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# Wearing black when feeling blue: an exploration of the relationship between clothing and mood

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The relationship between an individual's outfit and their mood is complex and varies from person to person. Yet, every garment possesses characteristics that can influence, intensify, or conceal the wearer's mood. This paper explores this relationship between outfits and the wearer's mood, examining how clothing choices can affect mood and how they can be used to alter it. Through a combination of a literature study and an exploratory questionnaire study that asked people to take photographs of their outfits, key garment characteristics have been determined for four distinct moods: tense, cheerful, gloomy, and relaxed. These characteristics were used to create a set of inspirational and layered outfits that make the wearer's moods more tangible and understandable. The paper reports a summary of the literature review, the explorative questionnaire study, and the tangible outfits.

**Keywords:** *enclothed cognition; mood regulation; fashion*

## 1 Introduction

What is appropriate to wear to a funeral? This question can weigh heavily on our minds, especially when we are mourning the loss of someone close to us. It demands a delicate balance of emotions, where we must show both strength and vulnerability; it can be a tense dilemma in striking the right tone with our clothing. While the question of what to wear to a funeral may seem trivial compared to the emotional weight of the occasion, it can actually play a role in how we experience and process our feelings of grief. This was certainly the case for Jellie Tiemersma, a high-profile director who faced this very dilemma when her mother passed away in 1987 (Van Regenmortel et al., 2016). Seeking an outfit that would make her calm and strong without evoking pity from others, she found solace in a green khaki green suit, which fitted the mood that she wanted to be in. On the day of the funeral, she felt strong and secure in her attire. Tiemersma's experience is a powerful example of how clothing can influence our moods. This is the focus of the research presented in this paper; we will explore the relationship between an outfit and the wearer's mood, examining how clothing can influence moods and how clothing choices can be used to alter one's mood.



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This exploration can be positioned in the domain of fashion psychology, which is an emerging field that focuses on the relationship between fashion, psychology, and human behaviour. It examines how fashion influences and is influenced by various psychological factors, such as perception, cognition, emotion, motivation, and identity. As Carolyn Mair (2018, p.1) explains in her book *Psychology of Fashion*, “The aim of this emerging sub-discipline of psychology is to develop a deeper understanding of the reciprocal influence of fashion (and the fashion industries) and human behaviour and ultimately to use fashion as a vehicle for enhancing wellbeing”. As mood and wellbeing are closely intertwined (Diener & Chan, 2011), we propose that studying the complex interplay between clothing and human mood, including how garments can influence mood and how mood can impact clothing choices, can help increasing our understanding of how clothes can contribute to the wearers’ wellbeing.

Previous research on the topic of clothing and subjective experiences has primarily focused on the effect of clothing on others, rather than on the self. For example, several studies have examined the extent to which men are attracted to women wearing a red dress (Elliot et al., 2013, Fleetwood-Smith et al., 2019, Guéguen, 2012). There have only been a few studies that have focused on the impact of clothing on the wearer, and those that did had an emphasis on experienced sexuality and attractiveness (Berthold et al., 2017). We found only one study that specifically investigated the relationship between clothing and mood, which was conducted by Solomon in 1982. In this study, participants were asked to rate the degree to which they believed that the clothing that they were wearing had an influence on their momentary mood. Although a correlation was found between clothing and mood, the study did not specify the nature of the influence or the factors that contributed to it (see, Solomon, 1982). The current study aims to fill this gap in the literature by exploring the relationship between clothing and mood in more detail, with a focus on identifying the specific characteristics of clothing that can impact the wearer's mood.

## **2 Related work**

### **2.1 Moods**

To better understand the relationship between moods and clothing, it is important to first establish an understanding of what constitutes a mood. In this paper, we adopt the definition that was provided by Desmet and Fokkinga (2018, p7) in the Human Experience Catalogue:

*“Some days we are cheerful; other days, we are gloomy. Likewise, we can be nervous, relaxed, excited, or perhaps irritable - but we are always in some mood. Our mood provides the affective colouring for all our day-to-day events and activities; when cheerful, we see the world through rose-coloured glasses; when gloomy, we see the same world, and everything in it, as dim and grey. Mood is a diffuse, pervasive feeling state that has a broad influence on perceptions, motivation, and behaviour. Whereas momentary emotions are 'foreground experiences,' our moods are more elusive 'background experiences'.”*

This definition includes several ingredients, which can be best explained by comparing mood to emotion. The first is that mood is long-lasting, whereas emotions are usually more short-term experiences. A person can experience momentary fear for minutes, but can be in an anxious mood four hours or even days. The second difference is that moods represent a general feeling tone, ‘a

background experience', while emotions are typically at the foreground of experience. When we're angry, this can dominate our thoughts and feelings, while the impact of gloominess is often more subtle. Moreover, emotions often have a specific cause, whereas the causes of moods are more elusive. Moods are typically influenced by a combination of several events and instances. Related to this, while emotions are typically directed towards a specific person, object, or event, moods are directed towards the world in general, influencing the affective colour of all our interactions. This is described by the dispositional theory of moods developed by Siemer (2005, 2009), which suggests that moods influence our attitude towards multiple stimuli over an extended period of time. For example, a person in a cheerful mood will approach situations with a positive attitude, react positively, and feel good about events. Figure 1 gives an overview of four mood categories, representing quadrants determined by an activation and a valence axis. Within these categories, a variety of nuanced moods can be placed, as illustrated by the typology of 20 distinct moods that was developed by Xue et al. (2020).

