

# book of dilemmas

for designers

Deger Ozkaramanli



# Book of Dilemmas for Designers

This booklet is intended as an inspirational outcome of a larger research project. If you want to learn more about the topic, you can read the author's PhD thesis titled *Me against myself: Addressing personal dilemmas through design*. This project was supervised by Prof.dr. P.M.A Desmet and Dr. E. Özcan.

## REFERENCE

Ozkaramanli, D., Desmet, P.M.A., & Özcan, E. (2017). Book of Dilemmas for Designers. Delft, Delft University of Technology. ISBN: 978-94-6186-787-2.

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# introduction

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*“You cannot have it all”, “life is full of trade-offs” or “consider both sides of the coin” are common expressions we may hear when we experience a dilemma. People often want multiple things at a time. Because of this, we face many dilemmas in everyday life. For example, we may want to eat whatever we desire, and at the same time, wish to remain slim. Or, we may want to express our views openly at work, and at the same time, fear receiving negative reactions from colleagues.*

*This booklet is designed to support user-centered designers in understanding and designing with the phenomenon of dilemmas. In Part A, you will get to know Sophie, a fictional character, and her dilemmas. Throughout this story, you will get a chance to observe the psychological principles underlying dilemmas, which can support an in-depth understanding of the phenomenon.*

*In Part B, you will be introduced to the activities involved in designing with dilemmas. In this part, you will learn about identifying dilemmas (discovery), formulating relevant and inspiring dilemmas (definition), and generating ideas to address a specific dilemma (application). As a result, you will be able to relate your understanding of dilemmas to the design process.*

*Finally, in Part C, you will explore dilemma-inspired product examples that address each of Sophie’s dilemmas from Part A. This part of the booklet is designed to inspire you to create dilemma-inspired products in future projects.*

***This booklet is an outcome of a larger research project. To learn more about dilemma-driven design, you can read the author’s PhD thesis titled *Me against myself: Addressing personal dilemmas through design.****



# contents

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This book is divided into three main parts. After going through its contents, you will be able to recognize the key principles of dilemma experiences (Part A - understanding dilemmas). In addition, you will become familiar with tools and techniques that can be used to capture and analyze dilemmas relevant for a given design brief, and to generate design ideas to address these dilemmas (Part B - designing with dilemmas). Finally, the design examples in Part C will guide you in seeking designerly solutions to the dilemmas of your users, and most probably, of your own as well (Part C - product examples).

## part A - understanding dilemmas

**06 -  
29**

*illustration of 12 everyday dilemmas & the 'map of dilemmas' for analyzing these experiences.*

## part B - designing with dilemmas

**30 -  
46**

*activities involved in designing with dilemmas: discovery, definition, and application.*

## part C - product examples

**47 -  
59**

*design strategies to address dilemmas supported by design examples.*

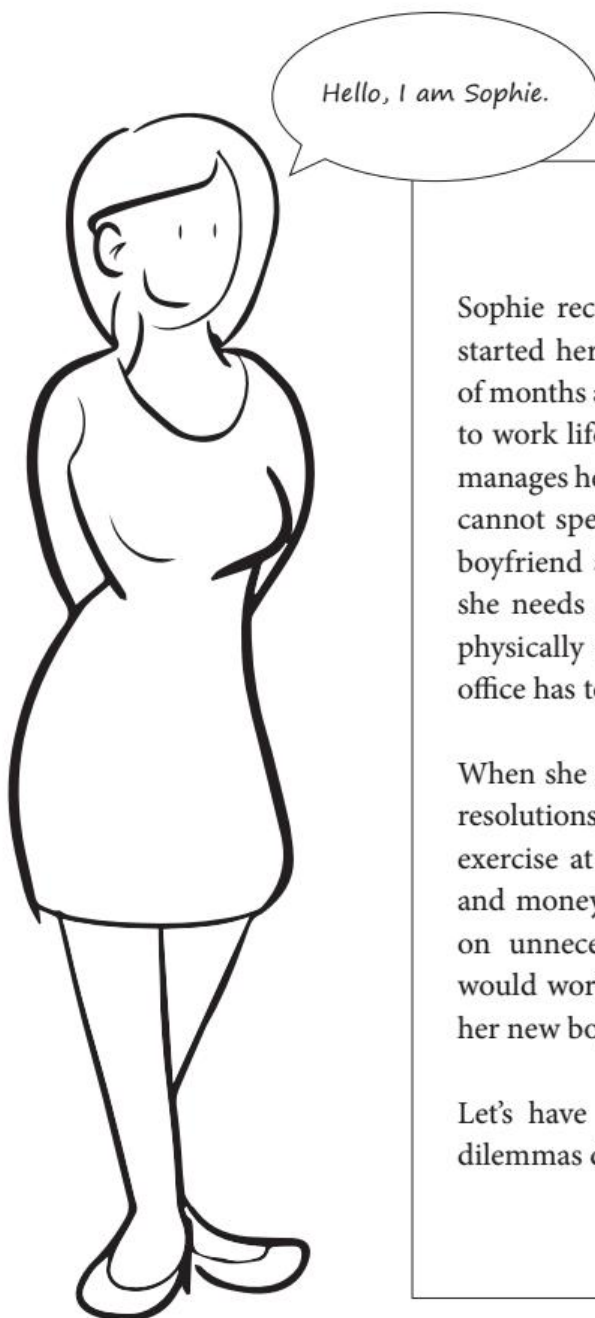
# part A understanding dilemmas

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*In this part, you will meet a fictional character, Sophie. She faces 12 different dilemmas from an ordinary Friday morning until the Saturday afternoon. She may be a fictional character, yet you may recognize some of her dilemmas from your own everyday experiences.*

*To learn more about the relevance of dilemmas for design, you can read Chapter 2 of the author's PhD thesis.*





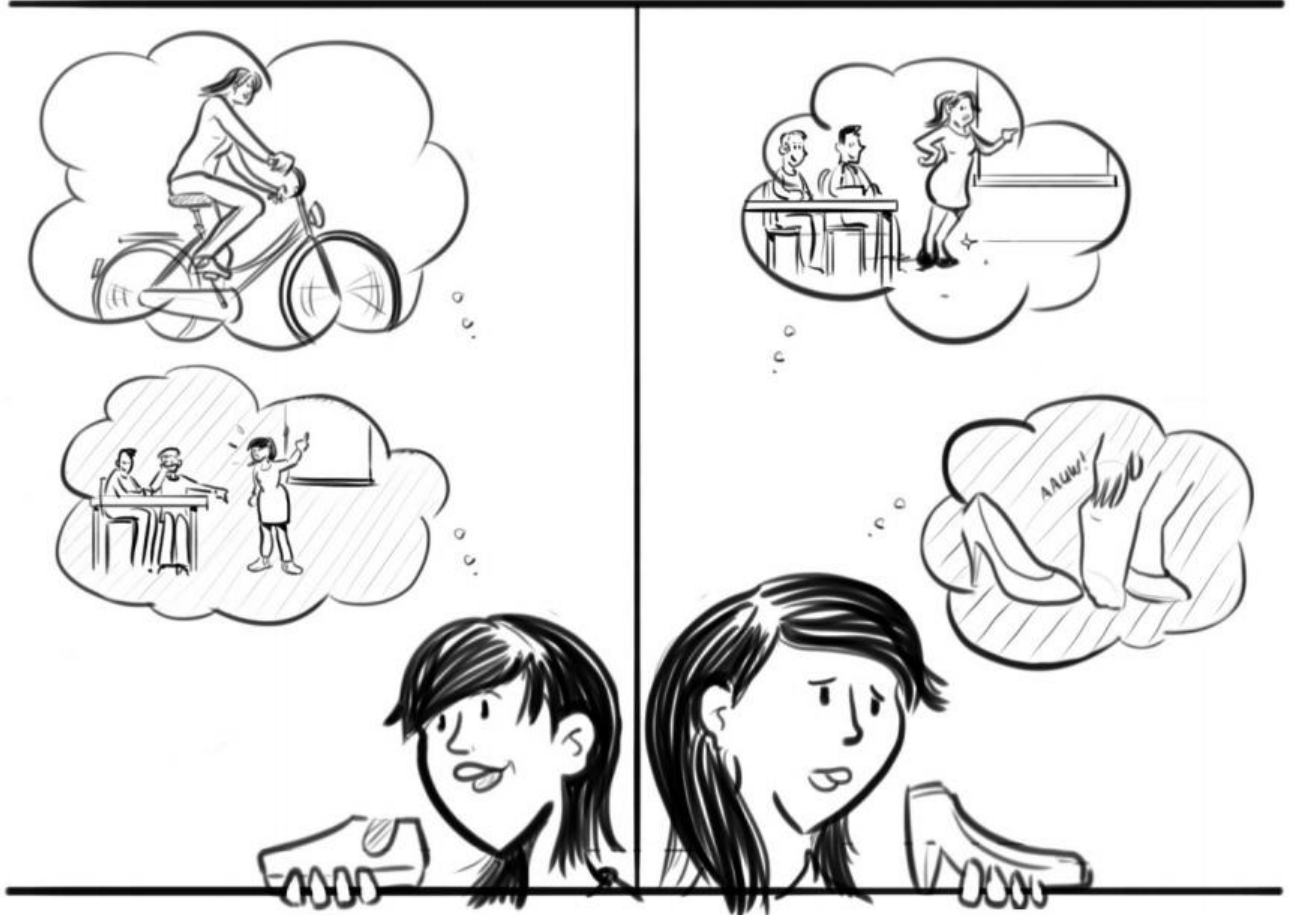
Sophie recently graduated from university, and started her first 'real' job as an architect couple of months ago. The transition from university life to work life had implications on the way Sophie manages her time and activities. For example, she cannot spend as much time with her friends or boyfriend as she used to. She also realized that she needs more personal time to mentally and physically prepare for long workdays when her office has to meet a deadline.

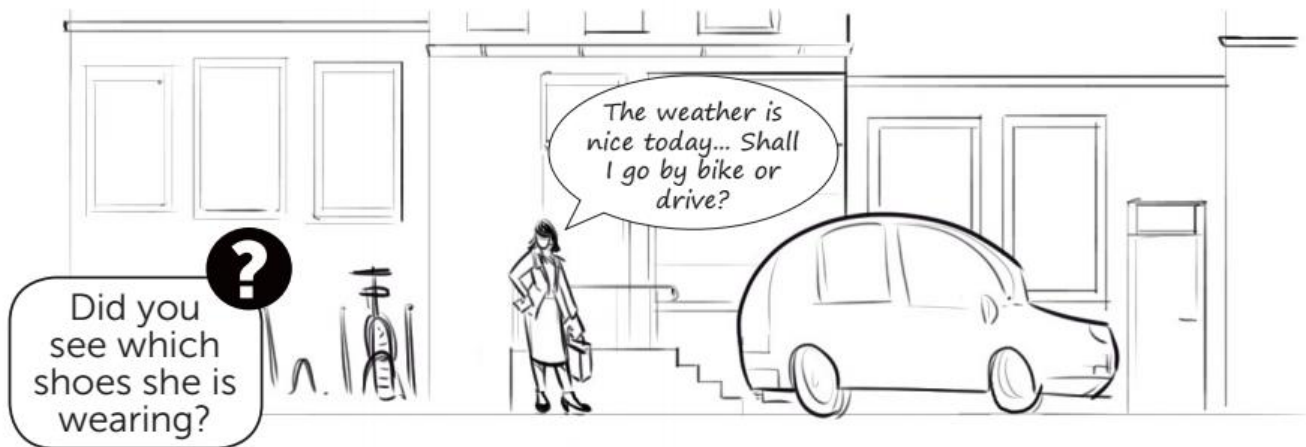
When she started working, Sophie made several resolutions: She promised herself that she would exercise at least once a week, spend more time and money on having a balanced diet (and less on unnecessary fashion items), and that she would work on improving her relationship with her new boyfriend, David.

Let's have a closer look at Sophie's goals and dilemmas during a regular day in her life...

