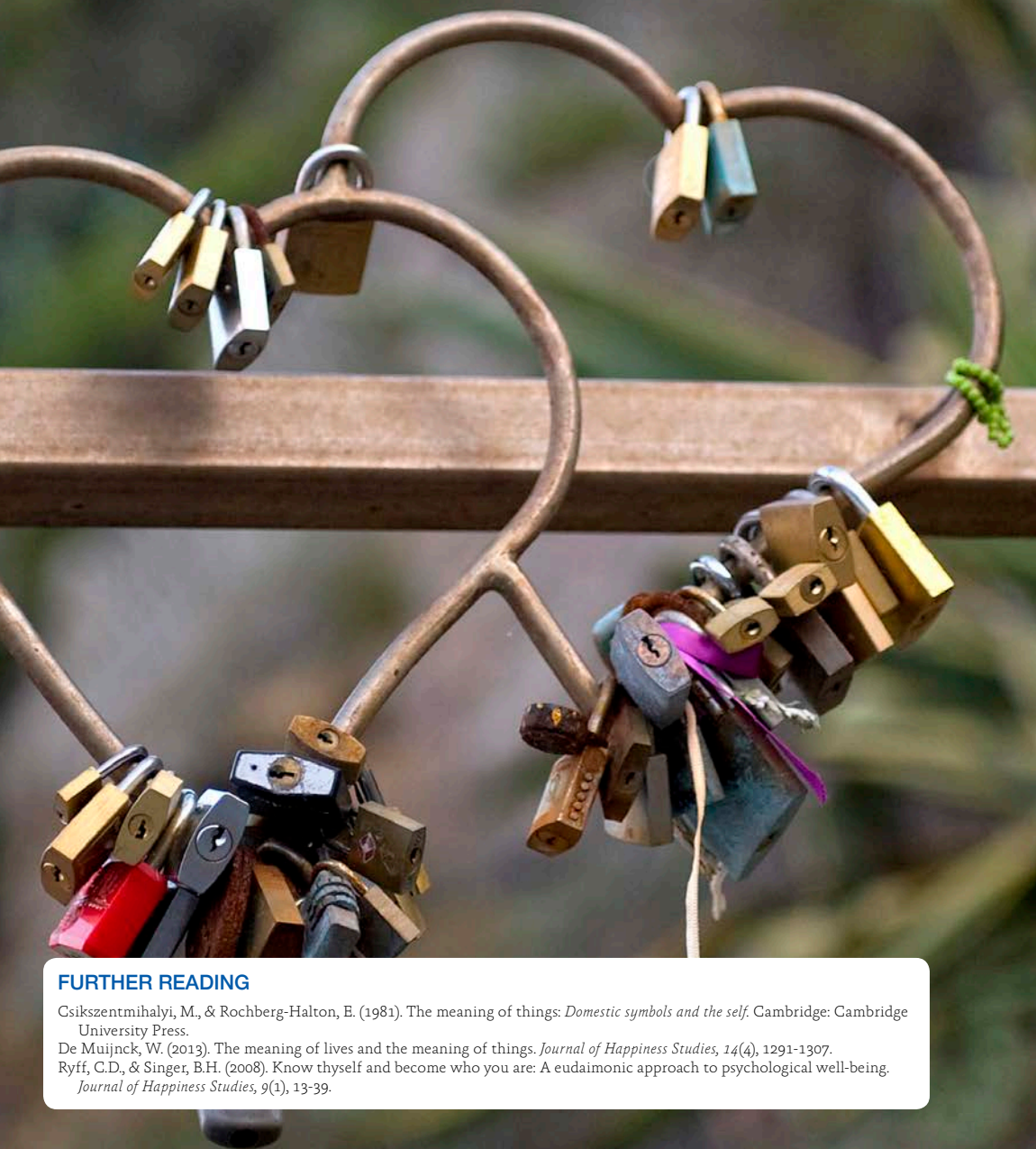
1/2. Pleasurable products / activities: Designing with the intention to make an existing product / activity (a) less distressful, by reducing or elim-

inating sources of distress; or (b) more enjoyable, by enhancing existing sources of pleasure, or introducing new ones. Furthermore, individuals can be enabled to engage in new, pleasurable activities.