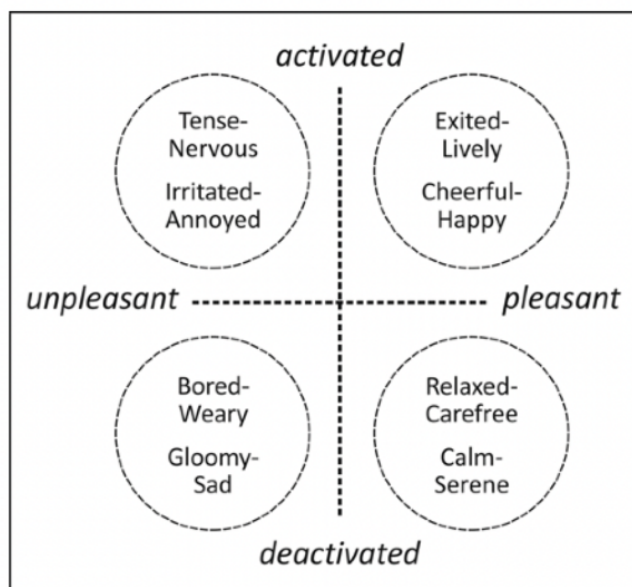


Figure 1. Four mood categories. Source: Desmet et al., 2016.

While the above describes the characteristics of mood, we can also take a functional perspective to explain moods. In this perspective, mood is seen as a monitoring system that enables us to maintain a healthy balance between the availability of our personal resources and perceived demands of everyday life (as summarized by Desmet, 2015). Positive moods signal a surplus of resources that inspire us to seek out new challenges while negative moods signal a shortage of resources that prompt us to withdraw from ongoing challenges (as visualised in Figure 2). This balance promotes conservation when resources are low and expenditure when they are high, thereby enabling us to invest personal resources by seeking out challenges and eventually flourish through the attainment of goals. The self-regulatory system controls goal-directed behaviour, with readiness to engage in potentially taxing, goal-directed activity being generally advantageous for well-being. The mood system helps to maintain a homeostatic balance between perceived resources and environmental demands, enabling us to avoid more demands than we can cope with.

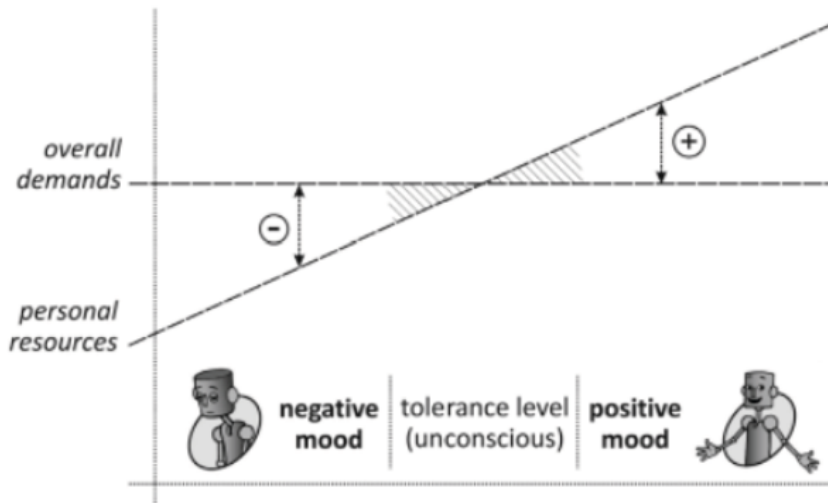


Figure 2. Mood and balance of wellbeing. Source: Desmet, 2015.

A third aspect of mood is personal mood regulation, which refers to the ability to manage one's mood states. It involves employing various cognitive and behavioural strategies to maintain a positive mood or to reduce a negative mood (Thayer et al., 1994). Common strategies for mood regulation include mindfulness, relaxation techniques, physical exercise, and social support (for an overview, see Desmet 2015). The ability to regulate one's mood is of relevance because it helps us to maintain a healthy balance and preserve our wellbeing (Thayer et al., 1994). However, effective mood regulation can be hindered by several factors. Firstly, we may not always be aware of our mood or the factors that influence it. How can one manage something they are unaware of? Secondly, there is a wide range of strategies for regulating mood, and not all of them are effective in all situations. Moreover, these strategies require resources like time and energy, which are not always readily available. Think, for example, of taking a walk to refresh one's mood or engaging in enjoyable activities. Lastly, as moods usually have multiple causes, it can be challenging to influence them with a single intervention stimulus.