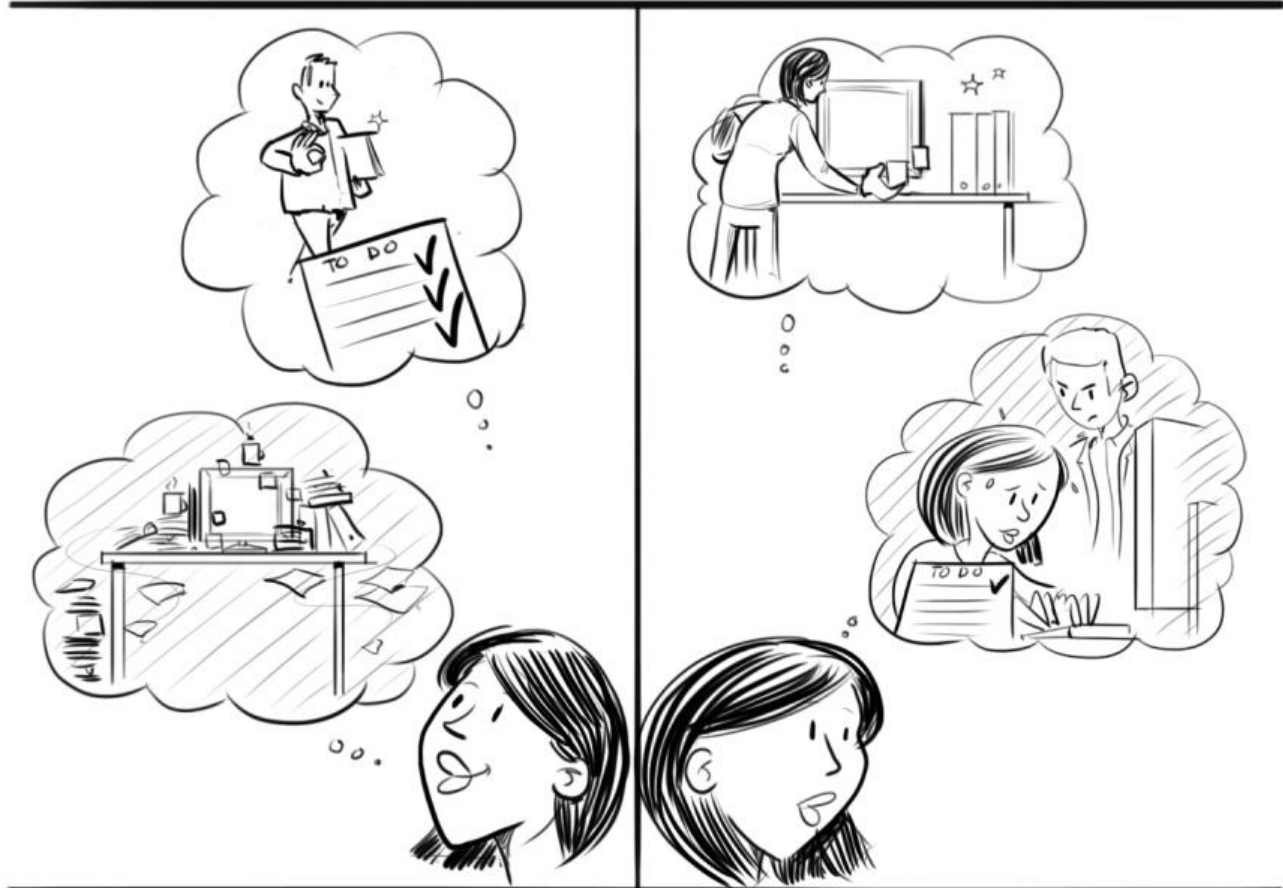










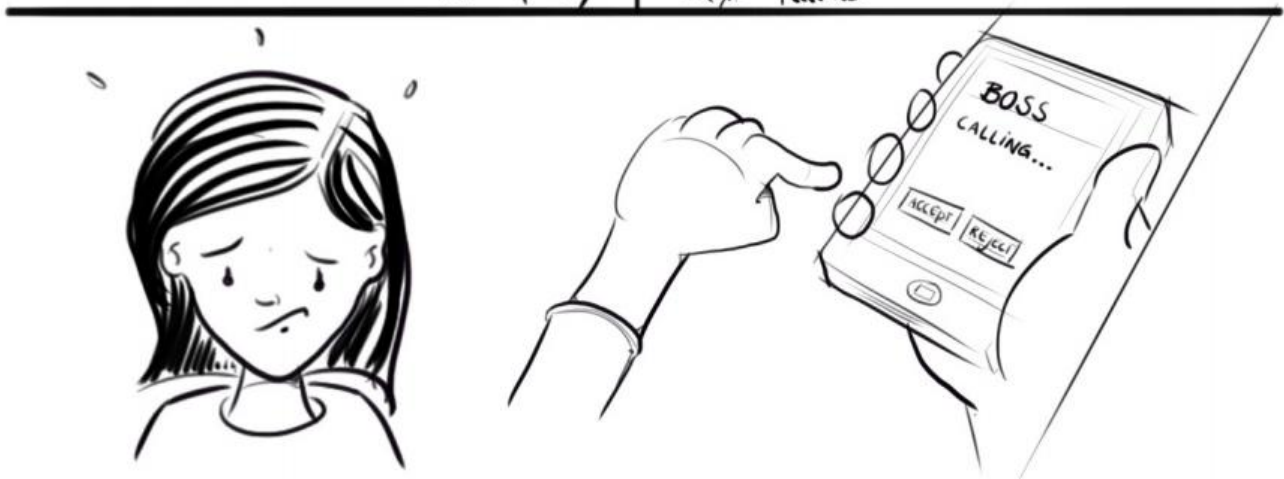


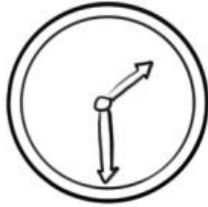










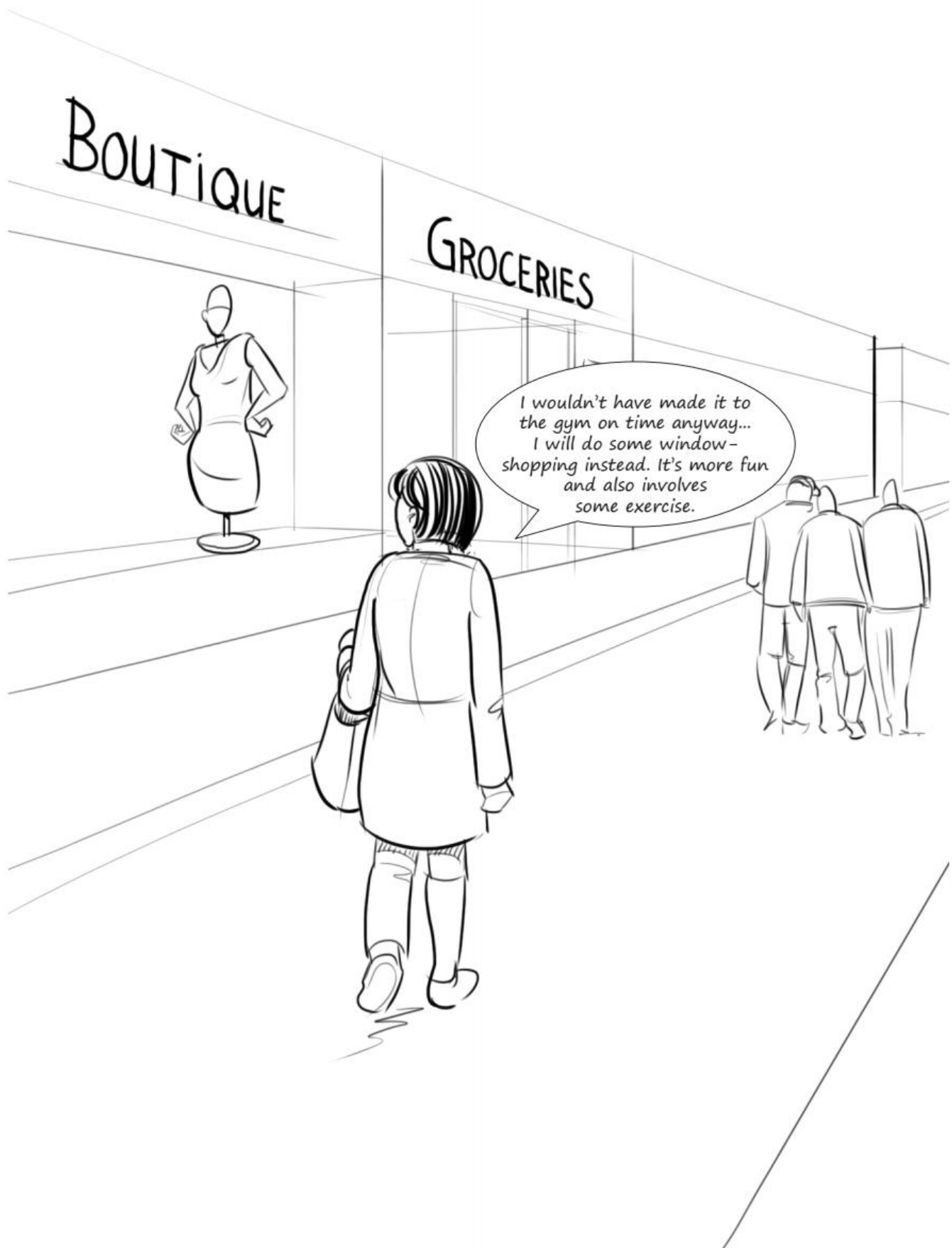


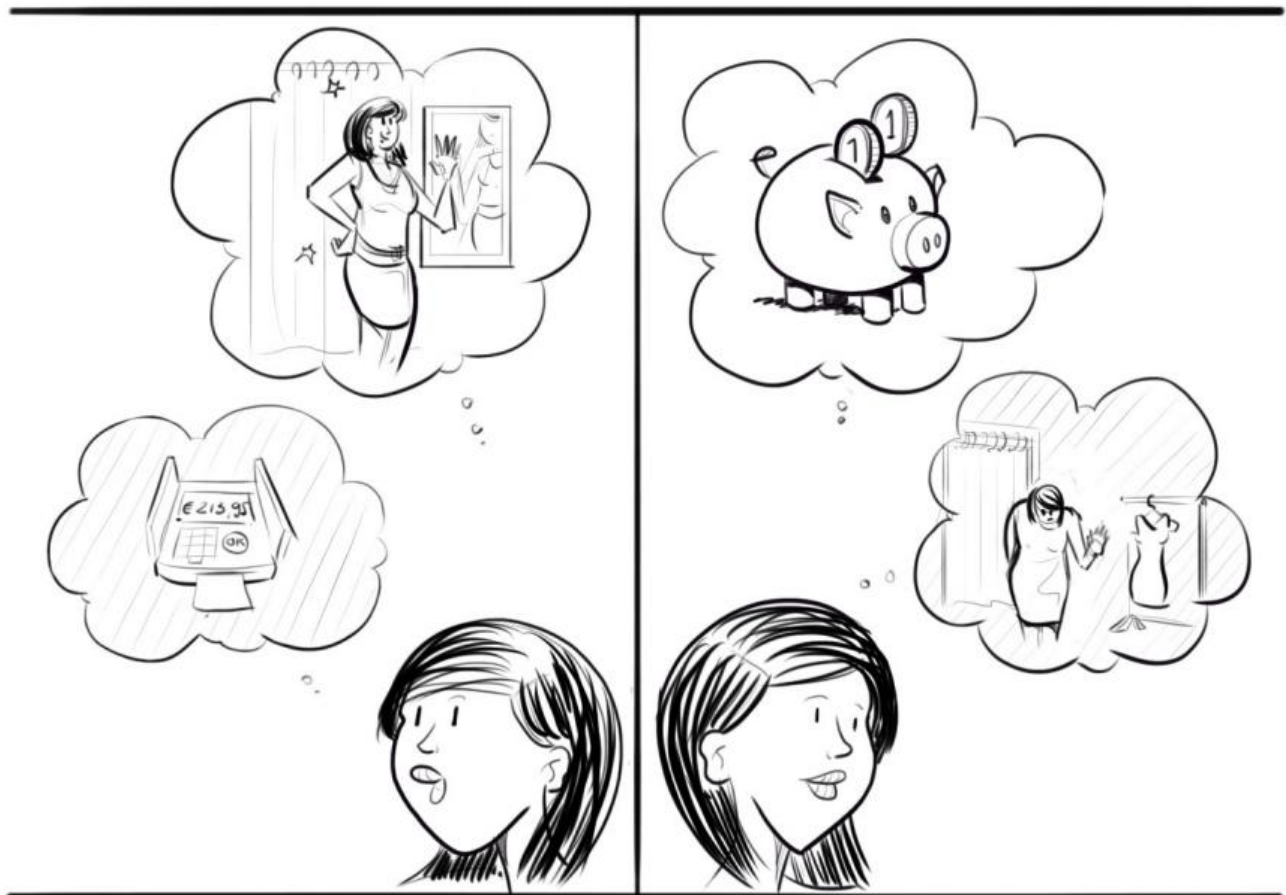
Hi Sophie,  
Let's get that report finished  
today, the deadline has  
already passed, you know.



