Pedagogical encounters: Typography and Emotion

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Abstract: Emotion plays a key role in the human understanding of the surrounding world and novel situations, representing a time-tested solution to adaptive problems. Objects are able to give rise to affect and emotions because cognition is inseparable from emotions, which have the power to change our thoughts. Attractive products trigger more positive emotions, being more successful. This involves the objects’ morphology and also typography, logos, or packaging. Typographic design teaching is therefore fundamental for design learning and for design to improve life. Typography lives in the most varied design manifestations, being virtually impossible to design without a letter, a number, or a symbol. The project ‘Typography and Emotion’ was intended to challenge design students and promote a keener awareness on how and why to create products that prompt positive emotions. Students were invited to design a Latin alphabet with decorative typefaces inspired on a short list of positive and negative emotions. Two of those letters were subsequently raw material to design a 3D object to convey emotions. The results showed full understanding of the relationship between emotions, letterform, and positive design. The exercise also encouraged further research on form as vehicle for content, meaning, and emotion, allowing students to consolidate notions on visual communication and product development.

Keywords: Design Teaching, Typeface Design, Positive Design, Emotion
Introduction

This project aimed to present typographic design and emotion design to freshman year product design students, in a cross disciplinary perspective on emotion as interaction: dynamic, culturally mediated, and socially constructed and experienced (Boehner et al., 2007).

Our purpose was to interpret the role of designers as emotion mediators, addressing the potential of external things to allow interpretations, meanings, and to convey emotions, namely positive emotions, able to improve the quality of life of the viewers/users/consumers/individuals (Sheldon & Lyubomirsky, 2006; Desmet, 2011; Pohlmeyer, 2012). However, this does not subscribe the notion that consumer products produce happiness (Csikszentmihalyi, 1999; Lyubomirsky et al., 2005; Patterson & Biswas-Diener, 2012).

After a theoretical approach and discussion on emotion in response to abstract artworks, as music, and on emotion in response to representational artworks, namely the experience of genuine emotions directed at fictional characters and situations, to which the students can easily relate to, we proposed a brainstorming session about the phenomena involving ‘objects of affection’ and the meaning of an emotional response to objects.

Subsequently, the forty (40) product design students were invited to act as ‘emotion conveyors’, designing a Latin alphabet of decorative typefaces inspired on human emotions and intended to trigger emotions on viewers/users. They worked individually and the end results were discussed in group, in class, with oral presentations of the students’ conclusions. Subsequently, two of those words were combined in a 3D format, with the purpose of – literally – converting typography into design objects.
Although there is a wide array of tools concerning design project specification, it is still true that the vast majority address functional, technical aspects of design, underestimating emotions; and much less do they address ethics, responsibility to improve life (Morelli, 2007) or fostering happiness (Sääksjärvi & Hellén, 2013).

Even if it may possible to evaluate the emotional responses to design products, through focus groups, questionnaires or surveys, the information provided by these traditional research methods does not offer designers an aprioristic, concise device to define the product’s vocabulary according to a given set of emotions for a given target audience.

Diachronically, throughout the centuries, type design has evolved within the artistic and creative universe as a ‘minor craft’. From handwritten to woodblock printing, to the metal block bearing a raised character and onto the digital world, type finally bloomed, now available in endless representations of characters through computer screens (Curralo, 2009).

The evolution of digital type and modern computer hardware and software opened the door of typography to people with little or no previous knowledge on the subject, (Curralo, 2009), reconvening to the status of ‘minor’ art, subject to superior categories as graphic design or web design, undervalued in the Portuguese academic world, and especially by Portuguese design courses’ curricula.

However, we recognize the alliance between Design and Typography is essential in all forms of communication, products and services. Lettering conveys information and ideas to consumers. Type captures the consumer’s attention before being deciphered or read; and in order to be read it renounces the consumer’s attention in favour of the individual and subjective action of interpretation.
Beyond typographic fonts and digital font resources, there is a potential of meaning in font design that is not restricted to the representation of symbols that express a language. Adding to the pure abstraction of visual forms, there are several layers of meanings in typographic fonts and text compositions, ranging from verbal to visual.

