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The gendering of industrial design in Turkey as technology-related work: Exploring the narratives of professionals

Pinar Kaygan

Thesis submitted in partial fulfilment of requirements for the degree of Doctor of Philosophy

Department of Sociological Studies, The University of Sheffield

May 2012
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Abstract

This thesis aims to contribute to a better understanding of gender asymmetry persisting in technology-related work on two grounds. First, unlike previous studies which have mainly been concerned with male-dominance in, and masculine culture of, technology-related work, this study focuses on the industrial design profession, and its distinctive situation in Turkey, where there is neither a significant numerical gap between female and male industrial designers, nor a strongly gendered occupational culture. Secondly, it draws together two separate bodies of work, namely feminist technology studies and feminist organisation studies, suggesting that gender inequality in technology-related work can be understood neither in isolation from the other concerns of organisational life (e.g. access to power and privilege, definitions of organisational roles and responsibilities), nor without taking into account the association of technology with masculinity.

Adopting a feminist social constructionist approach, this thesis conceptualises gender as a process in which work is patterned through distinctions between masculine and feminine. Within this perspective, it draws on interviews conducted with 20 female and 12 male industrial designers from various industries in Turkey to explore to what extent and in what ways industrial designers’ work experiences are patterned by gender. Stories collected through these interviews are analysed using a thematic narrative approach.

The analysis shows that, first, interdisciplinary relations, particularly with engineers, is an important site of gendering through which the occupational image of industrial design is associated with femininity and women; and second, this gender association is closely linked to the inferior status of designers among professional workers. In women’s stories, the inferior status associated with being a designer is also intertwined with being a woman, creating a double problem in the interdisciplinary office environment. On the shop floor, on the other hand, where industrial designers visit to supervise the blue-collar workers who build the models of their designs, such disciplinary distinctions disappear, and individual gender becomes more prominent. Contrary to the mixed-gender office environment, the male-dominated shop floor is an explicitly challenging work setting for women who enter there in positions of authority. This situation is created not only by the resistance of male shop floor workers to women’s superior position, but is sustained by male industrial designers’ consideration of the superior position on the shop floor as only proper for those who can display the necessary masculinity.
Demonstrating how experience of gender changes dramatically between the shop floor and the office, this study highlights the complex, contextual and situated nature of gender construction at work. It contributes to the existing literature on gendering of work by addressing work settings as the site of gender inequality, rather than the occupations or organisations per se. Doing this reveals that gendered experiences of one particular profession or position is not fixed even in the same organisation, but changes depending on the requirements and priorities of different work settings; and that placing all emphasis on only one of these settings, possibly the most visible one, may limit our analysis of gender inequality experienced by the members of that profession.
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Chapter 1

Introduction

I begin this thesis by taking the reader on a journey of my transformation from a disappointed industrial design professional into a feminist researcher who investigates the gendered nature of the disappointments and problems industrial designers encounter in the workplace. This is not only due to my feminist perspective which considers the researcher’s biography central to the research, but also because the questions that underpin this thesis have their roots in my personal experiences of the four years when I worked as an industrial designer in Turkey. In these years I had quite a lot of time and reasons to think about my profession: How was it perceived by other people? How did my being a woman shape these perceptions and my relations as an industrial designer in the workplace? First, I will explain what led me to these questions drawing on some personal stories.

My professional career started in a furniture manufacturing company as a children’s furniture designer in 2004. One day the shop floor manager, who was an engineer, popped into my room, saying that he wanted to talk to me. He and three other engineers in the company were working on setting up a new society for technological and technical workers. He went on explaining the aim of that society and how members would benefit from it. Listening to him, I thought he would invite me to join the society and maybe to take part in the setting-up process. However, the issue was that they needed a logo for the society and he asked me if I could design a logo for them, so that they would have an alternative to the ones they designed. It was the first time that I noticed how neither him nor the other engineers did recognise my status as a technological worker like themselves. It was surprising, since as an industrial designer I was actively involved in the production of the models of my designs, including solving technical details about manufacturing and materials, and supervising the blue-collar workers in the model-building workshop. What was the reason for this exclusion? What made them consider an industrial designer an ‘expert’ in designing a logo, though I did not have such an expertise, but not a member of an association of technological and technical workers in the furniture industry?

Whilst my relations with the production engineers invited these questions, different concerns
appeared with the marketing people and managers. A couple of months after I started to
work there, the general manager, who was also leading the Marketing Department, decided to
design a home furniture set together with three marketing people. In this process they
consulted neither myself, nor the other industrial designer and we were left without an
explanation with regard to why we were excluded from the design of a new set. We
preferred, as our director did, to keep silent and watch what would happen. Just in front of
my room there was a platform, where prototypes of new designs were exhibited. Once the
prototype of their design was built, it was placed on the platform, too. A few days later on my
way to the tea room, I met the three marketing people standing next to their prototype, in
the middle of a discussion. One of them stopped me to ask what I thought of the colour of
the dining chairs as a woman. In the whole process I was completely ignored, and when I
was finally recognised, my opinion was asked not as a professional, but as a woman. His
question triggered other questions in my mind: What made these people assume that they
are competent at designing furniture without any professional training? Was I employed in a
furniture company because I was a woman like most of its customers? Was I more visible as
‘a woman’ than ‘a professional’? Was this connected to my exclusion from the association I
described in the previous story? Would these people’s attitude towards my professional status
be different if I were a man?

After spending four years in a couple of manufacturing companies, where I tried to find a
‘better’ job, but experienced similar dissatisfactions, I left industry in 2008 in order to pursue
an academic career. I became a Research Assistant at Middle East Technical University
(METU), Department of Industrial Design the same year with these questions in mind. In my
first semester, I was the teaching assistant of the Graduation Project module. The aim of this
module was to provide a simulation of professional life for the students by collaborating with
companies from Turkish industry. In the module, students were expected to choose an
industrial sector for their graduation projects according to their professional interests. In this
process, I noticed that among students, furniture projects were addressed as ‘girly’ and ‘too
simple’, and were usually the preference of female students. The transportation projects, on
the other hand, were defined as ‘for men’, and were chosen by only male students.1
Observing this, I started to think: how can an industrial sector be defined as ‘girly’ or ‘for
men’? How can jobs become gendered? What are the implications of such definitions for

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1 A couple of years later I would learn that furniture was defined as the most female-dominated
and feminine field of industrial design, as opposed to transportation design, by Kirkham and
Walker (2000).
individuals, women and men? It was then that my concern about the relevance of gender to the industrial designer's work went beyond myself, became a question to be examined through academic research, and expanded to a broader interest in the gendering of technology-related work.

Gendering of technology-related work is an old but still a timely issue. There is an extensive feminist literature concerned with this issue, focusing on mainly male-dominated areas of technological work, particularly engineering. In these studies, the strong material and symbolic relationship between masculinity and engineering has been given a significant explanatory value in regard to the small representation of women in this area. In their analyses, some scholars have highlighted the discrepancy between the image and the practice (Faulkner 2000b, 2007; Phipps 2002), some others examined the processes through which women are assimilated into masculine occupational cultures (Dryburgh 1999; Gherardi and Poggio 2001; Marshall 1993), and others placed emphasis on the coping strategies women develop to fit into male-dominated work settings (Miller 2004; Powell et al. 2009). Besides, there are some other recent studies that are interested in the contexts in which male-dominance disappears. They draw attention to the fact that despite their increasing number, women remain clustered in the lower levels of professional responsibility, without challenging men's dominance in prestigious and well-paid positions (Ayre et al. 2011; Evetts 1998; Peterson 2007).

Looking at the feminist research that has focused on industrial design practice, we encounter similar, yet less developed, arguments. This literature shows that compared to the other fields of design such interior design, jewellery and fashion design, industrial design is indicated as the most male-dominated and masculine field of design due to its relationship with technology and industrial production (Clegg and Mayfield 1999; Howard and Setliff 2000). Women designers are mostly clustered in the jobs which deal with 'styling', 'colour' and 'appreciation of the end-user' rather than the others which require technical skills (Bruce 1985).

Turning back to my experiences, these studies, however, do not address the issues I had faced in industry, or observed in my students and discussed with my colleagues. Being a woman industrial designer, for example, I never encountered any barriers in getting good
positions as an industrial designer in terms of both the quality and the value of the job, and remuneration. I noticed that there is a need to ask different questions to explore the gendering of the industrial designer’s work in a context like that of Turkey, where industrial design is dominated by neither men, nor a professional culture that explicitly favours and privileges men and masculinity. This distinctive situation of industrial design profession in Turkey offers a good example to study gendering of technology-related work, as it enables us to shift the focus from why and in what ways male-dominance persists in a technology-related profession, or how women cope with masculine professional cultures and images, to what happens in terms of the experience of gender inequity, once a technology-related profession welcomes women as well as men. In this regard, this thesis aims to go back to old problems, which still stand with a strong need to be investigated, with a distinctive example of technology-related work and with new questions that such an example raises.

This thesis adopts a feminist social constructionist approach as guidance for methodology. It draws on the interview-based narratives constructed with 20 female and 12 male industrial designers regarding their professional life in Turkey. Participants have several years’ work experience in a wide range of industries, including furniture, heating systems, packaging, transportation, automotive sub-industry, sanitaryware, tableware, home and kitchen appliances, communication devices, and military products, and in ten different cities in Turkey. These narratives are analysed by thematic narrative approach, with the intention of understanding how industrial designers make sense of their subjective experiences of gender with reference to their work settings.

After the introduction this thesis will go on with a critical review of the relevant literature in three separate chapters. The first task is, which I address in Chapter 2, to elaborate on how the gendering of technology-related work has been approached and investigated by feminist scholars hitherto. In discussing this question, I bring together two bodies of feminist work from technology and organisation studies that to date have been separate, suggesting that a full understanding of gender inequalities in technology-related work requires taking into consideration the gendering of both technology and work. Combining insights from both areas, Chapter 2 starts to set out the theoretical and conceptual framework that underpins this study. Following this, Chapter 3 focuses on the industrial designer’s work. It presents a critical review of feminist design literature linking and comparing it to the gender and technology-related work literature discussed in Chapter 2. Doing this, it highlights the
significance of expanding our understanding of gender issues in industrial design profession towards a direction that focuses on ‘gendering of industrial design’ rather than ‘women designers’, which remains the main concern in existing feminist studies.

A second important conclusion derived from Chapter 3 is that in the existing literature industrial design is defined as a male-dominated field of design due to its relation to technology and industrial production. Above I noted that the situation of industrial design presents a different picture in Turkey, where we do not observe male domination in neither education nor professional practice. However, this claim relies on my observations due to the lack of statistical data regarding the gender distribution in industrial design profession in Turkey, whilst this kind of data is available for other professions such as engineering and architecture. This can be explained by first, industrial design’s being a young profession in Turkey, and second, the absence of an interest in gender issues in academic research on industrial design. In Chapter 4 I will address this gap by compiling statistical data regarding the gender distribution of industrial designers in Turkey from a number of sources. Discussing this data in light of the short history of industrial design profession in Turkey, in Chapter 4 I will explain why its situation in this context offers a useful example of technology-related work to study gender and work.

Chapter 4 has another important role in this thesis. As Arat (1999a, 4) states, there are
two common, ironically opposite but equally simplistic views of contemporary Turkish women: one that sees them as secluded and inert mass oppressed by the harsh patriarchal rules of Islam; and the other that perceives them as liberated by and living within Mustafa Kemal Atatürk’s secular state.

Here one of my concerns is, like many other researchers studying women in professions in Turkey that address an interdisciplinary audience, to respond to these simplistic and homogenising views on ‘the Turkish woman’ by clarifying which women this study is interested in, and by discussing the inequalities these women face due to their social standing. In this regard, another task for Chapter 4 is to provide a review of women’s status in professional, and particularly technological, occupations in Turkey, which has a unique history that is characterised by important contradictions due to various political, economic and social factors.
In these three chapters I do not only review the literature, but also identify and propose how to fill certain gaps to expand our understanding of the gendering of technology-related work. **Chapter 5** starts by outlining the research questions of this thesis, which address these gaps. Then it introduces the methodological approach and the research method adopted to investigate these questions. It discusses some key principles of feminist research that inform the methodological approach I adopt, and clarifies why interview-based narrative research is employed as a method. Following this, it describes the research design, including sampling and access issues, research method, data collection and analysis, and ethical issues appeared during research.

Methodology chapter is followed by two analysis chapters, focusing on two different work settings. **Chapter 6** is concerned with industrial designers’ experiences in the office environment, and explores to what extent and in what ways gender shapes their relationships with other industrial designers as well as engineers and marketing people, with whom they have close interdisciplinary relations. This chapter highlights the importance of examining interdisciplinary relations as a site of gendering, revealing how these relations are constructed around some dualistic associations that shape individuals’ experiences of gender.

As can be seen in Chapter 2, 3 and 4 below, feminist research has paid considerable attention to the role gender relations play in women’s disadvantaged status in technology-related professions. However, less emphasis has been placed on women professionals’ relations with manual workers. This thesis redresses this gap in **Chapter 7** by examining industrial designers’ experiences in the shop floor environment, where they visit occasionally to supervise the blue-collar workers who build their models. It contemplates two questions by exploring gender relations between male industrial designers, female industrial designers and male shop floor workers: first, to what extent and in what ways women’s experiences in positions of authority differ from men’s; and second, how these differences influence their status as professional workers in the office environment.

After answering these questions, this thesis goes on with **Chapter 8**, where I draw on all of the preceding material to reflect on the research questions, and to consider the overall contributions and implications of this thesis. Chapter 8 provides a final discussion by bringing together and synthesising the findings presented in Chapter 6 and 7. Drawing on the links
and contradictions between the experiences of gender in the office and on the shop floor, it concludes by underlining the importance of addressing context-specific work settings as the unit of analysis for a comprehensive understanding of the gendering of technology-related work. The thesis ends with some recommendations for future research.
Chapter 2

Gender and Technology-Related Work

This chapter sets out the theoretical and conceptual framework of this study by discussing the feminist literature on gender and technology-related work. I will start this chapter with an exploration of how gender has been theorised in feminist studies that focus on gender inequality at work. Within this, I will incorporate two separate bodies of feminist work from technology studies and organisation studies. Combining insights from both areas, I will conclude with an understanding of gender as a three-fold concept, which is co-constructed through symbols, structures and relations of technology and work. In the second part of this chapter, I will make a critical review of liberal, radical and socialist feminist approaches towards women’s status in technology-related professions, pointing to the strengths and limitations of each. Then, I will examine the masculine image of the technological worker and suggest that it is defined around a hard/soft dualism that exists in the thought and practice of technology-related professions. Drawing on examples from literature, I will argue that this dualism is strongly gendered in a way that women are considered to be ‘gender inauthentic’ for technology-related work (Faulkner 2007). Finally, I will focus on women’s experiences as professionals and the strategies they adopt to cope with the problems they face in such work settings.

2.1. Conceptualising gender in the study of technology-related work

2.1.1. Sex, gender and gender role theory

Drawing a distinction between the terms ‘sex’ and ‘gender’ has clearly helped feminist scholars in the analysis of women’s oppression in society, as it has supported the argument that the existing social roles of women and men are not fixed naturally and are open to change (Freedman 2001). Oakley (1972, 16) defines the two terms as follows:

‘Sex’ is a word that refers to the biological differences between male and female: the visible difference in genitalia, the related difference in procreative function. ‘Gender’ however is a matter of culture: it refers to the social classification into ‘masculine’ and ‘feminine’.
According to this distinction, biological sex refers to femaleness and maleness whereas social gender refers to femininity and masculinity. The terms ‘male’ and ‘female’ correspond to the biological categories people belong to, while ‘masculine’ and ‘feminine’ behaviour and roles correspond to the social constructions based on these biological categories. Oakley indicates that in the construction of gender, every society takes sex as a reference point for constructing gender. However, since no two cultures would completely agree on gender roles, definitions of gender corresponding to biological sex would differ in every society. What seems naturally feminine to one culture at one particular time, for example, may not be typical of women in other cultures or times. Therefore, the vital argument about this differentiation is that the roles, traits and forms of behaviour ascribed to women and men are not natural, and instead they have been created by societies.

In line with this, Simone de Beauvoir ([1949] 1988, 295) states,

[O]ne is not born, but rather becomes, a woman. No biological, psychological, or economic fate determines the figure that the human female presents in society; it is civilization as a whole that produces this creature, intermediate between male and eunuch, which is described as feminine.

Moreover, for her, woman is established and differentiated with reference to man as the ‘other’, while the opposite does not happen, since “humanity is male and man defines woman not in herself but as relative to him” (16). In a comparison with the two electrical poles, man represents both the positive and neutral and woman represents only the negative. This asymmetrical positioning explains the common use of ‘man’ for human beings in general. Thus, she suggests that women’s emancipation is in their liberation from this socially constructed ‘eternal femininity’ which confines them to an inferior position in society.

Although the use of the concept of gender provided many advantages for feminist studies, there are also some concerns raised regarding its use (Freedman 2001). First, the way the term ‘gender’ has been accepted into common usage caused the revolutionary effect it held previously to be obscured. As a result of this, due to its weakened political implications, the term may easily be read as just another word for sex. Also, it is argued that dealing with the social construction of masculinity and femininity may lead to a shift in the emphasis from power inequalities that exist between men and women to mere difference.
Besides, more recently, the very distinction between these two terms, sex and gender, has started to be questioned with a new understanding of sex and its relation to gender (Freedman 2001; Richardson 2008). Critiques suggest that in this distinction there is a failure to interrogate the nature of sex itself, since it is accepted as something natural, universal and unchanging. They argue, rather that the category of sex itself is a social construct like gender, which is historically variable and has shifted over time. Laqueur’s (1990) study stated that sex came to be divided into two as male and female only after the eighteenth century. Defining sex as a primary division that precedes gender, thus, takes for granted the division into two sexes and obscures the ways through which it is socially interpreted. For example, questioning the notion that sex comes first and leads to gender, Delphy (1996, 33) says,

We have continued to think of gender in terms of sex: to see it as a social dichotomy determined by a natural dichotomy. We now see gender as the content with sex as the container. The content may vary, and some consider it must vary, but the container is considered to be invariable because it is part of nature, and nature ‘does not change’.

Moreover, referring to individuals whose biological sex at birth is unclear and cannot be decided by conventional procedures, Butler (1990) argues that sexual categories are relatively arbitrary. In this argument, she does not seek to deny that there are observable biological differences between ‘the sexes’, but rather claims that biology, as a scientific discipline, is a social system of representation through which human beings are divided into certain types based on some differences, though there are more differences than these which are taken into consideration between them. Therefore, she asserts, sex is a normative, as well as an analytic category, which conditions what women and men should be in addition to what they are. These arguments note that not only gender, but also sex is socially constructed, and the naturalness of sex, like gender, should not be taken for granted.

Gender role theory is based on the early discussions of social construction of gender that I presented above (Oakley 1972). According to this theory, men and women become masculine and feminine through socialisation, and learn the gender role that is related to their sex through interaction with social structures such as the family and school. In more recent theories of gender, it is argued that this approach falls short on some accounts. First, the gender role approach limits gender to two stereotypes and assumes that once it is learned, it becomes fixed. Whilst it highlights the culturally varying constructions of femininity and
masculinity, it does not explain the different forms of masculinity and femininity which also have changed over historical time frame. Likewise, gender role approach does not analyse why some people learn, accept and adopt certain roles whereas others resist and try to change them. In this manner, this approach has been problematised on the grounds that it disregards the extent to which individuals are able to exercise some agency in this socialisation process and the extent to which we can change over time (Alsop et al. 2002; Holmes 2007).

A more dynamic approach that understands gender as something done, responds to this concern with an emphasis on agency, revealing the weaknesses of socialisation and structural approaches (Holmes 2007). There are two distinct approaches to this concept: One approach considers gender as 'situated conduct' (West and Zimmerman 1987) and the other one as 'performance' (Butler 1990). In the following section I will examine these two approaches.

2.1.2. Gender as an unstable, complex and multiple concept

West and Zimmerman, from an ethnomethodological point of view, develop their approach on the understanding of gender as "the activity of managing situated conduct, in the light of normative conceptions of attitudes and activities appropriate for one's sex category" (1987, 125). According to them, although doing gender is an individual act, it is open to interpretation and assessment due to its interactional character. People act with the awareness that they will be judged according to what is accepted as appropriate feminine or masculine behaviour. These normative conceptions of gender may vary in different contexts, but accountability remains. Like West and Zimmerman, Butler (1990) also questions the 'naturalness' of gender duality (and sex duality as well). She argues that gender is always a 'doing', however she stresses that there is no 'doer' with a gender identity behind the doing, rather "the identity is performatively constituted by the very 'expressions' [of gender] that are said to be its results" (33). In this sense, she conceptualises gender as something that makes us who we are in an ongoing way as we perform it (Holmes 2007; see Kelan [2009] for a detailed comparison of the two 'doing gender' approaches).

Although the two approaches outlined above are notably different from each other, they have two arguments in common: First, gender is not a simple property of individuals, but a process
that is enacted in accordance with the normative conceptions of what it means to be a woman and a man. Second, gender duality and its assumed relationship to sex duality may look ‘natural’, but they are in fact ‘made up’ (Holmes 2007). This understanding of gender, whether it is theorised as a situated conduct or performance or a combination of both, has been frequently utilized in recent feminist organisation studies (see for example Frenkel 2008; Gherardi 1995; Gherardi and Poggio 2001; Korvajärvi 1998; Lester 2008; Martin 2001, 2003, 2006; Poggio 2006; Tibbals 2007). In these studies it is suggested that conceptualising gender as a process is useful since it shows how gender duality is perpetuated in everyday relations and practices. It underlines that these relations and practices are subject to social monitoring, and thus, makes it possible to see why people extensively engage in gender-appropriate behaviour, conforming to the gender norms of the relevant context. Unlike social role theory, it removes the emphasis on one-off socialisation as the basis for gendered difference between men and women and implies that people create gender within social relationships throughout their lives (Deutsch 2007).

However, it is also suggested that the concept of ‘doing’ leaves little room for explaining non-normative behaviour, considering that people also develop their own strategies to cope with gender inequalities (Deutsch 2007; Kelan 2009; Risman 2009). As far as they do gender in the light of normative conceptions, they can and do also undermine these conceptions by doing gender in so-called inappropriate ways. Recent studies, therefore, have focused on the concept of ‘undoing’ as well as ‘doing’ gender (Butler 2004; Deutsch 2007; Pullen and Knights 2007; Pullen and Simpson 2009), examining the cases in which gender is done in the ways that resist, challenge and dismantle normative conceptions (see also later discussion at Section 2.3.3 for examples of ‘doing’ gender in such ways).

Understanding different ways of doing gender suggests a need to complicate the male/female and masculine/feminine dualities to recognise the instability, complexity and multiplicity of gender. This means that gender encompasses several forms of masculinity and femininity, which are not fixed, but rather differ across cultures and over time (Kimmel 2000). The concept of multiple masculinities has inspired a body of work that explores the power relations between men at work: There is no single masculinity but many socially-constructed forms (Bird 2003; Connell 1995; Connell and Wood 2005; Kimmel 2000; Martin 2001; Morgan 1992; Pullen and Simpson 2009; Simpson 2009). These masculinities are hierarchically arranged around a hegemonic form of masculinity, which is constructed in relation to both
femininity and subordinated or marginalised masculinities (Connell 1987). Hegemonic masculinity refers to the particular version of masculinity that is considered superior in a given context and time. It is associated with men in power and sets the standard for powerful positions in that specific setting, though it is often a standard that is not expected to be attained, but supported as an ideal. The notion of hegemony lies in the consensus on this ideal, but not necessarily in realising it.

The idea of the multiplicity of gender, especially the concept of hegemonic masculinity, has also been widely used in both feminist organisation studies and in technology studies, since it implies that although men as a group have the image of being related to technology, they do not necessarily have such an affinity individually (Faulkner 2000a; Lie 1995; Mellström 2002). Thus, the link between men and technology is not ‘natural’, rather it is constructed by the stereotypical image of the technological worker, which is aligned with a hegemonic form of masculinity. In western society, this image is associated with white, middle-class and heterosexual men who are successful in powerful positions in organisations (Oldenziel 1999; Morgan 1992; see also Section 2.3.1 for the consequences of this image for women professionals in technology-related occupations).

Furthermore, a comprehensive analysis of gender relations at work requires acknowledging the intersection of gender with, first, other dimensions of social life such as age, class and sexual orientation; second, different organisational contexts, which vary according to occupation, industry and type of organisation; and third, hierarchies of organisational positions, variations in power and access to privileged status (Collinson and Hearn 1996, 2005). It is the various intersections of these layers and the multiple forms of (hegemonic and subordinate) masculinity and femininity enacted through these intersections that provide individuals with possibilities of doing gender differently in work life.

2.1.3. Gendered occupations and organisations

The understanding of gender delineated above, which presents a shift from gender roles to a more complex and comprehensive perspective on gender, provides the basis for the gendered organisations approach (see Acker [1992] for a detailed discussion of the shift from gender role to gender as a process; see also Broadbridge and Simpson 2011). The starting point of
this approach is its critique of the limitations of existing theories, which explain gender inequality at work in terms of either individual investment or structural factors. These are, first, economic theories within the neoclassical paradigm, which consider segregation of women and men in different jobs to be a ‘natural’ product of a different distribution of human capital (Becker 1964) and interests and choices (Hakim 1996); second, structural explanations of women’s subordination and exclusion in paid work, which focus on the political nature of the gendered division of labour, reflecting capitalist and/or patriarchal forces that benefit from women’s inferior status in the labour market (Cockburn 1983; Hartmann 1979; Walby 1986, 1990). In addition to this, there are also structural explanations from a liberal perspective, which Meyerson and Kolb (2000) call liberal structuralism, that problematise the structural barriers that appear in the recruitment, evaluation and promotion processes and reinforce women’s confinement to certain jobs and positions (Kanter 1977).

The gendered organisation approach, still drawing in part on this early work, questions the assumption that organisations are gender-neutral organisms and jobs are gender-free (as well as race-free, ageless and unembodied) ‘empty slots’ (Acker 1990; Martin and Collinson 2002). This is why creating equal opportunities for women through education and the elimination of structural barriers via legislation and organisational policies, despite their important positive impact on women’s increasing representation in work life, cannot be sufficient to achieve gender equality at work (Gherardi and Poggio 2001; Martin 2003, 2006). In a similar vein, although patriarchy as a concept enables us to see how men’s concerns and interests have come to dominate and define work (Cockburn 1991), it falls short in capturing the link between agency and structure, or other forms of oppression and domination that intersect gender, which are all necessary to understand the complexities of gender issues (Halford et al. 1997). Addressing these shortcomings, the gendered organisations approach suggests that gender inequality at work is created and maintained through various occupational and organisational processes in everyday work life, which are “patterned through and in terms of a distinction between male and female, masculine and feminine” (Acker 1990, 146; Britton 2000).

Regarding the complexity of these processes, Britton (2000) reminds us not to conflate sex composition (the representation of men and women in a particular occupation) and gender typing, (identification of a particular occupation with workers who possess masculine or feminine characteristics). Occupations that require, for instance, service and care have come
to be seen as feminine, whilst others that require technical competence and management, as masculine. She indicates that although an occupation's sex composition and gender type often correspond, change in one of them is not always accompanied by change in the other one. To illustrate this, she refers to women's prisons in the US, where the sex composition of prison officers has dramatically changed since the late nineteenth century. It was a male-only occupation until then. Considering that women offenders would benefit from women officers, who would bring a different kind of care than men, and who would provide suitable feminine role models due to their feminine characteristics, the state started to accept women into the occupation. Britton points out that even though women officers have a higher representation today, the image of the occupation, which presents a hegemonic form of masculinity, remains and it is also adopted by women officers. Drawing on this, she argues that gendering of occupations is a more complex process than numbers can explain alone.

Acker (1990, 1992) and others (Meyerson and Kolb 2000; Miller 2004; Lester 2008) who adopt the gendered organisations approach define a number of gendering processes in organisations, among which the following three are shared: First is the construction of divisions along lines of gender, including division of labour, organisation of physical space (e.g. the size and position of personal offices) and participation in decision making. It is these constructions that determine who has power and privilege within the organisation. Second is the construction of images and symbols that justify, explain and reinforce those gendered divisions. For example, the image of the white-collar worker is identified with commitment to work, prioritising work over other responsibilities, including family. Due to the unequally shared family responsibilities between mothers and fathers, women are less likely to live up to this image, thus less likely to climb in the organisational hierarchy (Kelly et al. 2010). Third is the interaction between individuals and groups, not only between women and men, but also among men and women separately. With reference to the previous section, these interactions are the processes through which individuals ‘do gender’ in conforming or nonconforming ways.