Did you see  
that her desk  
is not messy  
anymore?





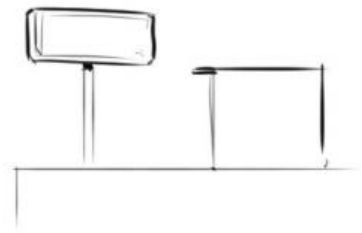




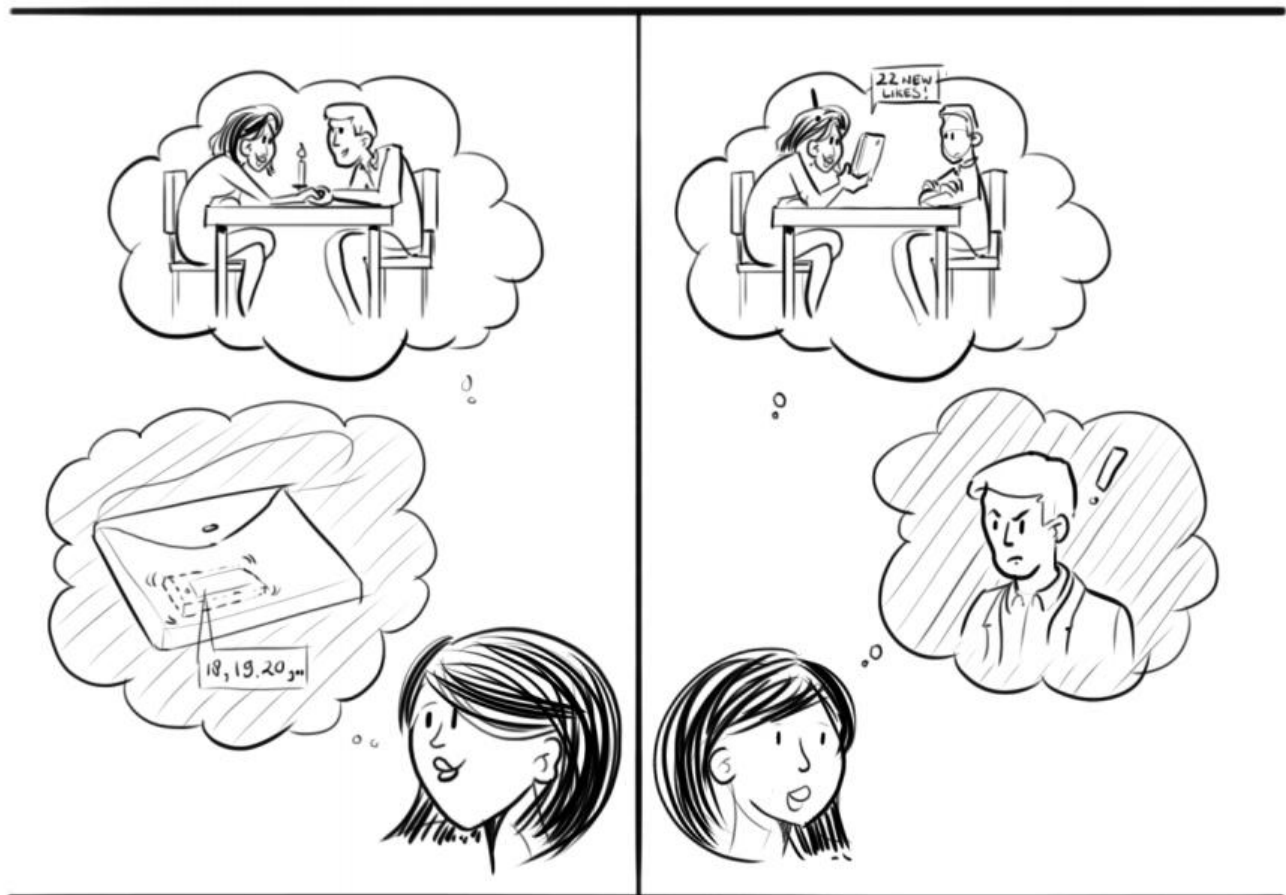


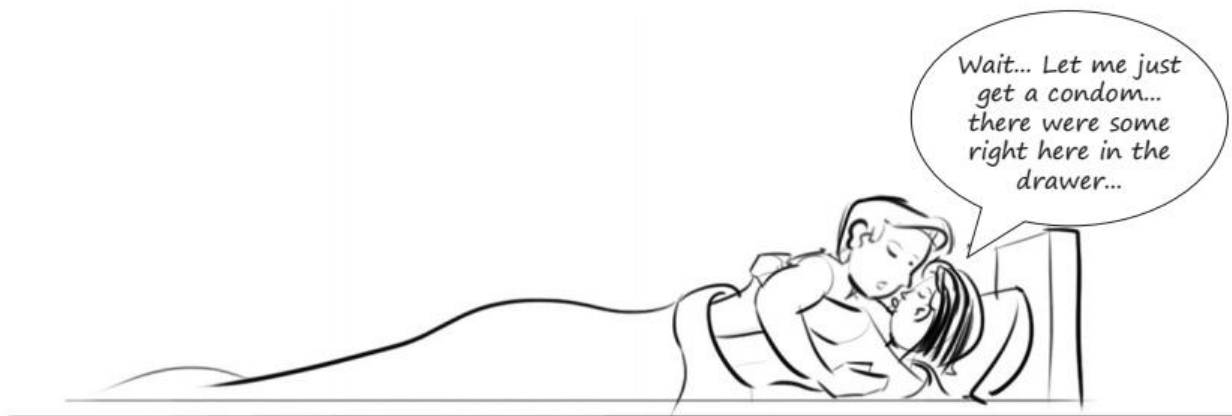
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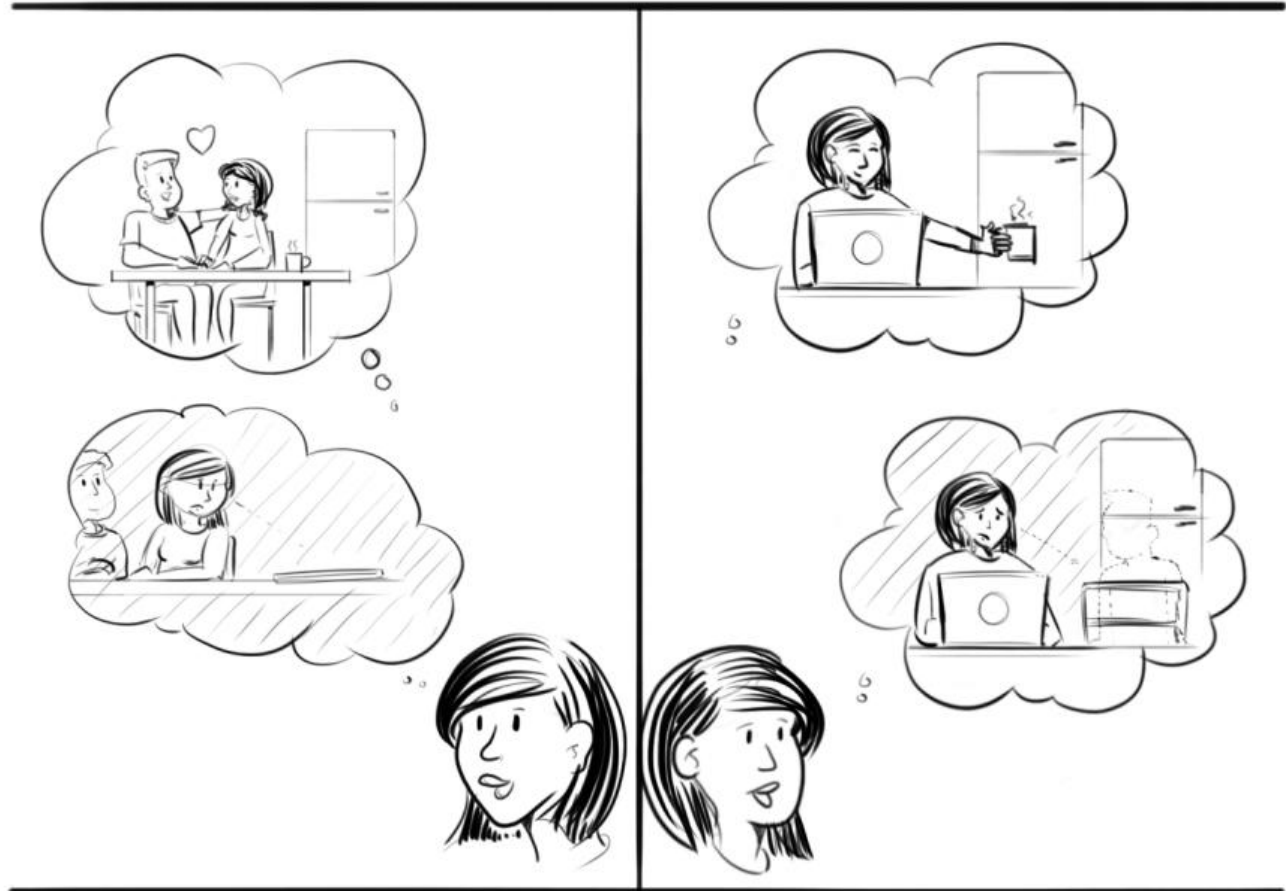
What would you do in this situation?















# dilemmas are ...

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*Sophie's dilemmas demonstrated some everyday situations in which she had to make a choice such as 'lingering in bed in the morning' vs. 'getting out of bed to be on time for work'. One of the important characteristics of these situations is that Sophie could not choose both alternatives at the same time - lingering in bed implied that she would be late for work. In other words, her choice alternatives were mutually exclusive, forcing her to choose either one or the other alternative.*

*Besides these choices, Sophie's dilemmas were marked with mixed emotions (such as relaxation vs. remorse, evoked by lingering in bed). Her facial expressions in the illustrations often denote these mixed emotions.*

*Finally, and possibly most importantly, Sophie's dilemmas always involved conflicting concerns that help us understand why certain choices were important to her. For instance, being on time for work is important for Sophie because she values being a responsible person. At the same time, sleeping longer is important to be well-rested before an important meeting.*

*These three main ingredients (choices, mixed emotions, and conflicting concerns) are the main psychological ingredients of dilemmas. In other words, dilemmas can be defined as the experience of having to make a choice between two mutually exclusive alternatives, where each alternative evokes mixed emotions due to the conflicting personal concerns associated with them.*

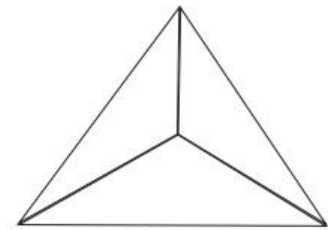
***To learn more about the ingredients of dilemmas, you can read Chapter 5 of the author's PhD thesis on dilemma-driven design.***



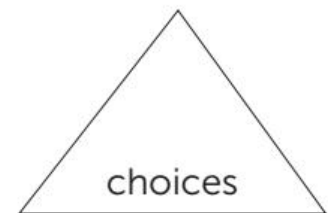
# multi-faceted experiences

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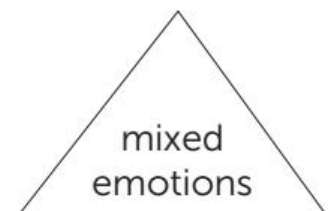
Dilemmas are experiences with multiple faces, like the faces of a pyramid - the three main faces of dilemmas are mutually exclusive choices, mixed emotions, and conflicting concerns.