## 2.2 Clothing

### 2.2.1 Clothing as communication and reflection of the Self

In the funeral anecdote presented in the introduction, Jellie Tiemersma discovered that wearing a particular outfit to her mother's funeral was a powerful means to regulate her mood. This was achieved through the comfort it provided and the message of strength and confidence it conveyed. Fashion, as a form of second skin, functions as a social interface; a communication medium that expresses a range of social information (McCracken & Roth, 1989). In human interactions, fashion items are imbued with symbolic meaning in relation to social context, and it guides behaviour in certain situations (Lennon et al., 2014). For example, when going to a barbeque party, people often wear casual clothes (such as shorts and t-shirts), which communicates the casual nature of these events. Similarly, funerals are marked by sombre attires, reflecting the seriousness of the occasion.

In addition to functioning as a means for communicating expected behaviour, fashion is also used as a means of self-expression (as explained by self-objectification theory and self-reception; see, Lennon

et al., 2014), and to establish one's group identity (or social identity; see, Mair, 2018). Clothing serves as a constant psychological reflection of who we are. It is argued that people prefer objects, products and outfits that align with their own identity (Venkatesh, et al., 2012). Examples include members of subcultures, such as goths or punks, who wear clothing and accessories that reflect their group membership, values, and beliefs. Other examples include clothes that reflect professional, cultural, or gender identities. In addition, clothes can be intentionally used to either conceal or express a certain identity. For example, those struggling with depression may choose non-revealing outfits to hide perceived body imperfections, reflecting lower self-images and body satisfaction. Conversely, those seeking to demonstrate wellbeing, wealth, or status, might opt for more open-to-approach outfits that conform to social norms. The research of Creekmore (1963) supports this idea, showing that people wear outfits that are expected to generate positive feedback from others to enhance their wellbeing and self-esteem. This phenomenon is also observed in the practice of dressing (or deliberately not dressing) in a certain way to fit within a particular social group (social identity; Johnson et al., 2014)

In the previous paragraph, we discussed the use of clothing to communicate one's identity. But how does this relate to moods? It is argued that when individuals encounter (positive) events that are in line with their self-identity, they consequently experience a more positive mood. Take for example the increase in positive moods that occur when Christmas installations and decorations are put up worldwide. While this general effect can be observed, research also suggests that it is not universal, as it primarily affects individuals who identify themselves as Christmas enthusiasts (Schmitt et al., 2010).

Finally, since each individual is unique with their own set of preferences, it is possible for someone to have favourite clothes that perfectly align with their personal identity. Wearing such an outfit, filled with personal meaning, can significantly boost one's mood. It is also argued that wearing one's favourite outfit is important for controlling one's environment and one's emotions (Moody et al., 2010). Most of us likely have a go-to clothing item or lucky outfit that we wear when we need a confidence boost or when we have an important task ahead, such as taking an exam. Such an outfit is imbued with symbolic meaning and power, providing us with the confidence we need to succeed (Kay et al., 2004). In the following section, we will further explore the symbolic meaning of clothing and its relationship with moods.

### 2.2.2 Enclothed cognition and symbolic meaning

The symbolic meaning of clothing is closely connected to enclothed cognition, which refers to the systematic influence that clothes have on the wearer's psychological processes (Johnson et al., 2014). Enclothed cognition is influenced by two factors: (1) the symbolic meaning of the outfit, and (2) the act of wearing the outfit. By wearing a particular outfit, one can embody its symbolic meaning. Adam and Galinsky (2012) conducted a study where participants wore a white coat during a series of cognitive tests. One group was told that it was a doctor's coat, a second group was told that it was a painter's coat, and a third group simply saw the white coat hanging on the wall. Due to the symbolic meaning associated with the white doctor's coat, which conveys intelligence and scientific knowledge, the first group outperformed the other groups. This phenomenon was also observed by Kellerman and Laird (1982), who investigated the influence of wearing glasses on self-perceived intelligence.

Although wearing glasses did not influence the participants' task performance, those wearing glasses believed that they had performed better and described themselves as more stable, scholarly, and competent than those who did not. Furthermore, Gino et al. (2010) found a correlation between wearing knockoff glasses from a luxury brand and the perception of dishonest personality traits.

Enclothed cognition is related to material priming, which suggests that when individuals come into contact with an object, their thoughts and behaviour change in a way that aligns with the meaning associated with that object (Adam & Galinsky, 2012). For example, when exposed to items associated with business offices, such as folders, staplers, and post-its, people are prompted to adapt a more neutral and professional demeanour (Kay et al., 2004).

Both material priming and enclothed cognition are based on the associations between outfits and the social contexts in which they are worn. For example, formal clothing, often associated with business occasions, can be linked to professionalism, resulting in the wearer being perceived as less approachable (Kodzoman, 2019). This may also explain part of the relationship between moods and clothing. When someone frequently experiences a certain mood while wearing a particular outfit, over time, that outfit may come to symbolically represent that mood. Similarly, when a person is often in a certain mood when in a certain place or during a certain event, they may come to associate the outfit with that mood, thus acquiring symbolic meaning. However, aside from the impact of an outfit's symbolic meaning, mood can also be influenced by its sensory qualities, including not only the tactile qualities but also sound and smell. Ultimately, these sensory qualities and symbolic meanings are highly interactive and intertwined. For example, someone may enjoy the powerful sound of tapping high heels while also associating it with a professional setting while being influenced by cultural stereotypes associated with wearing high heels.