2.1.4. Mutual shaping of gender and technology: symbols, structures and identities

The three gendering processes in organisations through images and symbols, divisions of labour, and interactions correspond to Harding’s (1986) gender triad, which is utilised in
feminist technology studies as an analytical tool in order to understand the complex relations between gendered symbols, structures and identities of technology (Cockburn 1997; Cockburn and Ormrod 1993; Faulkner 2000a, 2001; Henwood and Hart 2003; Lie 1995; Mellström 2002; Schelhowe 1993; Line and Mellström 2011; Webster 1995). In this triad, gender symbolism refers to the attribution of stereotypical gender dualisms to various existing dichotomies in social life. Gender structure, or division of labour by gender, corresponds to the organisation of social activity following these gender dualisms. Individual gender is concerned with how women and men construct themselves as gendered beings and whether they conform to or resist gender stereotypes.

The point of this triad is that an adequate analysis of gender should recognise that gendered social life is produced through these three processes. Placing all emphasis on individual gender and disregarding the role gendered division of labour and gender symbolism play in the gendering of work, for example, explains the limited success of liberal attempts to achieve gender equality at work. Furthermore, there are always important links between gender symbols, structures and identities. These links are not fixed, and due to their interdependency, change in any of these processes may lead to a change in the other two (Henwood 2000; Henwood and Hart 2003). To illustrate this, Lie (1995, 380) states,

[O]ne cannot by the help of structural measurements remove the male domination in technical professions without understanding the connection of these professions to symbol and identity production. Likewise, one may analyse how masculine symbolization bars women’s entrance to technical professions. But abolishing this symbol production in textbooks, lectures, etc. is not possible if one does not understand how it is connected to the general pattern of a gendered division of labour, and thereby to privileges and power.

As I discussed in the previous sections with reference to de Beauvoir and the scholars from critical studies on men and masculinities, gender is asymmetrical, which means each of these processes contains a hierarchised opposition that marks whatever counts as the feminine as inferior to what is defined as the masculine. Haraway (1988) points to how the asymmetric dualisms in science (e.g. hard sciences/soft sciences) parallel the asymmetric gender dualisms (e.g. masculine/feminine) and takes Harding’s gender triangle a step further. She suggests that science also can be “broken up into such a multipart scheme of symbolism, social practice, and subject position” (599); and doing this enables us to see the parallel (and
intersecting) dissections of gender and science, which can provide a useful analytical tool for women and science studies.

The way Harding’s gender triad has been adopted in the above mentioned feminist technology studies is to some extent aligned with what Haraway suggests. Particularly, conceptualising the relationship between technology and gender as a two-way mutual shaping (Cockburn and Ormrod 1993; Gill and Grint 1995; Wajcman 1991a, 2004), these studies have examined how symbols, structures and identities of technology are both sources and consequences of these of gender and vice versa. In this, they draw a parallel between the social construction of gender and the social construction of technology, both are understood as processual and multiple in character, rather than fixed and single (Faulkner 2001; Henwood 1993; Wajcman and Lobb 2007).

In parallel to research done within the gendered organisations perspective, studies which investigate gender and technology-related work within this framework also start with a critique of previous liberal and structural theories of women’s relationship with technology that I believe do not capture the complexities of this relationship. In order to elaborate on this critique, as well as how it is addressed, in the following section I will examine the feminist literature on the relationship between gender and technology-related work.

2.2. Feminist technology studies on gender and technology-related work

A review of the technology studies on gender and technology-related work reveals that feminist research in this area has emerged within three main strands: First, liberal approaches which are concerned with creating equal opportunities for women in terms of access to education and employment; second, radical feminist debates which question the gendered nature of technology in a way that leads to a shift from ‘the woman problem in technology’ to ‘the technology question in feminism’; and third, socialist perspective that is interested in the masculine culture of technology, which has been constructed throughout the development of industrial capitalism. I will explain and critically discuss the arguments within these strands of research separately in the following three sections.
2.2.1. Technology as gender neutral

The main concern of feminist studies within liberal perspectives is getting more women to enter the technology-related professions, addressing the 'why so few?' question. In these studies, which started in the early 1970s, technology is considered gender-neutral and what is at issue are the different ways in which women and men are positioned in relation to it. The goal of the liberal perspective is to minimise differences between women and men in terms of access to education and employment in technology, so that women can compete with men as equals in the labour market. In many studies it is documented and explained that the socialisation and education of girls and structural barriers in employment are the reasons behind the stereotyped notions that keep women out of such fields (Gill and Grint 1995). For example, Keller (1992, 30) asserts that since women are excluded from the three crucial issues that shape an individual's career choices, which are “ability or inclination, access to education and training, and the perceived opportunity to practise a particular career”, they are discouraged from entering these careers.

In addition to creating equal opportunities, uncovering and revealing the women hidden from the history of technology despite their important inventions and contributions has been another initial concern within liberal feminism. For example, the participation of women in the invention of some machines such as the sewing machine and the small electric motor during the industrial era, even though their names do not appear in the patent records, and the involvement of Ada Lovelace, Adelle Goldstine and Grace Hopper in the development of modern computing are noted to emphasise that many women have contributed to the field of technology throughout the history (Wajcman 1991a; Kirkup 1992).

Although liberal discourses and equal opportunities practices have had a positive impact on the increase in women’s representation in the area of technology, they have been criticised in respect of the way they situate technology and women (Schiebinger 1999; Henwood 2000; Gill and Grint 1995). According to Henwood (2000), this ‘access’ literature offers a very limited, uncritical and deterministic understanding of technology, which is neutral, free from the effects of social relations and simply a set of skills to be obtained. These accounts imply that women are in deficit and that they should adjust themselves to technology to ‘catch up’ with men, who are treated as the norm, by gaining these skills. Focusing on equality which is conceptualised as sameness and seeking the solution in greater representation of women in
the traditionally male-dominated professions, liberal feminism ignores the ways through which masculinity has been culturally connected to technology, and the fact that unlike their male colleagues, women are often obliged to assimilate, to exchange their gender identities with masculine versions in order to fit into this masculine culture (Wajcman 1991a).

2.2.2. From the ‘woman problem in technology’ to the ‘technology question in feminism’

In the early 1980s feminist analyses of technology shifted from women’s access to technology to exploring the processes by which technology is developed and used. Both radical and socialist feminisms started to explore the gendered nature of technology: how it is created by men in accord with their interests in a way that excludes women. This shift is important as it changed the point of debate from ‘the woman problem in technology’ to ‘the technology question in feminism’ and opened technology itself to questioning (Henwood 2000).

Unlike liberal feminism, which sees the problem in terms of male control of neutral technologies, radical feminism argues that women’s values, interests and needs, which are fundamentally different from those of men, have been systematically excluded from technology. Instead, technology has served men to control and dominate women, through patriarchal institutions such as medicine and militarism. In this, the radical stance focused on the technologies designed for the use of women, particularly those relating women’s bodies and sexuality, and argued that in order for women to become equal in technology-related areas, changes were needed not just in women, but also in the values of technology (Wajcman 1991a, 2004).

The value of this approach is to unmask the claim that technology is gender-neutral and to reveal that women have not always been well served by existing technologies. However, this approach is open to being oversimplified since it too easily presumes a ‘universal woman’. Yet, women have never been a uniform group with common interests, values and backgrounds, but rather they have diverse histories, needs and concerns based on their ethnicity, nation, class, age, sexual orientation etc. (see later discussion at Section 5.2.1 for the diversity of women’s experiences). Moreover, pointing to a common set of values shared by women, this approach tends to reinforce the essentialist associations of the female and the male with
specific characteristics, and therefore carries the risk of supporting stereotypical images about women and men and strengthening the dualisms between them (Gill and Grint 1995; Schiebinger 1999). Such a gender essentialism, which asserts that there are universal forms and features of femininity and masculinity, may obscure the distinction between gender and sex which is vital for feminist politics, as this distinction emphasises the potential for asymmetrical gender relations between men and women to change (Faulkner 2000a).

2.2.3. Masculine culture of technology

Whilst radical feminism has been concerned with women’s relationship with technology as its users, socialist feminism has mainly focused on women’s work in technological areas. This literature revealed that women’s exclusion from technology-related work is the consequence of historical processes, through which technological know-how and skills are dominated by men. Studies within this perspective highlighted the role of technology as a key source of male power throughout the development of industrial capitalism.

In her study on craft workers in the printing industry, Cockburn (1983) demonstrates that although introduction of new technologies lessened the need for physical strength and constituted a deskilling of technical work that facilitated women’s entry to the industry, male workers were able to wield sufficient collective union power to preserve their privileged status as skilled men. This change in technology was accompanied by a reorganisation of the gendered division of labour, however, which left technology in men’s control and maintained skilled work as men’s and unskilled work as women’s work. This study reveals that the official definition of skilled work always shifts in line with the changes in men’s role within the workplace. In her later work, drawing on this study, Cockburn (1988, 31) underlines the importance of understanding “skill itself as a social rather than a technical phenomenon” and “the distinctions commonly made between men’s ‘skilled’ work and women’s ‘unskilled’ work as being a social construct”.

Similarly, according to Wajcman (1991b), some feminist scholars have suggested that the introduction of new technologies would provide a change in gender-based occupational segregation at work due to the elimination of much heavy physical work by mechanisation. However, she continues, although the new technological developments changed the required
skills and tasks of jobs, the distinctions between men’s work and women’s work remained: Skilled and technical jobs are still being associated with men, and the women who enter the more technology-based jobs, such as programming, are more likely to be segregated in the lower positions. Thus, she concludes, the masculine culture has remained remarkably stable in dominating technical jobs making them ‘unsuitable’ for women, even after the nature and the skills required for these jobs have been radically transformed.

This perspective, despite its pessimistic view regarding the possibilities of redesigning technology for gender equality and its insufficient attention to women’s agency, has proved an important corrective to the previous perspectives, which disregarded the historical and cultural connections between men, masculinity and technology (Henwood 1993; Gill and Grint 1995). It has suggested that technology and technology-related work have come to be gendered throughout historical processes. As I indicated earlier (see Section 2.2.1), feminist studies reported that although their names do not appear in the history of technology, women made important contributions to the development of technology. Some others also argued that it is not only women themselves who are ignored, but the technologies associated with women as well. For instance, machines and tools such as cars, electronics and computers are more likely to be given as examples of technology, rather than dishwashers, vacuum cleaners, typewriters, food processors or any artefacts associated with the woman user. In a similar vein, the significance of the skills and technical knowledge which are related to women’s activities and ‘women’s sphere’ has been excluded from the traditional conception of technology (Benston 1992; Cockburn 1988, 1997). Rather technology has been defined in terms of male activities, particularly through the development of mechanical and civil engineering (and more recently IT), from which technology takes its modern meaning (Wajcman 2004, 2010).

In her study on the development of engineering, Oldenziel (1999, 19) states,

\[ \text{The history of selection, labelling, and designation of objects as technology is essential for our current understanding of who is believed to be a true technologist or an inventor, who possesses the right kind of technical knowledge; and who or what may be the authentic bearer of technology.} \]

She indicates that during its professionalisation, engineering, which has been formed as a white, male, middle-class profession, representing the inventor as male by default, has risen
as a prestigious profession with exclusive rights to technical expertise. This process has also involved the creation of a masculine professional image, based on educational qualifications and the promise of managerial positions, which I will examine further below (see Section 2.3.1).

As another strength of this perspective, viewing technology as a culture provides a broader understanding of women’s underrepresentation in this area, despite equal opportunities initiatives. As Wajcman (1991a, 149) states,

Treating technology as a culture has enabled us to see the way in which technology is expressive of masculinity and how, in turn, men characteristically view themselves in relation to these machines.

For example, according to Cockburn (1985), this very masculine culture of technology is the reason for women’s resistance to enter the professions related to technology. For her, acquiring the required skills will not suffice in increasing women’s interest in technology as long as these skills are integrated into the culture of masculinity and as long as women have to leave their femininity to survive in this masculine environment. She points to the idea of the ‘natural affinity’ between men and technology which appropriates and strengthens the masculinity of technological work and work environment. Therefore, she argues, the hesitation of women to participate in technological work and work environments, which usually offer better career prospects, needs to be explained not by the inadequacy or disinterest of women, but the dominant masculine culture which involves “isolation, discomfort, harassment and, often, wasted time and energy” for women (Cockburn 1985, 13).

This body of work has provided the basis for recent feminist technology studies that attempt to avoid an over-determined and essentialised view of both gender and technology. These studies are influenced by both social studies of technology and recent theories of gender, and recognise the historical variability and multiplicity of the categories of women/femininity, men/masculinity and technology, stressing women’s agency and capacity for empowerment. They, as I presented earlier (see Section 2.1.4), view gender and technology relations as more complex and dynamic than they seem, since gender and technology are mutually shaping each other while they themselves are being shaped through social processes.
2.3. Gendering of technology-related work

In the following three sections I will examine the literature on the gendering of technology-related work. However, what I attempt to do here is not only a review of the existing studies, but also providing a discussion of these studies within the theoretical framework of this thesis that I started to set out at the beginning of this chapter by linking Harding’s gender triad (see Section 2.1.4) to the theory of gendered organisations (see Section 2.1.3). In what follows I will look at how technology-related work is gendered through symbolic associations, structural divisions and interactions between individuals and groups in the workplace.

2.3.1. The masculine image of the technological worker

As briefly discussed above (see Section 2.1.3), although described in gender-neutral terms, occupations are identified with certain images and symbols. These images and symbols are closely connected to the traits, skills and qualities that an ideal member of an occupation is expected to possess (Peterson 2010). They are thus influential on the formal or informal organisational processes of recruitment, selection and promotion. Workers who conform to the ideal image are rewarded with higher and more powerful positions in the organisational hierarchy, whereas those who do not are considered to be relatively ‘unsuitable’ for such positions (Bird 2003).

The image of the white-collar worker, for instance, particularly for managers and professionals, is generally aligned with traits such as independence, devotion to work, competitiveness, self-reliance, rationality, aggression and technical competence (Acker 1990; Demaiter and Adams 2009). This systematically pictures many women as unsuitable for managerial positions on two counts. On the symbolic level, as these traits are traditionally linked to masculinity, they do not fit women. On the practical level, since this image is premised upon a male normative life, then due to their disproportionate share of family and childcare responsibilities, women are less likely to work long hours, which is an essential trait to live up to this image (Ayre et al. 2011; Kelly et al. 2010; Meyerson and Kolb 2000). Moreover, even when women adjust their private lives and act in ways that are consistent with this image, such behaviour is not necessarily perceived as positive or appreciated given its discrepancy with appropriate feminine behaviour (Evett 1997; Rees and Garsney 2003). This situation is termed the dilemma of double-bind, whereby the woman professional is
“measured against a double yardstick of gender appropriateness and masculine work ideals” (Peterson 2010, 69).

This mismatch, particularly the one acting on the symbolic level, has been further emphasised in technology-related occupations, since technology is commonly and explicitly associated with some hegemonic forms of masculinity. Whether based on the professional rationality and competence of the white-collar worker or the physical strength and mechanical skills of the blue-collar worker, the image of the ideal technological worker incorporates the abilities and traits that are traditionally accepted as masculine (Wajcman 1991a). Both these forms of masculinity are linked to the “mastering of, and the control over, technology and nature”, and they both conceptualise men as suitable for such work, regardless of whether all men are equally attached to or interested in technology or not (Mellström 2002, 462; Lie 1995). Here ‘gender in/authenticity’ is a useful concept. I borrow this concept from Faulkner (2007) to refer to how the normative conceptions of gender lead people to expect to see women and men in certain roles in society, and to notice when they see someone that does not meet these expectations. Therefore, the historical and symbolic association of technology with masculinity marks men as ‘gender authentic’ for both manual and professional technology-related work.

However, critical research on men and masculinities, which draws on the theoretical perspective discussed earlier (see Section 2.1.2), shows that there are important power relations between these two distinct forms of masculinity, namely shop floor and office masculinities. Collinson (1992) indicates that the shop floor masculinity, which is subordinated to office masculinity, is characterised by traits such as doing production work, independence, honesty, having practical knowledge and being the family breadwinner. This image is constructed through the negation of managers, who are ignorant about the processes of production; white-collar office workers, who are defined as ‘yes-men’ and ‘wimps’ engaged in feminine office work; and women, who do not have such a strong symbolic link to paid work and who are dependent on men (Collinson 1992; Willis 1979). Informal relations between shop floor workers are noted as often highly aggressive, sexist, humorous but insulting and degrading (Meyer 1999). For example, newcomers are tested to prove that they are ‘men enough’ to take and give insulting jokes, and those who fail to do that are likely to be kept in a distance (Collinson 1988). Professional men, on the other hand, display a more ‘civilised’ image of masculinity, which is marked by higher educational and cultural status and an
egalitarian manner towards women (Pyke 1996). This image is not ‘softer’ than the shop floor masculinity, rather it demonstrates the hardness of intellectual and professional competence and commercial rationality (Cockburn 1988; Morgan 1992; Wajcman 1991a). With this image, middle-class men distinguish themselves from the hypermasculine and ‘macho’ image of shop floor workers and emphasise their superiority over them (Pyke 1996).

As I will demonstrate in Chapter 7, for a deeper understanding of the gendering of a technological profession that includes production work, it is important to take into consideration the construction of the image of the professional technological worker in relation to the working class masculinity. But it is also necessary to explore how this image is identified with masculinity and men in a way that marks women as ‘gender inauthentic’ for technology-related professions.

In the last two decades considerable attention has been paid to the masculine image of professional technological worker in feminist research, in both technology studies and organisation studies, which investigate women’s underrepresentation and/or disadvantaged status in professional technological occupations (Demaiter and Adams 2009; Dryburgh 1999; Faulkner 2000a, 2001, 2007; Henwood and Hart 2003; Lie 1995; Mellström 2002; Peterson 2007, 2010; Phipps 2002; Wajcman and Lobb 2007). These studies have mainly focused on engineering and IT, the two most typical examples of technological professions. In the following section I will investigate the construction of the masculine image of the technological worker in relation to femininity and women in these two professions.

2.3.2. The hard/soft dualism in technological professions

The image of the ideal worker in technological occupations is gendered via its construction around a hard/soft dualism, in which hard is valued over soft (Faulkner 2000b; Wajcman 1991a, 2010). In this dualism, hard, which corresponds to an objective rationality and technical competence, is associated with the masculine; whereas soft, which corresponds to a subjective rationality and social competence, is associated with the feminine. Although both sets of skills are required for and utilised in the practice of engineering and IT, in the advanced industrial world, where the objective and technical is valued over the subjective and social, the ideal image is strongly linked to the hard and masculine side of this dualism.
Thus, women, who are equated with soft skills, are assumed to be less consistent with the image of the ideal worker and find it difficult to gain acceptance into these professions (Powell et al. 2009).

Peterson’s (2007) study on IT consultants demonstrates another example of hard/soft dualism in IT practice, though she mentions only the ‘soft’ side. In her analysis, she finds that prestigious and higher status fields in IT, such as the work of system analysts, seem more consistent with the image of the ideal IT consultant that celebrates typically masculine traits: tough, dedicated to technology, technologically competent and skilled; and these fields are dominated by men (see also Demaiter and Adams 2009). When women enter the IT sector, they are accepted into the so-called ‘soft’ fields, such as design of user-friendly systems and interface profiling. These ‘soft’ fields are associated with feminine characteristics such as an interest in design, user-friendliness and appearance. Here the use of ‘soft’ implies the lower value and status of the work as well as the idea that it requires less competence and less technical skill. Such work is not part of the core business, nor is it indispensable for the company. She argues that being in these fields, women consultants do not threaten or challenge male dominance in prestigious fields in IT.

In a similar way, the hard/soft dualism appears in the managerial roles of technological workers. In some studies it is argued that due to their association with stronger communication skills and interpersonal relationships, women are seen as more suitable for ‘softer’ management roles, whilst men for ‘real’ technical specialist roles (Ayre et al. 2011). However, Faulkner (2007) notes that this dualism is further complicated with another one: technical/social. She indicates that

Moving into management and business roles is likely to feel, and be perceived as, more ‘gender authentic’ for men engineers, to the degree that these jobs carry real authority over others and/or deal with commercial, profit and loss aspects of running the business. Moving into management and business roles is likely to feel, and be perceived as, more ‘gender authentic’ for women engineers, to the degree that these roles draw heavily on interpersonal skills, as in team management or customer relations. (348)

It is the location of management on the technical or social side of the dualism that identifies it as a ‘soft’ or ‘hard’ job. For example, Evetts’ (1998) study shows that where management
roles are seen as higher status and authoritative and more highly paid, women engineers tend to remain in technical roles and men shift to managerial roles. Therefore, whichever role (technical or managerial) is more highly valued in an organisational context, it is considered the ‘hard’ or ‘real’ job and more likely to be ‘gender authentic’ for men.

Cockburn (1988) also underlines that soft and hard are not defined once and for all, rather this dualism is used to appropriate what is superior and powerful for masculinity. She indicates,

"In engineering, for instance, masculine ideology makes use of a hard/soft dichotomy to appropriate tough, physical engineering work for masculinity. It runs into a contradiction however when it comes to evaluating its ‘opposite’: cerebral, professional forms of engineering, desk-bound and sedentary. The masculinist ideology copes with this by calling in to play an alternative dichotomy, associating the masculine with rationality, with the intellect, femininity with the irrational and with the body. (39)"

Other studies exemplify another kind of shift regarding the gendering of the skills by examining the recent valuation of the emotional and social skills in IT work (Kelan 2008; Woodfield 2000). They argue that despite the traditional association of emotionality and social competence with femininity, following their valuation these ‘soft’ skills were quickly adopted by men, and became a part of the new definition of masculinity. Moreover, they underline that enacting femininity had different consequences for women and men. Women’s social competence is recognised as founded on biological and natural traits, whereas men’s social competence is seen as intellectual and professional. As a result, these studies conclude, women’s display of femininity is treated as an expression of their essence, whilst men are rewarded for showing ‘soft’ feminine skills and can appear as a new ideal IT worker more easily than women.

In addition to the hard/soft dualism in the practice of one single profession, the masculine image of the technological worker is also defined in contrast to other professionals who do not have such a ‘hard’ expertise. In her study on the professionalisation process of engineers, Dryburgh (1999) demonstrates how engineering students construct their masculine identity by contrasting themselves with students from the Arts and Social Sciences departments, whom they call “artsy”. She suggests,
By defining themselves in opposition to the artsy, engineers are associated with the real, tangible, mechanical world. They concern themselves with the powerful forces of nature and technology, rather than the ethereal world of philosophy and art. They are strong, action oriented, and ready to make a difference in the physical world of concrete realities. (678)

In a similar vein, examining the interdisciplinary relations between building design engineers and architects who work in the same project, Faulkner (2007, 336) finds that without exception every engineer distinguishes the work and interests of engineers and architects around a dualistic comparison: “architects want a building that 'looks good' while engineers want a building that 'works'”. This comparison associates architects’ jobs, dealing with aesthetics, with a ‘soft’ expertise, whilst it defines engineers’ jobs, being commercially effective, as a ‘hard’ expertise. Drawing on this comparison, in line with Oldenziel (1999), Faulkner indicates that the image of engineering is “strongly tied up with the actual and felt power of built technologies, and with the apparent certainty afforded by their use of maths and science” (338-39). This is a very empowering image that distinguishes engineers from others who do not have such a ‘hard’ expertise. Meanwhile, it also sets the standard within the profession for what it means to be a ‘real’ engineer.

However, as I underlined above, such dualisms are not defined once and for all. When coupled with interior design, architecture falls into the hard side of the hard/soft dualism. In this comparison, architecture is defined as masculine, rational and original, marking interior design as feminine, superficial and decorative (see for example Havenhand 2004; see also Chapter 3 for the gendering of different fields of design in comparison to each other).

These studies show that first, the ideal image of the technological worker is aligned with the hard side of the hard/soft dualism that is found in the thought and practice of technology-related work. Second, it is important to reveal and question this dualism because its two sides are not symmetrical, but hard is valued over soft. Third, the soft/hard dualism is gendered through its overlap with the dualisms of feminine/masculine at the symbolic level and women/men at the structural level. Above I presented how women’s mismatch with the image of the technological worker, which is identified with the hard and masculine sides of these dualisms, has been used to explain their small number and disadvantaged position within engineering and IT. What is left unexamined so far is the third aspect of the gender triad, which is construction of individual gender in response to the symbolic and structural
aspects of gender. In the following section I will focus on women’s status in technology-related professions and explore what kind of strategies they develop to ‘fit in’ such work and work settings.

2.3.3. Managing the mismatch between gender image and professional image

Numerous feminist studies have examined women’s experiences to understand how they manage the mismatch between gender image and professional image in masculine and male-dominated work and work settings (Barrett 2002; Bruni and Gherardi 2002; Demaiter and Adams 2009; Dryburgh 1999; Evetts 1998; Gherardi and Poggio 2001; Kanter 1977; Marshall 1993; Miller 2004; Phipps 2002; Powell et al. 2009; Sinclair 2005; Walker 2001; Whittick 2002). These studies have attempted to reveal the challenges faced, negotiations made, and coping strategies developed by the women in their adaptation to such settings in various occupational and organisational contexts. In this section I will examine these strategies and their implications for the gendering of technology-related work.

Many women attempt to cope with the mismatch between their feminine and their profession’s masculine image by downplaying their femininity and acting like ‘one of the boys’ on the job (Barrett 2002; Demaiter and Adams 2009; Powell et al. 2009). Women using this strategy make a constant effort to display masculine traits which an ideal worker is expected to possess. Dryburgh’s (1999) study, for instance, demonstrates that through the professionalisation process women engineers learn how to adapt themselves to the masculine culture of their profession, internalise the masculine engineering identity and show solidarity with their male colleagues in order to reduce the risk of being considered ‘unsuitable’ for this male-dominated profession. In a similar vein, women in Miller’s (2004) and Barrett’s (2002) studies try to avoid a stereotypical feminine image by, for example, proving their endurance via showing that they can take degrading and humiliating jokes and by suppressing their emotions. Some of them also choose to extend masculine displays to their appearance in order to mask sexuality, and tend to have short hair and wear gender-neutral clothes, i.e. unisex trousers, so that they “suspend the markers associated with the imposed limitations of femininity” and look like their male colleagues (Barrett 2002, 164).

However, women cannot go too far in performing like a man, since this strategy can also
backfire and women who overcomply with the masculine image of the profession may be criticised for not being feminine enough. In this double-bind dilemma, women have to “walk a very fine line between being ‘like’ the valued masculine prototype and avoiding any implication that they were not ‘really women’” (Miller 2004, 68; Peterson 2010). Moreover, some examples of acting like ‘one of the boys’ also result in taking an anti-woman approach more generally. Women adopting this approach do not only actively avoid a stereotypical feminine image, but also explicitly devalue the characteristics and behaviours which are associated with women and femininity. They define themselves as different to ‘other’ women who are not strong, confident and self-sufficient enough to survive in masculine work environments. Although these two strategies enable many women to succeed in the workplace, at the same time they support the masculine image of the technological worker and women’s ‘gender inauthenticity’ for such roles (Powell et al 2009; Walker 2001).

Building a reputation as a professional is another coping strategy, which means proving oneself as a successful and competent technological worker. In this strategy, the emphasis is not on being identified with necessary traits for the job or showing solidarity with the other members of the team, but rather on performing given tasks perfectly and earning the respect of the others (Evetts 1998). In this, women seek to overcome any negative attitudes and assumptions towards themselves by making their professional identity more significant and visible than their gender identity (Powell et al. 2009). To this end, they distance themselves from informal relationships in the workplace, limiting their interaction with their male colleagues to work-related subjects. In Barrett’s (2002) study, for example, women who adopt this strategy choose to separate private and public life and prefer not to discuss the former in the workplace. Also, they avoid situations that might be understood as sexual or too friendly. Whilst this distanced professional stance enables women to earn men’s respect, it also alienates them from informal workplace relationships, which are important sources of support and insider information regarding, for instance, how to handle the job pressure, and when and how to bend workplace rules (see also Bird [2003]; Collinson and Hearn [1994]; Martin [2006] for the significance of informal relationships among colleagues). Also, as Evetts’ (1998) findings show, building a reputation can be extremely difficult in organisations where there is much competition surrounding career progress and promotion, and there are many highly-motivated and achievement-oriented individuals competing for higher positions.