3. Meaningful products: Designing with the intention of making an existing product (a) less dishonourable, by reducing or eliminating value conflicts experienced by users; or (b) more meaningful, by increasing the product's contribution to users' self-fulfilment.

4. Meaningful activities: Designing with the intention of making an existing activity (a) less dishonourable, by reducing or eliminating value conflicts experienced by the individual; or (b) more meaningful, by inspiring and enabling people to engage in meaningful activities, and stimulating people to be ever mindful of their activities and sensitive to what makes these activities meaningful.

This classification can support those wanting to organise the multitude of happiness-driven design initiatives previously developed, and it can inspire those who want to explore how products can be designed deliberately with the intention of becoming a source of user happiness.



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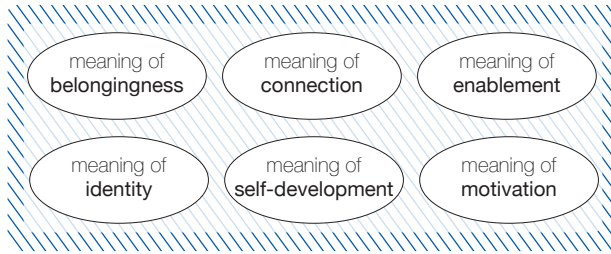
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25/ SYMBOLIC MEANING, AND ITS LINK TO DESIGN FOR HAPPINESS

Six ways in which material possessions can be symbolically meaningful



Products can have strong symbolic meaning because of their story, their ability to make our intentions tangible, or because they represent our achievements, memories, or affiliations.

In an effort to inspire designers to develop meaningful products with a positive impact on subjective well-being, Mafalda Casais developed a framework that includes six happiness-related symbolic meanings for material possessions. The framework is based on Carol Ryff's model of psychological well-being (see chapter 11):

Belongingness: The possession symbolises a user's sense of participation in something bigger than the self (e.g. social group, institution, belief system), and fosters positive relationships with others and a sense of purpose in life.

Example: A prayer rug offered by a devoted father, which simultaneously represents being part of a family, a culture, and a religion.

Connection: The possession represents an active bridge to other people and the world: such possessions provide the means with which to create beneficial networks that afford a positive environment for human flourishing.

Example: Warhammer Fantasy, a tabletop strategy game that has become a platform (on- and offline) used to connect and play with like-minded people.

Enablement: The possession facilitates the acquisition or improvement of competences and skills that support particular ways of life, and thus promotes environmental autonomy and mastery (e.g. DIY, sustainable lifestyle).

Example: A sewing machine, which helps develop a useful skill, provides a sense of capacity, and enables the expression of a do-it-yourself attitude.

Identity: The possession is a representation of one's (self-)image, and promotes autonomy and self-regulation. Such possessions can become meaningful by supporting the definition and communication of one's identity, both socially and internally.

Example: A parent ring; a (new) ring to express the (newly arrived-at) parental status of the wearer.

Self-development: The possession symbolises progressive, positive personal development. Such possessions relate the past with the present, thereby fostering self-acceptance, and the acceptance of past experiences.

Example: A set of military name tags; after active military service, these become a tool for reflection supporting maturity and personal growth.

Motivation: The possession indicates personal aspiration, and supports its fulfilment by encouraging a driven attitude. Such possessions are a means to accomplish goals or provide a tool for reflection that can nudge the desired behaviour, thereby fostering personal growth and purpose in life.

Example: A pair of new ballet shoes, which represent the intention to confront new challenges.



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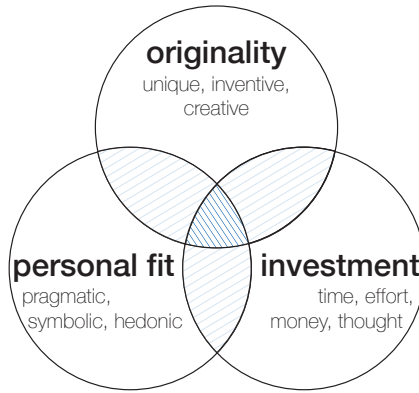
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26/ GIFTS FOR HAPPINESS

How do you select a gift that will make the recipient happy?



