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# Enjoying Joy: A Process-Based Approach to Design for Prolonged Pleasure

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**Abstract**

User experience research has reached a good understanding of the importance of hedonic attributes and how to evoke emotions through design. Yet, there is only little knowledge on how to sustain and optimize positive emotions derived from a positive experience. This article introduces a novel approach to design for pleasure: by embracing savoring as a design principle, affective benefits of positive experiences can be prolonged and enhanced. Three corresponding design examples will illustrate this approach.

**Author Keywords**

Design; Emotion Regulation; Savoring; Prolonged Pleasure; Hedonic Adaptation.

**ACM Classification Keywords**

H.5.m. Information interfaces and presentation (e.g. HCI): Miscellaneous; J.4. Social and Behavioural Sciences [Psychology].

**Introduction**

Emotional Design has become an important and accepted field in the domain of user experience (UX) [4]. The design research community has established theories and methods on how to design for pleasurable experiences [5, 7] and even how to evoke specific

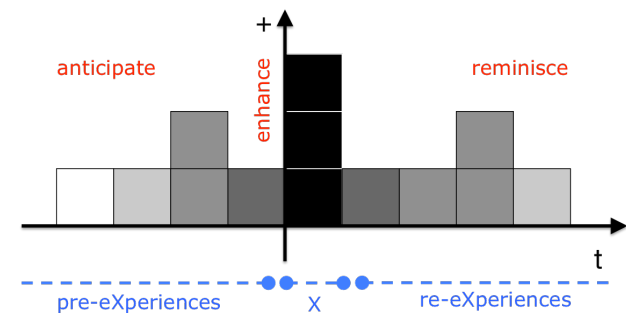
emotions through design [2]. These approaches focus primarily on determinants and the emergence of emotions as well as related product properties. The regulatory *processes* underlying the enhancement and prolonging of positive emotions, on the other hand, have received little attention in the design discipline. However, this aspect is worthwhile addressing as positive experiences can pass by without being truly noticed and new experiences might be sought for stimulation too hasty. For instance, initial emotions fade over time because people eventually adapt to changes. This phenomenon of reduced affective intensity is called hedonic adaptation [3] and, if progressing too fast, can lead people to constantly desire something new without reaching lasting satisfaction [9]. A more sustainable approach would be to first cherish the given before turning to the new and thereby to extend and optimize positive emotional experiences. Despite an increase of interest in long-term UX [6], current models are rather descriptive and tools focus on measuring long-term UX, but do not offer hands-on advice to design for prolonged pleasure. In the following, a process-based approach of positive emotion regulation is proposed to address this challenge in design.

### Positive Emotion Regulation: Savoring

Compare sharing great news with friends to not being able to tell anyone, imagine eating a Swiss chocolate bar with your eyes closed as opposite to devouring the same bar on the run – there are a number of behavioral and cognitive strategies with which people can maintain and increase positive emotions by attending to positive experiences from the past, present, or future [1]. The psychologists Bryant and Veroff [1] coined this active process of enjoyment

‘savoring’: “People have capacities to attend to, appreciate, and enhance positive experiences in their lives” and savoring is the process underlying these capacities [1, p.2]. It is important to note that savoring is thus not to be mistaken as pleasure itself, but resembles the processes of being aware of, attending to, and appreciating pleasure [1]. Design for savoring is therefore also not about *providing* pleasurable experiences as has been studied previously [5, 7], but about *optimizing* these by appreciating the enjoyment. As a result, positive emotions of a given positive event can be increased in intensity and duration (Figure 1).

Savoring positive experiences can be understood as the counterpart of coping with negative experiences. In both cases, it is less a matter of how these experiences came about, but how a person deals with the resulting emotional experience. In terms of emotion regulation, savoring up-regulates positive emotions in order to extract an optimum level of positive emotions from an event [1, 8] and has been shown to counteract hedonic adaptation and contribute to people’s well-being [9]. It is therefore a promising concept to consider in UX.



**Figure 1.** Enlarging the positive emotional experience of an original event (x) by additional, related experiences over time (t) and/or increased intensity of positive emotions (+).