Denying the existence of gender discrimination/inequality is identified as another coping
strategy. Women adopting this strategy, which may intersect all the above strategies at some points, argue that being a woman makes no difference to their status in the workplace, and that since they do not look for gender-based problems, they do not find any. In other words, they choose to remain blind to the gendered culture of their work (Marshall 1993). There are also some examples in which women label sexism and gender discrimination as exceptions. Dryburgh (1999) argues that doing this, women ally themselves with their male peers, rather than against them, so that the solidarity among them would not be threatened. Demaiter and Adams (2009) argue that when women talk about these exceptional cases, they document them as problems with isolated individuals, with a tendency to de-emphasise the significance of gender. However, with this strategy, women may, “paradoxically, help to make it difficult to discuss gender openly, because they have invested heavily in its suppression” (Marshall 1993, 100). Moreover, it contributes to a blindness to seeing gender structures acting against women, and to an overall acceptance of the masculine culture of technology-related work (Demaiter and Adams 2009).

There are no clear boundaries between the coping strategies that I reviewed so far. In all of them, the main concern is avoiding association with feminine traits and characteristics to reduce the ‘gender inauthenticity’ it attributes to women in masculine work and work settings. Yet there is also another set of strategies in which women choose to conform with traditional images of femininity, ensuring men that their superior and privileged position is not being threatened. Women holding this approach adopt some conventional roles which are available for women in that setting, such as ‘the mother’, who is empathetic and cares for others (Kanter 1977) or ‘the daughter’, who needs paternalistic treatment (Miller 2004). Moreover, Barrett’s (2002) findings demonstrate that some women prefer ‘playing dumb’, in order to get their male colleagues’ cooperation and secure their existing position, whilst otherwise they can be seen as a threat and be challenged. Doing this, women are accepted into the male-dominated work environment without much resistance. But they also risk not being respected as competent professionals, since such a ‘role entrapment’ very effectively reinforces the symbolic and structural dualisms between women and men (Kanter 1977).

In this regard it is evident that although these strategies help individual women enter and survive in masculine and male-dominated technology-related professions, they do not produce solutions to the problems women face. They fail to dismantle and destabilise the existing symbolic, structural and individual gender dualisms, which sustain gender inequality.
2.4. Conclusion

In this chapter I reviewed the path that feminist studies on gender and technology-related work have followed in the last four decades, and presented how, along this path, both gender and its relationship with technology and work have been theorised in a number of ways to shed light on women’s status in such work and work settings. Within this, I draw two bodies of work together, from feminist technology studies and feminist organisation studies, suggesting that a comprehensive understanding of women’s disadvantaged position in technology-related work requires exploring the gendering of both technology and work.

As I discussed in the first sections of this chapter, recent studies in both fields parallel each other on some accounts: Both view gender as processual, multiple and complex in character and underline its construction at symbolic, structural and individual levels. Also, both point to the gendered culture of technology-related work and the gendered image of the technological professional worker to explain the problems women experience. Despite these shared concerns, the two fields do not much refer to each other except for some seminal studies, such as Cockburn (1983, 1985). As a result, ‘technology’ seems to remain undertheorised in feminist organisation studies, as does ‘work’ in feminist technology studies (but see Kelan 2008).

In this thesis, however, I suggest that women’s disadvantaged status in technology-related work can be understood neither in isolation from the other concerns of organisational life (e.g. access to power and privilege, definitions of organisational roles and responsibilities, gender relations in the workplace), nor without taking into account the identification of technology with masculinity through some historical and cultural processes (e.g. what is accepted as technology and what is not). In other words, this study is an attempt to see how the symbolic and cultural associations between masculinity and technology are influential in the gendering processes in organisations through which technology-related work is constructed as ‘gender authentic’ for men. With this in mind, I develop Harding’s gender triad as an analytical tool to examine not only the mutual shaping of technology and gender, but also the complex relations between gender, technology and work.
Secondly, as this chapter demonstrated, existing studies on technology-related work have mainly been concerned with male-dominated areas of work, especially the most typical occupations such as engineering and IT. In this, they have questioned the masculine culture of these occupations and the masculine image of the technological worker as the reasons for women’s small representation and disadvantaged status in these areas.

This study aims to contribute to this literature by examining an atypical example of technology-related work. It focuses on the industrial design profession and its distinctive situation in Turkey, where neither a significant numerical gap between male and female industrial designers exists, nor, as I suggested in light of my observations and experiences as a former practitioner in the previous chapter, a strongly masculine professional culture appears. In this case, the question is not why male-dominance persists in a technology-related profession or how women survive in the masculine culture of work, but rather what happens in terms of the experience of gender inequity, once a technology-related profession does not have a strong sex composition and/or gender typing. I will explore the context of Turkey in detail in Chapter 4. But first, I will focus on the profession that this thesis analyses as an example of technology-related work, introduce the industrial design profession and review the feminist concerns regarding the practice of industrial design in the following chapter.
Chapter 3

Feminist Perspectives on the Profession of Industrial Design

This chapter presents a critical review of feminist design literature. Keeping my focus on the industrial designer’s work, I aim to examine how women and gender issues are discussed within this literature and, whether they show any parallels with studies on gender and technology. Before discussing feminist design studies, I will first introduce the profession of industrial design to illuminate what an industrial designer’s job may include. Afterwards, I will examine the early feminist studies which dealt with the absence of women in the history and practice of design. Then, I will investigate how industrial design is conceptualised as a masculine field of design within the literature, and in what ways women’s participation in this area is explained. Finally, discussing the importance of shifting the focus from the ‘women question in design’ to ‘gendering of design’ for a nuanced analysis of the gender-based problems women face in the field of design, I will present the questions that such a shift makes possible to investigate in a feminist study on industrial designer’s work.

3.1. The industrial designer’s work

Industrial design is a professional practice that is concerned with creating new products for various industries, ranging from furniture to toys, mobile phones, packaging, and transportation. It can be understood as a complex problem solving process, which necessitates the taking into consideration of a broad range of issues, including “engineering (technology, techniques, material and processing), ergonomics (operation, safety, usability, sensation), business (marketing, management, planning, corporate identity), aesthetics (form, visualization, style)” as well as social, environmental, and cultural concerns (Yang et al. 2005, 155). Through this process, the role of the industrial designer is to bring design solutions to problems regarding appearance, usability, ergonomics, cost, marketability and production, addressing the needs and interests of both users and manufacturers (Hertenstein et al. 2005; Kotler and Armstrong 1991; Molotch 2003). Stages of a design process may involve determining the requirements of the project, relying on market trends; preparing sketches to illustrate the vision of offered designs; presenting designs to the relevant team responsible for product development from these sketches, and sometimes also with prototypes, for any changes or suggestions; and preparing the detailed design considering these changes and suggestions (Yang et al. 2005). This process is adjusted according to the needs and expectations of various industries and companies for which designers work. Also, some companies
may choose to outsource design from design consultancies, whilst some others prefer hiring industrial designers to work in-house.

Developing a new product is a multidisciplinary process, which requires collaboration with engineering and marketing at certain stages. Designers need feedback from marketing people on the issues related to the desirability of the product, such as the brand and lifestyle images, market trends, needs and interests of the users. They also cooperate with engineers in solving technical and manufacturing-related problems such as the selection of material, production technologies and techniques, integration of different features (Cagan and Vogel 2002). However, these interdisciplinary relations, particularly with engineers, seem to be challenging for designers, due to the differences in their educational and professional backgrounds, concerns and approaches to product development.

Cagan and Vogel (2002) explain these differences as follows. The engineering discipline is grounded in science and mathematics to decide what is ‘right’ or ‘wrong’. Certainty is an essential output of their analysis, which they use to reach consensus and conclusions. In the design process they focus on cost, performance, quality and efficiency in manufacturing. Designers, on the other hand, are more comfortable with uncertainty. They explore ‘what should be’, rather than ‘what is’ or ‘what is not’. They also share engineers’ concerns regarding cost and manufacturing, but they prefer pushing the limits if doing so will allow their designs to be realised. Whilst engineers think in terms of function of the product, designers prioritise how it looks and relates to the user. Katz (1997, 459-60) clearly illustrates Cagan and Vogel’s explanation, indicating that in industrial design “the symbolism of an automobile confronts us more immediately than that of an internal combustion engine, the aesthetics of a polymer surface more than its molecular structure, the ergonomics of a mouse more than of a microchip.”

Although their analysis parallels the engineer-architect comparison in Faulkner’s (2007) and the engineer-‘artsy’ comparison in Dryburgh’s (1999) studies, which define the engineer’s work as a hard expertise, whilst the non-engineer’s is soft (see Section 2.4.1 in the previous chapter), Cagan and Vogel ignore the subtle power asymmetry in this dualistic relationship between designers and engineers. They rather describe the conflicts between the two groups as a natural consequence of different disciplinary interests, priorities and educational
backgrounds. For instance, to exemplify such conflicts, they refer to a story in which the narrator, an engineering manager, presents the engineer in the role of a parent and designer in the role of a child who does not listen to his (sic) parents, but attempts to spend more money than he has only to buy the biggest and impressive basket of candy. In their interpretation of this story, Cagan and Vogel are only interested in the differences between the priorities of two professional groups, disregarding the power asymmetry embedded in the child-parent metaphor. However, as I discussed in the previous chapter, drawing on similar stories, feminist scholars have argued that engineers refer to their reliance on science and mathematics to emphasise their superiority over other groups who do not have such a ‘hard’ expertise. In Chapter 6, I will further discuss and demonstrate how examining stories regarding interdisciplinary relations under a feminist gaze reveals that there is more than mere ‘disciplinary differences’ in such accounts.

In line with these concerns, some studies have pointed to the lower professional status of designers compared to other disciplines (see for example Frayling [1996] for Britain; Molotch [2003] for US; Smith and Whitfield [2005] for Australia). Molotch (2003) indicates that industrial designers hold a disadvantaged status in interdisciplinary work environments for a number of reasons: First, designers are paid less than their counterparts in engineering and marketing at any level of their career. Also, and in relation to this, the available managerial positions are limited for designers. It is not usual to see designers as the heads of large companies, but rather those with engineering and marketing backgrounds. Moreover, designers constitute a relatively smaller group when compared to their non-designer colleagues in the companies. According to Molotch, this makes them less influential in decision-making processes. In a similar vein, drawing on a questionnaire survey in Australia, Smith and Whitfield (2005) state that the career structure for designers is highly restrictive in terms of both their roles within the organisations they work and the amount of their salaries. According to them, this low professional status of designers is closely related to lack of a specialised, well-established and recognised body of knowledge, unlike occupations like medicine, law, engineering and architecture.

In this section I introduced some of the key aspects of industrial designers’ work which are relevant to the scope of this study. Since industrial designers’ practice varies in different settings, this concise overview aims to provide an impression of the industrial designer’s interests, responsibilities and possible work environments. I will examine industrial designers’
work in the context of this study further in Chapter 4, relying on the literature, and in Chapter 6, drawing on the narratives produced with the participants of this study. In the following section I will explore the feminist literature on the industrial design profession.

3.2. Feminist concerns with industrial design

3.2.1. Women’s status in design professions

The omission of women from the literature of design history and practice had been indicated by feminist design historians since the beginning of the 1980s. Initially, they have been concerned with uncovering and revealing women’s inventions and contributions, which are hidden from the history of design, in line with what many feminist scholars did in their early work in technology studies (see Section 2.3.1 in the previous chapter). In this, feminist design historians pointed to the way in which design history is written as the reason for the invisibility of women designers. For example, in her book where she narrates women’s contribution to design of the modern house and its furnishings since 1860 to bring out women’s work in design, Anscombe (1984, 12) states,

Although women designers contributed little to the theoretical writings on modern design, their practical influence was enormous. The fact that their contribution has been overlooked has led to a narrow and distorted interpretation of the true scope and achievements of the design movements of the twentieth century.

In a similar vein, referring to several basic textbooks of design history (see, for example, Heskett 1980) in which only a few women designers are mentioned, Buckley (1986) claims that this persistent ignorance of women is not accidental or random. For her, it is rather produced through certain historiographic methods including “the selection, classification, and prioritization of types of design, categories of designers, distinct styles and movements, and different modes of production” which are formed within the patriarchal context (1986, 3). She also denotes that even when a few women manage to appear in the design literature, they are confined to certain areas, such as jewellery, pottery and dressmaking (see also Attfield 1989; Bruce and Lewis 1990; Clegg and Mayfield 1999), which are extensions of domestic tasks; or overshadowed by the name of male partners, usually the husband, lover, father or brother, with whom they are working (see Kirkham and Walker [2000] for examples of such cases in industrial design).
What Buckley suggests in order to change ‘the rules of the game’ is to rewrite design history with a feminist approach. According to her, this feminist design history should first, analyse the operation of patriarchy in the relationship between women and design. Second, it should include the craft mode of production, which is excluded by the appreciation of mass-production in modern design, since it was the only access for most women to production as it could be easily adopted to domestic environment and was suitable for traditional roles of women. As a change in the method, she proposes to move the focus from individual designers, and instead examine the interaction which women had with design. She underlines that, while rewriting the history of design in order to provide women’s inclusion, it is essential to take into consideration “the sexual division of labor, assumptions about femininity, and the hierarchy that exists in design” (1986, 14). Anscombe (1984, 12-14) shares Buckley’s concern, pointing to the sexual division of labour in design, which has placed women, throughout history, in fields “where manual dexterity, a feel for texture, a familiarity with natural materials – such as clay or vegetable dyes – and small, home-based workshops take precedence over man-made materials, large-scale machine production or an eye for three-dimensional form.” In a similar way, Clegg and Mayfield (1999) and Attfield (1989) point to the symbolic form/function dualism in design, which corresponds to this division of labour, through which women are associated with decorative, and men with scientific, technological and industrial fields of design.

Association of women with domestic and decorative tasks rather than technology-related fields of design has been long debated by feminist scholars, and as I will present below, it is still a timely issue whether such an association serves as a useful argument to get more women to enter design professions or reinforces women’s confinement to certain areas in design. Kirkham and Walker (2000, 62) suggest that when a few women entered the professions related to design in the early years of the twentieth century, their work was shaped by the cult of domesticity coming from the nineteenth century and the notion of ‘true womanhood’ which define a woman as the “gentle guardian of the home, taste and morality”. As a result, they mainly appeared in the occupations linked to their roles in private sphere.

These concerns are shared by Sparke (1995, 142), who asserts that these “tiny handful of professional female aesthetic practitioners who aligned themselves to the ideals and forms of European architectural and design modernism by working alongside its heroes” took place in
the design areas such as interior design, furniture design and the decorative arts, which were associated with the traditional role of women. She adds that this stereotypical picture directly shaped women’s place in industrial design in the following years, which as a technology-related profession is considered a ‘hard’ field of design and remains male-dominated. As Kirkham and Walker (2000) state, the current situation shows that today certain areas in design, such as textiles, interior design, jewellery and fashion design, are dominated by women. On the other hand, industrial design remains a masculine field of design dominated by men. Within industrial design in the US, they indicate that, throughout the century, the most remarkable change of women’s representation occurred in furniture, an area which carries ‘more domestic’ and ‘less technical’ connotations compared to transportation design.

Focusing on design consultancy work, which is claimed to be preferred by the ‘best designers’ especially in the UK, Bruce and Lewis (1990) suggest that there are three hurdles which a woman has to overcome in order to enter the industrial design profession. According to Bruce and Lewis, the first step is getting a degree in industrial design, the second is attaining a job and the third is achieving success at work which corresponds with promotions and awards. They consider these stages as hurdles for women because of the idea that industrial design is masculine both as a subject to study and as a career to pursue, and the inevitability of ‘being one of the boys’ when involved in this domain discourages women from entering this area. Also, they indicate that working in a design consultancy or managing one’s own design consultancy means working for long and unpredictable hours to meet project deadlines. Therefore, women with family commitments are unlikely to pursue such careers.

3.2.2. The ‘exceptional woman’ narrative: Belle Kogan’s story

The ‘exceptional’ women who have participated in industrial design either as owners or members of design consultancies or staff designers in various companies in the US since the infant years of the profession are traced by Howard and Setliff (2000) with an approach similar to Anscombe’s. Their study traces the history of women’s participation furniture, glass and product design in the US throughout the 21st century by drawing on their biographies and stories regarding professional life. However, in the review of this study, unlike the authors, I prefer highlighting the problems and resistance that these women designers faced in industry, rather than presenting their successes or contributions to industrial design. One of the remarkable examples is Belle Kogan, the only woman designer who became famous with
her own design company in the late 1920s when the Depression led to intense competition between industrial companies. Howard and Setliff (2000) mention that during her career, in addition to designing products for a wide range of clients, Kogan was an intensive user of publicity and an active member of emerging professional organisations. As narrated by the authors, she started her career by making a choice between family and business. However, despite being free from domestic responsibilities and having an interest in the technical aspects of design, she met strong resistance from manufacturers and had to prove her competence, especially in the first decade of her career.

[A] large company that manufactured large electrical appliances, such as washing machines, etc., wrote in answer to a letter of mine that I should come out to see them on my next trip to Ohio. They ignored the fact that my name was ‘Belle’ and addressed their letter to Mr. Bell Kogan. When I arrived, the shock was unbelievable; the engineers decided they couldn’t work with a woman. So I collected my fee of $200 plus expenses and left! (Howard and Setliff 2000, 272)

Another woman designer mentioned by Howard and Setliff (2000) with similar experiences to Kogan is Lucia DeRespinis. Although she started her career three decades later than Kogan and was cited as one of the new generation women designers who remain active in work after marriage in I.D., the chief journal of the industrial design field of that time, DeRespinis told exactly the same story,

I would always have to go to the factory. . . and because I was. . . probably the only woman that they’d practically ever seen that came in at this level – someone looked at me and said, ‘I thought your name was Lucio or Lucien.’ But I really got to understand how to work with groups of men. (2000, 284)

Both of these stories show that, first, an industrial designer was expected to be a man by default, and second, a woman attempting to enter this strongly masculine field had to prove her competence and aptness for both the job and working with men. This preconception of the industrial designer as a man was also apparent in the assumption, which Kirkham and Walker point out (2000), that women were the less active and productive professional partners in collaborative work with men. They indicate that especially in the 1940s and 1950s the wife-husband partnerships of designers were a common feature of design practice in the US. However, in such partnerships, women designers were usually accepted as the ‘‘pretty girls’ and ‘faithful helpmates’’ who supported and helped their husbands, and did not get full
credit and recognition for their contributions (Kirkham and Walker 2000, 68). To illustrate, although it is claimed that both Ray and Charles Eames, who were famous with their innovative use of plywood in furniture design in the 1940s, played equally central roles in their joint work, Charles Eames was the one who was publicly-known and who received credit for their designs at that time (Howard and Setliff 2000), whilst Ray Eames was “the wife behind the successful man” who helped him design these chairs (Kirkham and Walker 2000, 68).

The femininity of women designers which made them ‘unsuitable’ for and ‘incompetent’ in this technology-related profession, ironically became a reason for a demand for them in the following years. The notion of ‘feminine sensibility’, which is believed to be brought by only women designers, started to be appreciated particularly for products that will be used by women consumers. In the following section I will examine this notion and its effects on the acceptance of women designers to various areas.

3.2.3. The notion of ‘feminine sensibility’ in design

Howard and Setliff (2000) indicate that the idea of a unique perspective which women would bring to design began to be acknowledged by both employers and women designers in the US of the mid-century. They mention that the active women designers of these years, such as Manderfield, Diamond and Kogan, expressed the view that women designers could benefit feminine consumers since they know what women want. Not the first, but a distinctive example is the ‘Damsels of Design’ who are a group of women designers hired by Earl, General Motors’ vice-president of styling, in order to bring a “woman appeal” to automobiles and deal with the ‘problems’ of women drivers (Kirkham and Walker 2000; Howard and Setliff 2000). In a press release in 1957 Earl stated:

> Besides being color and fabric specialists, our women designers are tuned especially to the woman driver’s problems. . . They are strong advocates of the six-way seat for greater comfort and visibility. . . And, of course, they are always on the look-out for anything that might snag their nylons. . . So many talented girls are entering our field of design that in three or four years, women may be designing entire car exteriors. (Doering et al. 1994, 15)

While the notion of the ‘feminine sensibility’ was appreciated by some of the women
designers, one of the ‘Damsels’ criticised the emphasis on their femaleness and indicated that they could never be identified as just designers, but as ‘female designers’ even when they do the same job as men (Howard and Setliff 2000).

Bruce (1985) observes that the small representation of women in the profession of industrial design has two unfavourable consequences. First, women designers’ ‘tacit knowledge’ is not used as a source in the design process, and second, the needs and demands of women users are ignored. She suggests that because men create products with regard to their ‘tacit knowledge’ and assumptions about women’s priorities, values and roles, these designs are not compatible with women users’ preferences. Also, such products strengthen and reproduce stereotypical images of women in the society. For her, only when the number of women in the area of industrial design increases, will there be the opportunity to create radical designs which challenge the existing notions about women. Sharing the same concerns, Perkins (1999) indicates that women’s presence makes differences in the key decisions regarding what makes a product comfortable, appropriate, and appealing to women. As a professional designer, she states that, although she refused to design products associated with femininity through her career, it is also critical for women designers to use their experiences in gendered roles while designing products whose primary users are women. According to her,

As women begin to form a critical mass in the profession, creating [their] own businesses and networks, perhaps trying to fit in with male-defined norms of what is aesthetically pleasing, of what is most comfortable and easy to use, will become obsolete. (1999, 125)

With an ecofeminist approach, Amon (1999) focuses on the use of technology and suggests that women’s participation in product design may bring new ways of using technology. She advocates that women can design environment-friendly and aesthetically appealing products by recognising and using their own values.

In a similar vein, in their qualitative research on designers’ opinions about gender’s role in the field of industrial design, Doering et al. (1994) find that some designers claim that, due to the different life experiences, skills and abilities, women designers can contribute to design profession in a different manner than their male colleagues. Drawing attention to women’s disproportionate share of family responsibilities, these designers argue that women designers can create products which “satisfy many demands at once – aesthetics, comfort, versatility,
efficiency, low-cost – because their own lives involve a complex juggling of career and family” (7). However, Doering et al. underline that this is not an essentialist claim, this difference does not inherently exist, and it may disappear as the gender roles change.

The notion of ‘feminine sensibility’ is also suggested by Martínez (2007) in his paper investigating the increasing interest in women designers in Italian and Spanish design after the 1980s. One of his case studies is a design contest open only to female participants, organised by a well-known Italian company, Alessi. What makes this contest significant is that it is the first collaboration of this company with women designers. He suggests two reasons for why the company invites particularly women designers to that contest, whilst it did not work with women before then. First, the company expected women designers to bring a ‘female sensibility’, and assumed that they would be ‘more prepared’ to design products to be used by women, the new user group targeted by the company. Second, collaborating with women designers was an attempt to compensate for the lack of gender balance of the Alessi designers in order to update the company image with the 1990s’ cultural shift. Thus, in this case, women designers were demanded as a part of the company’s feminised brand strategy.

It seems that, whether linked to the women user or company image, the idea that women may bring a different approach to design from that of men was used by industry to justify women’s involvement in industrial design especially in the last decades of the twentieth century. For example, in the US women’s representation in industrial design jumped to 19 percent by 1999, while it was only one percent in 1974 (Howard and Setliff 2000). Also, considering that women who entered the professions in the design field felt the necessity to deny the stereotypical feminine taste and adopt a masculine stance (Sparke 1995), similar to women in engineering, the appreciation of feminine values may also be evaluated as a way that encourages women to bring their own approach to design. However, at this point two concerns need further attention. First, this notion does not challenge the gender structures and relations waiting for women in these male-dominated work environments. Second, identification of women with a specific type of contribution to the profession perpetuates the existing woman stereotype and confines them to limited areas in design.
3.2.4. A need to shift from women to gender

The studies I have discussed so far have their focus on either getting more women into design or promoting feminine values as valuable. Considering their content or the questions they deal with, they seem to coincide with, respectively, liberal and radical feminist approaches in technology-related work as I examined in the previous chapter. However, unlike technology studies, these two approaches are still dominating feminist work in the design field. This situation was also highlighted by Attfield (1989, 2003). In her early work (1989), she indicates that a distinction should be made between a feminist critique of design and a ‘women designers’ approach in the studies of design. In other words, she suggests that the subject of feminist design studies, which is ‘woman’, should be replaced by ‘gender’, more specifically construction of femininity and masculinity. For her, rewriting design history by including more women’s names will neither challenge the existing framework, nor change the hierarchical structures in which men are associated with the ‘hard’ areas in design, which are related to science, technology and industrial production, whereas women, with ‘soft’ and decorative fields of design. She advocates that the gender approach provides a ground for further discussion and questioning the privilege of the dominant power and mainstream histories (see also Gorman 2001). She states,

[A gendered view] forms part of a wider move away from authoritarian, patriarchal values for both men and women (...) It should not be ‘Woman’ who is made the special case for treatment, but the culture which subordinates people by gender, class, race, etc., and does nothing to question the attitudes which position them as ‘Other’. (1989, 207)

In her more recent work, Attfield (2003) builds on this previous work placing further emphasis on the multiple gender identities, inspired by recent theories that conceptualise gender as multiple, unstable and complex (see Section 2.1.2. in the previous chapter for a review of these theories). She argues that feminist analysis should address the normative power relations and crude assumptions of gender dualisms rather than “a dialectic relationship between male and female” (85).

Bruce’s (1985) work can be considered an exception addressing Attfield’s critique. Drawing on interview-based survey conducted with manufacturing companies in the UK, Bruce

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2 Clegg and Mayfield’s (1999) study also addresses these critiques, yet it is concerned with design education rather than the designer’s work.
explains the small number of women in industrial design practice by the portrayal of the industrial designer’s job as masculine. In her research she finds that industrial design is considered a job that “requires the ability to work with production engineers ‘who would not take orders from or listen to a woman’ or is ‘industrial’, ‘dirty’ or ‘technical’, meaning ‘not for women’” (151). So, certain areas in industrial design which deal with ‘styling’, ‘colour’ and ‘appreciation of the end-user’ are suggested to be more suitable for women industrial designers than the others which require technical skills. She asserts that the roles associated with ‘womanhood’ and ‘manhood’ are so influential on individuals that, even when women have the required training, knowledge and enthusiasm for the work, they hesitate to choose technical and design careers.

Her account is important as it relates the masculine representation of industrial design practice to the masculine images of technical and industrial work and problematises the ‘naturalness’ of the identification of masculinity with technical, technological and industrial work. Moreover, it parallels the hard/soft dualisms in the practice of engineering and IT, which I discussed earlier (see Section 2.3.1). It touches on relationships between industrial designer and production engineers, as a challenging aspect of work for women designers. However, I suggest that Bruce does not go far enough in elaborating on these points, and leaves questions unanswered such as what kind of problems women designers experience with engineers and what are the implications of such dualistic associations (industrial and technical versus appearance and user-related concerns) on women’s work. As I will show in Chapter 4, unlike many western countries, including UK, where Bruce’s study focuses on, in Turkey women have almost equal representation to men in the industrial design profession. In this regard, the context of Turkey provides a rich empirical source to explore these questions, examining the experiences of a lot of women industrial designers working in a range of industries where industrial designers are in close relationships with engineers. I will deal with these questions in Chapter 6.

On the other hand, Buckley (1999) asserts that shifting the discussion from women to gender removes the emphasis on inequalities between women and men and weakens the political nature of feminism while the woman question remains unanswered. However, Gorman (2001) finds her approach problematic since it takes for granted a universal woman. Similar to Attfield, Gorman suggests that feminist design scholars need to widen their discussion ground, not only for a better understanding of women’s position in design, but also to
address an audience broader than themselves in order to be able to lose their marginality. This study acknowledges Gorman’s suggestion, and examining industrial design as an example of technology-related work, it does not only aim to contribute to the industrial design literature, but in a more general sense to feminist technology and organisation studies, as well.