Firstly, the printed type is supposed to be legible, readable. If a font is illegible, the written message will not be understood. Hence, type as design object has the power to hinder or help consumers/users relate to objects. Type is virtually omnipresent in people’s lives and since it has a strong ability to build icons it is also open to interpretation from illiterate readers.

Considering any product and media, on a product or product packaging, including digital platforms, type is supposed to convey ‘something’ to the object – some form of ‘energy’ surplus, besides label and brand. In fact, fonts are not just a tool for verbal written language or mere artistic alphabets.

Synchronously, therefore, and at an academic level, this exercise consisted in training the interpretation of the world of emotions between consumer and designed products, transforming an intangible message (emotion) into something tangible (alphabet). The end result would be a Latin alphabet manipulating letter form, color, pattern and texture (structure) in order to convey emotions, and retroactively use two of those letters to design an object (3D format) identifying, verbalizing and analyzing the emotions involved and prompted.

This academic project involved 40 junior design students, 24 girls and 16 boys, with ages ranging from 18 to 22, promoting a pedagogical encounter between design, typography and emotions, allowing interpretation and communication of the visual characteristics of readable fonts, relating those characteristics to emotions. Such characteristics have the ability to produce positive or negative emotional responses from their
users/consumers. In the end, students were able to identify and intersect design and typography, rationally and emotionally. This didactical experience promoted individual insight, emotion probing and understanding, increased awareness and perception of positive and negative emotions and respective triggering factors and effects. Supporting previous findings, all of the students considered typeface design has the ability to improve design objects acceptance; that objects conveying negative emotions stimulate rejection, while positive emotions stimulate individuals to accept or approach the object conveying such positive emotions (Norman, 2004).

Finally, this experience allowed the students to comprehend transdisciplinary contributions, namely from neurology, positive psychology, semiotics and emotional design, understanding more clearly how objects mediate meaning – both in design making and design experience, understanding the individual and subjective in order to translate those insights into designs for many (Van de Poel, 2012), enhancing quality of life by promoting gratifying, positive experiences (Manzini, 2007; Keinonen et al, 2013).

**Emotion and Design**

Damásio (2000) defines emotions as a complex set of chemical and neural responses that are organized to form a pattern. They perform a regulating role that leads to the creation of beneficial situations to the organism, maintaining life. According to this author, emotions are biologically determined processes, depending on brain devices established innately and built during a long evolutionary history. These brain devices may be found in small clusters of brain regions and may be activated automatically, with individual
variation and depending on culture. Damásio advocates primary emotions are innate emotional responses. We are apparently designed to react with a certain emotion when facing a certain stimuli. Stimuli are detected and processed by the limbic system of the brain, specifically the amygdala. Subsequently, neuronal nuclei trigger a specific neuronal reaction that changes the cognitive process (Damásio, 1996).

After all this brain processing, emotion arrives as an organic response and understanding of the relationship between the object and us. This awareness of emotions then prompts reactions, encompassing previous experiences of the interaction with the surrounding environment, namely verbal and non-verbal emotional memory.

In short, primary emotions are directly related to instincts. They are innate, involving a network of brain circuits, but do not comprise the whole range of emotions and behaviours known to men. They are the stepping stone for the development of human behaviour and secondary emotions, which go beyond the limbic system operations.

On the other hand, secondary emotions follow a more complex process. These emotions cause direct changes in the physical state. The changes may be visceral, including skin, intestines, lungs, heart, skeletal muscle and endocrine glands (Damásio, 1996). This is why the most common reactions to strong emotions are sweating, increased heart beating, breathing alterations, increased blood flow and muscular changes. These changes are the product of a process, beginning with awareness and involving imagery, depending on a wide array of factors.