The first face reveals **choices**: Dilemmas can be explained in terms of choices that people cannot have (or do) at the same time. For example, buying an expensive dress implies that Sophie needs to compromise from her savings. What if she was saving for a meaningful gift for her mother? Well, that's a trade-off she had to face.



The second face reveals **mixed emotions**: When faced with a dilemma, people try to anticipate how choosing either one of the alternatives would feel, and often decide in light of these feelings. For example, Sophie felt confident wearing her new dress to her dinner date, but she also experienced remorse for letting go of a big chunk of her savings.



The third face reveals **conflicting concerns**: Dilemmas can best be explained in terms of people's (or users') concerns. This is because concerns indicate why a certain alternative is important and why the person feels the way she does when choosing or giving up on that alternative. For Sophie, buying a new dress was an attractive choice because she wanted to look good on her dinner date. On the other hand, not buying the dress was an option because she wanted to save money for another, perhaps more meaningful purchase.

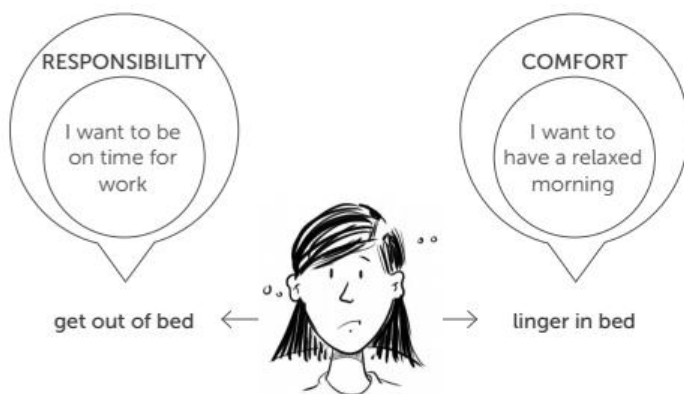


# analyzing dilemmas

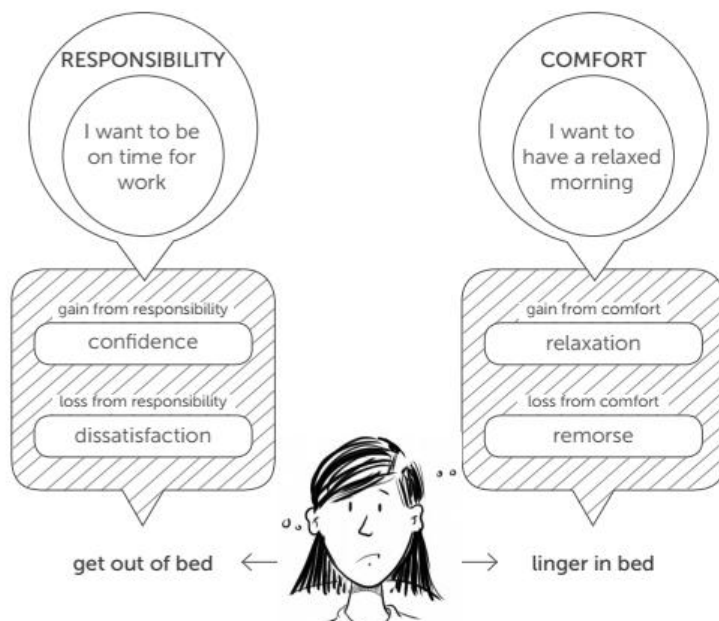
You will now be guided through a framework that structures the psychological ingredients of dilemmas in graphical form. This framework is called the map of dilemmas. You can use this map as a tool to analyze and compare user dilemmas relevant for a given design brief.



Let's go back to the very first dilemma of Sophie: She can either choose to get out of bed or to linger in bed. Dilemmas always involve such a choice, in which both choice alternatives come with potential gains and losses.



These potential gains and losses are associated with Sophie's concerns. Being on time is important for her because she has a concern for being a responsible person. At the same time, she wishes she could stay in bed longer, because she has a concern for comfort, i.e., having a relaxed morning.



In her moment of hesitation, Sophie experiences mixed emotions. If she chooses to get up, she may feel confident because she knows she will not be late for the meeting. Yet, she may also feel dissatisfied because she is still tired. If she chooses to linger in bed, she may feel relaxed; yet, she may also experience remorse due to the risk of being late.

## good to know

### mutually exclusive choices

Mutually exclusive choices: are two choice alternatives that cannot be pursued at the same time.

### conflicting concerns

Concern: is a collective term that represents what people find important for their wellbeing - these can include their goals (i.e. wants), standards (i.e. norms and expectations), and attitudes (i.e. tastes and dispositions). On the map of dilemmas, concerns are represented as "I want to ..." sentences.

### mixed emotions

Mixed emotions: are the positive and negative emotions that people anticipate to experience when they make a choice. These emotions are evoked by thinking about the consequences (gains and losses) of choosing 'A' or 'B'.

# part B designing with dilemmas

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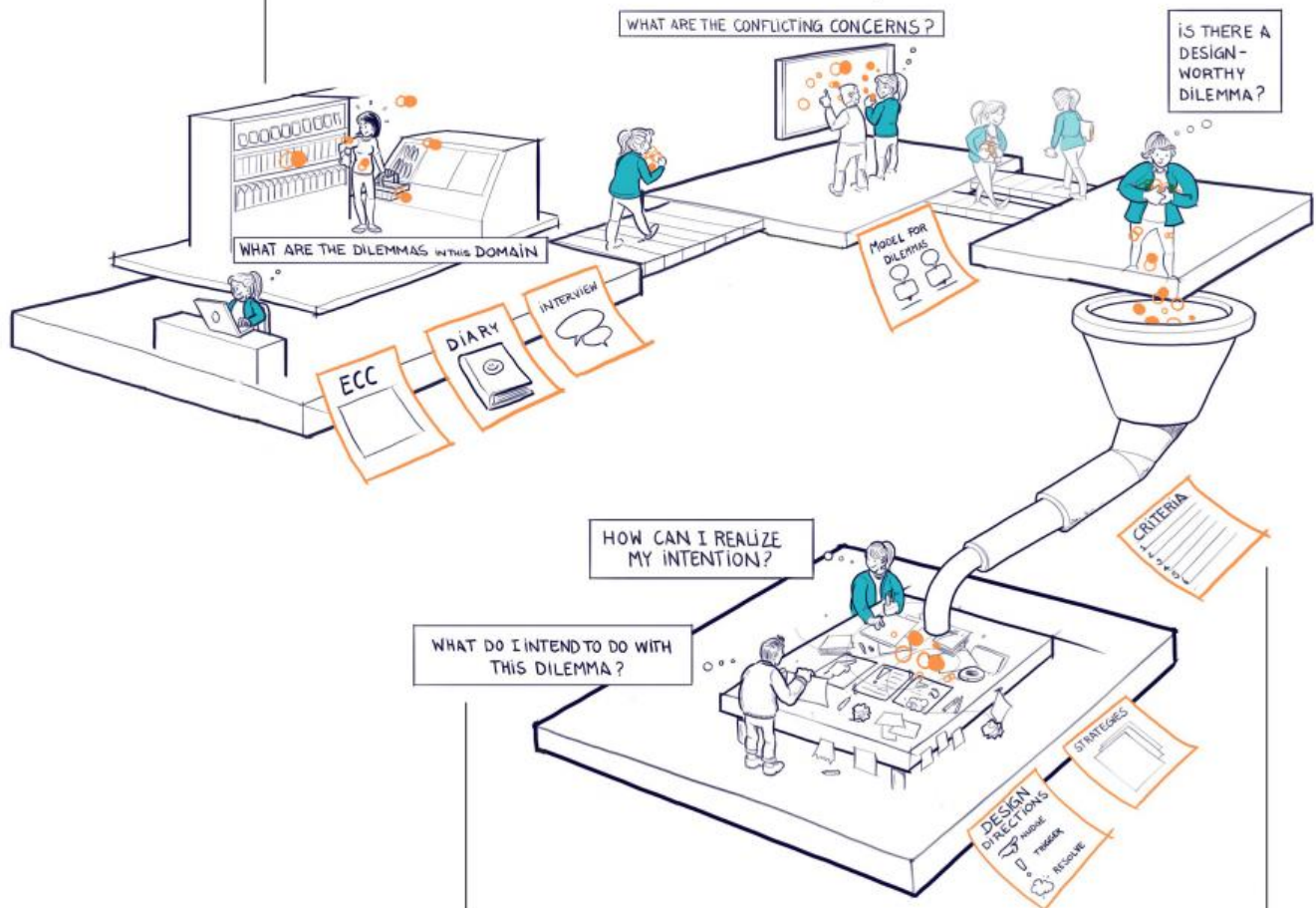
*Designing with dilemmas involves three main activities. These are (1) discovery: identifying dilemmas relevant for a given design brief, (2) definition: analyzing all dilemmas and selecting a target dilemma, and (3) application: creating ideas that can address the selected dilemma.*

*In the illustration on the right, the character in the blue jacket is the designer (presumably you) who is the main decision-maker in the design process. The dilemmas are the orange-white circles, and the design aids supporting each activity are the square figures outlined with orange contour lines (see the legend at the bottom of the figure). Let's have a look at what's happening in the figure...*



Following identification, dilemmas are analyzed to reveal their three main ingredients - namely choices, mixed emotions, and conflicting concerns. This facilitates an in-depth understanding of user dilemmas and supports selection of a relevant and inspiring dilemma (see pages 34 - 35).

Users' dilemmas can be identified using various techniques, such as experience sampling and in-depth interviewing, as well as by methods that do not involve direct involvement of users, such as interviews with domain experts (see pages 32 - 33).



This selected dilemma can, in the final stage, be taken as a starting point for generating ideas. Designers can address dilemmas in three distinct ways - that is by resolving, by moderating, or by triggering dilemmas. Implementing each of these directions is further supported by a set of design strategies (see pages 41 - 45).

A set of qualities (or criteria) explicates the main questions that designers can ask themselves when selecting a target dilemma. Through answering these questions, the design team can reflect on and discuss which dilemmas to eliminate and which dilemmas to choose as input for ideation (see pages 36 - 39)



designer



user



user dilemmas



design tools

# capturing dilemmas

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*Designing with dilemmas always necessitates understanding the dilemmas of users relevant for a given design brief. For capturing user dilemmas, you can choose to use either user-centered or designer-centered methods.*

*User-centered methods involve direct contact with end-users as participants who can give information about their dilemmas.*

*Designer-centered methods do not involve users as a direct source of information for designing. Instead, they rely on the knowledge and judgments of the design team for collaboratively formulating dilemmas.*

*The toolkit that is complementary to this booklet (Dilemma Co-Exploration Toolkit) will help you to get more familiar with a designer-centered technique for capturing dilemmas. You can go through the instructions in the toolkit and start exploring the goal cards and the product cards now!*

*To learn more about capturing relevant and inspiring dilemmas, you can read Chapter 3 or 7 of the author's PhD thesis on dilemma-driven design and explore the toolkit accompanying this booklet.*



User-centered methods involve users as research participants in data collection. Using these methods requires time and resource investment; however, this pays off as immersing in the context of users deepens the understanding of their dilemmas and increases empathy for them - which is long known to be a necessary ingredient for successful, user-centered design.