3.3. Conclusion

Especially in the last two decades, various strategies (i.e. exhibitions organised to promote the products designed by women, shops where only women designers’ products were sold, special issues in design magazines) were developed to highlight women’s involvement in the industrial design profession. These strategies were also supported by the academic work in the field, pointing to the omission of women from the industrial design profession, with an effort to reveal their contributions. In this, however, I identify two main concerns that are disregarded and need to be attended to while investigating women’s disadvantaged position in this profession. Firstly, in these studies, similar to the problem with liberal discourses indicated in the previous chapter, technology-related work and work settings are considered as neutral, unproblematic and free from the effects of social relations. The focus is on documenting that women are as successful as men in this profession, without discussing the masculine culture of the work environment of an industrial designer. This causes a blindness to understanding the symbolic and cultural association between this type of work and masculinity. To address this gap, this study examines this association with a critical approach in the exploration of how the designer’s work is gendered.

Secondly, building the arguments around ‘women designers’ prevents us from seeing the whole picture and implies that this is a problem of being a woman designer. In addition, appreciating the idea of ‘feminine sensibility’ may reinforce the stereotypical notions associated with being a woman designer, and therefore, also with being a man designer, by defining ‘gender authentic’ roles for women and men in line with these stereotypes. However, as the concept of hegemonic masculinity allows us to see, such associations are idealised historically and culturally and are not necessarily identical with the majority of women and men. So, the solution to the problem should be sought in the construction of the masculinities and femininities, rather than in the women themselves.
Moreover, adopting a gender perspective, instead of a ‘women designers’ approach, enables us to understand how industrial design, as a profession, is gendered through symbolic associations, division of labour and interactions between individuals and groups in the workplace, as I explained in the previous chapter. Both Kogan’s story in Section 3.3.1 and Bruce’s study in Section 3.3.4 presented that in their relationships with engineers, women industrial designers find themselves challenged and resisted as technological workers. This study suggests that power asymmetries between women designers and engineers cannot be reduced to individual gender, being a woman or a man. Rather, as I discussed at the beginning of this chapter, they are closely connected to the gender symbolism of engineering and industrial design professions. As Harding (1986) underlines, placing all emphasis on individual gender may result in disregarding these gendered interdisciplinary relations, via which the hegemonic masculinity and superiority of engineering is maintained over industrial designer. I will explore interdisciplinary relations as an important site of gendering in Chapter 6.

Lastly, the feminist literature reviewed above shows that industrial design is a ‘gender authentic’ profession for men paralleling the feminist studies that are concerned with engineering and IT, which I explored in the previous chapter. As I briefly stated at the end of the previous chapter, this thesis is empirically grounded in the context of Turkey, where industrial design practice, as I will show later, appears to be ‘gender authentic’ for women in many industries. A detailed historical investigation of this context will be provided in the next chapter, by touching on both women’s status as professionals in the areas of science and technology, and the short history of the industrial design profession, addressing the literature reviewed in Chapter 2 and Chapter 3, respectively.
Chapter 4

Women’s Status in Technology-Related Professions in Turkey

In Turkey, like many other countries in the world, women’s participation in the labour force is structured with deep gender inequalities. However, the situation in Turkey has some unique characteristics and is patterned by important contradictions due to various political, economic and social factors. These contradictions have been a central concern in the analysis of women’s participation in professions in Turkey. In this chapter I will present an overview of the existing studies, starting with a brief summary of women’s participation in the overall labour force in urban Turkey today. Secondly, I will discuss the historical and ideological structures and factors that help us understand and analyse the current situation of women in professional occupations. Then, I will examine the literature on women’s participation in technology-related work, particularly engineering, since it has received much interest from feminist scholars in Turkey. In the last section, I will focus on industrial design profession. After briefly going through its short history in Turkey, in both academic and professional fields, I will explain why its situation in this context offers a useful example of technology-related work to study gender and work.

4.1. Women’s participation in the labour force in urban Turkey

Turkey has one of the lowest female economic participation rates in Europe at 27.6 percent among women at 15 years of age or more (Turkish Statistical Institute 2011). As Table 4.1 shows, this percentage slightly decreases to 23.7 in urban areas and increases to 36.3 in rural areas.

<table>
<thead>
<tr>
<th></th>
<th>Turkey</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women (%)</td>
<td>27.6</td>
<td>23.7</td>
<td>36.3</td>
</tr>
<tr>
<td>Men (%)</td>
<td>70.8</td>
<td>70.4</td>
<td>71.6</td>
</tr>
</tbody>
</table>

Table 4.1. Labour force participation rates by sex3, 2010 (Turkish Statistical Institute 2011)

3 According to the definitions provided by Turkish Statistical Institute (2011), labour force participation rate indicates the ratio of all employed (in the status of a regular or casual employee, an employer, self-employed or an unpaid family worker) and unemployed population
Following the shift from agriculture to industry-based production since the 1950s, women’s participation in labour force declines steadily. Whilst the rate of women’s economic activity was 81.5 percent and women constituted the 47 percent of the total labour force in the agriculture-based economy of 1950 (Kazgan 1981), today there is a huge difference between the participation rates of women and men (see Table 4.1).

As a result, the high rate of urbanisation and industrialisation has been accompanied by the increase in the unemployment of women. Women who used to be productively engaged in rural areas mostly as unpaid family workers find themselves outside the production process in urban areas to which their families have migrated. Kardam and Toksöz (2004, 6) note that this situation in the urban labour market is “caused not only by the insufficiency of paid work opportunities which would encourage women to work in urban areas, but also and mainly by the existing patriarchal mentalities which are unfavorable to women’s work.” Indeed family pressure, from husband and extended family, is one of the main constraints to employment face by poorly educated women (HDSU 2009). Secondly, these women with lower educational levels are a vulnerable group in the urban labour market. They are very likely to work in the informal sector, in areas such as domestic work and home-based production, which means they do not benefit from the legal and social protection that is available in the formal sector (Bespinar 2010; Gündüz-Hoşgör and Smits 2008; HDSU 2009). Furthermore, since these women’s wages will probably be low in the informal sector, and it will get even lower with other expenses such as bus fare, work attire and childcare, in low-income families women’s domestic labour at home is considered more valuable for the well-being of the family than their working outside the home to earn money (Bespinar 2010, HDSU 2009).

However, we see a different picture when we look at the urban employment by occupation. As Table 4.2 shows, women constitute the 41.1 percent of the professional workers in the
urban area, where they constitute 24.4 percent of the overall labour force (Turkish Statistical Institute 2011). This corresponds to the 15.9 percent of female labour in the urban area (the third highest occupational group after clerical work with 17.1 percent and elementary occupations with 16.7 percent). This figure for male labour is very low, only 7.3 of men work as professional workers in the urban area (Turkish Statistical Institute 2011).

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Women’s percentage</th>
<th>Men’s percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislators, senior officials and managers</td>
<td>11.1</td>
<td>88.9</td>
</tr>
<tr>
<td>Professionals</td>
<td>41.1</td>
<td>58.9</td>
</tr>
<tr>
<td>Technicians and associate professionals</td>
<td>33</td>
<td>67</td>
</tr>
<tr>
<td>Clerks</td>
<td>44.8</td>
<td>55.2</td>
</tr>
<tr>
<td>Service workers and shop and market sales workers</td>
<td>24.1</td>
<td>75.9</td>
</tr>
<tr>
<td>Skilled agricultural, and fishery workers</td>
<td>36.2</td>
<td>63.8</td>
</tr>
<tr>
<td>Craft and related trades workers</td>
<td>12.5</td>
<td>87.5</td>
</tr>
<tr>
<td>Plant and machine operators and assemblers</td>
<td>10.6</td>
<td>89.4</td>
</tr>
<tr>
<td>People employed in jobs not requiring qualification</td>
<td>29.1</td>
<td>70.9</td>
</tr>
</tbody>
</table>

Table 4.2 Employment by major occupational group in urban Turkey, 2010 (Turkish Statistical Institute 2011)

Furthermore, women show higher representation in upper positions in the professions and academia than their contemporaries in western Europe and the US (Acar 1990; Healy et al. 2005). This contradictory nature of women’s work in Turkey has attracted much attention of feminist scholars (Acar 1990, 1991, 1994; Aycan 2004; Ecevit et al. 2003; Gündüz-Hoşgör and Smits 2008; Kardam and Toksöz 2004; Öncü 1981; Tüzel 2004; Zeytinoğlu 1999). For the last four decades these studies have focused on how and why women show a higher participation in prestigious professions such as medicine, law and engineering in Turkey compared to many countries in western Europe and the US, despite the overall low rate of female participation in the labour market. In the following section I will review these studies and their interpretation of this situation considering the particularities of the Turkish context.

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4 Turkish Statistical Institute (2011) indicates that all occupations are coded and published according to the International Standard Classification of Occupations 88.
4.2. Women in professional occupations in Turkey

As Healy et al. (2005, 259) assert, it is the “strong historical and national forces [that] have been the main incentive for educated women to contribute to the modernization of Turkey; whereas in Europe, the major impetus has come from legislation designed to combat the negative effects of discrimination.” So, understanding women’s considerable participation in professions requires, first of all, taking into consideration the modernisation reforms that began in the late Ottoman period (the late nineteenth and early twentieth century), and became an essential aspect of the Kemalist ideology of the Republic, which was established in 1923. From the beginning of this process, women’s status in the society and family was highlighted as an important issue by the upper and upper-middle class modernist men. According to them, the regression of the Ottoman society was closely linked to the traditional social life in which women were left uneducated and excluded from public life (Durakbaş 1998). Thus, to catch up with the western civilisation, it was necessary to focus on ‘the woman question’, and make women a part of social and political life.

In this early period of modernisation, most emphasis was placed on women’s education. In 1842, a midwifery programme was introduced in the School of Medicine. In 1858, secondary schools were started for girls. In 1860, an industrial workshop was established to produce textiles for the army, and this workshop then came to be known as the first school of arts and crafts for girls. In 1870, the Women’s Teacher Training College (Darülmuallimat) was established to meet the demand for women to teach in girls’ schools. In addition to education, especially following the constitutional reforms in 1876 and 1908, reforms also addressed women’s situation in the family in a way that narrows the role of religion. For example, women gained some rights such as inheritance rights like their male siblings, and polygamy was restricted by requiring the consent of the first wife (Arat 1999a; Çakır 2010).

Although it was mostly men who were discussing ‘the woman problem’, in such an atmosphere women themselves also raised questions regarding their status in society. Also, they started to enter into the public sphere as professionals, writers and activists. For example, Demirdirek’s (1999) study on women’s journals published by women in the period prior to the establishment of the Republic documents how Ottoman urban upper-class women had struggled for education, employment, their position in the family and gaining electoral rights, once they had the suitable conditions for this. Women started to be accepted to
university first via public conferences in 1915, and to the programmes of literature, mathematics and natural sciences in The House of Sciences for Women (İnas Darülfünunu), and painting and sculpture in Fine Arts School for Women (İnas Sanayi-i Nefise) right after (Tüzel 2004). However, it was only the daughters of the upper-class families living in big cities who benefited from these opportunities and thus whose lives were changed by these modernist reforms. These women would be the first professionals of the future Republic, which would be declared in 1923 (Köker 1988, cited in Tüzel 2004).

Within the Republican period ‘the woman question’ has been viewed in a different way in line with the Kemalist state ideology, which aims to build a modern, democratic and secular nation-state that will achieve the status of western civilisation. To this end, it was suggested that the new social life should be regulated by science and technology, instead of the rules of Islam as it used to be in the Ottoman period. Women’s existence in the public sphere on equal terms with men was given much emphasis by the Kemalist reformists, who wanted to acquire a ‘civilised’ outlook and present the image of a modern state to the western world. The ‘new’ Turkish woman became an explicit symbol of the break with the past and an essential component of the nation-building project (Durakbaş 1999).

In 1926, the Swiss Civil Code was adopted as the basis of the Turkish Civil Law. Through this law, polygamy was abolished and women were recognised as the legal equals of men. Women were granted political rights for municipal elections in 1930 and national elections in 1934. In addition to the reforms in terms of women’s rights, Kemalist Republican ideology also challenged the physical segregation of women and men, and made women visible in the public areas of life together with men (Arat 1999a). Durakbaş (1999, 143) states that “the most outstanding challenge that Kemalists brought to women’s sex status was women’s participation in the public domain as professionals.” She notes that an educated professional woman was more respected than a traditional housewife and was given higher social status. Within this atmosphere, women were encouraged by the state to enter into higher education and pursue a career in line with the image of the ‘new’ Turkish woman, who is devoted to the progress and modernisation of the Turkish society together with the ‘new’ man, and who is the educated, modern and enlightened mother of new generations in the private sphere (Arat 1999a). Therefore, it is evident that the ‘state feminism’ of the new Republic provided women with some equal rights in the area of law, education and political life. However, it is important to note that the reforms to advance women’s status in society were initiated not only to serve
women, but also, and primarily, to create an ideal image of the new Republic (Durakbaş 1998).

A second explanation as to why women could more easily enter professional occupations in Turkey compared to western countries is that in the formative years of the Republic, there was a need for qualified workers in every sector for building the newly establishing institutions. In this period, women’s participation was considered as necessary as men’s to increase the number of professionals and fill the positions created by the rapid economic and political expansion in a short time. These conditions and the valuation of ‘hard’ sciences over humanities and social sciences by the Republic were influential on the upper class families who were followers of the modernist ideology to motivate their daughters to study natural sciences at universities (Acar 1994). These women entered prestigious professions in relatively high numbers in the early years of the Republic, especially when the occupational structures and cultures of these professions were at the stage of establishment. For example, when the first women architects graduated in 1934, it had only been 51 years since the establishment of the first architectural school in Turkey (Özgüven 2006). Another study shows that in 1946-47, 44 per cent of the natural sciences faculty was composed of women (Köker 1988, cited in Acar 1994). Thus, unlike the women in western countries, these women had a chance to take part in these occupations from the beginning, rather than trying to fit into already established masculine professional cultures (Tüzel 2004; Zeytinoğlu 1999), and they had become role models for next generation women (Durakbasa and Ilyasoglu 2001).

However, women’s active participation in professional life did not challenge their traditional gender role in the family as mothers and wives. This was evident in Article 159 of Civil Law, which stated that women must obtain their husbands’ permission to work outside the home, until 1990, when it was abolished by the struggle of feminist groups. Nor did the state offer any systems that would help women combine professional and family life. In Turkey, women are expected to deal with two conflicting roles: housewives at home and professionals at work, and they have to develop their own coping strategies to manage both roles. There are two significant strategies indicated in the literature. Firstly, the rapid migration from rural to urban areas, and the poor work opportunities available for lower class women, which I described in the previous section, provided affordable domestic labour to hire for professional women (Öncü 1981). According to Durakbasa and Ilyasoglu (2001, 201), “the creation of a group of elite professional women has gone hand in hand with the emergence of a class of
female servants.” This kind of work is also preferable for lower class women since it is safe and does not require any qualifications (Kalayçioglu and Rittersberger 1998). In addition to hiring a woman, the help and support of women relatives, especially mothers and mothers-in-law, is also suggested as a significant strategy for childcare (Ecevit et al. 2003). Similarly, Durakbasa and Ilyasoglu (2001) note that in their study when they asked women about the help they got for housework and childcare, all participants mentioned the labour of female servants and women relatives. Thus, as a third factor, it can be suggested that women’s career development in professions in Turkey is supported by other women who undertake the domestic responsibilities at home on their behalf.

As the literature reviewed so far shows, class has been an important issue regarding women’s education and participation in professions in Turkey. Regarding the Republican period Öncü (1981) suggests that the entry of the daughters of upper class families into professions in high numbers was not the consequence of their easy access to education and the motivation of their modernist fathers merely. She asserts that women of the elite were also preferred to men of the lower classes, who could be threatening for the Kemalist ideology. However, more recent studies reveal that this situation did not occur since “the prejudice against class was stronger than prejudice against gender, but because these women were the most conveniently available group who could meet the urgent needs of the Republic.” (Tüzel 2004, 243-44) After the women and men who could afford university education entered professions, it was mainly male students who were financially supported by the state, i.e. providing free accommodation, to meet the rest of the demand (Arat 1999b; Tüzel 2004). Today, the relevance of class does not seem to have changed greatly (Aycan 2004; Ecevit et al. 2003; Zengin 2010). Studies show that most women in professional occupations come from families with a higher cultural, educational and economic status compared to men with the same occupation and educational level (Acar 1994; Küskü et al. 2007; Öncü 1981; Zeytinoğlu 1999).

In addition to the class-based, there are also regional differences that determine women’s access to education and work. As Zeytinoğlu (1999, 189) states, “the uneven distribution of public schools between urban and rural areas, the better-equipped secondary and high schools in urban areas, and the concentration of universities in major cities make education more accessible to urban woman.” In the rural areas, on the contrary, parents do not prefer investing in education much, since children’s working in the family farm has more financial
value for the family rather than schooling. She notes that this is especially the case for daughters as they will be married away. Moreover, Gündüz-Hoşgör and Smits (2008) indicate that the major difference regarding the factors that may be influential on women’s participation is between the east and the west of Turkey. They argue that the modernisation projects of the Republic created a new educated and independent group of women in the western urban areas of the country, including the three biggest cities, Istanbul, Ankara and İzmir. However, in the east, it did not change women’s lives much due to a number of economic, political and social reasons such as the lack of industrialisation and infrastructure; the political unrest between the Kurdish Worker Party (PKK) and the state’s army, which forces many people to migrate; and the authority of some local religious leaders. Thus, it is important to underline that women participating in professional occupations do not represent all women in Turkey, but a group with urban, middle or upper class background, and mostly from the western part of the country.

<table>
<thead>
<tr>
<th>Profession</th>
<th>Women’s %</th>
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<tbody>
<tr>
<td>Physicists</td>
<td>74.5</td>
</tr>
<tr>
<td>Sociologists, anthropologists and related sciences</td>
<td>57.8</td>
</tr>
<tr>
<td>Biologists, zoologists and related sciences</td>
<td>57.6</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>50.8</td>
</tr>
<tr>
<td>Statisticians</td>
<td>50</td>
</tr>
<tr>
<td>Chemists</td>
<td>44</td>
</tr>
<tr>
<td>Computer programmers</td>
<td>44</td>
</tr>
<tr>
<td>System analysts</td>
<td>38.9</td>
</tr>
<tr>
<td>Mathematicians</td>
<td>38</td>
</tr>
<tr>
<td>University and higher education teachers</td>
<td>34.6</td>
</tr>
<tr>
<td>Dentists</td>
<td>32.2</td>
</tr>
<tr>
<td>Architects and town planners</td>
<td>30.6</td>
</tr>
<tr>
<td>Economists</td>
<td>29</td>
</tr>
<tr>
<td>Medical doctors</td>
<td>28.7</td>
</tr>
<tr>
<td>Lawyers</td>
<td>26</td>
</tr>
<tr>
<td>Judges</td>
<td>15.6</td>
</tr>
<tr>
<td>Engineers</td>
<td>12.4</td>
</tr>
<tr>
<td>Veterinarians</td>
<td>10.8</td>
</tr>
</tbody>
</table>

Table 4.3. Women’s participation in professions in Turkey, 1990 (State Institute of Statistics 1990, cited in Ecevit et al. 2003)
Despite the considerable amount of work on women in professional occupations in Turkey, there is a lack of disaggregated statistical data about women actively participating in professional life. The only data available is for 1990, as can be seen above in Table 4.3. Still, recent studies provide us with more insight into women's situation in separate professions (Arslan and Kivrak, 2004; Healy et. al, 2005; Smith and Dengiz, 2010, Zengin-Arslan 2002; Zengin 2010). Examining these studies is important to understand not only the current situation of women, but also to what extent and in what ways these professions are patterned by gender. As this study is concerned with gendering of technology-related work, from the following section on I will narrow my focus to the literature on women in technological professions in Turkey.

4.3. Women in technology-related professions in Turkey

As delineated above, throughout their historical development in Turkey, professions in the area of science and technology have always offered good opportunities to women. These professions have also been associated with some feminine characteristics due to women's entry to these occupations from the beginning. Zeytinoğlu (1999, 194) illustrates this argument:

Certain occupations are believed to capture ‘presumably’ inherent characteristics that women have – precision, manual dexterity, and concentration. An architect, a chemical engineer, a surgeon, or a computer programmer are perceived to require such characteristics and therefore are considered appropriate occupations for women.

Zengin (2010) supports this argument with another example referring to the image of women working in labs wearing a lab coat. She suggests that a lab coat is accepted as suitable for women due to its feminine connotations such as being clean, meticulous and nice-looking. The symbolic association presented in these examples contradicts the images of the male scientist and technologist we encounter in the western literature, which is associated with the characteristics that are typically ascribed to men (see Chapter 2 for a discussion of this association).

If this symbolic association is one reason for women’s higher representation in the professions that require working in laboratories, such as chemistry and chemical engineering, and offices,
another reason is the fact that such work environments provide physical protection and cleanliness, and are not physically demanding (Zeytinoğlu 1999). This is in line with Ecevit et al.’s (2003) study in which they find that computer programming occupations create a welcoming environment as well as well-paid prestigious jobs for women with engineering backgrounds. Similarly academic employment is also viewed as suitable for women, since it offers a safe, secure and esteemed form of professional employment (Healy et al. 2005).

However, these arguments imply that women professionals should not be expected to be represented evenly in every field of technology. Zengin’s (2010) study on women in different fields of engineering confirms this. Drawing on statistical data regarding the percentages of female students in various engineering departments, her study shows that women constitute 10 percent of the mechanical engineering and civil engineering, 11 percent of electrical-electronics engineering and 16 percent of mining engineering students, whilst 48 percent of environmental engineering and chemical engineering and 52 percent of food engineering students in 1997-1998 academic year. Through her interviews with women engineers, she finds that whether or not a particular field of engineering requires site work is influential on women’s career decisions for a number of reasons. Her participants suggest that first, travelling may cause them to neglect their family responsibilities, second, when night-work is required it may be dangerous for women, and third, relationships with manual workers can be challenging. Whilst working in the lab or office corresponds to “the safe, sterile – including the implication of avoiding contact with unknown people, especially lower-class men – clean and ‘silent’ representation of the private sphere”, the image of fieldwork is linked to “the dirty, wild, noisy and harsh representation of the public sphere” (2010, 139). Drawing on the interviews, Zengin argues that since it is assumed that civil engineers work in construction sites, mechanical engineers in factories, mining engineers underground and electrical engineers in electricity production areas such as dams, these engineering fields are not preferred by women. Yet, women see food engineering and chemical engineering, which are perceived as laboratory work and environmental engineering, as office work, more appropriate for themselves.

Arslan and Kivrak (2004) support Zengin’s argument in their investigation of women professionals’ low employment in the construction sector. Their research suggests that although women prefer and enjoy studying civil engineering at university, they lose their enthusiasm after they enter into industry and encounter difficulties caused by the male-
dominance and masculine culture of the construction site. Rather, they choose to work in the office environment, where they deal with calculations, purchase orders, design and tendering jobs, and as a result they are excluded from the industry.

However, Arslan and Kivrak’s study demonstrates that women’s overrepresentation in office work is not only a consequence of their preferences. Below, there is an explicit example of discriminatory attitudes towards women in the civil engineering sector in Turkey, referring to a job advertisement given by a public institution:

In the advertisement, it had been announced that 65 civil engineers would be employed for the establishment. But they brought a condition that only male civil engineers could apply for the positions. The Directorate of State Water Works made the explanation for this reason as follows: “The engineers will work in dam constructions. [Construction sites] are far away from cities and towns and working conditions are difficult. All contractor firms’ staff are men. Only male civil engineers can overcome with these difficulties. Women are unable to resist for these works. (1386)

They indicate that this advertisement received much reaction from the public and professional associations, and had to be revised in a non-sexist way. Following this the Prime Minister’s Office gave a notice about this advertisement relying on Article 11 of the Convention on the Elimination of All Forms of Discrimination against Women (Ministry of Foreign Affairs 2011), which states that

States Parties shall take all appropriate measures to eliminate discrimination against women in the field of employment in order to ensure, on a basis of equality of men and women, the same rights, in particular: (...) (b) The right to the same employment opportunities, including the application of the same criteria for selection in matters of employment

Arslan and Kivrak indicate that this incident exemplifies the general approach to women’s entry to male-dominated construction sites, particularly when they are far from cities and the job requires staying overnight and working at the weekends, despite the equality legislation.

On the other hand, gender-based discrimination is usually mentioned as a rare case for the office environment in professional occupations. Still, this issue is controversial for feminist scholars. For example, in her speech in a panel discussion, Özbay argues that in Turkey it is
common for women scientists to start talking about gender discrimination with these words: “I mean, yes, gender discrimination exists, I know that, it may be in Turkey, but I am so lucky, I haven’t experienced such a thing.” According to Özbay, this does not show that these women do not experience discrimination or lie, but rather we do not perceive the things done to us as a woman, as we look at the world from men’s perspective, which is accepted as the norm (cited in Durakbaşa 1998, 35).

In a similar way, in her research on women in academic employment, Acar (1994) asserts that women do not tend to report personal experiences of discrimination. She suggests that these women have a ‘formalistic’ view of equality, which means they define equality as being given equal rights as men, so that they do not identify discriminatory behaviour they encounter in everyday life at work. According to her, “what was stated as ‘should be’ by the normative principles of Kemalism was often accepted as the objective reality, especially among groups where considerable real change in the status of women seemed to validate the claims of the ideology” (169).

4.4. Industrial design in Turkey

Although in the last decade particular attention has been paid to women’s status in the area of technology as professionals, academics and students (Arslan and Kivrak 2004; Healy et al. 2005; Küskü et al. 2007; Smith and Dengiz 2010; Zengin 2002, 2010), industrial design has remained under-researched. Also, it is not included in the disaggregated statistical data about women actively participating in professions (see Table 4.3). This is possibly due to the fact that industrial design is a young profession in Turkey. However, as I will discuss in this section, it provides an interesting example of technology-related work for the study of gender and work.

As I noted above, in the 1950s in Turkey a shift occurred from the agriculture-based economy and limited state-owned industrial enterprises to export-oriented growth policies and assembly-based private industrial enterprises. In this period, the industrial design profession obtained a public and legal recognition and popularity in the US, and it also became a part of US foreign policy for the countries such as Turkey, Hong Kong and Korea. As a result of the aid programmes of the US, industrial design in Turkey appeared in the educational field
before the industry, first as a part of architecture education, and then as a separate discipline with the foundation of industrial design programmes in educational institutions in the 1970s (Er et al. 2003).

The emergence of education before a demand for industrial designers was established in industry is pointed to as the reason for the lack of the promotion and recognisability of the industrial design profession in Turkey, which affected the development of the design profession from the very beginning (Korkut and Hasdoğan 1998). Since Turkish industry had no interest in new products in the absence of a competitive environment, the need for an industrial design profession was under debate until the end of the 1980s (Er 2002, Er and Er 2004). Industrial design graduates, thus, had to work in jobs which were unrelated or partially-related to their profession. According to Kasap (1990, cited in Er and Er 2004), 40 percent of industrial design graduates were working in unrelated fields and 50 percent were working in related disciplines like interior design and graphic design while only 1 percent of them were ‘designing products’.

Interest in industrial designers first came from large-scale manufacturing companies in automotive, durable consumer goods and electronics industries in the 1990s after export-oriented industrial production and liberal economic growth policies resulted in a more competitive environment for Turkish industry. At the beginning of the 2000s small- and medium-scale companies (SMEs) also started to feel the need for original designs, rather than imitating and replicating existing products (Özcan 2010). In these companies industrial design is mainly utilised to differentiate among competitors by visual and formal features of their products (Er 2002). Although it is the large-scale companies which intensely use industrial design in separate research and development departments, Er (2002) argues that the enthusiasm of SMEs for new and competitive products is more important for the improvement of the industrial design profession, due to the fact that Turkish industry mostly consists of SMEs.