Nevertheless, emotion plays a key role in the human understanding of the world and dealing with novel situations. Objects are able to be appealing to the subjective emotional side of each individual, to trigger good or bad recollections, to be perceived; and as cultural products, they may encode emotions
and meanings, being able to transform into ‘objects of affection’ (Berger, 2010).
To experience affect, pleasant feelings or emotions has a positive impact on the creative potential and ability to solve technical problems (Norman, 2004). By the opposite, when the feeling is anxiety, it impacts attention and concentration negatively. In that case, the designer is required to make more effort in order to focus carefully on details.

Emotional design thus concerns the design of products able to prompt positive emotions in the consumer, leading to improved decision-making and problem solving. Emotional design is based on the existence of three brain levels that require different stimuli: visceral design, behaviour design, and reflexive design.

The visceral level is connected to appearance; the behavioural level is connected to the effective use of the object; and the reflexive level relates to introspection and to the meaning of the object (Norman, 2004), as shown in Table 1.

| Table 1  Three levels of Emotion Design. Source: Norman (2004, pp.21-23). |
|-------------------------------|----------------------------------------------------------------------------------|
| Visceral Design               | Addresses the products’ characteristics that stimulate the senses. Relates to the products’ first impact. |
| Behaviour Design              | Addresses product use and experience; Comprises four components: function, specifying the activity the product is designed to perform; understanding the use. usability, concerning ease of use, and the physical sense, concerning texture, weight, surface, etc. |
| Reflexive Design              | Addresses the meaning of the products or their use; long-term relationships, culture, satisfaction to own, display or use, and the identity of the person vis a vis the product. |

The emotional system is directly related to behaviour and to a response activated or triggered by a given situation. It originates a physical reaction that runs through the body and compels the body to act: ‘(...) we are programmed to react with a pre-organized set of emotions when certain characteristics are detected in the stimuli, the world or our bodies, individually or
collectively’ (Damásio, 1996, p.146). Emotions are thus linked to cognition; they contribute towards decision-making and are fundamental to the relationship of the individual with himself and the outside world (Damásio, 1996).

The emotional relationship between humans and products is a research area for further refinement (Edmondson & MacManus, 2007), as the adequacy of the artificial environment to the emotional needs of humans. Also, design discourse concerning the subjective well-being is at the beginning, challenged by a transdisciplinary description of the relationships between phenomena.

According to Norman (2004), attractive products work better. The more attractive the more positive emotions they trigger. These, in turn, affect the mental process, favouring creativity and resilience, thus contributing to greater comfort, quality of life, and ultimately to a better and more attractive world, since ‘Design, at its most basic level is about rendering objects more desirable’ (Greenhalgh, 1993, p.105).

In fact, the key role of emotion in design thinking has implicitly been recognized, although not credited, since it has been addressed for specific products in specific markets, namely mobile applications (Isomursu et al., 2007) or video games (Bonarini et al., 2011).

Almost paradoxically, contemporary society, consumerist and hedonistic (Waterman, 1993) has also fuelled subjective well-being as an emerging research topic in the field of design sciences, although still at an embryonic stage. New design models and strategies are being addressed in an effort to increase users’ well-being (Van de Poel, 2012; Pohlmeier, 2012; Sääksjärvi, & Hellén, 2013, Keinonen et al., 2013, Desmet & Pohlmeier, 2013).

We may argue that rational factors relate to practical functions, as usability or price, while emotional factors relate to aesthetic
or symbolic functions of the object. Obviously, emotional factors are made evident through appearance, through shape, colour, texture, and also significance or meaning, for what they represent to the individual.

According to Baxter (1998), an attractive product is one that is visually pleasing and subsequently draws attention and becomes desirable. In other words, an attractive product triggers the desire to purchase it. Also according to Baxter, there are four forms of attraction, as described in Table 2.