### 2.2.3 New clothes and Dopamine Dressing

Another aspect of mood and emotion increment is linked to trying on new outfits and clothes. It has been observed that wearing new clothes can make a person feel happy because it boosts their self-confidence. This newfound confidence, in turn, stimulates positive emotions and moods (Subhani et al., 2011). Likewise, the feeling of newness and change can also have a positive impact on one's mood. Dopamine, a neurotransmitter that plays a key role in our sense of happiness, is released in our brain when we expect a pleasurable stimulus (Baixauli, 2017). In this example, the pleasurable stimulus comes from the act of wearing something new. This effect can be enhanced when the outfit is from one's favourite brand, or when one's favourite artist has worn something similar.

According to psychologist and author of two books on shopping addictions, Carien Karsten, the act of shopping can give an adrenaline spurt that releases dopamine. It offers a pleasurable escape from the monotony of daily life and can provide a sense of love, support, or compensation for something missing (van Regenmortel, 2016). It might be the case that "dopamine dressing" not only works when buying or wearing something new. In 2018, *The Guardian* (Bramley, 2018) published an article on Dopamine Dressing following the premiere of the movie *La La Land* (Dec, 2016). Seeing Emma Stone dancing in her bright yellow dress inspired the fashion world to embrace the idea that wearing brightly coloured outfits can uplift one's mood during gloomy times. Carolyn Mair (2018), psychologist and founder of the MA course in fashion psychology at London College of Fashion, stated that the mood-lifting effect of a dress is not solely about its colour but about the wearer's belief in the mood-lifting

effect of that particular colour. This is important to take into consideration when exploring the relationship between clothing characteristics and mood, as this relationship will essentially be influenced about the wearer's beliefs about that relationship.

#### **2.2.4 Colour of the outfit**

The relationship between colour and mood is complex and challenging to predict or explain. While the bright yellow colour of Emma Stone's dress in *La La Land* may suggest a cheerful feeling to many people, there are various factors that complicate this relationship. One significant factor is that not everyone perceives and interprets colours in the same way (Witzel et al., 2017). Another complicating factor is that colour perception is culturally dependent, and the meaning of colours can vary across different cultures. For example, while some people may wear yellow (like from the dress in *La La Land*) to uplift their mood, in Egypt, it is traditionally during mourning periods (Sullivan et al., 2017). Mourning colours differ across cultures worldwide, with people in Iran wearing blue, people in South-Africa wearing red, and people in Europe and America wearing black (Sullivan et al., 2017).

### **3 Design of the study**

The study was designed to explore the relationship between four moods (Cheerful, Tense, Relaxed and Gloomy) and the wearing of an outfit. These moods were selected to represent different segments of the human mood repertoire (see Figure 1). With a four-day questionnaire, participants were asked to select outfits that they associated with the given moods, and to explain the reason why they made their choice.

#### **3.1 Participants**

In this study, 70 design students from the Beijing Normal University participated, aged between 22 and 46 years, with an average of around 24 years.

#### **3.2 Set-up and procedure**

For this study, within-group design was used; all participants were asked to provide outfits for all four moods. This approach was used because it enabled us to compare between the different moods (see, Charness et al., 2012). To minimize fatigue effects, the questionnaire was spread out over a four-day period; one mood per day.

#### **3.3 Day 1**

On the first study day, participants completed an online questionnaire consisting of an introduction, a participation form, and a set of introductory activities. The first questions collected demographic information, such as age and gender, as well as psychographic information. The psychographic questions were aimed to assess participants' attitudes and behaviours towards fashion and their relationship with mood. Participants were asked to rate statements such as "I am very conscious about my outfits", "I like buying clothes", "I am interested in fashion", "How I feel is often reflected by what I wear", and "I deliberately use clothes to influence my mood" on a 5-point scale ranging from "Strongly disagree" to "Strongly agree". It is argued that people who pay more attention to their everyday clothing have a better understanding of how clothes can influence their mood. However, it is important to note that this question was not used as a selection criterion in this study.



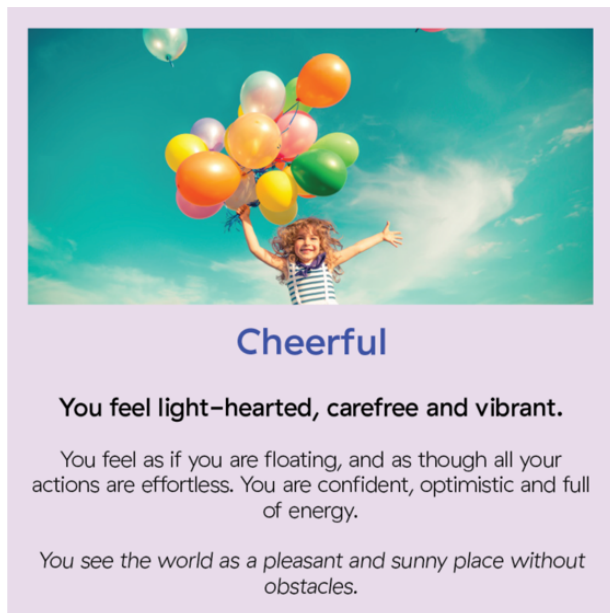


Figure 3. Cheerful. Source: Desmet et al., 2020.