### Intensifying and Prolonging Positive Emotional Experiences through Design

But what can be done to intensify positive emotional experiences? Nélis et al. [8] conducted a literature review on positive emotion regulation between 1995 and 2008 and identified four broad categories of savoring strategies: a) behavioral display of positive emotions, b) focusing attention on the present moment, c) capitalizing, i.e. sharing with others, and d) positive mental time travel, i.e. vividly anticipating or remembering positive events. As these thoughts and behaviors have been shown to favorably affect the intensity and duration of positive feelings (see also [1]), they can serve as valuable guides in design.

In general, design can contribute in a facilitating function to support savoring strategies. More specifically, design can enhance the experience of pleasure, e.g. raising awareness for the moment through sensory-perceptual sharpening [1], but also direct attention to upcoming or past events through triggering corresponding thoughts, e.g. notifications, or physical representations, e.g. memorabilia. Thus, it can act as a trigger, facilitator, and amplifier to consciously attend to pleasure – be it pleasure within a human-product interaction or from a separate experience.

What is particularly compelling in savoring research for design is that the pleasure derived from a single positive event can be multiplied in the three temporal directions of pre-experiencing, re-experiencing, and fully experiencing an event in the moment. As depicted in Figure 1, the integral of pleasure (shaded area) derived from an original experience can be extended along the dimension of time (x-axis) as well as in intensity (y-axis). It is often said that *anticipation is*

*half the pleasure*, as it is still open to imagination.

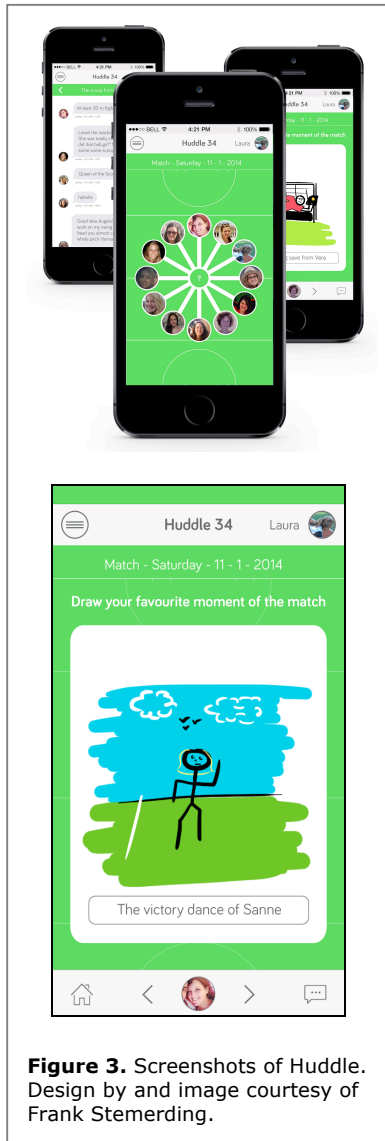
Similarly, reliving an experience and the associated emotions in memory – be it a nostalgic recollection of the good old days or realizing what a loyal companion one's laptop has been – reinforces pleasure efficiently and effectively. In this vein, it is also noteworthy to mention that positive emotional experiences can be enhanced not only in the moment but also in prospect and retrospect, e.g. by sharing with others. Hence, by looking into the underlying processes of experiencing pleasure, opportunities arise to proactively design for longer-term and enhanced positive experiences.

### Design Cases

In a design Master course at TU Delft, students received the brief to design for savoring and thereby to enhance or prolong positive emotional experiences. The target of savoring was open to be an event, circumstance, other person, object, or a human-product interaction as such. Each student chose a different context and formulated a corresponding design goal, i.e. the desired effect of the design solution. Regarding possible time perspectives, some deliberately chose one; others found most value in a combination. In the following, three design concepts that were detailed to a level of experiential prototypes will illustrate possibilities to incorporate savoring strategies in design.