<table>
<thead>
<tr>
<th>Attraction for the known</th>
<th>When the consumer is already adapted to the visual aspect of a product and is attracted by it amid others;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional or semantic attraction</td>
<td>When a product appears to perform well the function for which it is intended, or when it conveys an image of confidence through the visual image;</td>
</tr>
<tr>
<td>Symbolic attraction</td>
<td>When the product represents personal or social values of the user, and helps building their image before others;</td>
</tr>
<tr>
<td>Attraction for the visual form</td>
<td>The general form of the product, incorporating the aforementioned aspects, has a particular beauty.</td>
</tr>
</tbody>
</table>

However, even not purchasing the product, the individual may still feel pleasure by enjoying the product, as in the case of visual communication products.

Jordan (2000) elaborates on an interview related to pleasure and consumer products, and he concludes that to develop a fully user-oriented design, designers should deal with usability going further beyond, including aspects of pleasure/displeasure, in order to create products that are positively pleasant to use.

In a subsequent study, drawing on a framework developed by Tiger (1992), Jordan (2000) introduced his pleasure-based approach, which distinguishes four distinct types of pleasure that people may seek in human-product interaction: physical, social, psychological, and ideological.
### Table 3  Four Types of Pleasure. Source: Jordan (2000, pp. 11-58).

<table>
<thead>
<tr>
<th>Type of Pleasure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical pleasure</td>
<td>Pertains to the cognitive demand in product use and emotional reactions to experiencing the product; the psychological pleasure of usability (provided by user-friendly products that reduce unpleasant sensations);</td>
</tr>
<tr>
<td>Social Pleasure</td>
<td>From the relationship with others, persons or companies; the social pleasure of status and social interaction</td>
</tr>
<tr>
<td>Psychological pleasure</td>
<td>Related to the body, senses and organs, to the physiological pleasure of comfort</td>
</tr>
<tr>
<td>Ideological pleasure</td>
<td>Pertaining to people's values. Involves pleasures from “theoretical” entities such as books, music and art. In the context of products it concerns the values they convey. Ideological pleasure occurs according to the individual culture and represents such culture.</td>
</tr>
</tbody>
</table>

For Jordan (2000), the pleasure associated to products is a benefit that can either be practical, emotional or hedonistic. For this author, pleasure is a relative concept, resulting from the interaction between products and people. According to Desmet (2002), emotions are subjective and individual; different persons may experience different emotions regarding the same product, or even a set of different emotions. Emotion is vulnerable, mutating, generated by short immediate stimuli, by a moment of interaction.

Individuals interact with products through the five senses (hearing, sight, smell, taste and touch), but simultaneously the product is as an integral, inseparable part of the context in which it appears. The context of interaction is part of a social cultural context, which also affects the emotional experience. Hence, in addition to the interaction context, an understanding of the social context of the individual is essential to design based on emotions (Person, 2003).

In other words, it is fundamental for the designer to understand and decipher his own surroundings, the society he is part of and product from, and also to assess emotions, grasping how they may move, push and pull the individual and the target set of consumers.
Emotion in typographic design

Etymologically, the noun type means symbol, emblem, from the Latin typus, meaning figure, image, and form (Online Etymology Dictionary). Typography is hence the art and technique of composing printed material from type. The concept of type involves giving a written shape to the word; rendering language visible (Curraro, 2009), but it is not limited to the flat representation of the printed alphabetic characters. In fact, communication can either be verbal, gestural, or visual. Visual forms, two or three-dimensional, are also communication elements that we produce and use. In commercial design, type creates brands and logos. Type also plays a key role in building visual hierarchies to organize information.

Conversely, despite the already established habit of reading texts, there is yet to develop the habit of recognizing objects as communication elements, whether they are two or three-dimensional. In fact, a product is formed by the combination of several factors, such as materials, color, finishing, among others, structured as a language, and able to be interpreted, especially by product designers, to master the full vocabulary of the objects.

Simultaneously, besides tangible properties, products also carry intangible characteristics, features that cannot be perceived by the senses and are not easily identified (Karana, 2006). To exist, the product becomes material, but the product also remains a concept, an idea (Evbuomwan et al., 1995), or maybe a drawing, if no materials are available to convert it into a tangible entity.