Meanwhile, the Industrial Designers Society of Turkey (ETMK), a non-governmental association, was founded by a group of industrial designers in 1988 to promote industrial design. ETKM is still the only professional industrial design institution in Turkey and has played a significant role in raising the profile of the profession via various design exhibitions.
since 1994 and the development of the Design Turkey Awards System in 2008. As Hasdoğan (2010) defines, the main concern of ETMK has been drawing the borders of the autonomous area of the industrial design profession and differentiating it from other disciplines, particularly architecture and engineering. She states,

The ETMK emphasized the autonomy of industrial design by declaring that it cannot be regarded as a sub-branch of architecture. (...) It rejected the view that designers deal only with the appearance of engineered products and inventions, and emphasized that industrial design requires specialized professional education, which cannot be carried out and delivered by sole architects and engineers. (332)

However, Korkut and Hasdoğan’s (1998) study shows that ‘aesthetic appeal’ is suggested as the primary concern in industrial design practice in Turkey, whilst technical competence is the last qualification identified with industrial designers by managers. More recently, Er (2005) indicates that industrial design is still viewed as ‘cosmetics’ in Turkish industry, which means it mainly deals with making products look better.

The range of sectors in which industrial designers work in Turkey are listed in the product classification of ETMK, which was developed for the Design Turkey Awards in 2008. They are as follows: packaging, lighting, electronic equipment, electrical household devices, home and office devices and accessories, public and commercial products, furniture, sports, hobby, game, and personal products, transportation, building components, capital goods, medical equipment and devices (Design Turkey Awards 2009). Drawing on this list, it can be suggested that today industrial designers work in a range of industrial sectors in Turkey.

The increasing popularity of the profession was also followed by the establishment of new industrial design programmes in educational institutions. Whilst there were seven universities in Turkey with industrial design departments within their faculties of architecture or fine arts in 2000, their number has almost tripled by 2011 (Student Selection and Placement Centre 2011). Table 4.4 shows the steady increase of the number of industrial design graduates in the last decade.

Still, it can be suggested industrial design remains a ‘metropolitan’ profession, as industrial design programmes are found in the universities in Istanbul, Ankara, Izmir (the three biggest
cities in Turkey) and Eskisehir (another city in the west of Turkey). Professionals graduating from these universities provide services for the sectors indicated above, both as in-house employees in research and development departments of manufacturing companies and as design consultants in design offices.

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Total</th>
<th>Number of women</th>
<th>Number of men</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-2010</td>
<td>316</td>
<td>141</td>
<td>175</td>
</tr>
<tr>
<td>2008-2009</td>
<td>275</td>
<td>133</td>
<td>142</td>
</tr>
<tr>
<td>2007-2008</td>
<td>177</td>
<td>89</td>
<td>88</td>
</tr>
<tr>
<td>2006-2007</td>
<td>151</td>
<td>77</td>
<td>74</td>
</tr>
<tr>
<td>2005-2006</td>
<td>154</td>
<td>72</td>
<td>82</td>
</tr>
<tr>
<td>2004-2005</td>
<td>145</td>
<td>70</td>
<td>75</td>
</tr>
<tr>
<td>2003-2004</td>
<td>128</td>
<td>53</td>
<td>75</td>
</tr>
<tr>
<td>2002-2003</td>
<td>118</td>
<td>50</td>
<td>68</td>
</tr>
<tr>
<td>2001-2002</td>
<td>103</td>
<td>49</td>
<td>54</td>
</tr>
<tr>
<td>2000-2001</td>
<td>85</td>
<td>38</td>
<td>47</td>
</tr>
<tr>
<td>1999-2000</td>
<td>90</td>
<td>35</td>
<td>55</td>
</tr>
</tbody>
</table>

Table 4.4. Industrial design graduates of the universities in Turkey, 2000-2010 (Student Selection and Placement Centre 2011)

In the previous chapter, I indicated that industrial design is defined as the most male-dominated field of design in the western feminist design literature due to its relation with technology (see Section 3.2). As I stated above, there is a lack of statistical data on professional industrial designers in Turkey. Still, there is a number of sources of available, through which we can establish the current situation. First of all, drawing on Table 4.4 we can see that 1389 of the 2960 industrial graduates between 2000-2010 are women. This means, women constitute 47 percent of the industrial design graduates in the last 11 years.

In addition to this, I gained access to two universities’ complete graduate lists: Middle East Technical University (METU) and Istanbul Technical University (ITU). The former has one of the first industrial design programmes in Turkey in 1979. Data obtained from METU shows that between 1983-2009, 414 of the 798 graduates were women, which correspond to the 52
percent. In the graduate list provided by ITU, the first graduation year is indicated as 1999, and until 2008, 179 of the 312 graduates are women with the percentage of 57. Thus, women have a higher representation in the technical universities where industrial design departments are attached to architecture faculties, whilst men’s number increases in the universities where industrial design is studied under fine arts faculties (see Table 4.5). This picture contrasts the gendered division of labour in design that is described in the previous chapter, through which women dominate decorative areas of industrial design, whilst they are under-represented in technical areas.

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Total</th>
<th>Number of women</th>
<th>Number of men</th>
<th>Women’s percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>1177</td>
<td>722</td>
<td>455</td>
<td>61.3</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>1351</td>
<td>498</td>
<td>853</td>
<td>36.8</td>
</tr>
</tbody>
</table>

Table 4.5. Industrial design graduates according to faculties in Turkey, 2005-2010 (Student Selection and Placement Centre 2011)

I compiled further statistical data from the professional members list of Industrial Designers Society of Turkey (ETMK 2012a). According to this list, 47 percent of the professional members are women. Also, since its establishment in 1988, women have shown higher participation than men in the executive boards of the society (ETMK 2012b).

In light of these numbers it is possible to suggest that, unlike western countries, in Turkey women show almost equal representation to men in the industrial design profession. In the previous section I discussed how women’s decisions in choosing a field in engineering is affected by the notions regarding the future working environments. The industrial design profession offers a range of possibilities. Designers can work in design consultancies as well as manufacturing companies, alone or in a designer-only team, or in an interdisciplinary environment that requires close relationships with engineers and marketing people. Depending on the scale of the company, and the organisation of the product development processes, designers can also be involved in the production process. This requires visiting the shop floor and supervising the work done by the shop floor workers, e.g. controlling the

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5 I also participated in the executive board of ETMK for a short period in 2008 before moving to UK.
model of the new design and discussing the issues that occur in its production.

As I noted above, there are no data available regarding women industrial designers’ career preferences, e.g. how many of them work in what kind of work environments. However, in the years I was involved in industrial design as a practitioner, I did not observe such an office-factory distinction as a primary concern for women designers regarding their career preferences. In a similar way, during the selection of participants for this study I encountered a lot of women working in manufacturing companies, both large-scale companies and SMEs, and in a broad range of industrial sectors, even though I did not look for women deliberately (see Section 5.4 in the following chapter for the methods and approaches used). Indeed, as Chapter 7 will demonstrate, some of the women participated in this study mentioned that they preferred working in manufacturing companies rather than design offices, since according to them an industrial designer should be close to the production site. Therefore, industrial design in Turkey offers a rich ground to study gender and work not only due to the almost equal representation of women and men, but also since it enables us to examine women’s experiences in the production site in addition to the office.

4.5. Conclusion

In this chapter I discussed the social, economic and political specificities of the context in which this research is empirically grounded. In doing this, one of my concerns was to clarify which women this study is interested in, and explore the inequalities these women experience due to their social standing (see also Section 5.2.1 in the following chapter for the importance of acknowledging the diversity of women’s experience).

Considering the arguments presented in this chapter and the previous two chapters, it is possible to identify some similarities and differences between women’s experiences in Turkey and the western countries. As presented above (see Section 4.3), although in Turkey the symbolic association between technology and masculinity that marks women as unsuitable for technological work does not seem as strong as that in western countries, studies show that women are considered suitable for only certain work settings. The office, which offers a ‘clean’ and ‘sterile’ work environment that is free from lower-class men is indicated as the preferable place for women professionals, rather than the production site.
In the review of the feminist studies on technology-related work in Chapter 2, we saw how social relations between workers have been acknowledged as an important site of gendering, particularly in more recent studies. However, whilst there is an extensive literature that demonstrates how women’s disadvantaged status in technology-related professions is constructed and maintained through everyday relations between men and women (Dryburgh 1999; Faulkner 2007; Miller 2004; Powell et al. 2009), less attention has been paid to professional women’s relationships with shop floor or field workers (see Poggio [2000] for the latter). However, it is important to clarify that with this claim I do not mean that the production site has not been explored by feminist scholars. Indeed the relations of production in the factory have been paid attention to particularly by socialist feminists in their early work (see for example Cockburn 1983, 1985; Arnold and Faulkner 1985). These studies have pointed to the role of class divisions as well as gender in women’s exclusion from technology and craft skills. They have showed how machinery is introduced by men with men in mind, either by the capitalist inventor or by skilled craftsmen (Wajcman 2004). Also, there are other studies that have focused on women factory workers’ experiences in the production site (see for example Ecevit 1991; Meyerson and Kolb 2000; Pollert 1981; Salzinger 2003). So, gender relations in the production site have been studied, but leaving the experiences of professional women who enter the production site in positions of authority unexamined. As I presented in Chapter 2 (see Section 2.3.1), it is mostly critical research on men and masculinities that has investigated these work settings with a focus on the relationships between men in different positions of authority, and the concerns regarding status, power and control that appear through these relations.

This thesis addresses this gap in Chapter 7, where I present the findings of my investigation of the relationships between industrial designers and blue-collar workers in the shop floor environment. Doing this, I aim to shed light on the resistance and subtle barriers faced by women on the shop floor, where they seem to enter in positions of authority as easily as their male colleagues due to their almost equal representation in a technology-related profession. To this end, in Chapter 7, and in later discussion in Chapter 8, I will tackle questions such as follows: To what extent and in what ways women industrial designers’ experiences as professional workers in positions of authority differ from men’s on the shop floor? What are the implications of these differences for women’s and men’s status as professional technological workers within the manufacturing organisations?
Moreover, reviewing the studies on industrial design in Turkey, this chapter identifies a significant gap in terms of methodological approaches in this field. Studies discussed in the final part of this chapter contribute to our understanding of the current situation of industrial design in Turkey with regard to economic and industrial developments in this context. However, these studies mainly rely on either questionnaire surveys (Korkut and Hasdoğan 1998); or analysis of institutional documents (Er et al. 2003, Hasdoğan 2010), design exhibitions and competitions, or non-systematic observations (Er 2002, Özcan 2010) rather than the experiences of industrial design professionals. For example, Hasdoğan (2010) explores the institutionalisation of industrial design in Turkey drawing on the documentation of ETMK. In this, she indicates how industrial design has become prominent in Turkey since the beginning of the 2000s in line with the increasing number of design events and activities. Likewise, Özcan (2010) emphasises the increasing popularity of industrial design in the last decade through an examination of recent products designed in Turkey most of which have been exhibited in international design events. Also, Er (2002) draws on his observations of SMEs in Turkey to argue that their enthusiasm for original and competitive products is significant for the improvement of the industrial design profession. But, the question of what the consequences and implications of such changes for industrial designers at an individual level are remains unanswered without examining professionals’ experiences. This thesis addresses this gap through the feminist social constructionist approach which I set out in the following chapter.
Chapter 5

Methodology

This chapter discusses the methodological approach of this study and research process. It is organised as follows. First, I will present the research questions. Second, I will review some of the key principles of feminist research, which inform the methodological approach I adopt. Then, I will focus on the research design, with a view towards clarifying the reasons why I chose narrative research as the method. For this purpose, I will set out my approach to narrative as a method and examine how it serves both feminist research and organisation studies, and how it informs data gathering and analysis. Fourth, I will describe the research process including the access to the participants and selection and how data gathering was conducted. Following this, I will explain the research relationship and present some ethical issues that appeared during interviews as well as my role as both an insider and an outsider. Finally, I will present the data analysis in five stages, which can be considered key milestones of the analysis process.

5.1. Research questions

As I have shown in Chapter 2, feminist research has pointed to male-dominance in and/or the masculine culture of technology-related work as the reason for women professionals’ disadvantaged position. These studies, which have mainly focused on engineering and IT, have also been paralleled by the concerns outlined in the review of the feminist design literature in Chapter 3, which defines industrial design as the most male-dominated and masculine field of design. However, the picture of this profession in Turkey that I discussed in Chapter 4 provides a unique example to investigate the gendering of industrial design as technology-related work. In its current situation, we observe neither male-dominance, nor a masculine occupational culture in industrial design profession in Turkey. But we do not know whether or not this means that gender equality is achieved in this profession.

The theoretical and conceptual framework I started to develop in Chapter 2, by linking Harding’s (1986) gender triad, which has been utilised in feminist technology studies to examine gender-technology relations, to the theory of gendered organisations, requires
exploring the gendering of technology-related work through three interdependent processes. These are, first, the construction of symbolic associations and images regarding the ideal technological worker; second, division of labour in line with these associations and images; and third, the construction of individual gender through interactions between individuals or groups in conforming or resisting ways in response to these images and structures (i.e. coping strategies). Considering this framework, the central research question of this thesis is therefore:

- How and to what extent is the industrial designer’s work shaped by the gendered images, structures and interactions in the workplace?

For a deep and comprehensive understanding of this question on a theoretical level, as argued in Chapter 2, it is important to acknowledge the instability, complexity and multiplicity of gender construction at work. This invites investigating the intersection of gender with, first, other dimensions social life such as age and class; second, different organisational contexts, which vary according to the industrial sector (e.g. furniture industry, automotive industry) and type of organisation (e.g. design consultancy, manufacturing company); and third, hierarchies of organisational positions (i.e. the place of industrial design in organisational contexts). From this concern three further questions emerge on an empirical level:

- What are the industrial design professional’s experiences in the workplace?

- How can these experiences be understood and in what ways are they patterned in terms of professional and organisational contexts?

- In what ways is the industrial designer’s work gendered in a range of industries and work environments?

Examining these questions, the intent of this research is to make it possible to understand:

- What are the implications of those experiences and framings for understanding the
gendering of industrial design as an example of technology-related work?

In the following section I will describe the methodological approach I adopted to answer these questions.

5.2. Feminist research and methodology

The methodological approach of this study is feminist. Feminist methodologies have been characterised by their critique of the androcentric bias of traditional approaches to knowledge production on the basis that they tended to exclude women from scientific practices, both as the researcher and the researched (Burns and Walker 2005; Ramazanoglu and Holland 2002). Even in the cases when they were included, women have been seen from a point of view that takes men and masculinity as the norm, defining women in relationship to men as the inferior ‘other’ (Oakley 1981). With this, traditional approaches have ignored the cultural, historical and political context of women’s lives where their experiences are embedded and have left the relationship between women’s experiences and the ways through which society is structured by gender unexamined (Gergen 1988; Thompson 1992). Feminists have argued that knowledge produced by such methodologies is distorted and inadequate and thus fails to provide a full account of gendered social life. They, instead, have appreciated the importance of the experiential, personal and private, and have prioritised understanding women’s (as well as other oppressed groups’) lives from their points of view, without losing sight of the social context of these lives.

Feminists take a number of different theoretical and methodological positions in their work, in relation to how they conceptualise gender, how knowledge is produced, the causes of gender inequalities and the proposed analyses and solutions. As Letherby (2003, 4) states,

Feminism, we know, is not a unified project. While all feminists are concerned with understanding why inequality between women and men exists and, relatedly, reasons for the overall subordination of women, feminists do not all agree on where to find the causes of male domination nor how to combat this and achieve liberation for women.

Also, there is no one specific research method or an ontological and epistemological stance that can be claimed to be feminist (Ramazanoglu and Holland 2002). Feminists hold different
perspectives, ask different questions and utilise multiple lenses to raise visibility and awareness of “sexist, racist, homophobic, and colonialist ideologies and practices.” (Brooks and Hesse-Biber 2007, 4) Although the question of what makes research feminist remains open for debate, feminist scholars share certain common principles that mark their work as feminist (Brooks and Hesse-Biber 2007; Burns and Walker 2005; Harding 1987; Olesen 1998). These principles include the use of feminist theory, a focus on women’s experience, a concern with power relationships in the research process, an emphasis on reflexivity, and the attempt to create positive social change.

In this section, I will examine these principles under three subsections to set out the methodological approach of this study: emphasis on personal experience, acknowledging the role of the researcher and rejection of hierarchy in the research relationship. Although these principles are not necessarily unique to feminist work, their being informed by feminist theories, concerns and politics identifies them as specifically feminist research practices and epistemological positions (Maynard 1994). The principles I set out here are shared to a certain extent by the four feminist epistemological approaches categorised by Abbott et al. (2005): feminist empiricism, feminist standpoint, feminist constructivism and feminist postmodernism (or poststructuralism). I will discuss them from the third position, adopting a feminist social constructionist approach.

5.2.1. Emphasis on personal experience

As I mentioned above, one of the driving forces of feminist research was to challenge the passivity, subordination and silencing of women in traditional research approaches. From a feminist point of view, in order to understand women’s lives there is a need to develop feminist theories that “explain the world from the position of women, and that enable us to conceptualise reality in a way that reflects women’s interests and values, drawing on women’s own interpretations of their own experiences.” (Abbott et al. 2005, 364) This is why women’s everyday experiences, and more importantly, the subjective meanings that they assign to their experiences constitute the empirical and theoretical resources for feminist analysis.

Analysis of personal experiences provides us with people’s interpretations of their own lives and how they see themselves as gendered beings. Furthermore, it provides insight into how
individuals’ gendered experiences are related to the ways in which society is structured. In this manner, we can investigate in what ways social life is organised through patriarchal structures as well as in what ways women’s oppression is created by men’s agency. Contrary to the traditional approaches that have ignored the link between the personal and the structural, or that have investigated this link from only the point of view of (western, white, middle-class) men, feminist understanding places women’s personal experiences in a broader social, historical and political context of these experiences (Harding 1987; Thompson 1992, 4).

An emphasis on experience, however, is not without its problems. Whilst the challenge of male-dominance in both the public and private spheres is an essential starting point for feminist research, it is not solely male-dominance that is the source of oppression for women. Asking the questions “which women?” and “whose experiences?”; black feminists (as well as postcolonial, poststructural, postmodern and critical feminists, who are generally classified under the umbrella term ‘postmodern feminists’) have emphasised that there is no uniform or universal category of ‘woman’ and not all women have the same concerns, choices and views on their lives. They criticised the early feminist contributions on the grounds that they focused on issues related to white, middle- and upper-class women and overlooked the issues which are important for the lives of working-class women and women of colour (Brooks and Hesse-Biber 2007).

These critiques shared by a large group of feminists brought about the consideration of the significance of diversity and plurality in women’s experiences, and of taking into account how other factors such as age, class, ethnicity, sexual orientation and geographical locations shape these experiences and create different forms of inequality. As Harding (1987, 7) states,

Masculine and feminine are always categories within every class, race, and culture in the sense that women’s and men’s experiences, desires and interests differ within every class, race and culture. But so, too, are class, race, and culture always categories within gender, since women’s and men’s experiences, desires and interests differ according to class, race and culture. Although the commonality of women’s experiences is essential for the political role of feminist research, as feminism stems from the critique of the gender-based asymmetries between men and women, it is important also to address the complexity that other socially constructed
aspects of difference adds to gender as it is experienced by women.

Harding (1987) furthers the issue of diversity, suggesting that a woman may have diverse experiences of ‘being a woman’ depending on various roles she adopts throughout her life. Referring to herself and her colleagues, for example, she indicates that one’s experiences as a mother and as a scientist can be contradictory, and this very contradiction between different identities of women is a rich resource for feminist research (see also Chapter 2 for the complexity, diversity and multiplicity of gender).

Although the early feminist research focused on women’s experiences due to their invisibility both as the researcher and the researched, later studies have recognised the relevance of men’s experiences to understanding the gendered life (Campbell 2003; Gelsthorpe 1992; Maynard 2004). For example, in their study on domestic violence, Anderson and Umberson (2004) examine men’s accounts in order to understand how these men construct masculine identities through the practice of violence towards their female partners. This is feminist research, asking feminist questions, but to men about masculinity. As Hesse-Biber and Leckenby (2004, 214) argue, “just as adding women into research does not make it feminist, feminist research may not have women as its subject.”

Men’s experiences, in addition to women’s, are being recently utilised in both feminist technology and feminist organisation studies in order to understand the gendered aspects of work life (see the review of these fields in Section 2.1.2 in Chapter 2, also see Murgia and Poggio 2009). For example, a number of studies done on non-traditional occupations show that whereas being minority causes women to experience isolation and negative stereotyping (Kanter 1977), it can bring positive career outcomes to men in such occupations, i.e. they are encouraged to apply for promotion and dominate the top management despite their small representation in the profession (Cross and Bagilhole 2002; Evans 1997; Simpson 2004). These studies demonstrate how studying men in non-traditional occupations in addition to women enables us to see such contrasting situations, which would have been overlooked otherwise. In another study, Lie (1995, 379) argues that since technical developments and implementations at work are dominated by men, “women’s experiences with technology are in many ways ‘created in the image of man’.” She suggests that in order to understand these experiences feminist researchers also need to study men and masculinities.
Sharing this position, my research utilises both male and female industrial designers’ personal experiences in order to understand in what ways and to what extent they consider gender relevant, and what other complicating factors it intersects, in their work lives. In doing this, I operationalise my interpretation of the gender triad, which I discussed in Chapter 2 and at the beginning of this chapter, examining how these experiences are gendered by first, the construction of symbolic associations and ideal images regarding the industrial designer’s work; second, structural divisions and hierarchies in the workplace; and third, the social relations between industrial designers and other workers, such as engineers (as discussed in Chapter 3), production workers (as discussed in Chapter 4) and others that may appear in the analysis of these experiences.

**5.2.2. Acknowledging the role of the researcher**

Feminist researchers refute the positivist assumption that “there exists a fixed and unchanging social reality, or some truth lying ‘out there’ to be discovered, and the viability of the objective researcher and neutral, value-free tools of empirical observation” (Brooks and Hesse-Biber 2007, 13). Instead, feminists suggest that ‘hygienic research’ can only be a myth, and a complete detachment in the knowledge-creation process cannot be achieved by effort or will (Cotteril and Letherby 1993; Letherby 2003; Stanley and Wise 1993). They emphasise the significance of paying attention to the researcher’s personal experience, biography and position in the knowledge-creation process. In this sense, as Sampson et al. (2008, 921) note, feminist research methodologies have played an important role in the development of qualitative research techniques that have led researchers to become “more reflexive” and “more sensitive to arguments about knowledge, how it is ‘created’, endorsed or identified, and by whom.”

Therefore, although reflexivity is not exclusive to feminist research, it is a central concern. Hesse-Biber (2007, 129) defines reflexivity as “taking a critical look inward and reflecting on one’s own lived reality and experiences”. She recommends that a reflexive feminist researcher should consider the following questions:

- How does your own biography affect the research process?
• What shapes the questions you chose to study and your approach to studying them?

• How does the specific social, economic, and political context in which you reside affect the research process at all levels?

Through reflexivity, the researcher recognises, explores and understands how her own values, background and assumptions as well as her gender, class and ethnicity can shape the research process. The researcher’s intellectual and personal biographies are significantly relevant to the research to account for the choice of topic and method, relationships with participants and analysis and the presentation of findings. Considering this, to ensure reflexivity feminist researchers need to explicitly present and discuss their positions and the terms of collaboration with participants (Brooks and Hesse-Biber 2007). However, Wellington and Szczerbinski (2007, 53) cautions us to be careful about the length and the content of the reflexive accounts, indicating that being reflexive is important, but “does not merit an excessively long, confessional, autobiographical account which includes unnecessary details.” They underline that the statement(s) of the researcher’s positionality should include only relevant information.

Throughout the thesis I attempt to provide a reflexive and open account of my role in this research, taking into consideration the three questions suggested by Hesse-Biber (2007) above, to enhance the transparency of the research process, and allow the reader to assess the trustworthiness of this study. The first question is addressed later in this chapter (see Section 5.4 and 5.5), where I discuss how my being a former practitioner and a current academic in Turkey affects the research process. I dealt with the second one in Chapter 1, where I presented a biographical account of myself which narrated the path that led me to the questions of this study. The third question is examined in detail in Chapter 4, where I provide a contextual exploration of women in professional occupations in a general sense, and an overview of both the development and current situation of industrial design profession, highlighting the historical, economic, political and social factors unique to Turkey.

Furthermore, Letherby (2003) indicates that it is not only the researcher, but also participants whose subjectivity needs to be acknowledged. They also have their own view of the researcher and the subject matter of research, and they prefer a certain way of presenting
themselves and their experiences in that specific setting. Thus, as well as reflecting upon their own values, background and assumptions, researchers should also account for the relevance of participants’ interests, concerns and relation to the researcher. This issue is closely related to the research relationship between the researcher and the participants, which I will examine in the following section.

5.2.3. Non-exploitative research relationship

Reducing the hierarchy between the researcher and the researched has been a main concern for feminist researchers. In her critique of traditional social research Gergen (1988) indicates three methodological practices through which the (typically male) researcher maintains his superiority over the researched. First, because the researcher considers himself to be more knowledgeable than the researched, he is less likely to be interested in understanding what else the researched can and does know. Second, since the researcher is the only ‘expert’ in the research setting, he has complete control over the production and analysis of the data. Third, the researcher believes that sharing his views and opinions with the researched would cause the results to be ‘contaminated’, and he does not reveal much information regarding both himself and the research.

Drawing on these critiques, feminist researchers, believe that researchers are not intellectually superior to their participants and that they are responsible for ‘democratising’ the research process (Kelly et al. 1994). They argue that it is possible to design non-exploitative research. This can be achieved via setting up an open relationship which is free of hierarchy and where the participants are not considered and treated as a mere source of data, but rather as experts of their own experiences (Maynard 1994). In order to balance the power and authority between the researcher and the researched, another strategy is to share the researcher’s biography with the participants, so that sharing identities and stories will increase the trust and reciprocity between the two parties (Hesse-Biber 2007).

However, feminists also acknowledge that it is not easy to deal with the issues of power and authority in practice (Sampson et al. 2008). Letherby (2003) argues that whilst researchers are not necessarily intellectually superior to their participants, they nonetheless hold an ‘intellectually privileged position’. As researchers, we analyse the participants’ views and
experiences in light of our academic, personal, political and intellectual perspectives. Also, unlike participants, we have the final say and the chance to reflect on our experience of research in our publications.

Moreover, Oakley (1999, 164) cautions that “the more reflexive and potentially less exploitative attitude” of qualitative methods should not be taken for granted. According to her, it should be recognised that the nature of qualitative methods brings its own dimensions of inequality. Her concerns are similar to these of Letherby, but she also adds that the difference between the social statuses of the researcher and the researched can be a source of inequality in their relationship. Thus, once again, the responsibility of the researcher is to be as critically reflexive and transparent as possible regarding both the conduct of fieldwork and the presentation of participants’ experiences, and to produce an account of her relationship with participants to show how they overcome power and authority issues (Maynard 1994).

I deal with these issues in this chapter (see Section 5.5) in detail. However, it is important to note that although both Oakley and Letherby seem to assume that the researcher holds a higher social status than the researched, in my experience of fieldwork this was not the case in all interviews (see Section 5.5). In some of them the participants could be regarded as holding a superior professional position to myself, a postgraduate student visiting them in their offices; and this had important consequences for the data collected. My experience shows that power relations between the two parties should not be taken for granted, but should be examined by considering the particularities of the interaction setting.

The following strategies flow from this review of the three key principles of feminist methodologies:

- To take feminist analysis of personal experience as the primary methodological tool of research, value the personal and private as worthy of study,

- To recognise the significance of gender as an aspect of social life and consider further the importance of complexity and diversity in women’s experiences as well as the
relevance of men’s accounts to a feminist understanding of gendered social life,

- To take full account of the social, economic and cultural context of the research,

- To remain aware of and reflect upon my position both as a researcher, as a former practitioner and a current academic in the field; and clarify how it shaped the questions of this research,

- To develop a non-exploitative research practice, cognisant of hierarchy, in which the participants are respected as experts of their own lives and their voice is prioritised in the interpretation of the data; to name and discuss the possible differences in power and authority between the participants and myself, and the strategies developed to remedy them.

Having outlined the research questions at the beginning of this chapter, and discussed the methodological approach of this study in this section, I will now go on by describing the research design. In the next section I will elaborate on the research method adopted, with a view towards clarifying the reason why I employed interview-based narrative research as the research method, and how it informs data gathering and analysis.