#### *Being in the Moment: After Work Me Time*

Viola Tjew A Sin was intrigued to create a conscious shift in mindset when people return home after a day at work. She observed that people often do not engage in the things they would like to do in the evenings during a week (e.g. read a book, meet up with friends). Instead, they often let this precious time slip by as they



**Figure 3.** Screenshots of Huddle. Design by and image courtesy of Frank Stermerding.

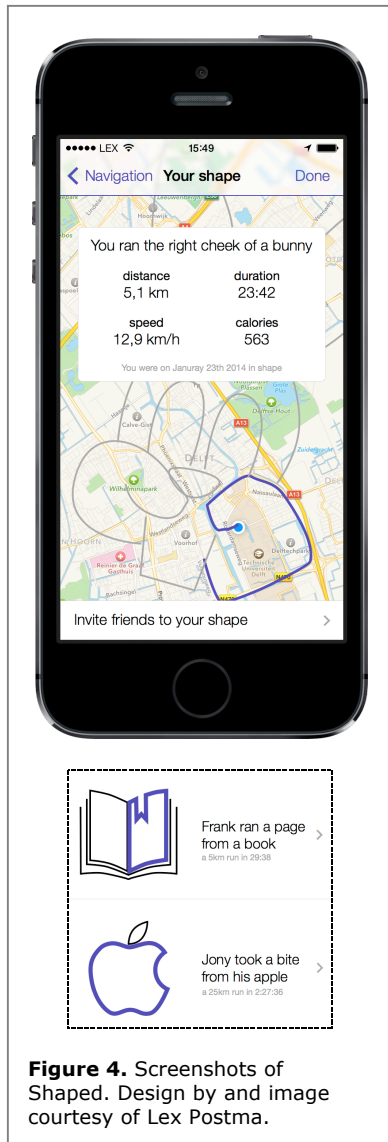
hold on to the hassles that belong to the office (e.g. read work mails, contemplate over to-do lists). A central moment for making a transition from work to leisure is entering the home. Rather than punching a time clock at work, she designed a clock and keycard with which the user punches in to me-time (see Figure 2). In contrast to recording time and mentally amplifying the stressing ticking of it passing, the design lets time stand still, mentally as well as literally, i.e. the clock freezes. Comforting silence is the reward that also amplifies awareness that it is now appropriate to relax. This multi-sensory interaction of tactile, auditory and visual feedback emphasizes that the present moment is introducing a new phase in the day. Clearly, one can also come home, finish some urgent work-related tasks first and then punch in to me-time somewhat delayed. It is less about precise timing, but rather about paying attention that precious free time has begun and to willfully acknowledge it. The clock will start ticking again when the user removes the keycard. The hand expedites to the current time, which offers the user a moment of reflection while observing the time span replay.

In sum, this example shows that the mere moment of focused attention might sometimes be the necessary ingredient to enjoy a positive event [8]. The design does not add a particularly pleasurable component, but facilitates pronounced awareness of a positive circumstance through multi-sensory feedback [1] in a context-sensitive way and with the help of familiar metaphors. Furthermore, it invites to a short moment of reflection the next day, making transitions in both directions explicit.

### *Looking Back: Huddle*

A German national soccer coach once memorably said “*after the game is before the game*”. This statement captures the idea in sports that one should not get caught up in the success or failure of a match, because the next chance or challenge, respectively, is just around the corner. The saying also implies the strong focus on outcome and performance in sports that can overshadow the fun of being involved in the first place. The design goal of Frank Stermerding’s project was to extend the duration of satisfaction and joy after a match for members of an amateur sports team. Only analyzing what went wrong, quickly forgetting about what actually went well, and immediately focusing on the next goal is quite a negative approach, in particular on an amateur level. Instead, one could also look back, share and relive positive moments of the match together, although already physically separated.

The design solution is a smartphone application called *Huddle*. The term huddle stands for a team gathering in a closed circle to set up a strategy and to energize as a team on the field. It is a distinct expression of team bonding, also used in celebration. The Huddle app is in line with these motives. It collects positive memories of a match (or training) by different team members, all relating to only one question or task that was posted by an administrator (e.g. coach, captain, or rotating role) for a respective session. The task such as “Draw your favorite moment of the match” (see Figure 3) is visible to all members. However, in order to see the responses, one has to join the virtual huddle by also contributing a response. This way it is a fair, joint effort driven by curiosity more than by a feeling of obligation. In addition, by having only one question (per match) for all members, different views will become apparent



**Figure 4.** Screenshots of Shaped. Design by and image courtesy of Lex Postma.

and offer opportunities for surprise and variety. Responses can be given in form of text, drawing, video or audio, keeping the interaction stimulating.