Junjie Liu, Chenchen Shen, Pieter Desmet and Irene Kamp studied how 'happy gifts' – gifts that contribute to the well-being of the recipient – differ from those that are not so well-appreciated. They found three ingredients that can contribute to the happiness of the recipient. Inspired by the work of Russell Belk, these ingredients have been dubbed *originality*, *personal fit*, and *investment*. Although each ingredient can contribute to a happy gift recipient, the optimum sweet spot can be achieved by those gifts that combine all three.

Originality: How original is the gift? This ingredient represents the extent to which the gift is unique, inventive or creative. For example, a gift can be rare or one of a kind; it can be made especially for this occasion, or be a collector's item. A gift can also express the creativity or ingeniousness of the giver: it can be hand made by the giver, or the giver can creatively identify an unexpected gift.

Personal fit: How well does the gift suit the recipient? The gift can have the recipient's favourite flavour, be a favourite brand, or simply be something that s/he can make good use of. This ingredient also represents the degree to which the gift is an expression of the relationship between the giver and the recipient (e.g. a DVD of a concert that they attended together, a picture with both the giver and the recipient). A gift can be a personal fit across three domains:

pragmatic (the recipient can make good use of the gift); symbolic (the gift represents an important value held by the recipient); or hedonic (the gift provides pleasure, indulgence, or enjoyment to the recipient).

Investment: How much did the giver invest in the gift? This ingredient represents the extent to which the gift required an investment by the giver. This can be a financial investment (e.g. jewellery), but also an investment of time, thought, or effort. For example, the giver can have made the gift her/himself, or have invested time and effort to find, obtain, or customize the present. This ingredient indicates the willingness of the giver to invest in the relationship with the recipient.

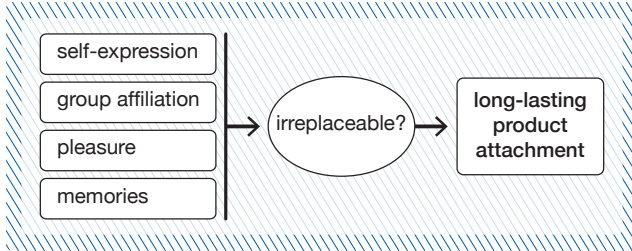


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27/ PRODUCT ATTACHMENT

Design for emotional durability



Some products are treasured by their owners, and considered special; others are not. In other words, people can experience attachment to products. Product attachment theory suggests that people form strong emotional bonds with specific products, and that these products trigger particular emotions. Due to this emotional bond, people are more likely to postpone replacing the product, ultimately leading to product longevity. Designing for product attachment, or emotional durability, is relevant for designers who wish to address the negative consequences of overconsumption on the environment.

Based on prior research into people's most treasured and special possessions, Ruth Mugge explored different reasons why people become attached to products, and concluded that product attachment occurs if the product holds a special meaning, over and above its utilitarian value. The four special meanings below were uncovered as possible determinants of product attachment:

Self-expression: the product expresses and maintains the owner's personal and unique identity.

Group affiliation: the product expresses the owner's desirable connections to family members, friends, or social groups.

Pleasure: the product provides pleasure to the owner because of its (superior) functional or aesthetic attributes.

Memories: the product is a reminder of people, events, or places that are important to the owner.

Based on these four determinants, several design strategies to stimulate emotional bonding with products are proposed (see further reading). Although these four determinants, and their resulting design strategies, provide an important starting point for designing for emotional durability, designers should consider that their application may not necessarily imply that the experienced product attachment is long-lasting. For example, a newly purchased watch that expresses a person's identity because of specific aesthetic attributes may readily take over the special, self-expressive meaning of a person's former watch.