During the first day, the focus was on the cheerful mood. Participants were provided with a representative image (Figure 3) along with a written description of that particular mood. These images and descriptions were taken from the mood typology that was developed by Xue et al., (2020). Participants were then instructed to upload a picture of an outfit that they personally associate with the given cheerful mood. An example and guidelines were provided to help them showcase their outfit appropriately. Lastly, participants were asked to write a short explanation, limited to a maximum of 400 words, explaining why they associate that specific outfit with the cheerful mood.

### 3.4 Day 2, 3 and 4

Over the course of the next three days, participants received the same instruction and explanations on the assigned mood, and how to upload their corresponding outfit. The second day was focused on the mood Gloomy, the third day was focused on Relaxed, and the final day was focussed on Tense. At the end of the study, participants were thanked for their participation.

### 3.5 Analysis

The analysis was performed using Thematic Analysis, which is a method for identifying, analysing, and reporting patterns or themes within the collected data (Braun & Clarke, 2020). This approach offers flexibility as it allows for iterative examination of the data. The procedure consists of six steps, as depicted in Figure 4. Phases one to four were conducted separately for each specific mood, with the moods being combined only at the end of phase four. The data from all four moods were then considered in the final stages of phase four, phase five, and phase six, in order to gain a broader perspective.

Thematic analysis can be conducted using a top-down or bottom-up approach. For the current analysis, a bottom-up approach was used due to the lack of an existing theoretical framework on the relationship between clothing and mood. Another, approach-based distinction is the way in which the data is interpreted. The researcher can use codes as they are (semantic approach) or supplement an

additional layer of interpretation (latent approach). The latent approach goes beyond the semantic approach, since the researcher starts to identify the underlying ideas, assumptions, and ideologies. For the analysis, it was decided to adopt the semantic approach, since the verbal descriptions were relatively short, and background information on social, demographic and/or cultural influences, which is required for meaningful interpretation, was not available.