Along with the fast development of modern technology, fonts assume a wide variety of new forms and functions. Many categories and types have evolved, including image and
movement. Fonts are no longer mere tools for visual communication. Their shape and appearance can be manipulated to suggest moods or feelings. According to Ho (2009), emotions impact the decision making process of designers during the design process. In many cases, designers experience stimulating emotional responses within their environment that in turn impact their decisions on aspects of the design process, which in turn will have emotional outcomes, such as the arrangement of shapes or colors (Ho, 2010). Reversely, typographic elements such as color and shape may trigger emotions (Tsonos & Kouroupeloglou, 2008.). Emotions are a common factor to humans and animals. However, emotions in humans have a special nature, in so far as they are interconnected with our actions, values and judgments. The impact of emotions depends directly on the senses triggering such emotions (such as perfume). Feelings, on the other hand, allow emotions to affect the mind. Without emotions we would not be able to take pleasure in life or to appreciate what surrounds us; emotions ultimately give meaning and significance to things (Gross, 1999). Things constituted by the morphological qualities of the products, but also from the shape of the type printed on the packaging, label, bag, or even stamped on the product’s skin.

In consumer research (Tractinsky, Shoval-Katz, and Ikar, 2000), the effects of positive emotions were found in line with this general trend: positive emotions trigger product purchase intentions, repurchase intentions and product enhancement. In the field of ergonomics, positive emotions have shown beneficial effects while using the product; when using complex technology, positive emotions reduce the anxiety of manipulation and contribute to enhance the experience of use and overall usability.
Subsequently, products that trigger positive emotions are purchased more often, used more often, and are more pleasant to use, stimulating subjective well-being (Eid & Larsen, 2008; Lyubomirsky et al., 2005; Petermans & Pohlmeyer, 2014).

The pedagogical project: *Typography and Emotion*

Historically, the role of typography was to allow visibility to verbal writing. More exactly, it made something intangible, as sound, into a tangible sign, the letter, to be print and distributed. Fonts, however, in addition to that role, also have the ability to represent visual and emotional qualities. Typography has always been present in the most different design manifestations, such as communication design, graphic design, product design, or multimedia and computing. Its importance can be reminded by the difficulty to design a project that does not involve at least the use of one letter, number, or sign. Before the advent of digital technology, typography was much more limited. Type has evolved from blocks of wood to digitized representations of the character, and the computer system technology widened the field for typography at the same time it was democratized, allowing ordinary people with little previous knowledge on typography to compose type, whether or not it becomes printed material (Griffie & Casey, 1988).

According to Steven Heller, to teach design to the student before teaching him typography is like teaching a baby to walk before he can crawl (Heller, 2004). This prompted us to promote promotion typography learning, since junior design students lack skills to distinguish fonts' or typography's significance. To implement letter anatomy (Lupton, 2008) and an inspiring encounter with letter and type, we addressed letterform design as intuitive means of expression, discussing notions on letter
shape composition and anatomy, for students to become aware of the different fonts, their origin, the typographic values and guiding principles, and concepts such as emotion, semiotics, and communication. Since typographic studies are so important for design students education and preparation, we decided to add a typographic design exercise to the syllabus, addressing emotion in design.

Eco (2005) argued that all cultural phenomena could be regarded as communication phenomena. This is also true for the emotional interaction between user and object (Berger, 2010), which involves at least four agents: the transmitter, the receiver, the media, and the context (MacLuhan & Fiore, 1964). The adequacy to the media and context is also one of the key factors in the choice of letters. Technically well-suited to the media, types can be more easily identified and not tiresome to read. They fulfill their role to communicate efficiently.

Yet, to understand what the subject (consumer and / or user) feels, it is necessary to understand what the object may be able to convey and why. Placing the object as cultural phenomenon in the place of message sender, and the user in the position of message receiver, the designer becomes the channel, mediating a coded transmission.