To result in long-lasting product attachment, the owner should perceive the product as *irreplaceable*. Irreplaceability suggests that another product cannot readily take over the special meaning; and thus replacing this product, even with an exact replica, would imply that the special meaning is lost. For a product to become irreplaceable, the special meaning should be deeply anchored in that specific object; the product and its special meaning become inseparable. To stimulate long-lasting product attachment, designers thus need to explore creative ways to encourage the development of special meanings for products that will ultimately be perceived as unique and irreplaceable by future owners.

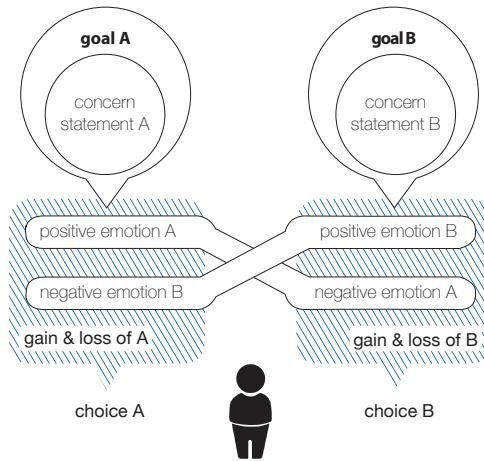


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28/ DESIGN WITH DILEMMAS

Concern conflicts stimulate design creativity and innovativeness



Imagine your alarm clock ringing in the morning. You need to attend an early meeting that is important for your work (concern for competence), but you also want to snooze in bed for as long as you can (concern for comfort). What do you do? This is the first dilemma many of us experience at the start of a typical workday. Dilemmas are pervasive in everyday life, and thus, they also prevail in design contexts.

Recognizing these dilemmas is a valuable design opportunity. Deger Ozkaramanli developed a dilemma-driven design approach that utilizes dilemmas as a starting point for human-centered design efforts. At the root of her approach lies a theoretical model wherein dilemmas are multi-faceted phenomena with at least three ingredients, all of which can help designers understand the nuances contained in user dilemmas:

Choice alternatives: Dilemmas always include an emotional tug-of-war between two or more mutually exclusive choices. If one needs to finish homework, but is also tempted to practice playing the guitar, one has to make a choice: it is not possible to do homework and play the guitar simultaneously.

Conflicting concerns: Underlying the choices are a variety of concerns. For instance, finishing one's homework can be motivated by the concern to achieve a passing grade in an exam, and practicing the guitar by the concern for pleasure. People have immediate concerns (passing an

exam), which resonate with long-term aspirations (obtaining the ideal job).

Anticipated mixed emotions: Dilemmas always involve mixed emotions. Playing the guitar evokes pleasure, but also guilt for postponing the homework. Likewise, doing homework evokes pride, but also self-pity for not being able to enjoy oneself.

Ozkaramanli identified *self-control dilemmas* as a special type of dilemma, because these offer an opportunity to design for subjective well-being. These are dilemmas that involve contradictions between a long-term goal, which is costly now, but potentially pleasurable in the future (e.g. working on the weekends to receive a promotion); and a temptation that is pleasurable now, but potentially costly in the future (e.g. relaxing on the weekends). She proposed six basic design strategies that can stimulate people's pursuit of a long-term goal:

1. Raise awareness about the consequences of pursuing long-term goals.
2. Raise awareness about the consequences of fulfilling temptations.
3. Create enablers to make long-term goals easier to pursue.
4. Create barriers to make temptations more difficult to pursue.
5. Add new sources of pleasure to pursuing long-term goals.
6. Add new sources of displeasure to fulfilling temptations.