There are at least two established user-centered methods that can be used to identify dilemmas. These are experience sampling and in-depth interviewing. To learn more about how to use these methods to identify dilemmas, you can read Chapter 3 or 7 of the author's PhD thesis on dilemma-driven design.



*you (designer)*     *your user*  
**user-centered  
methods**



**experience  
sampling**



**in-depth  
interviewing**



**brainstorming with  
goal cards**



**brainstorming with  
product cards**

**designer-centered  
methods  
(co-exploration)**



Dilemmas are abstract phenomena. Therefore, it might be challenging for designers to identify them through (only) user-centered methods. People often do not have conscious access to their dilemmas, and even if they do (as it might be the case for highly reflective people), they might find it difficult to articulate these dilemmas in a way that is useful for design activities.

The Dilemma Co-Exploration Toolkit is created to address this challenge. It is a procedure that can be used by designers and domain experts to collaboratively formulate possible dilemmas in a specific domain. The toolkit includes two sets of cards to facilitate this procedure - these are goal cards and product cards. You can now refer to the Dilemma Co-Exploration Toolkit to discover how these cards can be used to formulate dilemmas.

# map of dilemmas

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After capturing a dilemma, designers can use the model of dilemmas as a reference tool to better understand the dilemma by filling in the missing ingredients.

## A

### Concern title A

*Why is choosing A important for this person?*

### Concern A

*How can you formulate a concern statement for goal A?*

*(tip: I want to ...)*

### Mixed emotions A

*Which positive emotion would the person experience due to the fulfilment of goal A (i.e. gain from goal A)?*

*Which negative emotion would the person experience due to the violation of goal B (i.e. pain from goal A)?*

*(tip: get help from the emotion lists on [www.emotiontypology.com](http://www.emotiontypology.com))*

### Choice A

*What could be one of the choices the person has in this situation?*

The diagram illustrates the 'map of dilemmas' model for choice A. It features a large circle at the top with a dotted line for a title and a central area with four dotted lines for a concern statement. Below the circle is a shaded rectangular box with a diagonal line pattern. Inside this box, the text 'gain from goal A' is positioned above a rounded rectangular input field, and 'pain from goal A' is positioned above another rounded rectangular input field. A dotted line for a choice statement is located at the bottom of the diagram.

# B

## Concern title B

*Why is choosing B important for this person?*

## Concern B

*How can you formulate a concern statement for goal B?*

*(tip: I want to ...)*

## Mixed emotions B

*Which positive emotion would the person experience due to the fulfilment of goal B (i.e. gain from goal B)?*

*Which negative emotion would the person experience due to the violation of goal A (i.e. pain from goal B)?*

*(tip: get help from the emotion lists on [www.emotiontypology.com](http://www.emotiontypology.com))*

## Choice B

*What could be one of the choices the person has in this situation?*

gain from goal B

pain from goal B




.....

# design-worthy dilemmas

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Since dilemmas are common in everyday life, you can identify many dilemmas relevant for a given design brief. It can thus be a challenge to choose a target dilemma when defining the design problem - which one of these dilemmas would be the most worthy of design?

To address this challenge, you can rely on the seven qualities of design-worthy dilemmas. These qualities were derived from a cross-comparison of dilemma-driven design cases. They explicate the main questions that designers can ask themselves when selecting a target dilemma. Three main questions stand out here (QA) Is this dilemma relevant for the majority of my users and their wellbeing? (QB) Can this dilemma inspire novel design ideas? And (QC) Can I reformulate this dilemma in a way that helps me to find alternative solution spaces?

<b>QA</b> Relevance		1	Does this dilemma address the key challenge given in the design brief?
		2	Does this dilemma apply to the majority of users?
		3	Does this dilemma have a direct impact on the wellbeing of my users?
<b>QB</b> Inspiration		4	Does design (products and/or services) play a role in this dilemma?
		5	Does this dilemma involve surprising elements or concerns that you did not think about before?
<b>QC</b> Meaningful Formulation		6	Does this dilemma involve multiple choice alternatives (instead of strictly opposing 'yes' or 'no' type of choices)?
		7	Is this dilemma abstract enough to evoke novel ideas, yet concrete enough to inform ideation?

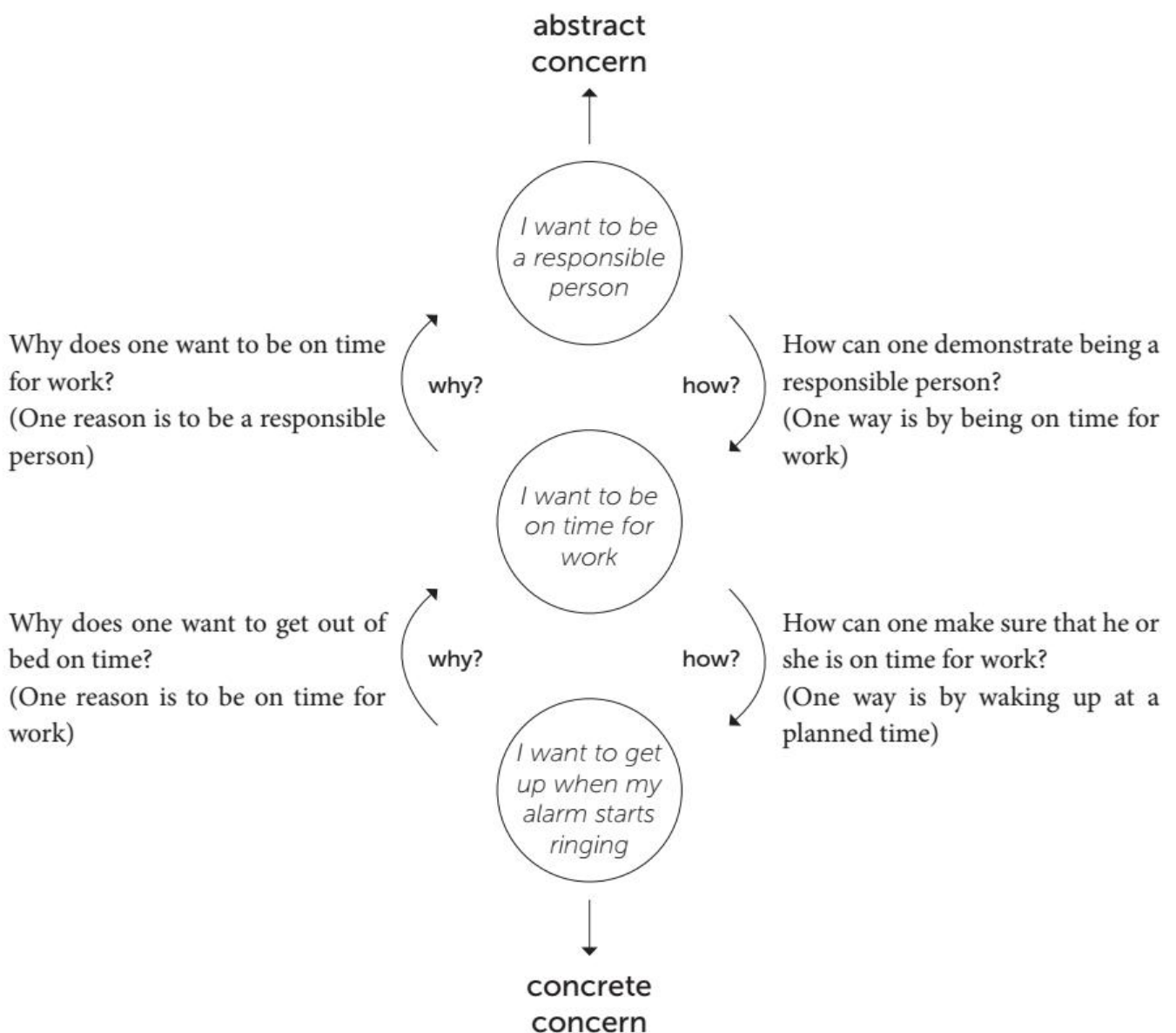


# reframing dilemmas

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At this point, you have decided on a design-worthy dilemma as the leading theme for generating ideas. Congratulations! From this point onwards, this dilemma is your guide.

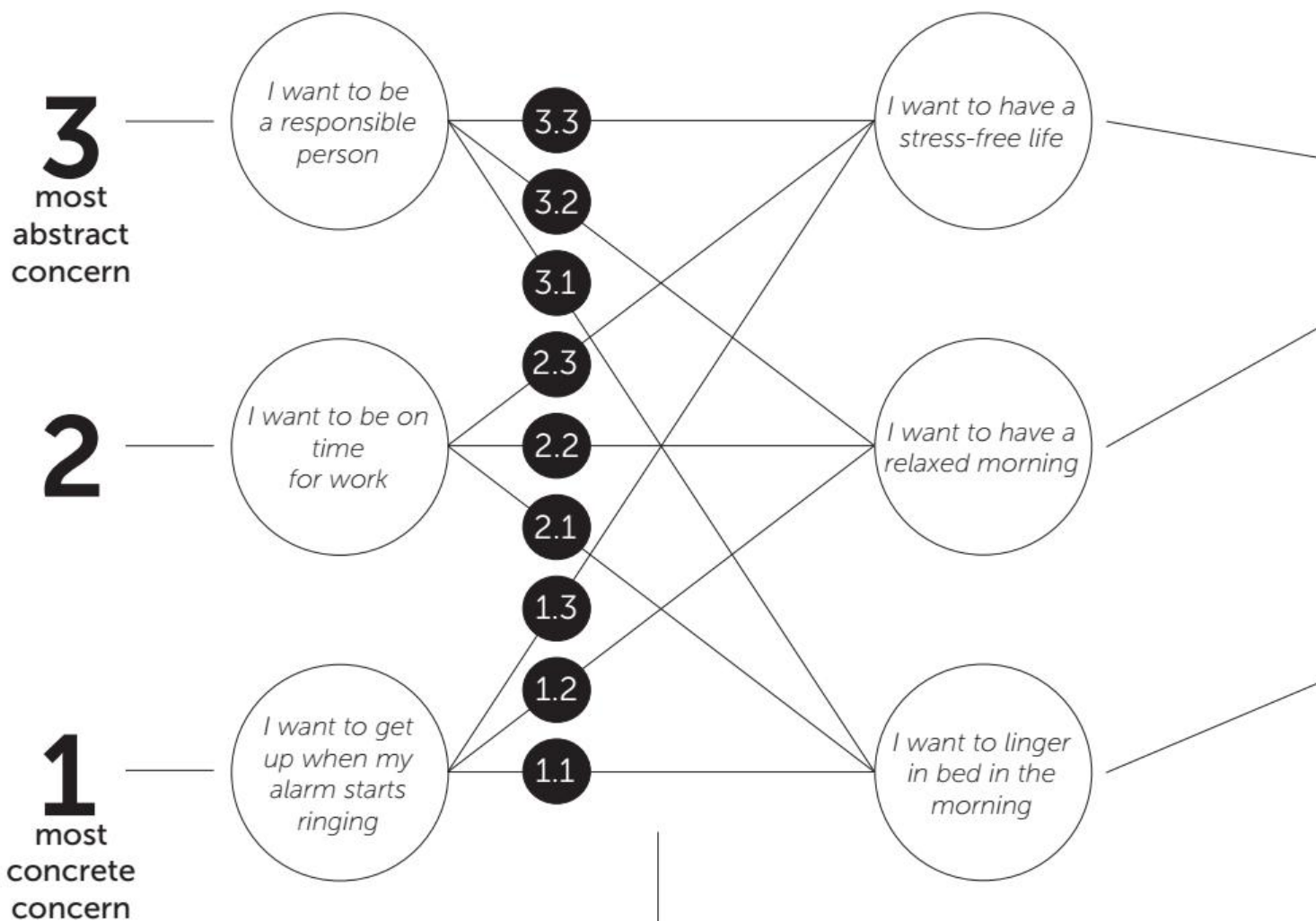
As you might have already realized, dilemmas are best expressed in the form of two conflicting concern statements, such as “I want to linger in bed” vs. “I want to get up when my alarm starts ringing”. An opportunity here is to experiment with different variations of these concern statements to formulate an inspiring dilemma that can energize ideation. One way to formulate variations of a concern, without losing its essence, is to make it more abstract or more concrete than the initial formulation you created - how to do that? Let’s start with the statement “I want to get up when my alarm starts ringing.”