**Teaching Strategies: dealing with emotions**

The Product Design course from Viana do Castelo Polytechnic Institute is established on the Minho region in the north of Portugal. The project ‘Typography and Emotion’ was designed to introduce students to the typographic world(s) and to connect design and emotion through fonts. This implies understanding emotions, typography, and the relationship between emotions and typography.
As pedagogical tool, the proposed exercise allowed questioning and interconnecting different areas of knowledge, addressing typographic design as a tool to create products designed to trigger emotions in a given socio-cultural context. Bauman’s ‘liquid modernity’ (2005) recommends proposals capable of challenging the global market monopoly, legitimizing the right of the individual to acquire new values, new knowledge and new emotion experiences. According to Mendini, ‘project making is carried out in several stages, and the real and fundamental problem is firstly that of the program of reproducibility and afterwards that of design’ (Mendini cit in Ferrari, 2005: 98). According to Cross (2006), to design is to use systematic methods, setting goals in a clear, concise, specific and verifiable way, in order to solve a problem. And such goals are to be reviewed periodically. Hence, to develop this project we adopted a cross-oriented methodology, connecting the process stages advocated by Bruno Munari (1981) - who adds that the design process is linear, prescriptive and deductive, with stages representing tasks to be performed successively - with a Mendini and Cross statements - focus on metadesign and designerly ways of knowing. Table 4 presents the project stages followed by the students in this project.

Table 4  Methodology. Inspired from Bruno Munari’s model (1991, pp.39-66)

<table>
<thead>
<tr>
<th>Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data collection and analysis</td>
</tr>
<tr>
<td>Creativity</td>
</tr>
<tr>
<td>Experimentation</td>
</tr>
<tr>
<td>Model Development</td>
</tr>
<tr>
<td>Verification</td>
</tr>
<tr>
<td>Solution</td>
</tr>
</tbody>
</table>
Problem: consists on the students’ lack of visual literacy and knowledge on typography design. The hypothesis was if typography could prompt emotions.

Data collection and analysis: students received and gathered information on emotions, synthetized on Tables 1, 2 and 3. Each student (24 female and 16 male, total of 40) chose one emotion from the ten (10) presented on Table 5, in order to develop an alphabet. The five (5) positive emotions (50%) were joy, love, affectivity, peacefulness, and kindness; the five (5) negative emotions (50%) were sadness, hate, aggressiveness, anxiety and greed).

Creativity leads to experimentation, drawing shapes of letters in order to establish useful relations for the project.

Experimentation, in this case drawing shapes of the letters allows inputs and establishing useful relations. Experimentation is an interaction between primary information, the collected and processed data, and secondary information, from the sketches performed.

Model development: In scale or full size, sketches show partial solutions for what may become the chosen solutions for the problem, able to be compared and classified.

The verification stage consisted on a poster presentation of the designed alphabet to the remaining class (39 students and one teacher), potential users, and an honest opinion is requested. Based on the objective data from the comments, each model was adapted.

Finally, the final drawings of each particular alphabet were established, and the objects resulting from the two 3D letters were developed,

This methodology allowed subjectivity, different interpretations and also dissimilar analysis and conclusions. As a learning experience, it was designed to contribute to the education of a generation of designers who will develop products that engage
the individual, the collective, and the environment, meaning adaptation and change. The goal was not to offer them a static set of cause-effect clauses concerning objects and emotions, but to guide and support them though their own discoveries of emotions and their triggers – there were no wrong answers.

In order to implement letter anatomy and simultaneously allow students an inspiring contact with type and fonts, we approached letterform design as an expressive means of communication: intuitive, but based on theoretical notions on letter shape anatomy and composition. Typefaces by Ellen Lupton, Ruari Mclean and Adrian Frutiger were presented for group discussion and analysis, involving and motivating the students, fostering freedom, inspiration, and technical and aesthetical improvement. This resulted in a structured, rational approach, for students to put into practice theoretical concepts of letter anatomy and graphic arts.

The Munari Method, presented in Table 4, also encouraged autonomous research from students, namely on how to design forms as an expressive vehicle of content and meaning. At a first stage, the 40 junior students from the product design course were invited to choose one emotion from a list of 10 primary emotions provided by the professor, five being positive and five negative (50%/50%) as shown below, in Table 5.