5.3. Research method

As I concluded above, this research is concerned with the personal experiences of industrial designers regarding their professional lives. Feminists who share a social constructionist approach reject any taken-for-granted knowledge and argue that “there is no social world or set of social structures ‘out there’ waiting to be known, but only many subjective experiences.” (Abbott et al. 2005, 376; also see Burr 2003) Considering this, the goal of the epistemological and methodological approach I adopt is to understand how professionals shape, construct and perform themselves, their subjective experiences and realities of their lives with reference to their work contexts. Therefore, professional experiences of industrial designers constitute the empirical basis of this study to answer the research questions.
On this basis, interview-based narratives become a productive source for exploring how individuals present and make sense of their experiences. As Polkinghorne (1988, 1) argues, narratives are “the primary form by which human experience is made meaningful”, since people understand their own, as well as others’, lives by putting them into narrative form (Czarniawska 2004, 5). There are two main reasons for choosing narrative research as the method in this study. First, narrative research method corresponds to the methodological assumptions and intentions of feminist research (Personal Narrative Group 1989). Second, narrative research is a useful method for research on work and organisations, as it enables researchers to collect and compare different accounts, and to understand the organisational as well as the occupational culture and negotiation of individual identities in this culture (Gabriel 2000).

In the following three sections, first, I will introduce narrative research, explain some key terms and set out my approach to narrative research as a method. Second, I will discuss how it serves feminist research. Then, I will examine the use of professional and organisational narratives in organisation studies. Sections on the research method will be concluded with discussion of the issues of credibility and transferability of the narrative method, which are important concerns for the trustworthiness of research.

5.3.1. Some key terms: narrative, story and general statements

In this section I will explain some key terms that inform my analysis. First of all, it is necessary to clarify what narrative means in this study, since “narrative has come to mean anything beyond a few bullet points” due to its popularity as a term both in everyday life and social research (Riessman 2008, 4).

In this study, narrative is understood as the “biographical particulars as narrated by the one who lives them.” (Chase 2005, 651) Although in such an understanding narrative may refer to a short story around a topic and about a certain event or an autobiography that covers one’s entire life, in this study the term narrative corresponds to an extended account that focuses on a significant aspect of one’s life, in this thesis ‘work’, elicited specifically for this research through in-depth interviews (Chase 2005). Yet, to be a narrative, the elicited accounts should "organize a sequence of events into a whole so that the significance of each event can be
understood through its relation to that whole.” (Elliott 2005, 3) This is how the narrator gives meaning to and makes sense of both every single event and the whole narrative.

Whilst the terms ‘story’ and ‘narrative’ are often used interchangeably, some narrative researchers suggest that they are not the same, indicating that narrative is a more general concept, whereas stories have coherent plot-lines or characters (see for example Cunliffe et al. 2004; Czaniawska 2004). I find it useful to distinguish between these two terms and use story for each single unit of analysis, which describes a single event or incident with a beginning and end. Narrative, on the other hand, corresponds to the whole product of the interview, which has its own structure in itself. In other words, I take narrative as the personal account of a participant and fragment it into stories to create units of analysis, which will be analysed in relation to the contextual particularities of that narrative.

In relation to this, it is also important to distinguish between stories and general statements, descriptions, thoughts or opinions. As Mattingly and Lawlor (2000) argue, whilst such general talk can be part of stories and can be informative as well, it brings problems for the analysis stage. Using the sentence “I am a very private person” as an example, they explain the main concern with general descriptions:

> What “private” means to the speaker may be quite different than its meaning to the listener. Stories of particular events, times when a person revealed their “private” personality, for example, can be extremely valuable in illuminating what kinds of experiences and actions the speaker refers to when she describes herself as private. (2000, 6)

General statements cannot achieve what stories do, as the value of story is that through a story narrators communicate the meaning attached to their own and others’ actions, by referring to a certain event as a meaningful whole, and by connecting and interpreting the consequences of these actions and that event. Thus, a story would show, for example, why a person considers herself private, in which context and in relation to what or whom, so that we can understand what ‘being private’ means for her. Considering this distinction, at the beginning of each interview I informed participants that I was particularly interested in their experiences in the form of stories rather than opinions and thoughts. I also encouraged them to tell me stories by asking questions such as “Could you give an example to illustrate this?”, “Could you tell me how it happened in further detail?” and “Is there a specific event that
made you think so?” during the interviews.

There are two points that need to be clarified before moving to the use of narrative research as a feminist method. Firstly, not all stories have full plots (Gabriel 2000). In the analysis process I encountered some stories that start and then transform into another story. As long as they communicated the meaning in a way that is described above, I considered incomplete stories as units of analysis as well. Such transformations in the stories also provided valuable data to analyse in some cases. For example, in one of the stories I quote in Chapter 6, in discussion of the intertwining of ‘being a woman’ and ‘being a designer’, the topic of the story shifts from the battle of designer versus engineer to the battle of women (designers) versus men (engineers). This shift is important as it shows how the narrator links the relationship between designers and engineers to the typical gender relationship in society: men/engineer is superior to women/designer. Secondly, some stories were too long and detailed to be quoted in full in the thesis. In such situations I have chosen to quote only the relevant part of the story. Thus, not all stories included in the thesis are presented in a complete story format.

5.3.2. Narrative research as a feminist method

Narrative research is one of the methods that feminists have extensively used to understand various aspects of gender relations such as “the construction of a gendered self-identity, the relationship between the individual and society in the creation and perpetuation of gender norms, and the dynamics of power relations between women and men.” (Personal Narrative Group 1989, 5) As a research method, it corresponds to the methodological assumptions and intentions of feminist research for several reasons.

First, narratives emphasise the narrator’s voice and privilege the narrator’s point of view (Letherby 2003; Riessman 2002). Particularly when generated through interviews, narratives enable the narrator to tell stories in whichever way she chooses. Thus, narratives serve the narrator as a means of evaluating the past and present, anticipating the future and communicating these evaluations and anticipations (Cotteril and Letherby 1993).

Second, and closely related to this, narrative research addresses the feminist concern of power hierarchy between the researcher and the researched. According to Anderson and Jack
(1991), a feminist oral account allows women to express their uniqueness, once they are allowed to tell their narratives with their own vocabulary. Furthermore, when the participant is viewed as the expert on her own life, “the muted channel” of experience starts to be heard (20). Czarniawska (2004, 48) indicates that storytelling is an activity that supports a hierarchy-free interview setting with a peculiar power symmetry. In a very similar way to Anderson and Jack, she argues that in telling their life stories narrators hold the ‘power of knowledge’ since they are accepted to be the only experts on their own lives.

According to Mishler (1986), narrative itself is the product of an interview relationship that is open, hierarchy-free and well-balanced in terms of power and authority. She argues that participants are likely to construct narratives from their experiences as long as their interaction with the researcher does not suppress these narratives:

It is not surprising that when the interview situation is opened up in this way, when the balance of power is shifted, respondents are likely to tell stories. In sum, interviewing practices that empower respondents also produce narrative accounts. (118-19)

Third, narrative presents the similarities and differences among experiences of people. Narrative research does not assume that individual narratives can simply accumulate into collective ones or collective stories impose on individual ones. This is why narrative researchers are interested in particularities of every individual narrative (Ewick and Silbey 2003). Still, commonalities are valuable particularly in the study of inequalities, as they can reveal certain shared problems and concerns of a group (Letherby 2003). Underlining such commonalities in research can encourage group belonging and provide the grounds for collective action (Riessman 2008, see also the next section for collective stories of professionals).

Finally, as a form of interview, narrative is a socially situated, collaborative activity. It is not complete prior to their telling but they are produced to meet certain interpretive demands (Gubrium and Holstein 1998). It is not “a pipeline for transmitting knowledge”, but rather should be understood as a site for the production of knowledge (Holstein and Gubrium 1997, 113). Narrative is not arbitrary, but strategic, functional and purposeful and produced in a particular setting for and with the researcher. Drawing on Goffman’s (1969, 1981) dramaturgical metaphor, Riessman (2002) suggests that during interviews participants
perform a desirable self, negotiating how they prefer to be known by the audience of their stories. In other words, narratives are told to be known by the listener in a certain way, in the storyteller’s own terms in that specific context. Moreover, narratives are told as a response to a certain question, which is, in turn, directed by the interest of the researcher (Wooffitt and Widdicombe 2006). Also, statements such as “Go on” or “It is interesting, tell more about it” and even non-lexical expressions such as “Mm-hm” or “Uh-huh” show the narrator that the researcher is interested in what is being told and encourage the narrator to go on with stories on that topic.

Therefore, although emerging narratives emphasise the participant’s voice, they are not free from the researcher’s interests, concerns and relation to the participant, and they are created collaboratively. The narratives constructed in interviews can only be understood in relation to the specific conditions of this collaboration and narratives cannot be seen as an unproblematic window opening to the social world (Gubrium and Holstein 2009). This understanding is in line with the emphasis of feminist research on a reflexive approach to research, in which the role of the researcher and relevant features of her identity, as well as the dialogic production of narratives are taken into account as essential aspects of the interview-based narratives (Elliott 2005; Ewick and Silbey 2003).

After reviewing some specifics of narrative and its use in feminist research, now I will focus further on what makes it useful for a study on work, discussing what narratives accomplish in the investigation of experiences of practitioners of a profession.

5.3.3. Narratives regarding professional life

Narrative research has attracted considerable interest in organisation studies (Boje 1991; Boyce 1995; Czarniawska 1997, 2004; Fineman and Gabriel 1996; Gabriel 2000; Simpson 2008). In these studies creating, telling and negotiating stories are considered key processes through which the members of an organisation make sense of their experiences within that organisational context. It is suggested that through studying narratives in organisations, the researcher can collect and compare different accounts, understand the organisational culture and gain access to deeper organisational realities, which are closely linked to their members’ experiences (Gabriel 2000). For example, Poggio (2000) examines narratives of workers
employed on building sites, in banks and IT companies to gain insight into how gender inequality felt by women varies according to the gender culture of these sectors and organisations. Furthermore, narratives are important sources for learning and becoming a member of an organisation. As Czarniawska (2004, 36) notes,

They are offered to newcomers as a means of introduction to a community, but they are also repeated in the presence of the very actors who participated in the event, thus consolidating a community feeling by reifying its history.

Stories are kept alive by retelling, and as they are retold, they reconstitute organisational realities.

Similar to organisations, occupations also provide significant narrative environments due to shared skills, orientations, objectives and outlooks they contain. Gubrium and Holstein (2009) indicate that professional occupations in particular supply highly developed and distinctive interpretive tools, as they have well-established formal cultures, tend to require greater investments for membership and impose themselves in the form of lifestyle. Narratives elicited in a professional environment, then, reveal common and contradictory concerns, perspectives and interests in the occupational and organisational contexts.

Although considerable attention has been paid to narratives in organisational research, the use of narrative research as a distinct research method in the study of gender and work is more recent (see for example Gherardi and Poggio 2001; Murgia and Poggio 2009). However, it is important to note that my application of narrative method in this research differs from these studies on gender and organisation, which are interested in the occupational and/or organisational culture. My focus is on participants’ personal experiences of gender rather than norms, rituals, values and rules that constitute the occupational and organisational culture. Nevertheless, this does not mean that the contextual nature of the narratives is not taken into consideration in the analysis. On the contrary, the organisational context gains much emphasis in some stories. For instance, a participant told me how he provided financial support for the craftsman with whom he is working, since the company did not pay their wages on time and the craftsman was very upset not being able to buy yoghurt as his wife asked. He generated this story as an answer to my question on his relations with shop floor workers. But in order to explain why or how they were a good team, he preferred referring to
shared difficulties, which make them more intimate in the workplace. This means that data I collect in interviews will include both individual and organisational stories and in the course of my analysis it will not always be possible to distinguish an individual’s story from an organisational story.

In the last two sections I discussed why narrative research is a useful method for a feminist study of work, and how it is consistent with the methodological approach and research questions of this study. In the following section I will examine some issues regarding the trustworthiness of narrative research.

5.3.4. Credibility and transferability of narrative research

The subjective, contextual and situated nature of narrative, which is discussed above, is considered its main weakness by some scholars on the grounds that a narrative may not reflect the participant’s feelings and attitudes as they would be expressed outside the interview setting (Halford et al. 1997). However, this contextuality is accepted as the most important strength of narrative, by narrative researchers who are working from a social constructionist approach (Czarniawska 2004; Riessman 2002, 2008). For instance, Mishler (1986) argues that the variations and inconsistencies across interviews and between participants should not be seen as errors or technical problems, but data for analysis. Gabriel’s (2000) study of four different accounts about the same incident involving the explosion of a fire extinguisher well illustrates this argument. The incident happens in a workplace and four close witnesses are asked to tell how it occurred. In the first account, it was just an accident; in the second, a personal attack; in the third a test of character and in the fourth, a chance for retribution. Gabriel argues that here if the concern was to obtain the ‘truth’ regarding how the incident actually happened, these accounts would not have produced valid information on the question. However, if the research question is rather how these four people interpret this incident in relation to their different roles, responsibilities and conditions in the workplace, then the narrative provides credible evidence for the investigated topic. In a similar way, Elliott (2005, 26) notes that

A narrative will not capture a simple record of the past in the way that we hope that a video camera might. However, if the research focus is more on the meanings attached to individuals’ experiences and/or on the way that
those experiences are communicated to others then narratives provide an ideal medium for researching and understanding individuals’ lives in social context.

In a similar vein, during the interviews I encountered different narrations of one single incident, situation or argument. For example, three participants told stories regarding the design team of a large-scale company, which attracts many industrial designers due to the opportunities it offers. In all of them the main concern was it being a male-only design team for several years. According to the first participant, Deniz, the first woman industrial designer joined the design team after many years, there was a strong resistance in this team to women, especially by the senior designers. She indicated that in the job interview the two team leaders explicitly expressed their unwillingness to work with a woman designer, arguing that women do not work as hard as men, and recommended that she changes her mind regarding her application for that position. However, she says, finally they had to accept her into the team due to the good reference given by her previous manager. The second participant, who was a member of this male-only design team when Deniz was employed, told a different version of this story, stating that it was not intentional but just a coincidence that there were no women in the team until Deniz joined. From the viewpoint of the third participant, who heard about this issue from one of his colleagues, men in that team did not want to work with women because they believed that women were doing and saying things behind others’ back, so they were affecting the relationships negatively among the designers. However, he concluded, ironically it was men who caused problems in the team, and this was a silly prejudice.

In my interpretation of these stories, the first participant shows how she could overcome the resistance towards herself being a hardworking and successful industrial designer; the second one underlines that there were no discriminatory attitudes towards women in the design team; and the third one expresses his disapproval of such discriminatory behaviour in the workplace. Thus, participants shaped the stories in line with the concerns and evaluations they wished to communicate to me, as a successful woman who can overcome the barriers or an egalitarian man who does not approve of discriminatory behaviour.

A second issue regarding narrative research is that as a case-centred method it interrogates cases rather than population-based samples. As a result, it is difficult to generalise findings of a narrative study to the entire population. However, Flyvbjerg (2004) underlines that
statistical generalisation is not the only valid and desired outcome of research, and the rich, in-depth and context-dependent models of research are also essential to the development of new theories. Kvale and Brinkmann (2009, 261-62) support him suggesting a change to the question from “whether interview findings can be generalized globally” to “whether the knowledge produced in a specific interview situation may be transferred to other relevant situations.” Also, Riessman (2008, 13) argues against the assumption that the results of case-centred studies are not transferable, stressing that “making conceptual inferences about a social process (the construction of an identity group, for example, from close observation of one community) is an equally ‘valid’ kind of inquiry”. Thus, theoretical, if not statistical, generalisation is possible in narrative research.

So far, I have introduced and discussed the research method used. In the next two sections I will describe the research process including the access to the participants and selection and the production of narratives in the interviews.

5.4. Locating participants

The selection of the participants was purposive as is typical in narrative analysis (Riessman 2008). My main concern was ensuring diversity of participants, which is vital for capturing the rich context of industrial design practice in Turkey. To achieve this, I selected participants considering their age, involvement in professional life, the city and the university in which they studied design, the sectors and companies in which they have worked and the positions they have held in these companies. In addition to diversity, participants’ interest in the subject matter and enthusiasm for telling gender stories was crucial. Thus, in the selection process whenever I met a participant candidate who stated that s/he had a lot to say regarding gender issues/relations, or whenever a gatekeeper recommended a particular designer for whom gender had been an issue in professional life, I prioritised them. Also, participants were expected to have been in work life for some time. Recently established industrial design departments of universities and recently graduated industrial designers were not taken into consideration purposefully.

In getting access to participants my background provided a great advantage. Being a former practitioner who actively participated in design exhibitions, workshops and study groups, I
was already familiar with the industrial design community. Colleagues with whom I studied at university or worked with in industry and design academics and practitioners I met at such events were the main gatekeepers who I expected to direct me to potential participants.

For me it was very easy to contact my colleagues. Through e-mails I briefly explained the topic of my study and why and how I needed their help. In some cases I simply asked whether they knew anyone who could be helpful for this study, while in some others I was more specific and asked for people who would meet certain criteria. For example, in one case I already had information regarding the design team of a big company, such as how many designers worked there, how many of them were women and which universities they were from. Then I asked a colleague of mine who was then working in that company to recommend me a senior member of the design team who had also graduated from a university in Istanbul if possible, and to provide me with this person’s e-mail address. I also mentioned the confidentiality issues, asking my colleagues not to share my approach with anyone apart from the potential participant. I explained that confidentiality was paramount in this study since I was dealing with a respectively small and close community, and participants could be identified by their colleagues who shared the same work environment once it was known that they had taken part in my research. In this process some of my colleagues were offended by my interest in other designers instead of themselves. Some of them frankly asked why I did not interview them or whether I did not find them worth interviewing. When I encountered such questions, I explained the issues regarding credibility and trustworthiness that interviewing the people I had already known would bring out.

In addition to my being a former practitioner, the research assistant position I hold at METU Industrial Design Department was also useful in this process. As a member of staff I had access to the list of the companies with whom the department has collaborated for graduation projects. The list mainly consists of big manufacturers from a variety of industrial sectors in Turkey, such as electronic equipment, furniture, electrical household products, transportation, lighting and ceramic products. Among these companies I selected the ones that employ in-house industrial designers, preferably in teams. Considering that in-house designers are not as easily accessible as freelance designers in general, obtaining the list was valuable particularly since it includes contact details of at least one member of every design team.
In addition, via the older members of the academic staff, I could get the names and contact details of senior graduates who constitute the first generation of industrial designers in Turkey. Otherwise it would have been challenging to find senior design graduates who have worked with the industrial designer title since their graduation, as there were not a lot of job opportunities in the profession’s infant years and many graduates had to work in jobs unrelated or partially-related to the profession (see earlier discussion at Chapter 4).

Still, at some points my background fell short. My being a graduate of and research assistant at METU Industrial Design Department, which is the oldest industrial design department at a technical university in Turkey, of course enabled me to obtain access easily to a broad range of industrial designers. However, this also limited my contacts to METU graduates to a certain extent. Although tracking the design teams of big companies provided me with the graduates of other universities as well, they were in small numbers compared to METU graduates. In order to overcome this problem, I developed a couple of strategies. First, I contacted some members of academic staff in other universities in Istanbul and Eskisehir and asked whether they could suggest to me some of their former students, classmates or any senior industrial designers who work as part-time lecturers in these universities.

Then I prepared a table to keep a record of the diversity in potential participants. The table included all the information I got before and during the selection process: name, sex, form of employment (self-employed or in-house), the company, sector and city in which the designer works, university and graduation year, name of reference and contact details. After sorting the information, I listed potential participants in order of priority and started to send e-mails accordingly. In the first round I kept my e-mail short, introduced myself and my study, mentioned the people who recommended them, and explained why they were selected to participate in this study. Once they responded positively, I sent a second e-mail with more detail regarding the interview, and with the attached participant information sheet and consent form. In my e-mails my signature also included the link to my personal web site, where they can find all my professional work and my updated cv. This would also enable them to find a mutual colleague to ask questions about me, so that they would be able collect information about myself if they liked, just as I could do about them (see next section for how this strategy worked).
The e-mailing process started in October 2009, after I completed working on the two test interviews, which were conducted in July 2009. The selection process was organised separately for the first and second rounds of interviews, which were conducted between December 2009 and January 2010, and July and August 2010 respectively. Doing the fieldwork in two rounds was useful as I was able to contact the people who agreed to participate but were not available in the first round again for the second round.

Overall I got positive response. Among the designers I contacted, only five people did not want to participate due to personal reasons. Apart from them, participant candidates were generally supportive, indicating that they would be happy to participate as long as they were available in the period of my visits to Turkey. Some of them took this as helping me, whilst others as a ‘mission’ that would contribute to the profession of industrial design.

In total this research has 20 female and 12 male participants who had work experiences in ten different cities in Turkey. The three tables below, Table 5.1, 5.2 and 5.3, which aim to provide a summary of the interview sample in terms of key characteristics, were compiled from the background data I collected both before and throughout the interviews.

<table>
<thead>
<tr>
<th>Graduation year</th>
<th>Number of women</th>
<th>Number of men</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Until 1980</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1981-1990</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>1991-2000</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>2001-2005</td>
<td>12</td>
<td>7</td>
<td>19</td>
</tr>
</tbody>
</table>

Table 5.1. Participants’ distribution according to graduation year from university

As Table 5.1 demonstrates, 19 of 32 participants have entered professional life after 2000. The distribution of participants in this table shows the difficulty of finding industrial design graduates who have worked with the industrial designer title prior to the 2000s due to the lack of an interest and the scarcity of job opportunities for industrial designers in the Turkish industry. One of the participants graduated between 1981-1990 was retired, and another one graduated between 1991-2000 had left industry to become an academic after six years’
experience. Apart from these two, all participants were still working, either as in-house or self-employed designers. Some of them experienced both forms of employment as Table 5.2 shows below during their careers.

<table>
<thead>
<tr>
<th>Form of employment</th>
<th>Number of women</th>
<th>Number of men</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-house</td>
<td>13</td>
<td>8</td>
<td>21</td>
</tr>
<tr>
<td>Self-employed</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Experienced both forms of employment</td>
<td>5</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

Table 5.2. Participants’ distribution according to form of employment

<table>
<thead>
<tr>
<th>Industrial sector</th>
<th>Number of women</th>
<th>Number of men</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furniture</td>
<td>7</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Packaging</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Lighting</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Electronic equipment (inc. electronic consumer goods and communication devices)</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Electrical household devices (inc. white goods and kitchen appliances)</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Transportation</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Capital goods (inc. devices for professional purposes, i.e. military products and funfair machines; and construction machines and tools)</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Home and office accessories (inc. kitchenware and glassware)</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Sports, hobby, game, and personal products (inc. jewellery, bags, and other fashion accessories)</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Building components (inc. sanitaryware, heating devices, electrical fittings, and related furnishing products)</td>
<td>4</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 5.3. The industrial sectors for which participants have worked
Whilst 15 participants (12 in-house, 3 both) have worked for one single industrial sector, 17 participants have work experiences in more than one industrial sector. I show the industrial sectors for which participants have worked during their professional lives in Table 5.3 above, where I classified the industrial sectors according to the product classification of ETMK (see Section 4.4 above for a discussion of this classification).

5.5. Eliciting narratives

The interviews lasted from 45 minutes to two hours and all were tape-recorded. The language used was Turkish (see Section 5.7 below for the issues of translation). Interviews were conducted in four different cities, but primarily in Ankara and Istanbul. Depending on convenience we met in the participant’s office, home or in a café. In Ankara, I usually booked a room in METU Department of Industrial Design for interview sessions. Freelance designers invited me to their offices, whilst in-house designers rarely did this. Even then, I declined to meet with in-house designers in their workplaces in some cases if I would be interviewing more than one member of the design team. This was because I could never know, and never wished to ask, whether they chose to inform each other of their participation in the research.

Before we began the interviews, I introduced my study briefly, paying attention not to reveal too much information that would influence their accounts. In simple terms I explained to the participants that I was investigating how gender is relevant to their work experiences and that I was expecting them to tell me what they went through in their professional lives starting from their graduation day until the time of the interview. I also highlighted that I was particularly interested in their experiences in the form of stories rather than opinions and thoughts, and informed them about how I was going to use the information they provided. The consent form was signed at this stage.

Moreover, at the beginning of the interviews I explained that it was my aim to listen to their narratives with any content and format they wished to present. I clarified that I considered the interview to be a conversation between two colleagues, rather than an exchange of my questions and their answers. This is why I referred to my interview schedule, which consists of open-ended questions regarding working life, only to make sure the interview covered some key topics.
There were two situations in which I had to use the interview schedule further. First, a small group of participants insisted that the interview took place in a question-answer format, since they thought that this was the most accurate or easiest way of helping me. Second, some participants focused on describing, to some extent even promoting, the products they designed and the projects in which they participated without mentioning what their experiences were. Apart from these two groups, including seven people, in general participants were eager to talk and narrated their working lives in a chronological order on their own.

As it is crucial for feminist research to use a style of interviewing which gives participants sufficient opportunity to develop their own lines of thinking and which encourages them to tell their own narratives, I encouraged the participants to tell me whatever they found important and express themselves freely using their own vocabulary. I was seeking insight into their ways of relating gender to their experiences in the workplace, thus, instead of assuming this relationship, I allowed for it to emerge in their accounts. Doing this enabled participants to refer to other sources of inequalities, such as ‘being a designer’, as well as gender and to present their own key concerns. As a feminist researcher, I avoided leading participants by my questions. Instead, I waited to see to what extent, where and how gender would emerge as a source of inequality in their accounts.

5.6. Research relationship and ethical issues

Striving for a hierarchy-free relationship with participants, I completely disclosed my industrial designer identity as an attempt to “promote collegiality” both in our correspondence and during the interview (Minister 1991). As I explained in the previous section, in my e-mails I offered participants the link to my personal web site where they could find all my professional work and my updated CV to enable them to investigate who I am, which university I graduated from, in which workplaces I had worked etc. In our meetings, some of the participants told me that they knew me and my work and asked me some questions about the companies I had worked in and people whom I might know, whereas some others implied that they have opinions about me and my work. For example, one of my participants said,

You have worked as a professional designer, too. You have done difficult work in many companies, too, trying to make yourself accepted in these
Since it was the first time I had seen this person, it was clear that before making his decision to take part in my research he had investigated who I was.

Some others asked their questions directly to me at the beginning of the interview. They wanted to know, for example, when I had moved to the UK, why I had given up professional practice and chosen an academic career, why I was interested in this topic for study etc. I answered all of their questions regarding my biography; as Minister (1991) recommends, being a feminist researcher I gave the participants the opportunity to interrogate me about myself. This transparency which is available for my industrial designer identity let the participants share their professional narratives with a colleague who probably can tell similar ones and who can understand them well.

However, I was careful not to disclose too much regarding the research project in order not to lead them with my approach. Although some of the participants asked questions such as what I would say at the conclusion of the thesis, or what I was thinking about gender issues, I responded with brief answers and underlined that it was not me, but themselves who would enable me to arrive at certain conclusions with their stories. For those who were interested in the final thesis, I promised to e-mail it as soon as it is completed.

Being a former practitioner in the field of industrial design in Turkey, I was, to a certain extent, an insider in the community on whose experiences this study is empirically based. However, I was rather an outsider in certain relationships and settings. I was an insider in terms of getting access to a large group of industrial designers graduated from or in close relationships with METU. But, due to the very same reason, I was an outsider for industrial designers graduated from other universities. I found it very difficult and made much effort to get access to a satisfactory number of potential participants from these universities.

Apart from getting physical access, I encountered this issue in my relationships with the participants as well. For METU graduates it was rather an act of solidarity to help a researcher who has an affiliation with METU. Some of them asked me questions about the members of staff, reminiscing about the good old university days. On the other hand, for the participants
who graduated from other universities I was an outsider. I did not know their studying environment and their relationships within the department, so they had to give a lot of explanations regarding these issues. Also, some of them praised their universities at some point in the interviews, sometimes comparing them to METU, and one of them even made an "us" versus "you" distinction. When I encountered this attitude, I tried to show that I did not share such a concern.

To the extent that I could be an insider, I utilised certain advantages of the insider role (Hodkinson 2005). Once the issues regarding relationships were solved and once the participants could see me as a former industrial design practitioner who is familiar with their experiences, concerns and problems, I felt that the level of trust and cooperation in our relationship was influenced positively. Also, being members of the same discipline enabled us to 'speak the same language' and thus, reduced the required time and effort to understand each other.