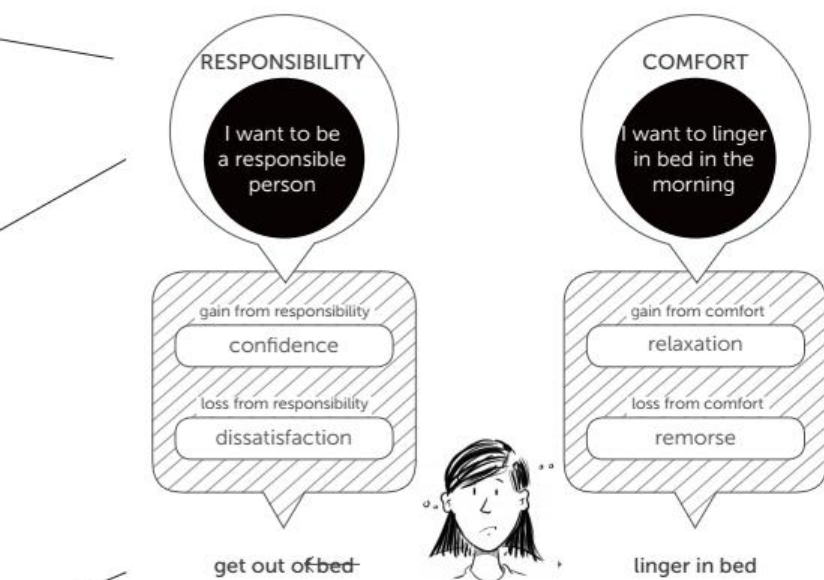


You can now rewrite the second concern statement “I want to linger in bed” in the same way, and pair it with one of the variations of the first concern.

The key insight here is to look for a conflicting concern pair that strikes a balance between being actionable (being concrete enough to give information about users and their context) and inspiring (being abstract enough to stimulate novel design ideas). This balance is important for forming an advantageous solution space.



Notice that doing this will offer you 9 alternative conflicting concern pairs to work with (dilemmas 1.1. to 3.3 in the above figure). Not all of these 9 dilemmas will be equally inspiring; however, trying them out in ideation can lead to a larger variety of design ideas than sticking with only one dilemma.



Also notice that the three levels of dilemmas (where 1 was the most concrete and 3 was the most abstract level) match the structure of the map of dilemmas. In this structure, the choices often align with the most concrete level and the concern titles align with the most abstract level. You can place the conflicting concern pair you selected in the black circles.

# questions

**how would your design idea change if you used different dilemma formulations as input ?**

**the 1st dilemma (dilemma 1.1) would possibly result in an alarm-clock. How about the others?**

## good to know

Concrete concerns (e.g., “I want to wear flat shoes to work”) often involve tangible references, such as time, location, or physical features, which makes them easy to imagine and describe. Alternatively, abstract concerns (e.g., “I want to be elegant”) are intangible and they lack well-defined physical references. This makes abstract concerns harder to imagine and describe. At the same time, research suggests that abstract formulations allow for more originality in ideation due to their broad nature.

Since both abstract and concrete formulations have their benefits (and limitations), it might be helpful to understand and exercise with the nuances of these formulations in concern framing to discover inspiring dilemmas as input for ideation.

*To learn more about reframing dilemmas, you can read Chapter 4 of the author's PhD thesis on dilemma-driven design.*

# generating ideas

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Identifying and reframing dilemmas only take us nearly half way through the design process - what about generating design ideas? In this section, you will discover that designers can respond to dilemmas in at least three meaningful ways. The plurality of these directions helps finding novel ways to address user dilemmas that might not otherwise be considered.

One of the most obvious way designers respond to dilemmas is through resolving them. This means designing a product (or a service) that fulfills conflicting user concerns simultaneously. However, there are at least two other ways to respond to dilemmas - these are moderating dilemmas and triggering dilemmas.

**Resolving dilemmas.** These interventions aim to redesign existing products or services in such a way that conflicting concerns can be fulfilled at the same time.

**Moderating dilemmas.** These interventions aim to help users manage their dilemmas by explicitly prioritizing one concern over the other.

**Triggering dilemmas.** These interventions aim to draw attention to the concerns aroused by the dilemma and thus create awareness about the dilemma itself, without necessarily fulfilling any one of these concerns.

Page 43 shows the three main design directions and supporting design strategies that can be used to address dilemmas. Orange color indicates which concerns the designer chooses to fulfill when creating a dilemma-inspired product.



which design  
direction do  
you think the  
designers of  
the following  
products used  
when designing  
these products?

resolving,  
moderating or  
triggering?



*VacuVin Nut Dispenser  
([www.vacuvin-voor-thuis.nl](http://www.vacuvin-voor-thuis.nl))*

*It keeps nuts and candy fresh  
and hygienic*



*Clocky by Gauri Nanda  
([www.nandahome.com](http://www.nandahome.com))*

*It is an alarm-clock that escapes on its  
wheels after your first snooze period is  
over.*



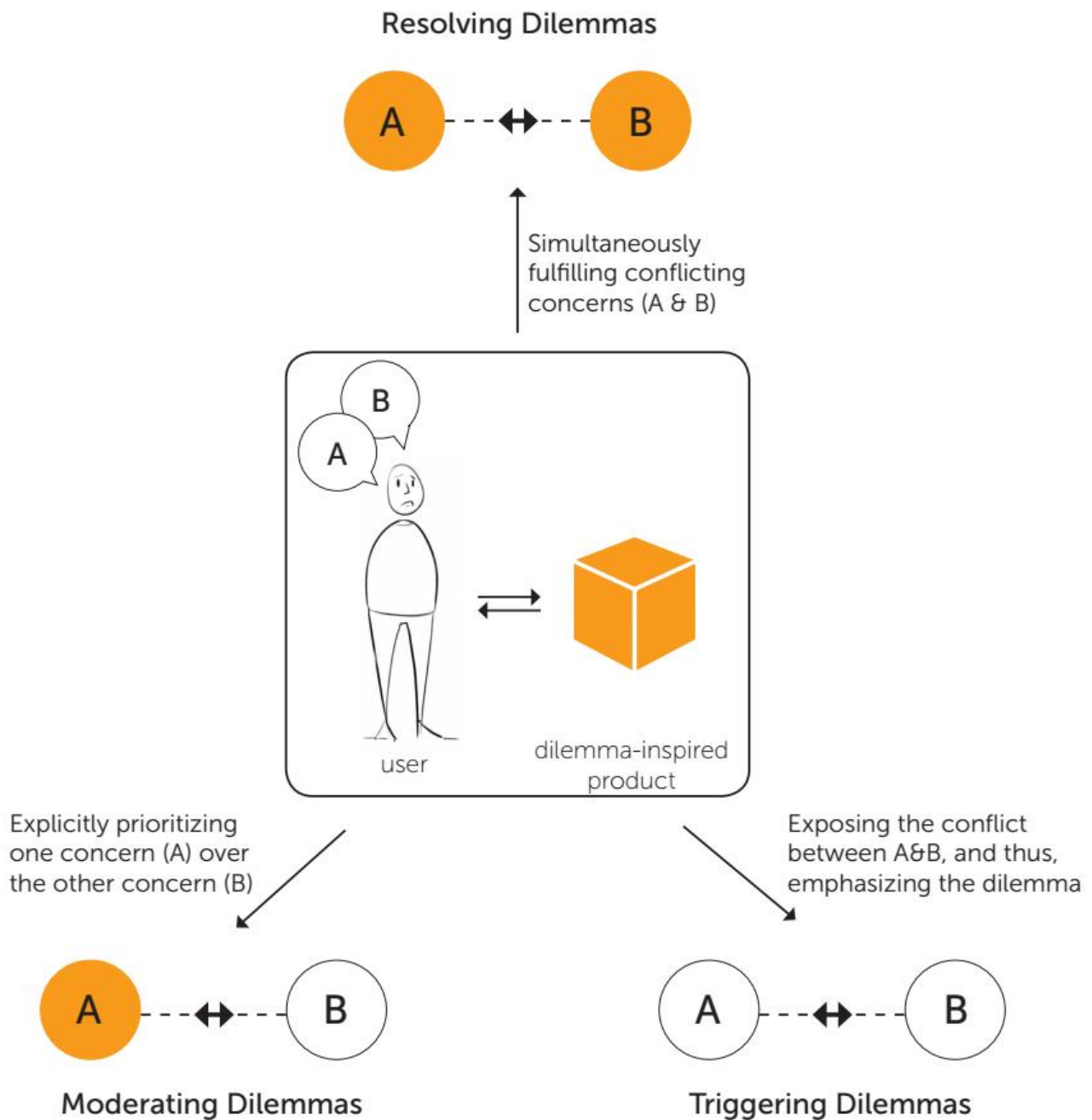
*Thrive Portion-Ware by Sally Ng  
([www.coroflot.com/schmartsally](http://www.coroflot.com/schmartsally))*

*It reminds people to eat 20% less than  
their usual portion.*



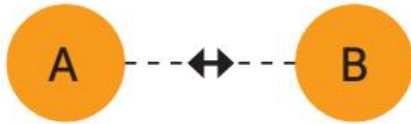
# generating ideas

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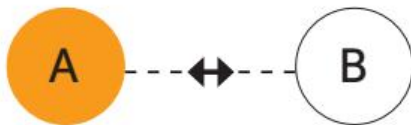
# examples

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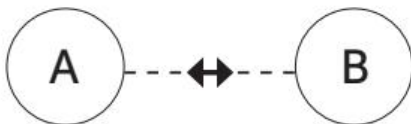
Imagine that you have a bowl of nuts on your office desk that you like to offer to your colleagues when they pass by for a quick chat (concern for sharing). However, you are bothered by the hygiene factor as they put their hands into the bowl to pick up nuts: do they have clean hands? After seeing them dip their hands into the bowl, you feel hesitant to eat from the bowl yourself (concern for hygiene). The VacuVin nut dispenser resolves this dilemma by letting you and your colleagues share a handful of nuts in a hygienic way.

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Now imagine that you have an early morning meeting. You've worked until late the previous evening to prepare for it. When your alarm-clock starts ringing in the morning, you know that you should get up immediately to make sure that you are on time for your meeting (concern for responsibility), yet you also want to enjoy your warm bed for a couple of more minutes (concern for comfort). Clocky alarm-clock transforms this dilemma by forcing you to get out of bed: when your first snooze period expires, it starts ringing and running away until you catch it.

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Finally imagine that you are in front of an open buffet. You are mesmerized by the variety of food options. While you are topping up your plate (concern for enjoyment), you try to ignore the voice in your head "what about your weight-loss diet?" (Concern for beauty). Thrive plate emphasizes your dilemma by raising a subtle question: would you completely cover the plate with food or would you leave the raised part of the plate empty?

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## explanation



*VacuVin Nut Dispenser*  
([www.vacuvin-voor-thuis.nl](http://www.vacuvin-voor-thuis.nl))



*Clocky by Gauri Nanda*  
([www.nandahome.com](http://www.nandahome.com))



*Thrive Portion-Ware by Sally Ng*  
([www.coroflot.com/schmartsally](http://www.coroflot.com/schmartsally))

### Design direction 1: Resolving the dilemma

VacuVin nut dispenser resolves the conflict between the concern for sharing and the concern for hygiene by enabling people to share nuts in a hygienic way - both concerns are fulfilled at the same time.