Table 5 List of primary emotions presented to the students.

<table>
<thead>
<tr>
<th>Positive Emotions</th>
<th>Negative Emotions</th>
</tr>
</thead>
<tbody>
<tr>
<td>joy</td>
<td>sadness</td>
</tr>
<tr>
<td>love</td>
<td>hate</td>
</tr>
<tr>
<td>affectivity</td>
<td>aggressiveness</td>
</tr>
<tr>
<td>peacefulness</td>
<td>anxiety</td>
</tr>
<tr>
<td>kindness</td>
<td>greed</td>
</tr>
</tbody>
</table>
From the group of 40 students in the first year of product design course, 24 were female and 16 were male, with an age range from 18 to 22 years-old. No-one selected ‘Greed’, while a clear majority (67.5%) chose positive emotions (27 students), as shown next, in Table 6.

<table>
<thead>
<tr>
<th>Positive Emotions</th>
<th>Negative Emotions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>joy</td>
</tr>
<tr>
<td></td>
<td>M (n=16)</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td>love</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
<tr>
<td>affectivity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>peacefulness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td>kindness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Table 6  Emotions chosen by gender and number of students.

The preference towards positive emotions was verified both in the female group of 24 students (n=17/ 70.8%) and in the male group of 16 students (n=10/ 62.5%). However, the ‘positive group’ of 27 students was composed mainly of female students (63%), against 37% of male students.
Among the five positive emotions, ‘Joy’ was chosen by 41.1% of the female students (n=7) followed by ‘Love’ with 29.4% (n=5). The sum of the two items in both genders accounts for approximately half of the overall choices (42.5%), possibly reflecting the typical aspirations and concerns in their age (18 to 22 years-old), and also possibly because the universe of visual representations, symbols and icons regarding those two emotions is much wider than for instance regarding ‘Greed’.

The remaining positive emotions received the same volume (n=2) of preferences; ‘affectivity’, ‘peacefulness’, and ‘kindness’ (11.7%). Female students concentrated their choices more (until 7) and their choices ranged more (0 to 7) than male students (from 0 to 3). The average for female students was 3.6 concerning the five positive emotions, and 1.5 concerning the four chosen negative emotions.

One third of the students preferred negative emotions (32.5%, n=13). The inclination towards negative emotions was similar in the female (n=6) and male group (n=7) corresponding to a percentage of 46.1% and 53.8%, respectively. Hate stood out (n=3) among the 16 male students (18.7%), corresponding to the highest concentration score, paradoxically alongside ‘Joy’ and ‘Peacefulness’ (n=3/18.7%). Male students presented a more polarized range of emotions, with an average of 2.25 among the 4 chosen positive emotions, and 1.75 among the 4 chosen negative emotions.

After selecting their emotions, students were asked to develop a matching decorative typeface in upper case, manually, not resorting to any digital media. This specific restriction was intended to allow enough time for students to manipulate, identify and differentiate visual qualities. Subsequently, they were asked to identify strategies to convey the selected emotion.
Color and texture were among the most widely mentioned elements of visual language. Rounded shapes, constancy and harmony, balance, clearness and readability were predominant features dominating the positive spectrum. ‘Hate’ motivated a strong contrast and abundance of elements, with references to complex angular and irregular shapes, distressing balance and visual tension, with no adjustment to an unrevealed visual axis.

![Figure 1: Works by the students. Source: Authors](image)

Figure 1 displays some of the typefaces developed by the students, for Joy, Aggressiveness and Calm. To produce a full typographical alphabet is neither easy nor quick. Uppercase lettering for a Latin alphabet has 23 characters. Each one requires similar concentration and attention to detail. To draw a letter and then repeat the features adapting them to the following letter requires constant concentration, during several hours and days, in order to keep the formal coherence in the representation of the different decorative typefaces.