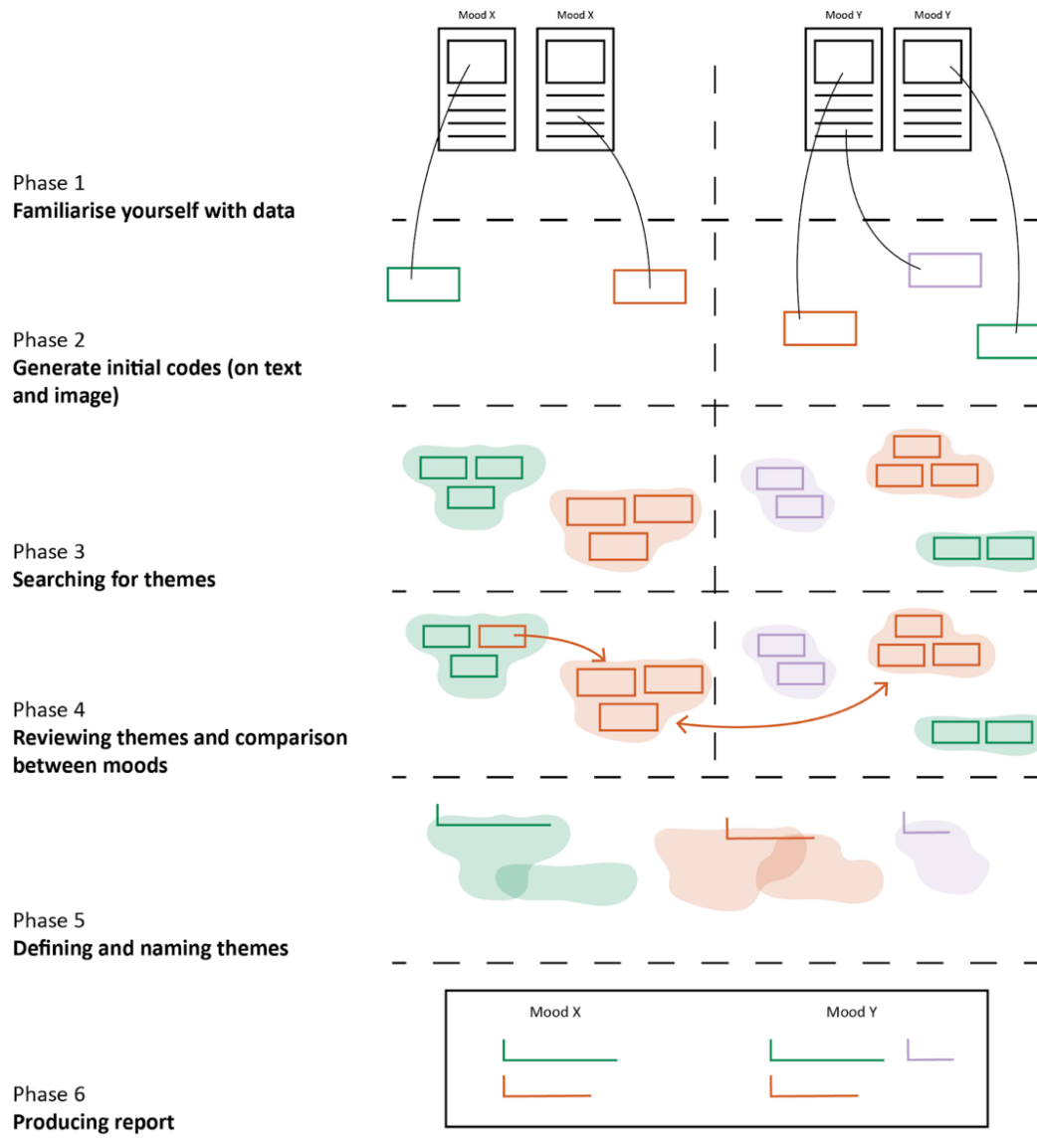


Figure 4. Analysis procedure.

## 4 Results

The results for each mood are presented in a summary, as a design goal. They will be presented together with themes and characteristics.

### 4.1 Cheerful

When someone is in a cheerful mood, they want an outfit that reflects themselves, their identity, and their unique style. The chosen outfit sparks and stimulates confidence; it is definitely alright to stand

out in the crowd and be a bit bold. A well-fitted outfit is essential, which makes the wearer feel elegant. The outfit also exudes approachability and invites interactions with others. The outfit inspires movement, ensuring that the person is not constricted or limited in expressing their cheerful mood.



Figure 5. Eight cheerful mood results. Images taken from online study.

#### Activities

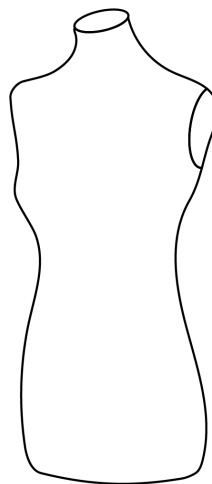
- sports (allow range of mobility, e.g. sportswear)
- leisure activities

#### Interaction with others

- open to communicate with others (e.g. open to approach outfits)
- mood enhancement through receiving compliments
- use of cute elements that communicate happiness to others

#### Tangible aspects

- cartoons that make the wearer feel happy
- wearing personal favourite brands



Cheerful Mood

#### Appearances

- of a younger self (e.g. by colours or cartoons)
- reflection of a beautiful self image
- elegant details
- reflect who you are

#### Associations

- Summer or Spring (e.g. breezy outfits)
- emotional connection and meaning to outfit

#### Look and feel

- comfortable and flattering (e.g. light fit)

Figure 6. Cheerful mood.

## 4.2 Gloomy

In order to cope with, or alleviate a gloomy mood, a person wants to wear an outfit that either induces relaxation when at home or exudes cheerfulness to evoke a feeling of happiness. The latter is achieved through dressing stylishly or by the incorporation of elements such as text, illustrations, or patterns that convey this happy feeling. Coping with this mood involves using an outfit as a shield, providing a sense of seclusion from the outside world.



Figure 7. Eight gloomy mood results. Images taken from online study.

#### Awareness and action

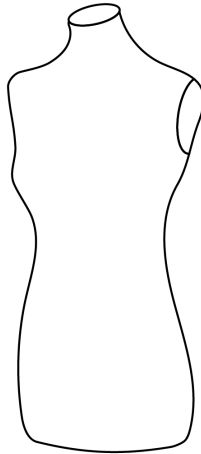
- cover/hide accompanying emotions (e.g. not standing out in crowd)

#### Interaction with others

- non-inviting outfits (e.g. harsh and concealed outfits)

#### Tangible aspects

- explicitly communicate gloomy mood (e.g. text, raindrops)



**Gloomy Mood**

#### Appearances

- outfit expresses a sense of melancholy, solemnness and depression
- use of dark, lifeless colours
- often carelessly assembled outfit

#### Associations

- connected with a negative event in wearer's life
- shaped by common image of being sad
- rainy and windy weather (e.g. jackets and hoodies)

#### Look and feel

- coping: warm and comfortable, sense of security
- mood inducement by unfitting or harsh outfit

*Figure 8. Gloomy mood.*

### 4.3 Relaxed

When someone is in a relaxed mood, they seek an outfit that offers an ultimate level of comfort. This comfort is achieved through soft and warm materials, along with a loose fit that allows for unrestricted movement. The outfit symbolises endless possibilities, highlighting its versatility. Additionally, it does not radiate a strong stimulus to the wearer; rather, it conveys a sense of ease and calmness. The outfit is designed to be convenient in every aspect, catering to the wearer's needs and preferences.