As a social platform, members of the huddle can comment on each other's posts, creating an additional layer of reflection. There is no hierarchy in a huddle – everyone can share their view and thereby contribute to a supportive group feeling. The aesthetics and interaction qualities are deliberately chosen to be playful, simple, and 'sketchy' to lower the threshold of participation and to relate to amateur teams.

The app is an example of how design can facilitate to focus on positive aspects of an event without interfering with the event as such. It enables team bonding remotely by connecting players after a session from home and by relying on contributions from its members. The two strong savoring strategies of mental time travel in the form of reminiscence and capitalizing [8] have been applied in combination to stretch and enhance the positive emotional experience of the team. The design functions as a trigger to savor, as a medium and platform for communication, and as a visual representation of the team members' connectedness.

#### *Looking Forward: Shaped*

The third design case started out by looking into ways to increase a positive anticipation of running as it was found in interviews that although hobby runners might feel great during and after a run, many feel tired and hesitant beforehand. The interview results also indicated that those who invest in some preparations see a positive effect on their performance. Inspired by the fun and rewarding, yet structured, interaction qualities of preparation when hanging Christmas stockings at the fireplace, Lex Postma designed the

smartphone application *Shaped*. Shaped recommends (and later on navigates) a number of different shapes to run in the familiar neighborhood based on specified preferences, location data, previous performance, and with the help of an established route planning technology (see Figure 4). Shapes can be subdivided into multiple runs, which makes the next run not a stand-alone event but a crucial part of a longer-term challenge. They are an inviting form of preparation.

What is more, users can invite friends to join a shape, upgrading an individual sport to a group project. Friends do not even have to live in the same city – runners from different parts of the world can contribute different parts of a shape. The system will then combine and overlay the sections to a whole. This allows people to share their achievements with others. Furthermore, a group run can increase commitment to one's goal and consequently act as a motivator.

Shaped clearly not only promotes anticipation, but can enrich the entire time lapse of before-during-after running (i.e. mental time travel [8]). Running a shape increases attention by looking at running (and one's neighborhood) through a new lens, one that goes beyond exercise results. It also offers the opportunity to join efforts by connecting with friends (i.e. capitalizing [8]), irrespective of their location or fitness level. In short, the fairly simple feature facilitates to savor the experience across time and space.

### **Summary and Conclusions**

The three design cases exemplify the potential of savoring as a design principle. Their diversity, e.g. of time perspective, demonstrates the richness of this approach. There are also no formal limitations to the

choice of digital vs. physical artifacts – each can be used, also in combination, depending on the fit to context and its best use. For example, to share the experience of good feelings with others, a mobile and online variant with additional modes of communication might be preferable, while returning to the intimacy of one's home rather calls for a physical solution as part of the interior. All projects offer the user a shift in and enlargement of perspective to given circumstances – some more explicit than others, but all in an easily accessible manner to avoid losing the main focus of the experience. This is a key challenge: design for savoring must not distract from, but direct to a given, positive experience. Three modes of design interventions are being proposed: (1) to *trigger*, e.g. the audio-visual contrast of a ticking clock and time standing still, (2) to *facilitate*, e.g. a dedicated communication platform embedded in one's existing phone, and (3) to *amplify* consciously attending to pleasure, e.g. a visual representation of one's achievements.

How we look at and interpret the world, hence, what we devote our attention to, affects our experiences and eventually our well-being [1, 9]. When designing for (pleasurable) experiences it is therefore crucial to direct attention to the positive and to consider how positive emotions can be prolonged in order to counteract hedonic adaptation [3, 9]. Rather than striving for a fast-paced consumption behavior of constant novelty seeking, the current work aims to increase the intensity and duration of pleasure derived from positive experiences. Valuable frameworks and tools exist that support designers in creating engaging and pleasurable experiences [2, 4, 5, 7]. The novelty of the present proposal is to focus on the active process of enjoyment in order to maximize and, in particular, to extend an

existing emotional experience. Thus, taking positive emotion regulation into account can be an efficient and viable approach to design for prolonged pleasure.

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