However, this does not mean that sharing a common disciplinary background is completely unproblematic and does not bring any possible disadvantages. During the interviews participants disclosed their personal relationships with their colleagues, clients and employees in their stories. There was the possibility that participants could feel distressed as in their stories there could be some people whom I knew or had the possibility of knowing. For this reason, at the beginning of the interviews I informed the participants that they could use pseudonyms for people and companies in a way that would not influence their stories and never asked for further details about these people and companies.

In relation to this, once I noticed that a participant had some reservations regarding the confidentiality of her/his stories, I took a break from the interview and talked about the strategies that I had developed to provide confidentiality. I explained that each participant as well as other people included in their accounts, would be given at least one pseudonym6. Also, I said, any data with the probability of identifying the participant such as company names, city names and details of the products that the participant designs would be anonymised before being used in any publications. I gave some examples referring to the papers I presented in conferences and explained how I used the data there in a way that the

6 I gave additional pseudonyms to some of the participants when I thought that the details given in their stories could be linked in a way that reveals their identities.
participants cannot be identified. At this point I realised that although issues of confidentiality are clearly explained in the participant information sheet and the consent form, these documents were not convincing enough for all participants. Some said that they would not care if I shared their narratives with others, whilst others were very careful not to disclose any information that could be a problem if I shared with anyone. For both groups, the consent form was just a part of the procedure but not something they had confidence in.

I also noticed that doing a PhD abroad put me in a superior position for some participants and I felt that this caused them to feel uneasy, especially at the beginning of our meeting. In such situations, again, I tried to shift their focus towards my designer identity by talking about my previous experiences as a practitioner. On the other hand, there were also the cases where participants took a superior position to me, as a business person speaking to a postgraduate student. With these participants it was much more difficult to set up a balanced relationship in terms of power and authority. Indeed this is indicated as one of the primary challenges qualitative researchers encounter in the studies that rely on interviews with elites and professionals (Harvey 2011, Kezar 2003, Mikecz 2012, Welch et al. 2002). Through such interviews I observed that an asymmetrical relationship affects the quality and the depth of the narrative negatively, even when it is the participant who holds power.

Considering my fieldwork experience, I agree with Mikecz (2012) that the location of the interview can have considerable impact on the power asymmetry between the researcher and the interviewed professional. As I mentioned above, interviews were conducted in various locations depending on convenience, such as the participant’s office, home or a public place. I met with ten participants in their offices. In these interviews I felt that being in the participant’s own ‘territory’ provided her/him with control and authority over the interview setting compared to myself (see also Welch et al. 2002). Although meeting at the participant’s homes had a similar impact in terms of empowering the participant as the ‘host’ over myself, the ‘guest’; the office environment, especially when the interviews were conducted in the rooms that were designed to meet (and possibly also to impress) the guests of the firm, further reflected the position and power of the business person over the researcher.

Moreover, whilst a few participants considered the interviews as formal meetings that should be conducted in a meeting room away from any distraction, others kept on answering their
phones, or occasionally paused the interview to discuss some issues with other people in the office. A participant whom I visited in her own design consultancy firm, for example, wanted us to make the interview in her employees’ room rather than hers. This was because they were working on a design project with an approaching deadline, and she wanted to be accessible to the designers in case they needed to consult her about the project. Inevitably, our interview was interrupted at times. Regarding interviewing business people, Harvey (2011) suggests that such small breaks can offer a good opportunity for the researcher to catch up on their notes. I accept that this can apply to qualitative researchers who conduct interviews in a question-answer format. However, in my narrative-based research such breaks and interruptions rather caused inconvenience, since after every break it took some time for the participant to get back to the narrative, and to remember the point she intended to make with a specific story left incomplete. As expected, this was not a productive interview. Overall, I found meeting in public places more advantageous in terms of creating a more egalitarian interview relationship, since it removes the guest-host roles I observed in the office, and distributes control over the interview setting between parties more equally.

In addition to issues of power and control, the openness of the interviewee is also indicated as a challenging aspect of researching elites and business people by qualitative researchers. Welch et al. (2002) state that the degree of the openness of participants can vary according to their organisational positions. For example, data derived from the interviews with senior professionals who consider themselves representatives of their companies may provide the researcher with little more than what a press statement could do. Indeed in a couple of interviews I conducted with the designers who own their design consultancy firms I had similar experiences. Rather than discussing any problems, these participants placed more emphasis on their success stories, introduced their products and the awards they won. Moreover, I suggest that in my research the degree of the openness of participants was also considerably influenced in a negative way by the sensitivity of talking about gender inequality.

As I will discuss further in Chapter 6, some of the male participants seemed to assume that as a female researcher I was trying to understand their attitude towards women at work. This assumption was particularly strong at the beginning of the interviews. When I noticed their uneasiness regarding this, I asked them to focus on their experiences as industrial designers, so that we can see together if gender would be relevant at some point. Overall, male participants considered gender an issue about women, not themselves. Only some of them
talked about the problems they experienced as men, such as the military service that is compulsory for every man in Turkey, and the pressure of finding well-paid jobs to take care of their families. Similarly, women approached gender as an issue about themselves. Among them there was a tendency to indicate that gender has rarely, or never, been a source of inequality in the office environment. This was especially the case with the women who own their design consultancy firms or who work in large-scale companies in large cities. As I will discuss further in Chapter 6, there were only three women participants who reported discriminatory behaviour towards women in their workplaces. Apart from these, women stressed that it is being an industrial designer rather than a woman that is the source of the problems they experienced in the workplace.

Although participants’ denial of the relevance of gender to their work experiences was a challenge for my analysis at the beginning, this very challenge had a great influence on developing and applying my theoretical framework. The emphasis in the narratives on interdisciplinary relations in discussion of the designers’ problems led me to investigate how ‘being a designer’ can be understood gendered, drawing on Acker’s gendered organisations theory by combining it with Harding’s gender triad. With this framework I analysed gender not only at an individual level, but also in terms of symbols and images attached to occupations, and division of labour in organisations. I will elaborate on this further in the following chapter (see Section 6.3).

5.7. Analysing narratives

Analysis of qualitative data is often a messy and complicated process, which also tends to be the most obscure stage of research (Hammersley and Atkinson 1995; Yin 2003). Wellington and Szczerbinski (2007, 101) summarise data analysis as follows: “It involves taking all the data in, digesting them, taking them apart, then putting them back together again – sometimes leaving lots of bits lying around unused at the end and sometimes returning to collect more.” In this section I will describe the analysis process undertaken at five stages. However, this means neither are there clear boundaries between these stages, nor once one stage is completed that I never went back. Rather here my aim is to divide this messy and complicated process into smaller stages, which can be considered its key milestones.
My overall approach to analysis was interpretive, which means that my focus was on the meaning, and went beyond a literal reading of the data (Riessman 2002). My analysis was guided by both deductive and inductive elements, since the themes used to analyse the data were partly derived from the existing literature and my previous observations, but also emerged from the data I collected. I attempted to take a balanced approach regarding the use of these elements, and tried to ensure that my existing ideas and assumptions do not “take the form of prejudgements, forcing interpretations of the data into their mould, but are instead used as resources to make sense of the data.” (Hammersley and Atkinson 1995, 210; see also Wellington and Szczerbinski 2007).

As I discussed earlier in this chapter, a reflexive approach to research requires considering the interview interaction itself “as a topic of investigation” in addition to the content of the narratives constructed through this interaction (Elliott 2005, 20). Acknowledging this, the analysis starts in the course of the interview as the stories began to appear. Both during and after the interviews, I made notes on the issues that arose there. For example, what are the attitudes of the participants towards the topic and myself? Do they seem comfortable and eager to talk? What kind of initial impression do they want to make? Did they understand the question as I wanted or expected them to do? Notes I took at this stage are also utilised in the following stages of the analysis where I focused on the content of the narratives, as they provided clues about the meanings made (Fraser 2004).

The second stage of analysis is transcribing the tape-recorded material. Since narrative is a dialogical production, I included both my and the participant’s utterances. While transforming this complex verbal exchange into “my imitation on a two-dimensional page of what had been said between us”, I avoided ‘cleaning’ the accounts (Riessman 2008, 29). Rather I included the questions I asked throughout the interview for clarification, further detail or an example, non-lexical expressions such as “Mm-hm” and “Uh-huh”, incomplete sentences or questions, smiles or laughter, and pauses.

In the third stage, I read through the transcripts of narratives individually in order to identify stories of gender, both individual and occupational, which constituted the units of analysis. Once stories were selected, I analysed them thematically. Here it is important to note that although thematic narrative analysis seems very similar to other interpretive qualitative
methods, it is differentiated by the fact that it preserves stories intact and analyses them as cases rather than fracturing them into segments to be coded (Riessman 2008). This aspect of narrative analysis led me to use a visual mapping tool instead of a line-by-line coding software. Personally, I felt more confident with organising data visually, possibly due to my background in design. I chose Visual Understanding Environment (VUE), an open-source mind-mapping software, which I used to create an individual map for each transcript. In these maps, each box represents a story, including my interpretation of the story and the notes I took in the course of the interview. Then, these boxes were clustered around emergent themes (see Figure 5.1).

In the fourth stage, I looked for the commonalities and differences across the 32 maps to understand what is shared and what is not, and more importantly, how and to what extent individual concerns can be used to construct a collective narrative. For example, the sharp distinction between the office and the shop floor environments was shared by almost all participants and this consensus led me to analyse office and shop floor stories in two separate chapters. I do not suggest that these were similar stories, there were many conflicting stories indeed. Still, they were heavily clustered around two umbrella themes: ‘relationships with blue-collar workers’ and ‘being a designer in interdisciplinary work settings’.

The final stage is the translation of stories. Interviews were conducted in Turkish and only the quotes used in the thesis were translated into English. During the analysis the language I used was English except the first two stages. Translation was a tough process, it was not always possible to find the equivalent word, phrase or sentence, and some statements could not be translated in a way that would have the same effect on the listener, particularly due to the structural differences between the two languages. However, I neither saw translation as a technical work that should be delivered to an expert, nor assumed a ‘correct’ way of translating the stories. Rather I took it as another stage of analysis through which it became possible to “open up ambiguities that get hidden in ‘same-language’ text”, since I had to stop and think about meanings which otherwise I could easily take for granted (Riessman 2008, 49; Temple and Young 2004). In the translation work I asked for the help of my partner, who is also a postgraduate student. Doing this, I both had a chance to discuss my interpretation of certain subtle expressions and incomplete sentences with another person whose native language is Turkish but academic language is English, and had my translation work checked by a second eye. Also, I provide the anonymised quotes in original language with the
Figure 5.1. A map created in the third stage of analysis.

The name of the participant was removed from the map.
corresponding number in Appendix B for the Turkish-speaking audience.

5.8. Conclusion

In this chapter I have outlined my research questions, methodological approach, the assumptions and intentions that informed this research, and the development of the research including the processes of research design, data gathering and analysis. I attempted to give a reflexive account of the research process discussing the issues that occurred throughout the process in order to help the reader judge the quality of this study. The following two chapters will present the findings. Chapter 6 will focus on participants’ experiences in the office environment, and explore how gender is relevant in their relationships with other industrial designers, as well as engineers and marketing people, with whom they have close interdisciplinary relations. Chapter 7 will examine the stories regarding industrial designers’ relationships with blue-collar workers on the shop floor, where the experience of gender is directly shaped by class relations.
Chapter 6

Office Stories: Gender and Occupation Dualisms in Interdisciplinary Relations

This chapter is the first of two chapters that examine the narratives constructed with the participants. In this chapter I will focus on the office stories and investigate first, the experiences of participants as professional workers in the office environment, and second, how and in what ways these experiences are patterned by gender. I start this chapter by exploring the contextual setting of this study as it appeared in the narratives. Doing this, one of my intentions is to make the contextual setting in which these narratives are generated clearer for my audience. Although the current situation of industrial design profession in Turkey was introduced in Chapter 4 by reviewing the literature, the existing literature relies on mostly questionnaire surveys, analysis of some institutional documents, design exhibitions and competitions, and observations in the field rather than the personal experiences of industrial design professionals. Following the methodological approach I adopt in this study, a second, and more important, intention is to refer to the participants themselves to understand their definition and interpretation of the conditions which shape their experiences as professionals.

6.1. Beginning a career as an industrial designer in the Turkish industry

In Chapter 4, I indicated that industrial design has come into prominence in Turkish industry, and manufacturing companies have started to show more interest in employing industrial designers and/or outsourcing design services since the beginning of the 2000s (Er 2002; Hasdoğan 2010; Özcan 2010). The change in the popularity and the recognition of the profession seems to be directly influential on the available career paths for participants. As I will demonstrate in the following two sections, there are significant differences between the experiences of the participants who entered the profession prior to 2000s and those during 2000s.
6.1.1. Lack of recognition and demand in industry prior to the 2000s

Participants who entered professional life before the 2000s underlined the lack of recognition of the industrial design profession and the scarcity of jobs that were available to them at that time in the Turkish industry. These participants commonly stated that due to this situation of the industrial design market there were not many job advertisements addressing industrial designers, and as a result, after graduating they could find jobs only through personal relationships. Some of them asked their relatives and acquaintances working in industry, particularly in large-scale manufacturing companies, if there were any suitable jobs, whilst some others assisted their tutors in the university who do consultancy work for mostly architecture or interior design projects. Many of those who found positions in manufacturing companies were the first industrial designers ever employed there.

Aysel, one of the first industrial designers in Turkey, indicated that when she graduated in the late 1970s, there were literally no manufacturers looking for an industrial designer. As she explained, she and her colleagues had the mission of introducing and promoting design and they struggled to convince companies that they would benefit from industrial designers.

It was difficult to be an industrial design in our time. Why? Because they didn’t have it anywhere. Umm I was graduated from Mimar Sinan University, I enrolled in year 72 [as one of the first students]. (...) Now, of course there was this disadvantage that no one knew what industrial design was. Nor did the companies know. No one knew. Therefore you are graduated, you are graduated as an industrial designer, and umm first of all, you have to explain what industrial design is to the companies you apply to. It’s because there is no one looking for an industrial designer, no one. [1]

Ziya, also being one of the first industrial design graduates in Turkey, recalled how he had worked as an interior designer for four years before finding a job in a large-scale sanitaryware manufacturing company, where he was the only industrial design graduate among ceramics graduates. He indicated that the company encountered industrial design by coincidence:

Now, actually it’s interesting. In that company, it was mostly ceramics graduates doing the design work. (...) Meanwhile, the niece/nephew of the company’s general manager was studying design in Mimar Sinan University. This is how he learns about design and looks for a designer for [the company]. So I started working there in 1979. [2]
Emine graduated in 1986. She indicated that at that time industrial design was still an unknown profession, and like Zehra, she underlined that in those years designers had to introduce and promote industrial design to industry. Nevertheless, she found a position as an industrial designer in a large-scale manufacturing company.

E: The year I started professional life is 87. From 87 perhaps to the end of the 90s another mission of ours was to [explain] what industrial design is, what the profession is, who the industrial designer is. Umm we spent most of our [professional] life explaining these. (laughs) (...)

P: Were you the first designer there?

E: Yes, I was the first designer.

P: Had you applied for a job advertisement?

E: Umm [the request came] from the upper management. I mean, as they were considering, like “We need a designer, let’s publish a job ad in a newspaper”, umm one of the top managers, now I don’t remember [his title], he knew my father. He talked to my father about me, like “Isn’t your daughter a designer?” (both laughing) I had such an obscure degree. (both laughing) I was abroad at that time. My father said, “You may not have another chance like this one. Now that you’re close to finishing your [Master’s degree] there, I am making a promise here, and I’ll set you an interview once you come back.” Umm I mean mine happened in a couple of minutes. They asked the schools I went to. Like “High school?” “American High School.” “University?” “METU.” They said, “OK”. (laughs) I mean, without going through a test, I started working as a designer right away. [3]

Whilst the company defines a need for an industrial designer, in the job interview the representatives of the company do not assess and evaluate her competence and success as a designer, e.g. by examining her portfolio, but rather employ her on the basis that she had degrees from prestigious schools. This attitude of the company can be linked to the fact that, as indicated by Emine herself, at that time it was not clear for employers yet what to expect from an industrial designer. The following quote by Canan, another woman designer who also entered professional life in the late 1980s, further supports this interpretation.

In that period there weren’t many job opportunities for industrial designers. I mean, umm, considering the job ads of that time, you had to apply to jobs for, say, graphic designers or umm (stops for a while) for engineers, as well. There weren’t many that aimed directly at industrial designers. So, I wasn’t applying through job ads. Umm, I was hearing about companies from
people, or from those who work there, and was going around asking whether they need designers. Umm I applied for [a position at a conglomerate]. Umm in that period [this conglomerate] had been setting up a design team to organise the industrial design work in its [manufacturing] companies. And for all these manufacturing companies two designers had been employed. Umm [one of] the designer[s] working there even told me, "Apply for the job only if you can do everything. Here they ask me to, umm say, to go and take photos, and also to sit and draw a pattern. They don’t know what a designer is. Consider this before you apply." [4]

Like Emine, she emphasised that even though large-scale companies had started to set up design teams by then, there was a lack of well-defined and formalised job descriptions for industrial designers. Instead, industrial designers were assigned any kind of task that was considered to be related to design in general. According to Canan’s account, this is why ‘being able to do any job’ was suggested as a necessary qualification for an industrial designer to find a job during the 1980s.

Berna also said,

I graduated in ‘88. In that period there were only a few places where you could enter and start working as a designer right away. I mean perhaps a few in the furniture sector. Apart from that, [I don’t know] whether there were a lot of mass-production companies doing R&D. In our summer practices or school trips [to factories] we used to see that there were not many people [working in that manner]. Designs were coming from abroad, and so on. There were only a few [job opportunities]. Thus we all turned to [other fields of design, such as graphic and interior]. [5]

Figen’s description of the mid 1990s’ industrial design market shows that her experiences as a new graduate were not much different from that of the older participants. She considers herself lucky that she was able to find a position as an industrial designer, since this was not possible for the majority of her classmates.

I graduated in ’95. It’s been 15 years now. Since ’95 [I’ve been working as a designer.] Actually maybe it was an opportunity that many of my classmates couldn’t get. I mean, many people don’t work as designers, because there were only a few people who could work as a designer after graduation. Either they get into computer-[related work], or there are those who do anything, under the ‘interior design’ title. This is why I consider myself a little lucky. Immediately after graduation, in November, I started to work in a design company. [6]
To summarise, participants who entered professional life before the 2000s highlighted three main problems they encountered as industrial designers. First, they experienced difficulties in finding a job in which they could use their professional knowledge, competence and skills. Second, they had to introduce and promote industrial design in the companies they worked. Third, due to the lack of stable and delineated roles and job definitions for industrial designers, even in large and highly bureaucratised companies, they had to take the responsibility for any kind of task associated with design in general by employers.

6.1.2. Expansion of the industrial design market during the 2000s

Narratives constructed with the participants who entered professional life during the 2000s present a more positive picture than what we see above. Some of these participants placed an emphasis on the improvement of the condition of industrial design market and the opportunities it offers for new graduates. For example, Umut narrated how he was surprised when, in 2001 summer, he saw the job advertisement by a large-scale company specifically addressing industrial designers.

Actually, there weren’t many job advertisements. I mean, there was the advertisement for the company where I’m currently working. And it surprised me a lot. I mean they were really looking for a product development expert. I was really surprised. When you consider the job advertisements of those days, there weren’t many such good ones. [7]

He goes on to say that he made two consecutive job interviews with two different companies, both of which offered good opportunities for an industrial designer. Umut is not the only participant who provides such a positive account. Indeed analysing the career entry stories, it is possible to see that the way in which younger participants talk about the industrial design market, the quantity and quality of available jobs differ from those who entered professional life prior to 2000s. The concerns of the older participants (being unable to find a job, struggling to introduce the profession and doing any kind of job) were not stressed by the younger ones that strongly. Still, these concerns do not completely disappear in the 2000s, and especially the latter two (struggling to introduce the profession and doing any kind of job) were mentioned by some participants who worked in small- and middle-scale manufacturing companies.
For example, Pelin described how she was asked to do the manufacturing drawings of old products in her first job in a furniture manufacturer.

The designer who worked before myself, I don't know where she graduated from, but she had done technical drawings, etc. [rather than designing products]. [But] I was rebellious. (laughs) For example, when I went there, there were a lot of chairs. They told me, "Sit down and make technical drawings of these." It was very annoying, this is why I rebelled, I said, "I won't draw these. If you employed me as an industrial designer, I only make drawings of my designs. You didn't employ me as a draughtsperson. If you like, employ a draughtsperson, who can sit and make the technical drawings of your old models." [8]

Nevzat, another designer who entered work life in the 2000s, also stated that he was responsible for every task that can be categorised as the designer's work in general.

There was a graphic designer at the beginning, they fired him. I was also in charge of him. I mean, I was in charge of all design work, OK? I was also in charge of the graphic designer, the work the graphic designer did. I mean I was supervising the work. I was also in charge of product [design], and the architecture project [that is, the design of the new factory building]. I mean such ridiculous things happened. [9]

Another story is by Serpil, who was the first industrial designer ever employed by the small-scale company where she worked. Her story provides an example of how designers still had to introduce and promote design in the 2000s. Below she explains how it took a year for her employers to see the difference between art and industrial design work.

You know, there is also the tendency to— You know, when you say design, people think of you as a painter etc. You know, they think like "What will you do, are you just drawing pictures?" etc. Of course, I get that, they don't have the awareness, people in general don't have the awareness. Later for example I made a design for them. I mean, we made a front panel design for a company. They really liked the design. I mean, a year later, it entered production. It was exhibited in [a prestigious trade fair] etc. After that job, [the bosses'] view of design changed incredibly. They realised that industrial design could make, you know, real difference, that it's an important thing. [10]

Thus, although these participants did not place emphasis on being unable to find a job, they expressed dissatisfactions with the current industrial design market in Turkey like their older colleagues did, particularly with reference to the lower status they and their job hold in the
organisational hierarchy compared to their non-designer colleagues, usually engineers and marketing people, with whom they work closely. I will examine these issues in detail throughout this chapter. But before moving to the stories regarding the relatively lower professional status of industrial designers in interdisciplinary work environments, in the following section I will explore to what extent participants consider individual gender, being a woman and a man, relevant to the career opportunities available for themselves.

6.2. The experiences of gender in/equality in the pursuit of a career in industrial design

Overall, there was a tendency among the women participants who own their design consultancies or who work in large-scale companies in large cities, to indicate that gender has rarely, or never, been a source of inequality in the office. As I will examine below further, there were only two women participants, working in the same company, who said that they had serious problems with their male colleagues in the design team. Also another woman participant indicated that her entry to a male-only design team was challenging at the beginning, but after a short time the hostile attitude and the prejudice towards her disappeared, and after her other women designers joined the team as well (see Section 6.2.1). Apart from these, the attitude of the women participants was very clear: There are no barriers or poor career opportunities for women in industrial design profession worth mentioning, and it is being an industrial designer rather than a woman that is the source of the problems they experience in professional life.

In the interviews in which ‘individual gender’ was completely absent, I asked some questions to incorporate it into our conversation. For example, after listening to the problems Melek encountered as a freelance industrial designer in her projects with a number of SMEs, I asked,

P: So how much of the problems you experienced, umm, do you think can be related for example to your being a woman?

M: None.

P: None. So, umm, when you worked with industry as a woman, has it never came back to you as a disadvantage?
As evident in this example, such questions did not work much to reveal stories regarding gender issues, when the participant was very clear about the irrelevance of gender to the problems she experienced. The situation was similar with Emine, another freelance designer. She also emphasised that she did not have any gender-based problems that are important for her career. According to her, the problems she faced were related to first of all her being a designer. Like in my conversation with Melek, I asked to Emine whether or not being a woman was influential on the unpleasant experiences with her clients. She responded to my question as follows:

These people didn’t even know how to work with a designer, let alone working with a woman. And I’ve had such problems mainly in those companies that we call SMEs. If I give you some statistics, so far I’ve come upon such problems only in 5-6 of the 100 projects that I’ve done. On the contrary, with certain companies I’ve seen the advantages of being a woman more. It’s because most men have the idea that women are more hardworking and truer to their word. Umm, that’s why I haven’t seen at all the disadvantages of being the opposite sex. In fact, I can tell you something very interesting. Umm, of course as the policies and political [tendencies] change, for example you look at the company at first and don’t suspect anything, but when you see their insides, you see that it’s slightly Islamic capital. Even with them I haven’t seen any disadvantage in their work with me, I mean in their desire to work with me. But haven’t I experienced anything? Yes, I did, but it was quite rare. [12]

Canan is a retired woman industrial designer who started her career in the mid 1980s in Turkey. In our interview, drawing on her two decades of experience in a large-scale male-engineer-dominated company, she told the narrative of the designer’s struggle which is now over to a certain extent with a happy ending. At the end of the interview, in a hesitant manner she said, “I don’t know if you can come up with anything by proceeding in this manner. (laughs) I don’t mean to meddle but—” [13]. She cautioned that I would have difficulties in proving that gender is an issue in the experiences of industrial designers, and explained why she thinks so:

I mean, in a large company the most crucial concern for designers is to communicate what design is, and to prove themselves. I mean, before proving themselves, most people had to prove design. Now that design is better known today, we need to prove ourselves as individuals. (...) Today [companies] have got past the question of whether a project needs
designers. Every project has a designer now, and they even want one, looking for one if there are not enough [designers]. Now what is more and more important is whether a specific designer is good, whether he or she is useful to them. It’s only now that the designer’s being a man or a woman can be [an issue]. [14]

This quotation well illustrates the shared belief among most of the women participants, particularly of those who have experienced working as an in-house designer in manufacturing companies at any point in their career: It is not being a woman, but an industrial designer in an interdisciplinary environment that is the primary source of participants’ disadvantaged status in the office. I will examine this argument in detail throughout this chapter.

Like women participants, men also explicitly stated that in the office environment gender is not the primary source of problems. Osman started the interview with the following sentences:

> Every place, every city has its own discriminations in the workplace. I mean, because of this or that, because of one of your characteristics, you can be either kept or pushed away. There’s always a discrimination, a trouble, which appears somehow because of the conflict between the characteristics of that workplace and those of yourself. This can sometimes be about women and men, about sexuality. It can be about one’s social status, cultural status, beliefs, it can be anything. [15]

In the interviews I noticed that the aim of this study was understood mainly in two different ways by the male participants. Some of them seemed to assume that as a feminist researcher I was trying to understand how they treat their female colleagues at work. Throughout the interview these participants attempted to assure me that they were definitely egalitarian men and would never discriminate against women. Some others shared the problems they experienced as men with me, e.g. how they feel responsible for finding well-paid jobs since they have to take care of their families. Regarding the first group, it was interesting to see how some egalitarian comments were followed by surprisingly discriminatory ones. For example, in the below quote Ali starts by expressing his disapproval of presenting women designers as ‘women designers’ rather than ‘designers’:

There are only a few women designers in automotive [industry], among car designers. Umm if you are following the literature, you know that Volvo launched a model three to four years ago. It really annoyed me. By saying
“Women designed a car” umm I think Volvo used this issue in an oversimplified, exploitative way. In the media it’s presented like “You little rascals!” (in an affectionate and appreciative sense). [16]

However, he concludes his words with the following sentence:

Put a number of cars in front of me, and from ten kilometres away I can tell which one’s being driven by a woman and which one by a man. But if they do it with products, I don’t think it’s possible to tell which one’s designed by a woman and which one by a man. [17]

He disagrees with a view that portrays men as ‘gender authentic’ and women as ‘gender inauthentic’ for designing cars. He argues against the underestimation of women’s professional competence. But at the same time referring to the ‘woman driver’ stereotype, he reproduces some gender associations prevalent in the society, which cast women in inferior positions. In order words, he disputes a discriminatory assumption by claiming another one.

Another example is from the interview with Mehmet. Recalling his previous job in an exhibition design consultancy, he indicates that he was glad that two women designers joined the team when he was working there with another male designer:

Later, two girls were hired, and we were already two men. In total we were four people. We made a very nice team. A very modern mentality dominated that environment. (...) Personally, I prefer environments where there are both sexes, anyway. [18]

He states that he prefers mixed-gender to male-only work environments in this quote in an explicit manner. But, as he goes on describing his job there, he says,

M: [In addition to design work,] I also used to visit the clients. Umm it was like, there had to be a woman designer beside me, so we used to go as two people.

P: Why did you have to have a woman with you?