*Figure 9. Eight relaxed mood results. Images taken from online study.*

#### Activities

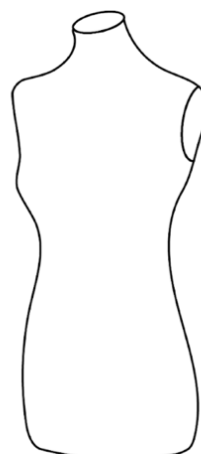
- "wear at home" type of outfit (e.g. sleeping, laying on the couch)
- outfit that represents infinite amount of activities

#### Associations

- wearing your favourite outfit

#### Interaction with others

- communicate that you are approachable for interaction



**Relaxed Mood**

#### Appearances

- casual feeling (e.g. not putting attention to outfit)
- easy to combine garments (e.g. simple)
- feeling of peace and tranquility (e.g. no strong stimuli)

#### Look and feel

- ultimate level of comfort (e.g. soft materials, wide fit)
- ensure warmth of the wearer

*Figure 10. Relaxed mood.*

#### 4.4 Tense

To cope with or alleviate a tense mood, one wants to appear stylish, communicating a professional demeanour. This is accompanied by the need to be confident on how their clothes look and fit on their body. It is essential to be free from worry about how they look in the outfit. The wearer should also not have to worry about factors such as wrinkles or visible sweat stains, allowing them to focus on their tasks without distractions.



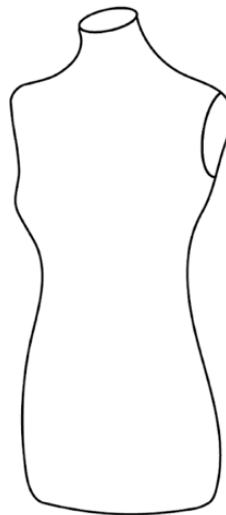
Figure 11. Eight tense mood results. Images taken from online study.

##### Interaction with others

- draw away attention from others through the outfit
- use the outfit as a shield (e.g. harsh image) or a mask (e.g. playful image)

##### Awareness and action

- coping: boost wearers confidence
- coping: provide a sense of security
- coping: relaxed fit to relieve tense mood



Tense Mood

##### Appearances

- feeling stylish, elegant and professional
- well-fitting clothes result in more self-consciousness
- worrying about neatness of outfit
- outfit should look good as a whole

##### Associations and activities

- formal and professional settings

##### Look and feel

- professional look and feel
- materials are often uncomfortable
- tight fit

Figure 12. Tense mood.

### 5 Tangible and layered outfits

The first author used the results of the study to design four unique outfits: two for the Cheerful and two for the Relaxed mood. Two outfits per mood were designed to enable comparisons. Each outfit was specifically designed for one individual participant. The participants (of which one was male; all in their twenties) were recruited through convenience sampling, considering their accessibility and availability for multiple fitting sessions and prompt design adjustments during the iterative creative process. Initially, the project involved ten participants; the final selection of four was based on the richness of their mood experiences and mood-clothing associations. To gain insights into their mood experiences, mood-outfit associations, and their personal clothing style, a Context Mapping process was employed. A multi-day diary approach assessed the participants' mood states over an extended



period. Each participant was asked to document contextual factors, their affective state, and the relationship between their mood and clothing. The diary design followed a time-based approach, incorporating elements of interval and signal designs, as well as event-based design (Bolger et al., 2003). Participants were instructed to complete the diary activities twice a day at semi-fixed times to ensure continuity and homogeneity, while also engaging in spontaneous experience sampling when wearing the outfit. Subsequently, a post-diary interview with the first author generated insights into the connection between the participants' mood states and outfits. The first author used these insights, combined with the knowledge that was generated in the questionnaire study, to design the four outfits presented below.

## 5.1 Cheerful

### 5.1.1 Dungarees



Figure 13. First outfit designed to induce a cheerful mood. Design and images by first author.

The dungaree (Figure 13) was designed to evoke a cheerful mood through its wide and comfortable fit, while featuring colourful patches in a predominantly green outfit. This outfit aims to instil a sense of motivation and activation in the wearer, aligning with the characteristics of a cheerful mood.

### 5.1.2 Trousers and turtleneck



Figure 14. Second outfit designed to induce a cheerful mood. Design and images by first author.

The target participant associated floating summer clothes with a cheerful mood. Therefore, this turtleneck (Figure 14) was designed with a flowing silhouette, resembling the feeling of summer dress. The inner sleeve is made slightly tighter to provide warmth and comfort to the wearer. In order to have a touch of colour that aligns with a cheerful mood, a hidden patch of neon green was added to the trousers, revealing itself only when the wearer is in motion, motivating her to move. To enlarge the effect, the design of the outfit is also designed to enhance the wearer's confidence. This is done by aligning it with her personal identity and by accentuating her body.

## 5.2 Relaxed

### 5.2.1 Turtleneck and wrapping dress



Figure 15. First outfit designed to induce a relaxed mood. Design and images by first author.

A relaxed outfit has to embody simplicity and has to be limited to minimal details. With this in mind, the design of this outfit (Figure 15) features of a turtleneck paired with a sleeveless wrapping dress. The choice of materials prioritizes softness and warmth, as if the outfit is hugging the wearer. One of the key aspects of an outfit designed to induce a relaxed mood is its convenience for the wearer. It should allow her to move freely and do anything she wants. When an outfit restricts movement, the wearer can become conscious about their outfit, which hinders the potential for relaxation.