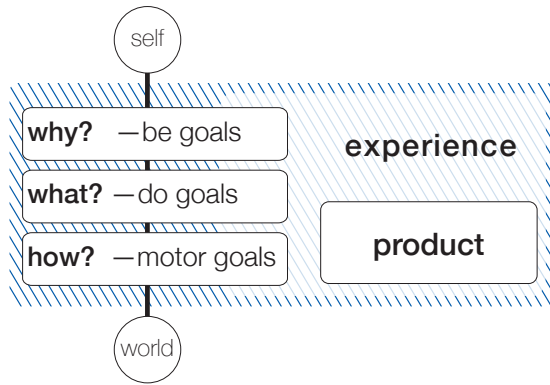


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29/ A HIERARCHY OF GOALS IN USER EXPERIENCE

Designing experiences before things by considering the ‘Why’ of interaction



Marc Hassenzahl introduced a model of user experience (UX) based upon the notion of a hierarchical organization of human goals: Motor, do, and be goals. The model is partly based on theories from psychology such as Self-Regulation Theory (by Charles Carver and Michael Scheier) and Activity Theory (by Victor Kaptelinin and Bonnie Nardi). Hassenzahl applied these to the fields of Interaction Design and Human-Computer Interaction by relating the goals and motivations of a person (self) with products in the environment (world).

Motor goals are on the lowest level of the hierarchy, and specify the *How* of operations that are performed to achieve the main functions (or do goals). For example, to record a video, one can design a series of steps or gestures such as pressing buttons, swiping on a touch screen, or other modes of interaction.

Do goals address the *What* of a human-product interaction, i.e. actions that can be performed with an interactive product, such as recording a video, protecting from bacteria, or frothing milk.

Be goals represent the highest, most abstract level in the hierarchy: the *Why*. Be goals are the closest to the self, for they are packed with meaning, needs and emotions. Whereas the *How* and *What* levels address instrumental goals, the *Why* of an experience relates to need fulfilment. Hassenzahl identifies six core psychological

needs in human-product interaction: autonomy, competence, relatedness, popularity, stimulation, and security. For instance, recording a video may not be a meaningful action in itself. However, if the video is about one's wedding, and one is watching it after 25 years, this activity becomes meaningful, evokes a number of emotions such as love and dreaminess, and relates to the need for relatedness. The device that records and plays the video is only of interest as a mediator of this experience.

Traditionally, interaction design has focused on do and motor goals – the instrumental side of the design. The main proposition that is put forward with this model is that designing and evaluating appropriate and meaningful experiences implies taking all three levels into consideration; with the *Why* – emotions, psychological needs, and meaning – setting the tone. Hence, an experience designer ought to start by considering the needs and emotions to target, and the stories to tell (the *Why*), before considering the physical properties that shape and mediate the experience (the *What* and *How*).



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EDITORS



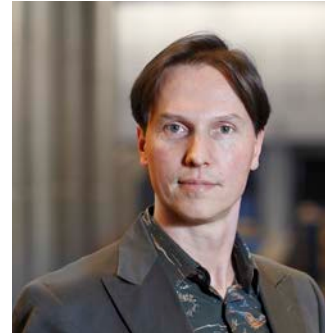
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Simon Jimenez is a user-centered designer and researcher inspired by human behaviour and flourishing. Simon completed the 'Integrated Product Design' master's programme at the Faculty of Industrial Design Engineering at Delft University of Technology, The Netherlands. As a designer, Simon wants to understand people, and how they interact with and within their environments, in order to create meaningful products and services that add value to people's lives.



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Anna is assistant professor in the Department of Industrial Design at Delft University of Technology, The Netherlands. Fascinated by the interplay of people, design, and technology, Anna holds a university degree in psychology and a Ph.D. in engineering. Her research expertise includes design for subjective well-being, user-centered design, and user experience with a focus on prolonging positive experiences. She is co-director of the Delft Institute of Positive Design, a research institute devoted to the study of design for human flourishing.



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Pieter Desmet is full professor of Design for Experience at the Faculty of Industrial Design of Delft University in The Netherlands. Pieter is program director of the MSc Programme in Design for Interaction, board member of the International Design for Emotion Society, and co-founder of the Delft Institute of Positive Design. His research and teaching focus on the question of how designers can wilfully design for short-term emotional and long-term well-being effects.