For this reason, the students were given graph paper for letter drawing by hand, to enhance technical accuracy, keeping the
letters within a minimum diagram, to be more visible in the x-height marking of the alphabet.
Types are usually inspired by fonts from manuscripts or other printed media, and based on graphic shapes that are characteristic to other techniques and media. In this academic exercise, in addition to the identification of the alphabetic characters formal qualities, students were invited to assess intrinsic qualities and to highlight emotions. This selection of typefaces was precisely intended to drive the attention towards apparent qualities, with iconic and symbolic functions operating simultaneously.
Analysing the visual features of these typographic typologies allows understanding the key concept in typography design is not ornamentation. There are specific qualities for each trait forming the characters. Decorative fonts intentionally draw attention to their appearance. For decorative typefaces, the appearance (first quality) of the type creates a meaningful identity which sets the typeface as a particular sign. The visual qualities are supposed to stand out, which is not the case with regular fonts. Regular fonts display their particular characteristics but do not disrupt with the phonetic alphabet. They are intended to allow a clear identification of the alphabetic character representing verbal language. However, the significant potential of typography is not limited to character representation of verbal language.
Although the purpose of this exercise was to develop a legible font whose traits would trigger emotions, this concerned decorative typefaces, each individualized from start, representing a written alphabet. Therefore, the typefaces designed by these students can be used in titles but not in long texts, due to the visual tension generated between the visual and verbal, dispersing reader's attention and hindering verbal reading.
After completing the decorative typeface design, students developed two 3D letters (Figure 2), as an ‘acid test’ for their own interpretation and materialization of ‘Typography and Emotion’. Creating the 3D-version letters also allowed students to understand the connections between two-dimensional and three-dimensional discrete elements.
For that purpose, the students freely resorted to a wide range of materials, namely wood, foam, cardboard, and plastic. It is possible to identify that the types designed to trigger positive emotions have a more readable end result that the types intended to suggest negative emotions. Also, the typefaces with low legibility and angular pointy shapes were commonly acknowledged to convey negative emotions, hindering the user/product relationship. On the opposite spectrum, readable fonts, clear and harmonious, were considered more legible and to promote a more positive and enjoyable user/product relation, according to the students’ assessment and conclusions.

**Conclusion**

Rational factors are connected to the objects’ practical function, usability, price, among other aspects. Concurrently, emotional factors relate to the objects’ aesthetic and symbolic functions. These are detected in the object’s appearance, shape, color, texture, temperature, and also by the object’s subjective meanings, by what it represents, subjectively, to each individual. This pedagogical project allowed 40 freshmen project design students to experience, individually and in group, a theoretical-practical approach to ‘typography and emotion’, product development and positive design.

The final works presented by the students allowed recognizing that design thinking goes far beyond technique and technology. Products don’t speak. However, they are means of communication, media for visual language, for impressions, and emotions, that will in turn affect potential buyers, positively or negatively. We live surrounded by objects designed to please. The positive emotion triggered by interacting with objects in our environment is interpreted by our brain as coming from a good, functional thing (Norman, 2004). This project allowed future
designers to experience emotion through design and to think through emotions, addressing the subjective well-being of individuals and societies.

Any aspect of a product can evoke emotions. As a result, emotion-oriented design requires a holistic approach to product design. The designer gives shape to a relationship between user and product, exploring emotions, in this case through typography. Nevertheless, any project involves levels of meaning, interpretation, emotion, and possibly manipulation. The emotions caused by products are of the same nature as those arising through relationships with others. Thus, to design products to be used by people involves knowing what people have in common: namely emotions.

Although at a small scale (40 participants) the exercise carried out by the students showed that the academy has a key role in supporting individuals as they strive to deal with emotions. Ultimately, addressing their own emotions allowed these design students a greater level of self-confidence, assertiveness, involvement and interaction, promoting their own experiences of subjective well-being through gratifying, positive emotions.

In a broad sense, ‘Typography and Emotion’ promoted an interaction between theoretical and practical knowledge, showing future designers the potential impact of their products in the well-being of other individuals and subsequently of the society as a whole, constituting a pedagogical encounter with design for humanity.

REFERENCES