### Design direction 2: Moderating the dilemma

Clocky understands that being on time (concern for responsibility) is an important concern for the user. However, this concern can easily be harmed by the desire to linger in bed. Foreseeing this desire, Clocky makes it almost impossible for the user to linger in bed on a workday.

### Design direction 3: Triggering the dilemma

Unlike the first two design directions, Thrive does not focus on fulfilling concerns. Instead, it focuses on triggering the conflict between the concern for 'healthy eating' and the concern for 'enjoyment'. It does this by raising the simple question of: do I fill my plate completely, or do I leave the last 20% empty?



# part C product examples

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*In this final part, we make the connection between the dilemmas of Sophie and designing products that can address these dilemmas. Pages 41 to 45 provided an overview of the various directions you can use when addressing dilemmas - these were resolving, moderating, and triggering dilemmas. In this part, you will find a design idea that addresses each of Sophie's dilemmas using one of these design directions.*

*Note that, most of these ideas are created by master-level design students at Delft University of Technology, who participated in workshops or case studies to learn about dilemma-driven design. There are also several examples of already existing products that align with the proposed design directions.*

*To learn more about generating design ideas to address dilemmas, you can read Chapters 4 - 6 of the author's PhD thesis on dilemma-driven design.*

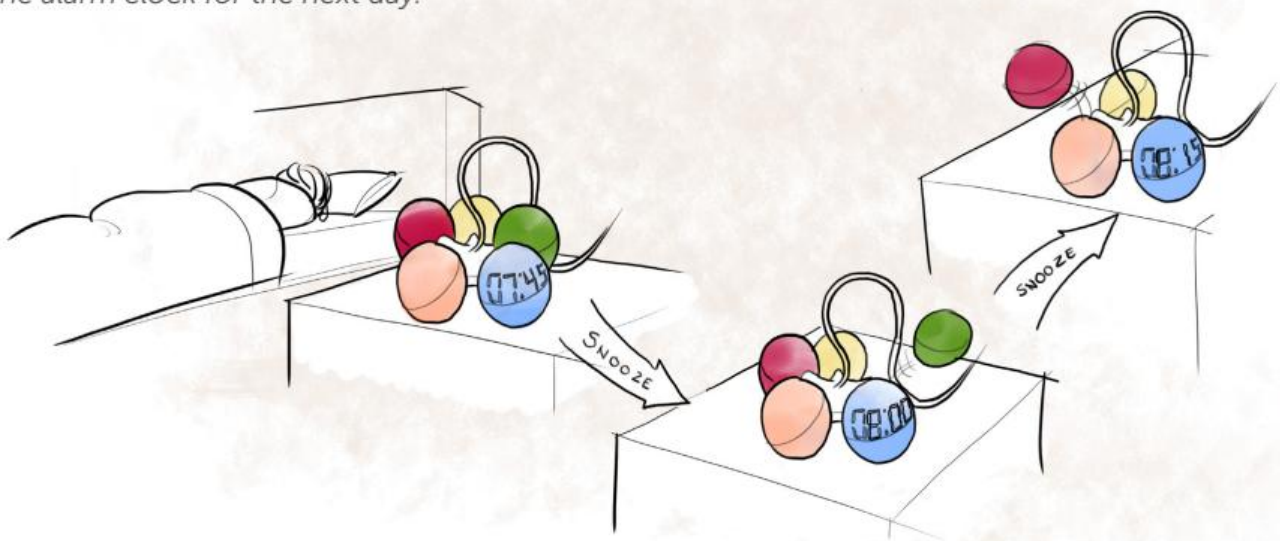




*Shall I get up to be on time for work (A-responsibility), or savor the comfort of my warm bed a little longer (B-comfort)?*



*Jumpy alarm clock by Marc Bayona (2013) is composed of five colorful, detachable balls, which get pushed off the clock with every press of the snooze button. If the user is still in bed by the time all balls are lost, he will have to search for them to set the alarm clock for the next day.*

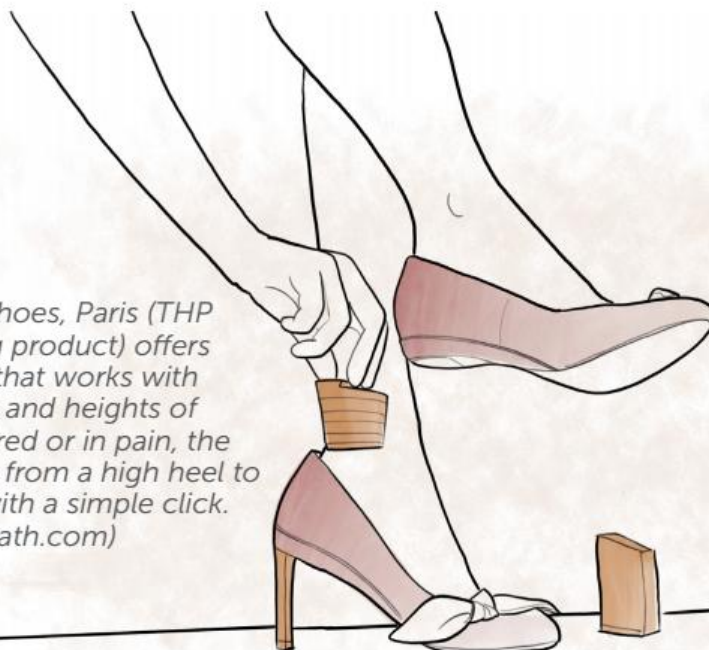




*Shall I wear flat shoes (A-comfort), or a pair of pumps (B-elegance) for my work meeting?*



*Tanya Heath Shoes, Paris (THP Shoes, existing product) offers a mechanism that works with different types and heights of heels. When tired or in pain, the user can swap from a high heel to a lower heel with a simple click. ([www.tanyaheath.com](http://www.tanyaheath.com))*

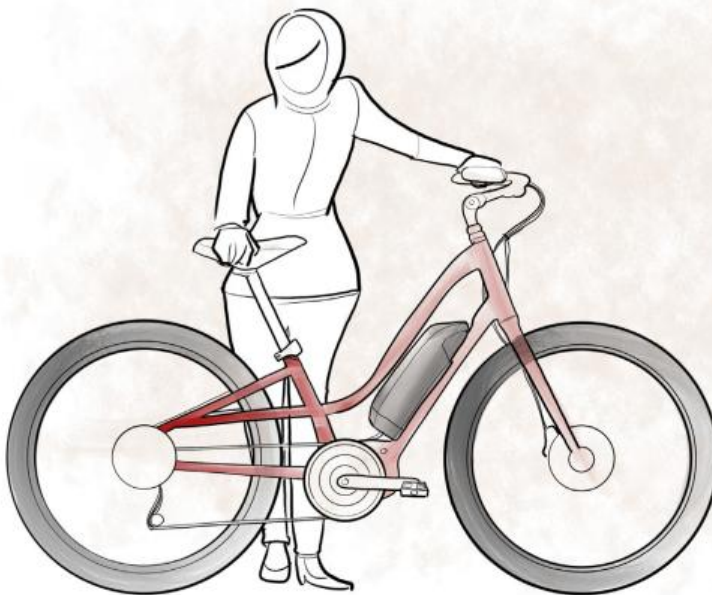




*Shall I bike to work (A-social responsibility), or drive (B-comfort)?*

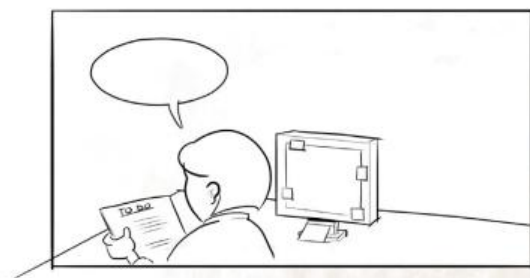


*Electric bike (existing product) has an integrated electric motor used for propulsion, which makes it more comfortable (less effortful) to cycle.*





*Shall I get started on my to-do list (A-competence), or organize my desk first (B-management)?*



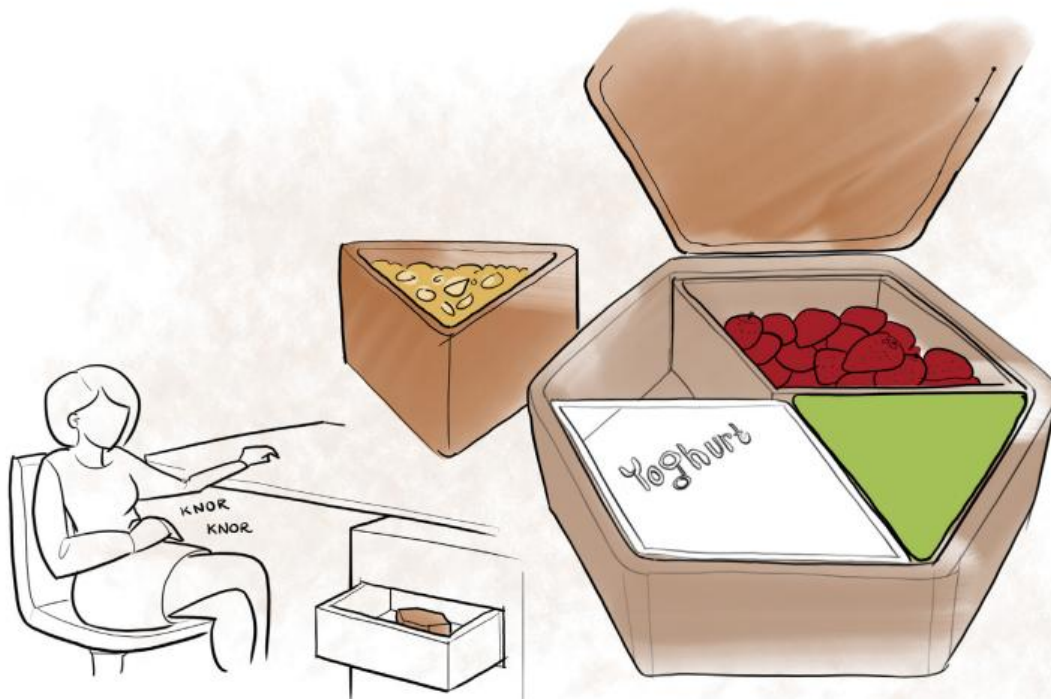
*Bossy by Lucas Neumann (existing product) is a device to help flexible workers be more effective, healthy and balanced in their daily lives. ([www.lucasn.com/bossy](http://www.lucasn.com/bossy))*





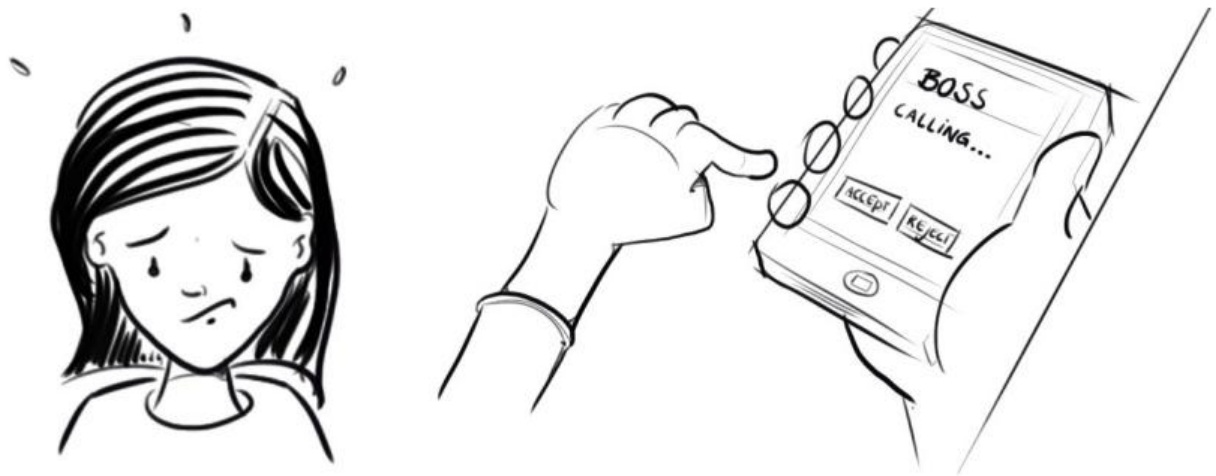


*Shall I go out to have a nice lunch (A-contentment), or eat at my desk to continue working (B-competence)?*