### 5.2.2 Oversized blouse and trousers



Figure 16. Second outfit designed to induce a relaxed mood. Design and images by first author.

This outfit (Figure 16) was designed to create a sense of comfort and security, enabling the wearer to withdraw in social settings and induce a relaxed mood. The wearer needed to feel safe, surrounded by comfortable, soft, and oversized items. The colour palette chosen for the outfit is basic and neutral, not drawing much attention from others, nor from the wearer itself. The outfit is intentionally designed to be fuss-free and effortless, requiring minimal attention or adjustment from the wearer. Not much that can go wrong with this outfit, contributing to a sense of safety and relaxation.

## **6 Discussion and future work**

The characteristics of clothes that are associated with moods are subjective and open to interpretation, influenced by the wearer's enclothed cognition. This means that these characteristics are not fixed nor ready to be re-used across contexts and people. In the study reported in this manuscript, the combination of these characteristics with the personal meanings of four individual wearers was explored and translated into four unique outfits. This approach could serve as a steppingstone towards the functional use of clothing for deliberate mood regulation. It can be used as an inspiration to design clothes that are fitting with the wearer moods, enhancing their wellbeing. In this section, four opportunities are mentioned to further explore mood-clothing relationships.

### **6.1 Measuring moods**

Various methods have been developed for measuring an individual's mood, including smart measuring devices and self-report scales like the pictorial Pick-a-Mood scale (Desmet et al., 2016). While these tools have shown some effectiveness, the field of mood research is still in the early stages of development, and further advances are needed to refine these methods and improve their validity and reliability. Ongoing research in this field is crucial for the study of mood in the context of clothing. As clothing can manifest unconscious mood states into a more tangible and visible form, it has the potential to serve as function in research, or as an extension of an existing tool.

### **6.2 Design for personal mood regulation goal**

As mentioned before, moods signal a surplus or deficit of personal resources, serving a regulatory function in maintaining and increasing one's wellbeing. Since people are only partially in control of their moods (Desmet, 2015), one future direction is to explore how people can be supported in their attempts to use clothing to influence their moods and wellbeing. Methods for improving mood can be categorized into three groups (Desmet, 2015): (1) Seeking relief, (2) Restoring balance, and (3) Building Resilience. Clothing can play a significant role in addressing these goals, particularly in the first two categories, by providing individuals with means to cope with their moods.

### **6.3 Design for group mood**

Group mood refers to the shared affective atmosphere experienced during group activities (Sönmez et al., 2022). This atmosphere has been found to influence workflow, workplace happiness, and overall organisational functioning. It is important to align the group mood with the collective goal. For instance, when aiming for creativity, fostering a creative mood within the group is essential, while a productive mood is crucial for efficiently achieving group goals. It is worth noting that personal moods can differ from the group mood and can influence the moods of others and the collective mood. In



such cases, clothing can play a role in maintaining, creating, and changing group moods in order to facilitate specific objectives.

#### 6.4 Design for mood and purpose

Lastly, moods and clothing can communicate a state of being to others, potentially influencing their mood as well, giving clothes a symbiotic function. For instance, a doctor's work attire can influence both their personal mood and the patient's perception of that outfit, due to material priming and enclothed cognition. To ensure patients feel at ease, doctors can wear outfits that communicate a certain mood in line with that feeling, while also positively affecting their own mood. This example demonstrates the symbiotic relationship between clothing and moods within one specific context. However, this concept can be applied to a wide variety of contexts, professions, and people. For instance, it can be used in social settings to help people feel more comfortable when discussing intimate and personal topics.

## 7 Conclusion

Mood is a diffuse and general feeling state that provides the affective colouring for all day-to-day events (Morris, 1987). Moods can signal either a surplus or deficit of personal resources and energy needed to cope with everyday demands, thus influencing an individual's personal wellbeing. To gain insights into the relationship between clothing and these drivers, we conducted a study that explored the relationship between characteristics of outfits and mood experiences. Clothing, as a second skin to the wearer, serves as a means of communication. It is proposed that each mood, with a focus on the four moods tense, gloomy, cheerful, and relaxed, has a distinct set of clothing characteristics. Each characteristic either influences a mood, enhances a mood, or just communicates a mood. Not only tangible characteristics of clothing are explored, but also the emotional values of clothing that influence for example personal attachment.

The characteristics outfits designed to induce a cheerful or a relaxed mood were further explored by combining these with the wearer's personal meaning towards these moods and translating this into four distinct outfit designs. To induce a cheerful mood, designers can enhance the wearer's confidence by using high-quality fabrics and flattering designs that accentuate desired areas of the body. On the other hand, to induce a relaxed mood, designers can focus on simple and neutral designs that do not draw excessive attention to the outfit. It is crucial to consider the wearer's personal in achieving the desired effect, as outfits that do not align with their personality can make them feel less confident and more self-conscious.

Finally, potential implementations of this design and research approach are proposed, outlining how it can be used. For instance, the mood-related characteristics of clothing can serve as a tool for designers and researchers to better understand moods. Moreover, individuals can utilize this approach to enhance their personal wellbeing by actively influencing their mood through clothing choices.

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