COLOPHON

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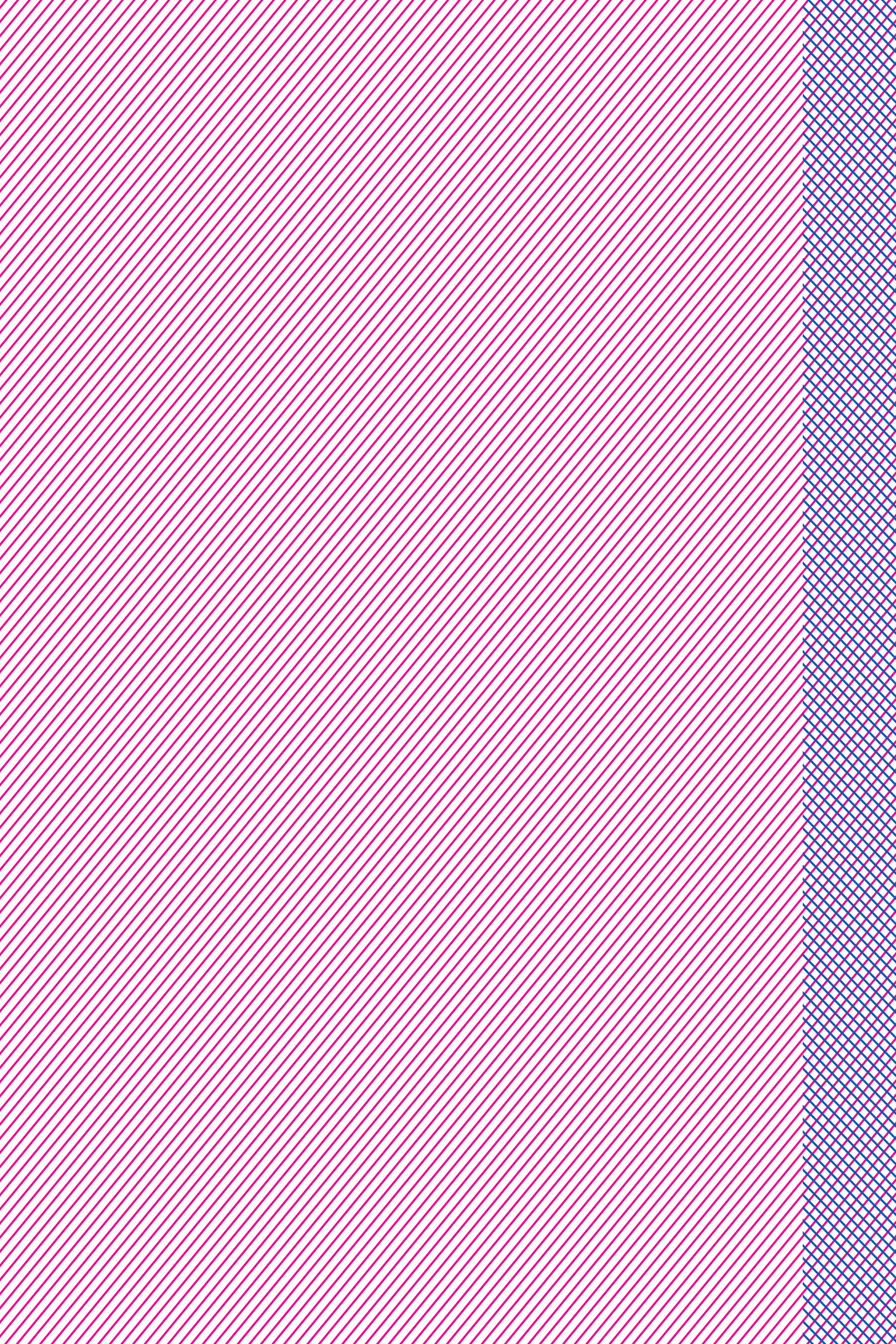
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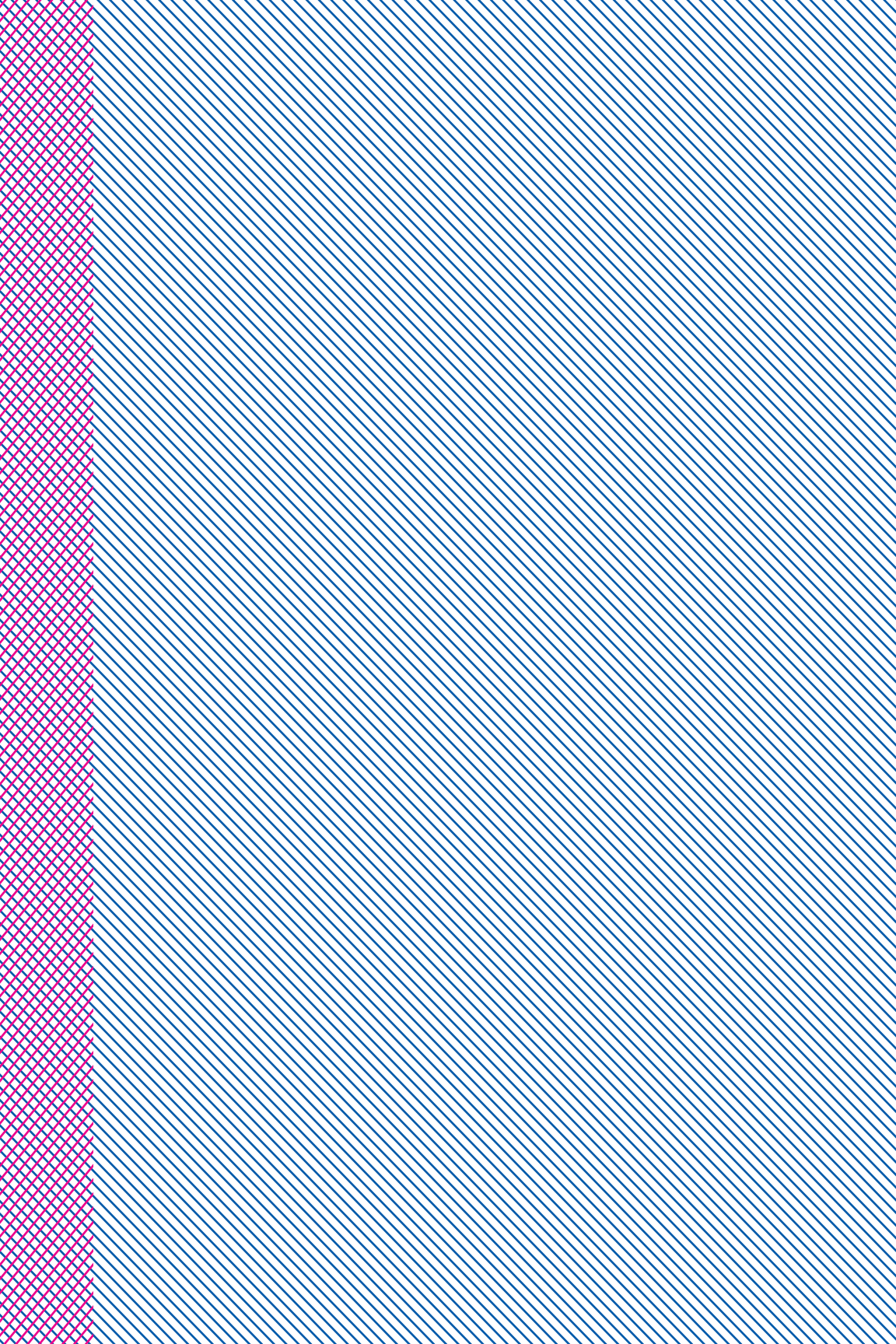
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POSITIVE DESIGN

reference guide

To design for pleasurable and meaningful experiences is an ambitious goal. For many designers, the first question is: where to begin? With an overview of 29 models, theories, and frameworks, the *Positive Design Reference Guide* provides a quick entry point into the body of literature relevant to experience design, and design for well-being. It is intended to be a source of inspiration and direction. This catalogue seeks to give designers the principles they need to meet current design challenges, and guide those who wish to design for human flourishing.

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Author of *Experience Design:
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