*'Break on the Go' by Wan-Jen Jenny Tsay (2012) is a lunch-box that allows users to pack their snacks and food to eat on-the-go or at the office. The lid opens in such a way that it forms a barrier between the users and their environment, enabling a 'private and cozy' eating experience.*





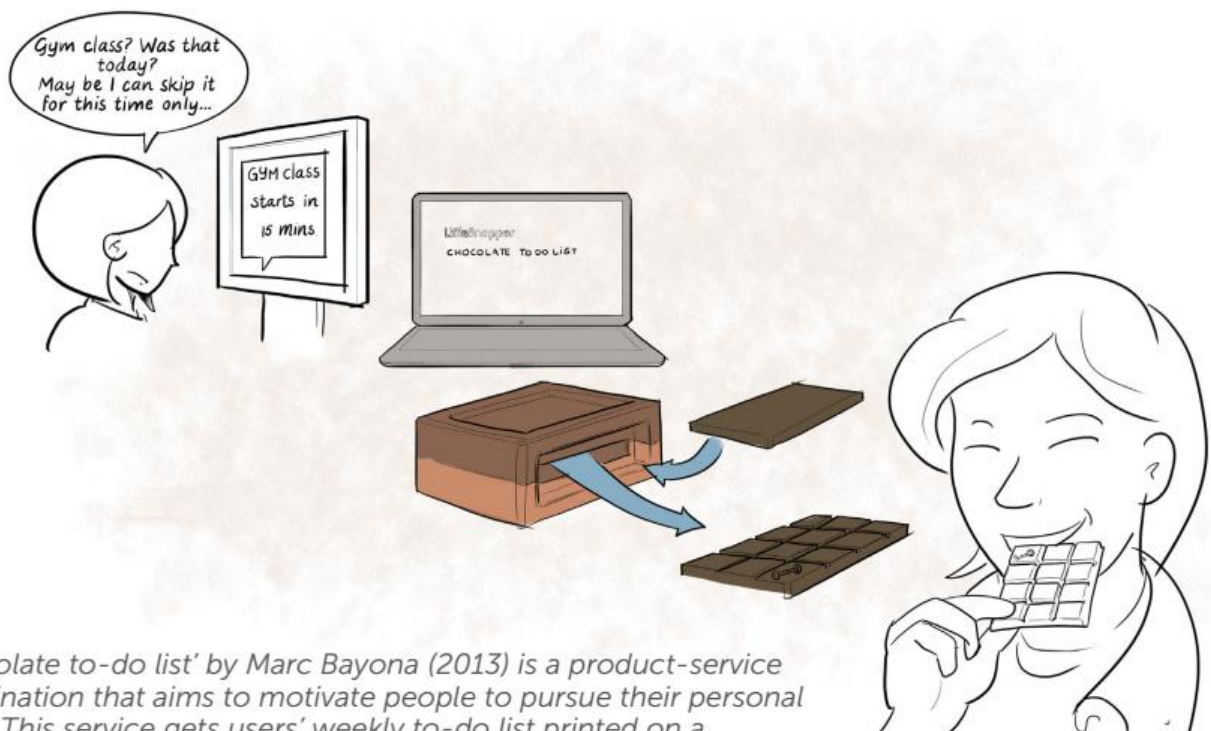
*Shall I respond to the phone call of my boss (A-responsibility), or call him back later (B-tranquility)?*



*'Reflective Mind' by Marga Una Borrás, Jens de Groot, Arie de Kam, Jaap Meijer, and Minon Rosier (2015) is an interactive installation that consists of a series of small mirrors. These pieces move frantically when they detect a phone signal. Otherwise, they follow the movements in the surrounding, such as a waving hand. The design aims to seduce people to be more mindful of their physical environment.*



Shall I go to the gym after work (A-physical wellbeing), or go home to rest (B-comfort)?



'Chocolate to-do list' by Marc Bayona (2013) is a product-service combination that aims to motivate people to pursue their personal goals. This service gets users' weekly to-do list printed on a chocolate bar so that one can enjoy finishing a task by biting off a piece of chocolate.



*Shall I buy this expensive dress (A-elegance), or save my money for something more meaningful (B-responsibility)?*



*'Hoek' by Pauline Wout (2015) is a product-service combination that consists of a smartphone application (app) and a keychain. Every new purchase is registered to the app through swiping the keychain at the cashier. By providing the shoppers with an overview of what already exists in their wardrobe, the app intends to trigger reflective purchase behavior.*



*Shall I buy fresh ingredients to prepare a healthy dinner or (A-physical wellbeing), or buy something that is easy to prepare (B-convenience)?*



*Roll-the-dish by Marc Bayona (2013) is a dice that suggests healthy and easy to prepare recipes on each face, combined with a shopping list for each recipe. In this way, it enables people to shop for and prepare a healthy meal in a convenient way that saves time (instead of a fast meal, which is often high in calories and low in nutritional value).*





*Shall I focus on my physical surrounding and people around me (A-belonging), or check my online notifications (B-curiosity)?*

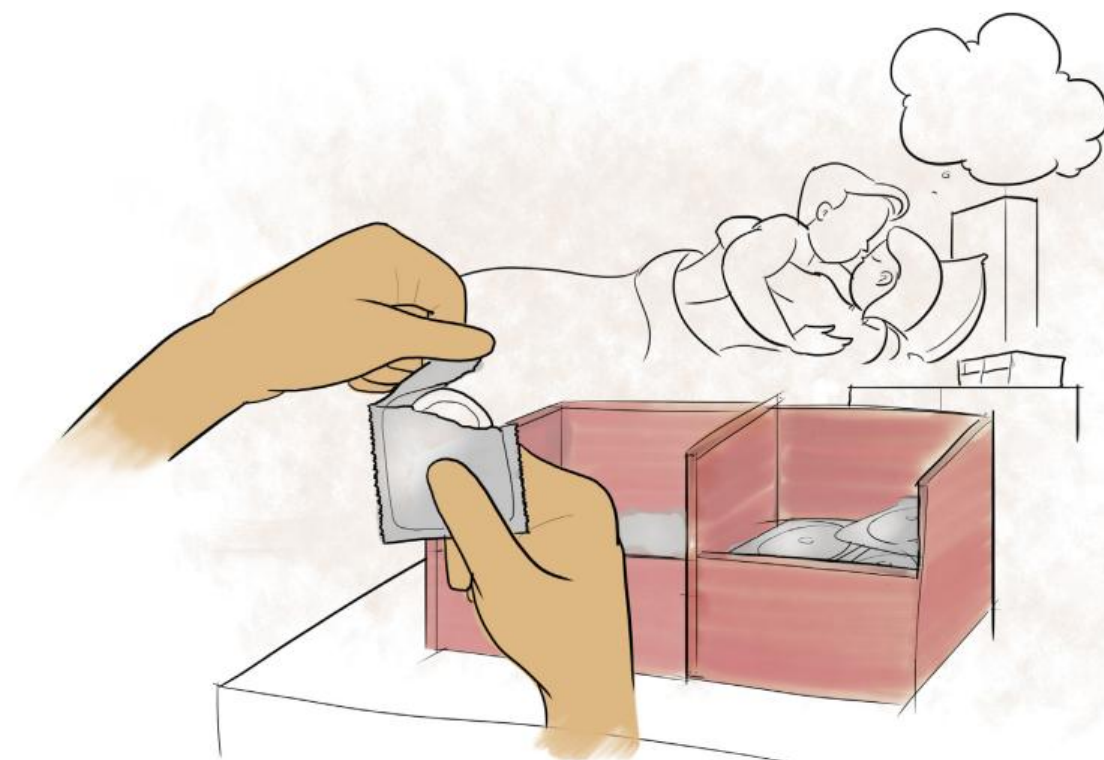


*ATTENTION SEEKER by Marit Coehoorn (2014) is an interactive coaster that responds to mobile-phone usage. When placed on the table in social venues (e.g., cafés or meeting rooms), a radio-frequency detector recognizes smartphone usage, and a motorized mechanism allows the device to move randomly. It intends to confront people with their urge to constantly check their smartphones.*





*Shall I just enjoy the moment (A-pleasure), or suggest using a condom (B-safety)?*



*'Love Counter' (2015) is a transparent storage box in which one can keep packaged condoms in one compartment and part of the packaging from used condoms in another. It aims to raise awareness about the frequency of condom usage, and thus, safe sex.*



*Shall I wake him up to have breakfast together (A-belonging), or enjoy having a moment of personal time (B-freedom)?*



*Dare&Share by Arjen Oenema (2012) is a cereal packaging that includes a large bag of cereal and seven separately packed, spoon-sized pockets. Users can leave a small pocket on the kitchen table for their partner as an expression of intimacy after enjoying a personal moment over breakfast.*

# thanks to...

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*As this booklet is part of a larger research project, my appreciation extends to all friends and colleagues I acknowledged in my PhD thesis. Specifically, I would like to thank my PhD supervisors, Pieter Desmet and Elif Özcan, for supporting me in creating a complementary booklet to my PhD thesis as well as their comments on earlier versions of this booklet. I am indebted to design students at Delft University of Technology for skillfully implementing dilemma-driven design in their projects, which resulted in the inspiring design examples in this booklet. Special thanks to Freya Ruijs - she gave voice to Sophie and her dilemmas through creating the attractive visualizations in Part A and Part C. I am also grateful to Annelies Hermesen for reviewing an earlier version of this booklet and commenting on its relevance for her design practice. Finally, many thanks to Guzin Sen and Sevcan Yardim for helping me proofread and edit the final draft of the booklet.*

*Credit should also be given to online resources used in the preparation of several figures: Icons are made by Freepik and Simpleicon SEO from [www.flaticon.com](http://www.flaticon.com). All photos were taken by the author, except for the photo of Thrive Portion-ware (pp. 42, 45), which was reprinted with permission.*

# end.

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*This is the end of Sophie's story.*

*Inspired by the idea of dilemmas? Follow my research on  
[www.designwithdilemmas.com](http://www.designwithdilemmas.com).*

*Interested in experience- or wellbeing-driven design? Visit  
the website of Delft Institute of Positive Design at  
[www.diopd.org](http://www.diopd.org).*

*Enjoy your day and your everyday dilemmas.*



## dilemma-driven design

*Designers are skilful in identifying and designing for unfulfilled wants and needs of their users: this is the premise of user-centered design. However, people have multiple and often conflicting concerns related to their everyday activities: we may decide to skip our gym-night to go to the movies (concern for entertainment), and yet, wish we would have a fine-looking body like the movie stars we admire (concern for beauty). Designers can take any of these concerns (i.e., entertainment or beauty) as the leading theme for designing something that appeals to the user. However, addressing these concerns independently of each other might result in designs that fulfill one concern while ignoring or violating the other. As a result, these designs might evoke both pleasant and unpleasant user experiences. Focusing on the conflict between concerns, rather than on specific concerns in isolation, leads to solutions that can tackle such emotional duality.*

## about the author

*Deger Ozkaramanli studied Design for Interaction at Delft University of Technology and received her MSc degree with a thesis focusing on designing long-term goal engagement using conflicting concerns. She also holds an MSc degree from the University of Miami.*

*In her PhD project, she investigated the potential of personal dilemmas as input for user-centered design activities. In this project, she developed tools and techniques that can support user-centered designers in identifying dilemmas during user research and creating design ideas to address these dilemmas.*

*Deger is a member of Delft Institute of Positive Design, which aims to investigate the contribution of design to human flourishing and happiness. Since February 2016, she has been continuing her research on dilemma-driven design as a lecturer at the University of Liverpool.*