M: To look rich, so that the company looks more prestigious, to somehow be more presentable... OK, we have the man, I mean he’s the designer, but if there can be a second person, especially a woman, to represent the company, we thought it was better that way. [19]
He prefers to work in a mixed-gender environment, but ascribes different roles to women and men in the design team. He defines the male designer as ‘the designer’, whilst the female designer as his companion. In this gendered division of labour, according to him, it is not what she does as a professional, but what she symbolises as a woman that matters for the consultancy. He assigns his female colleague(s) a passive role, which is to improve the image of the company just being present next to him, whilst describes his role as being an active professional, who does the ‘real’ work. Both of these stories illustrate how explicit sexism, gender bias and discriminatory behaviour are disapproved of in workplaces, yet they persist “in their subtle forms, constituted through non-reflexive practising, are rarely recognized or condemned.” (Martin 2006, 255) In both accounts it is implied that men are superior to women in one way or the other.

In this section I have presented participants’ overall approach to the gender in/equality question in the industrial design profession. Their denial of gender’s significance parallels the absence of gender in the stories about career beginnings that I discussed in the previous two sections. In the following two sections I will deepen my exploration of the in/equality of career opportunities in the profession for men and women with a closer focus on the attitudes of employers and managers in the recruitment process (see Section 6.2.1), and the division of labour among industrial designers (see Section 6.2.2).

6.2.1. The attitudes of employers and managers

As we talked about the participants’ work experiences, usually in a chronological order starting from their graduation, I expressed my interest also in the job advertisements they applied for or published, and the job interviews they attended as a candidate or as an employer. I had these two questions in mind: Did the job advertisements address a particular sex? Did gender become an issue in the job interviews?

Cahide works in a large-scale manufacturing company, which has a large design team consisting of five male and eight female industrial designers. When she stated that she participated in the last couple of job interviews to select the new industrial designers, I asked her,
P: So has gender ever been an issue in recruiting these people? Has there ever been a mention of it?

C: I mean there wasn’t actually a mention of it. But maybe it’s shaped after the actual people who apply for the job. (...) You know everybody in Turkey says there aren’t enough jobs and so on... It seems nobody is looking for jobs (laughs). Because amongst the people who came to the interview, I mean we didn’t look at them as men or women, most were not very keen, or had issues. I mean for example they haven’t done anything for the last five years etc.. This kind of stuff arouses suspicion. You ask them, “What have you done for the last five years?”, because there’s nothing on the CV, “What have you done in this period?” “Umm, I worked for two months in a place, then didn’t want to work at all, then three years later I worked [at another place] for a month.” [20]

According to her, gender was not relevant to their selection, and rather they were concerned with the difficulty of finding a designer with a good CV.

In Banu’s story, her being a woman is discussed in a job interview with an automotive company, since at the moment there were no women working in the Research and Development Department:

B: Umm, when I went to the interview, I presented my portfolio. [The executive] was surprised when he saw it. He said “When I’d called you, [I didn’t expect to hire you at all], but I’m amazed at your portfolio.” That’s because it’s rare for a woman to be interested in automotive industry, to design that kind of stuff. At the university I’d taken automotive projects, too, like car seats, cars, that sort of projects. It was an R&D team made up of, say, 35-40 people and I was the first woman employee in there. They’ve never hired a woman, either an engineer or a designer.

P: Do you mean there were applicants but they weren’t hired?

B: Umm, I don’t know whether there were applicants but generally it’s men that apply there. But I mean he said things like “We called you to the interview only because you had a strong reference”. And also they thought it’d be difficult for women to work in a, you know, male-dominated environment. [21]

Although the manager confessed that he invited Banu only because she was recommended by someone whose recommendation he could not reject, he decided to employ her since he was impressed by her previous design projects. So, in this story, gender matters, but not as much as the quality of the designer’s work. Then I asked her whether being the only woman
in the Research and Development Department had any disadvantages for her.

There wasn’t any disadvantage. (...) You know, umm, it may be because of my own work, I don’t know that. You know, the manager gave me praise for my talent and so on. So there wasn’t anything negative. For example they sent only me to a trade fair then. It was the first time they took a designer to a fair. I mean, there were other [designers] working there since before me, and they could have gone. But they didn’t refuse to take me because I’m a woman. [22]

Again, Banu underlined that it was her success, skills and good work, not her gender, that shaped her relations with her manager and her career in the company.

Some of the participants who work in manufacturing companies indicated that their job also includes visiting the shop floor or the model production workshop to supervise the manual workers who build the models of their designs. As I will discuss in Chapter 7, in contrast to the office, in the stories the production site was described as a work environment where individual gender becomes an important issue. It was asserted that when women industrial designers enter the shop floor, they encounter a resistance of some of the workers towards their superior position. Listening to such stories I wondered whether employers expressed any hesitations regarding employing women designers for such positions.

Serpil works in a small-scale manufacturing company in an industrial district. She said that she was the first professional worker who has ever been employed by that company. Also, she was the only woman who has ever entered the shop floor there. Her unpleasant experiences with the shop floor workers, who did not recognise her superior position and ignored the tasks she assigned them for a long time, was the main topic of our interview. She said that at some point, when there were delays in the projects, their boss told the workers off because of their attitude towards her, and they had to cooperate with her from then on. I asked her,

P: So did it come up in the job interview? I mean, like “This is the first time a woman is ever going to work here” and so forth...

S: No, actually they didn’t ask that. Nothing happened of that sort.
P: So, the bosses didn’t have such a concern?

S: No, no, they didn’t have any concerns. It’s because they were grateful that they could find an industrial designer who accepted to come to [this industrial district] and work in a manufacturer of curtain accessories. You see, it's a really slim chance. And I, too, preferred to work there because my house was very close to there at the time. [23]

These three examples represent the overall situation appears in the stories: Employers do not prioritise the designer’s gender when evaluating the candidates. In most cases it is the CV, design portfolio and the recommendations of previous employers that were taken into consideration in the recruitment process. However, I encountered a couple of stories that demonstrate how any dissatisfaction with a woman designer’s behaviours, skills and performance can easily be linked to her gender by the employers and male designers working with her in male-dominated workplaces; and how such a link can quickly result in a prejudice against ‘women designers’ in general.

The following story well illustrates this. Ozan is a male designer working in an engineer- and male-dominated company in the automotive industry. He started to work in that company after a woman designer, Feride, who had been his classmate at university. He said,

I think [Feride] worked here for around a year, or a year and a half. But [I’ve been told that] she didn’t get along with Caner, who is now my boss. Caner used to have a lot of problems, so he tells me. He tells me that Feride was never interested in the work, was occupied with other things, and neglected her work, and therefore that he used to have problems. He still tells me about it. This is why they parted ways with Feride. Then I came here anyway. So far we haven’t had any big trouble. And I’ve been working here for three and a half years. Now we hired a colleague, he is a man. And Caner has this very clear thought: “It’s difficult to work with a woman. I wouldn’t consider working with a woman.” It’s very much so. But he doesn’t realise that it’s because of... I was together with Feride when she was a student. I always found it’s weird to think of her as a designer at all. That’s because, even then, she wasn’t interested in the classes or didn’t care about them. Her only goal was to earn money, like “OK, we’re already here, so let’s finish this” and so on. Since it was like that, she isn’t a very good example obviously. I don’t think you can generalise like this. But [this kind of thinking] still exists, and it’s firmly established there. [24]

In a male-engineer-dominated work environment, Feride’s low performance and disinterest in the job were explained by her being a woman, possibly since ‘being a woman’ was the most visible feature that distinguishes her from other technological workers. This story shows that
in a male-dominated workplace only one unsuccessful work relationship with a woman can result in the negative stereotyping of women, which may, in turn, influence the attitude of the employer towards women, as we see in the following story.

Arzu applied for a position in a prestigious company, which offers good career opportunities to industrial designers. She underlined that in that time the company had a male-only industrial design team. This was because following some unpleasant experiences with a woman industrial designer in the past, the members of the design team reported to the management that they did not want to have women in the team any more. Arzu described the job interview:

When I went to the interview, the department didn’t have a manager. So I was interviewed by the two senior designers. They took me to the manager’s room and we talked for about two and a half hours. I had sweated a litre when I left. I was extremely frustrated. I had went there with enthusiasm, portfolio in hand. But they didn't even look at my portfolio. And they actually said, "We don't want to work with a woman designer. Women can't design." Of course, you know, first I tried to explain myself, and so on, and they said like, “Yes, yes, sure”, but there's nothing, I mean, it's obvious that they're not interested. (...) Anyway, then, umm, I mean, after they listened to me, they said, "We don't think we can work together in harmony. We had a bad experience. And, you see, this sector isn't really appropriate for women. So, why don't you forget about this?" [25]

She indicated that although the company did not have such a discriminatory attitude, the two senior designers, who had the authority to give the decision in the absence of a manager, had decided not to accept any women into the design team. However, finally they had to accept her, since she had good references and there was not a strong argument they could offer to deny her the position. Still, Arzu recalled that the first couple of months were too challenging for her, and she had to work hard to prove her competence to those two designers.

Couple of years after me, a girl was hired there. Later on another girl was hired and this policy changed. And we talked about this openly. That person who had previously told me, "We don't want to hire [women]", he said, "I had prejudices, I was a boor." He says things like that and laughs about it. (both laughing) [He says,] “That was because I had this bad experience. But after you, we saw in time that...“. You know, I'm hardworking, too. If I'm into something, I do overtime for days, until I finish it. He said, "We saw that it goes well, so we somehow left aside our prejudice.” [26]
At the end of the story, she emphasised that gender was not an issue any more in the relationships in the design team. She discussed that the concerns in the office had completely changed especially when a new (mixed-gender) design team had been transferred from another company with their own manager, Refik. Then the two teams were united, and Refik was appointed as the manager of the new enlarged design team. Following this, she said, the design team was divided into two conflicting groups as old members and new comers, who were favoured by the new manager, and gender became irrelevant to the problems they had among the designers.

Thus, looking at the overall picture, gender does not appear as a significant concern in the recruitment process. However, as the last two stories showed, in male-dominated work environments any dissatisfactions with a woman can be sufficient for the employers and managers to generalise that it is difficult to work with women. Such generalisations may lead to prejudices against women, which tend to privilege men’s work, facilitating their recruitment, whilst limiting opportunities and building new barriers to overcome for women. I will explore the relevance of gender to division of labour among designers in the following section.

6.2.2. Division of labour among team members

Hilal and Gonca work in the same manufacturing company, which has a large design team. They are both respectively senior members of the team with work experience of more than half a decade. They both stated that there was a tension between the senior male and female members of the team, particularly due to the attitude of the team leader, who is also a man, that favours the former. As Hilal describes below, the most salient example of this situation is that one of these men got promotion at the same time as Hilal and Gonca, whilst according to the procedures he had to wait for another couple of years.

H: You know, actually you can see very clearly now that men and women started to split into two camps. But which men and which women? Between senior women like me who have been working there for five or six years, and, you know, the men’s group, most of whom are senior anyways. I don’t know whether it’s about the commonalities, the things you share, or it’s about personalities. I mean there are some problems there.
P: Can you give me an example?

H: For example there’s this man who was hired recently. He’d worked in this company previously, was dismissed for certain reasons, worked in another place and then was rehired by our manager’s stately obstinacy. For example when that colleague had first started working here, I mean we waited for around five years to become third level designers, and he started as a third level designer from the outset. Six months later we got our promotion, and he was, too, in the sixth month of this employment brought to the same level as us. For example this was not supposed to happen like that. I mean you think you don’t deserve this kind of thing. But I personally think that it’s because he’s a man. [27]

After telling the same story, Gonca gave another example regarding the division of labour in the team.

I mean for example you can clearly see favouritism. Some important projects— For example, an important project was given to those two men when there are five women plus those two men in the whole group. And this was despite the fact that one of them was very junior and the other one at a much higher position. So there was also a woman at that higher position. Why wasn’t [the project] given to those two? [28]

In the interviews, they both indicated that although it is not explicitly discussed in the office, all of the senior women were aware of that men were favoured by the team leader. Still, throughout our conversations both women underlined a couple of times that they had good relationships with the team leader, and he always respected them and valued their work as well.

Apart from these examples I did not encounter any stories mentioning gender as an issue in promotion, reward or division of labour. Nor was I told any stories regarding glass ceiling or a gender-based wage gap. Instead, among in-house designers, six women stated that being the most senior members, they led the design teams in the companies they worked. Moreover, two women described how they were assigned the role of team leader, even though they were less experienced than the other members of the design teams. Below Belgin explains why she was promoted to that position whilst she was the newest member of the team:

For example Suna, our previous team leader, takes the moulds for our
models from us and checks them. We draw it, for example on the computer, and create a mould for our model. She checks them and sends them to the modelling machine. She oversees the modelling machine, and if it's broken, she tries to fix it. If it doesn't work, she calls the company, who then sends people to repair it and so on. I also tried to help her now and then. Others don't want to get involved in it, because you know, with these kind of stuff, whoever gets mixed up in it becomes the one responsible. So no one concerned themselves with it, they all avoided it. Therefore when Suna gave her resignation, they directly, automatically said [to me], “You're the new team leader”. Others, who were more senior than me, were of course quite resentful. [29]

She indicated that especially the male designer who was the oldest member of the design team initially complained a great deal regarding her unexpected promotion. I asked her if her gender was influential on this situation. She said,

No, it wasn't because he's a man, but like “I'm more senior, why does she get to be the team leader?”. I mean it went as far as the salaries. There were arguments like, “Why is she paid more money, while I'm paid this much? I'm as senior as her, I have to be paid as much.” So in the end the boss had to intervene. He arranged a meeting and snapped at us like, “Where do these arguments come from?” [30]

So, according to Belgin, the disapproval of her promotion by her colleagues, both men and women, cannot be linked to gender issues. Rather, the main concern was that they did not believe that being the most junior member of the team she deserved being promoted to the leader position and being paid a higher salary than the rest of the team.

Ezgi is the second participant who was promoted to a higher managerial position although she joined the design team much later than Erhan, a male designer who had been the leader of the design team for a couple of years. Initially she started at the same level as Erhan, but it was decided in the job interview that she would be the director of the Design Department in the following months. She recalled that there were three concerns discussed briefly regarding her prospective position in the interview: her being a new-comer, being young and being a woman, as opposed to Erhan’s being experienced in the company, and possibly waiting to be promoted for that position, being older than her and being a man. So, she was asked whether or not she could manage this situation, and when she replied that she could the employer did not hesitate to employ her. Then I asked her if she had any problems with Erhan. She said that at the beginning there was a tension between them but it was over in
time:

But, umm, it’s because, umm, I think it’s because [Erhan] is a bit pragmatist. You see, he doesn’t want to do the job I do anyway. I mean I have to talk on the phone for hours, organise things, umm, if necessary, I have to work one-to-one with the boss or with the director and solve all the problems first-hand. It isn’t an easy job, you see. I can work 24 hours a day for example. There were many times when I had to work 24 hours a day. He’d rather come to work in the morning, then go back home in the evening. He prefers to pay attention to his son. [31]

Therefore, she believes that there is a silent agreement between Erhan and herself, since he benefits from this situation as well, and compensates for his inferior position with his unwillingness to spend as much time as she does in the workplace.

To summarise, stories show that according to women participants, the industrial design profession offers equal opportunities to them with men, in terms of both getting a job and promotion, and division of labour. Although gender became relevant in some cases in a way that privileges men, women participants did not consider it a primary and unalterable issue that affects their career. As I argued above (see Section 6.2.1), and as I will go on discussing below, the shared belief among most of the women participants who experienced working as an in-house designer in interdisciplinary work settings, was that it is not being a woman but an industrial designer that is the primary source of their disadvantaged status as a professional worker. In the following section I will start to explore this claim of participants, focusing on the lower status of industrial designer compared to other professionals in interdisciplinary work settings.

6.3. Status of industrial designers and interdisciplinary work settings

Regarding interdisciplinary work settings, in the analysis three main concerns, closely linked to each other, came up: First, the industrial designer’s job is not seen as important as that of engineers and marketing people. It is not seen as part of the core business that is indispensable for the company. Second, and as a result of this, designers are not paid as much as their counterparts in engineering and marketing, at any levels of their career. The following story told by Cengiz, a male freelance industrial designer, illustrates both of these
Demir is an engineer colleague of mine from my previous workplace. When he left there, he launched his own business. Well, they’re designing home security and smart home systems. And he wanted me to do the hardware side of the project. First I said, “OK”, but later we noticed that it was actually all engineering work. And my wife, Esin, is an engineer. She told me, “I can do this very easily”. Anyway, we spoke with Demir and said, “Esin will do the [mechanical] design work, and I’ll manage visual form”. Esin said, “My price is 3000 liras”. He said, “OK”, without much thought. And I can say that she gave this work a total of three days, including checks and later corrections. And she took 3000 liras for this. Later Demir told me, “Our software needs a user interface”. So I said, “I’ll do it for 3000 liras”. But Demir found it expensive. “Never mind, it’s too much for us”, he said. [Later he himself did the interface design.] And they had such a horrible interface in the end. They’ve made icons out of photographs they downloaded from the Internet! You know, he found the price for the interface [design] too much, but I was going to spend my month for it. Esin earned the same money in three days and they didn’t even find it expensive. I mean the work we do is not visible at all. I don’t know, do they think we just make it up and say “I made a design”? (laughs) [32]

This story well exemplifies how valuable is the engineer’s work as opposed to the industrial designer’s work. Cengiz complains that even though the work he would do was more labour-intensive and time consuming compared to Esin’s, it was underestimated by Demir. Demir immediately accepted the amount Esin charged, whilst he attempted to create the user interface himself without consulting a professional designer to minimise the expenses of the project.

Thirdly, participants stated that available managerial positions are limited for in-house industrial designers. This means that designers are usually overseen by non-designers at the upper levels of management, whilst they cannot become, for example, the director of the Research and Development Department when it includes engineers as well as industrial designers. As Seher argues below, like in the previous story, this is also due to the valuing of the engineer’s contribution and work over the designer’s.

We are one grade lower than engineers. I mean, we don’t get the money engineers get. We fought for it, too. You know, we have a four-year degree, too, and it was our choice to study it. I mean, [we had studied design] not because we are inferior. Or the company doesn’t benefit less from us. I mean, we tried to express this. But the company’s approach to industrial
Esra described the situation in the company from which she retired after two decades. According to her, the main concern of the top management was to prevent designers from being managers of engineers.

E: Engineers are promoted, say, every five years, whilst umm designers are promoted, I don't know, every seven or eight years. And there are only three grades available for designers, they can't rise further.

P: Why? How do they explain it?

E: They don't. We had a lot of arguments. (…) I mean, when I was the manager [of the design team], by title, umm I got involved in writing those procedures. (…) Umm I would write the standard thing: a procedure of promotion process that consists of five grades. It would go to upper management, three [highest] grades would immediately be deleted, saying that a designer can’t rise that much. This is because in these grades you become a manager, and as a manager you can have engineers under you. It is not to give you [such an opportunity]. [34]

In line with the studies examined in Chapter 3, which have been concerned with the lower prestige and recognition of design professions (Molotch 2003, Smith and Whitfield 2005, also see Section 3.1), participants suggested that their lower status in the organisational hierarchy was closely related to how their occupation was perceived by those outside of the occupation, including a general lack of awareness and knowledge of what designers do.

So, why is it necessary to examine this issue with a focus on gender whereas participants assert that women designers do not experience any gender-related problems in the office? First of all, status, hierarchy and occupation, which appear in the problem defined by the participants, are themselves gendered. As the gendered organisations approach enabled us to see, gender is not primarily about individuals, nor is it localised in discriminatory practices. Rather it is the organising principle of work and organisations. Thus, what is defined as real work, who is appropriate for which roles, and which groups have power and privilege within the organisation are patterned through a symbolic distinction between masculine and feminine as well as the division of labour between men and women (Acker 1990; Britton 2000; Ely and Meyerson 2000). As I discussed in Chapter 2, and as I will discuss in this chapter further, there is an ideal image defined for each role and this image is identified with
certain characteristics, skills and abilities. This image sets the standards; and those who conform to this image are rewarded with higher and powerful positions in the organisational hierarchy, whereas those who do not are considered to be relatively ‘unsuitable’ for such positions (Bird 2003; Peterson 2010). Collective stories of participants demonstrate that in contrast to their non-designer colleagues, industrial designers have difficulties in proving their competence for managerial roles, as Seher and Esra illustrated above. They suggest that their occupational image is the primary reason for their ‘inauthenticity’ for the roles that carry power and authority. Considering the strongly masculine nature of such roles, it is important to examine the interplay between the image of the designer and non-designer, and their intersection with various forms of masculinity and femininity for a deeper understanding of the lower status of designers among professional workers in interdisciplinary work environments.

At this point it is necessary to go back to individual narratives of designers and investigate the occupational image of industrial designer through a gender lens.

6.4. The occupational image of industrial design

From the analysis of stories, I identified three aspects of the image of industrial design: First, the casual dress and appearance norms shared among designers, which distinguish them from other professional groups in organisations; second, the association of industrial designer’s work with art and aesthetics, which marks it as a ‘soft’ expertise in the interdisciplinary environment; and third, the assumption that industrial designers do not prioritise earning money.

6.4.1. “I was expecting you to have blue hair”: an unconventional professional image

Participants commonly stated that in the companies they worked designers were not usually expected to be stuck in formal dress and had shaved or made-up faces. Unlike their non-designer colleagues, they could enjoy casual dress – even, in some organisations, shorts, t-shirts and trainers. For example, Banu, a furniture designer, who was in jeans and a t-shirt
when I went to her office to interview her, says:

For example, jeans are not allowed, neither in my previous workplace, nor here. But when you wear jeans, [they don't ask you] why you wore them; even if they make cynical remarks sometimes, they can accept it. But it becomes a bigger issue if a marketing person wears jeans. [35]

In this example designers, as a group, introduce themselves to the company with this casual culture. Management is convinced that this is what being a designer means and allows them to bring this image into the organisation even though it is not completely approved of in the organisational culture.

However, adopting a casual dress style does not merely mean wearing informal clothes. It also includes adopting stylistic preferences, which express designers’ individual taste, creativity and difference from other people. Leman indicated that in the job interview the general manager was surprised to see her and the other designer, Zuhal, look like ‘ordinary’ people.

In her job interview the general manager told Zuhal, “I was expecting you to have blue hair, but you aren’t like that,” and so on. There were such dialogues in my [job interview], too. People outside our discipline really think that we are extraordinary people. (...) [But] we are ordinary people, too. Our hair isn’t blue. We don’t have piercings on weird places. [36]

Ozan, a male designer working in the automotive industry, stated that in the company in which he works, there are neither any formal dress codes that workers have to follow, nor any preferences expressed by managers regarding workers’ dress and appearance. Enjoying this freedom, Ozan grows an unusually shaped beard and wears jeans and t-shirts in the workplace. He believes that ‘being different’ suits the professional image of industrial designer and adopting this image marks him as a successful designer. He said,

Of course you attract attention, whether you like it or not. It is something that I do purposefully, actually something that I want, too. Here [in this company], for example, my relationship with the bosses can be more favourable. This is because they know you are creative, that you are a different person from the others, so they treat you differently, they are curious about you. [37]
As we talked further on the dress and appearance norms, he referred to his previous workplace as well. He indicated that there, all designers used to dress in a casual style. Only the team leaders, he said, would “try to” wear shirt and more formal trousers instead of jeans. However, regarding engineers he said,

O: [Engineers] always wear formal trousers and shirts. I mean, it is always a bit like that. Engineers, also in the company where I work now, dress rather in this way. I don’t know why. Actually no one forces them to do so.

P: Do you mean they can dress as you do if they like?

O: They can. Actually they do sometimes. But I think it’s like a secret agreement. I mean there is this idea, coming from somewhere, that anyone who wants to be manager should dress more properly. And it’s like, the people who get that [message] say, “Yes, I want that, too!” and start behaving accordingly. [38]

Saying this, Ozan underlines the relationship between dress choices and one’s image as a professional worker. Industrial designers can be tolerated as in Banu’s story, and can even be expected to express their individual style as we see in Leman’s story (see also Nixon and Crewe 2004). Ozan’s story suggests further that looking different from others can improve their images as designers. However, his story also suggests that when it comes to competing for managerial positions, one has to look like a manager to be considered suitable for such positions. Being the primary candidates for managerial positions, engineers pay attention to presenting themselves in business dress, which downplays individual identity, instead creating a corporate impression, and establishes the image of its wearer as business-oriented and efficient (Dellinger 2002).

Sedef described how her unconventional image is appreciated as long as she is within the borders of the design office, but seen as an improper way of presenting oneself in the formal environment, i.e. in the meetings with managers. Like her, some of the other participants also stated that they pay attention to looking more formal when they attend a meeting in the company with managers or outside the company with customers. Sedef said,

Now we have this freedom and of course we often make use of it. (...) It has its advantages. I mean, as I said, because they view us as artists, they say things like "You are creating [things]." But of course we should put it in this
way: It’s like this when you’re chatting with colleagues, but when it’s about business—(...) I mean, when you wear something beautiful, different, they say “Oh, it’s beautiful”. But when you attend the meeting, they say, “I don’t want this, go change.” [39]

The incompatibility between the casual image of the designer and the formal image of the ‘proper’ professional worker was raised by a number of participants, especially by those who work in large-scale and corporate companies. They argued that the way in which industrial designers present themselves was highly influential on their mismatch with this image and it is the reason behind their inferior status in interdisciplinary work environments. In order to cope with this situation, they suggested that designers should replace their casual clothes with business attire, and look like ‘one of them’. For example, Hatice described how, in the last couple of years in her workplace, the dress norms for designers had changed dramatically from shorts and sandals to suits, through the efforts of the leader of the design team.

They say that the designers before us used to wear shorts, come to work with sandals and so on. Everyone says they were crazy, they were just that way... But people also liked their being that way. They used to say, “This is what we are,” and come to work in these clothes. But the current leader of the design team, Bora, believes that the person you call a designer has to express herself, so she should dress smartly. When you attend a meeting, who will take you seriously if you go there wearing sandals? Then you would only be the producer, the creator. But you are also managing, leading things. But, he thought, if you do that, you can never become the boss. This is why he always wore his suit, always wore his tie, you know, he always tried to dress properly. [40]

In this story, like Ozan’s, business dress is presented as the symbol of competence for managerial roles. Hatice states that, according to Bora, this very casual dress style is the obstacle that prevents industrial designers from looking appropriate for managerial positions, although designers have nothing less than their non-designer colleagues in terms of skills and competence. The only problem is that designers do not know how to ‘sell themselves’. Non-designers, on the other hand, match the image of the professional manager in their suits, which convey higher authority and professional status (Collinson and Hearn 2005; Rafaeli and Pratt 1993).

As a number of researchers have noted, business dress carries powerful symbolisms regarding not only status and authority, but also a dominant form of masculinity, which is another element of professional manager’s image. Lester (2008), for example, discusses how
women academics feel that they have to dress professionally in order to be respected by their students and colleagues, whilst they believed that men were not expected to do that. Simpson (2009) also demonstrates that the professional identity of secondary school teaching, which is defined as being in suits and being experts in certain subjects, is perceived as more masculine when compared to the ‘non-serious’ image of primary school teaching. Similarly, replacing the casual dress with suits, Bora also possesses a more masculine look, which makes him seem not only capable of designing things, but also as a competent and ‘serious’ worker who is capable of management and leadership, like the engineers in Ozan’s above story.

Leman supports this argument. She works in a large-scale company. When we met for the interview in her office she was on the verge of becoming the leader of the design team. She said that it was an interesting time to talk about her job, as the design department was being reshaped and repositioned in the organisational structure. From then on, designers would take a more important role in product development processes. This is a big step for the industrial designer's position in the company, and like Hatice’s leader, Leman believes that looking like ‘one of them’ has been the key to take this step.

[In this company] there is this attitude of, you know, darker dresses, more formal dresses, like the one on me right now. It’s not very strict but they have their expectations. What would happen if I dressed [more casual]? I don’t really think that my director would say anything to me. But when you go to a meeting, it really gives rise to prejudice in people, and things like not taking the designer seriously. Like, “They are designers, they live on top of the clouds, they live in a different world”. I mean, to make them realise how much they profit from the designer’s services, it is useful to look a bit like they do. Otherwise they are a little bit afraid of the designer. They do not think that the designer can do work. They just think that the designer draws well, says stuff, and that’s all. But I mean, if engineer does the technique, manufacturing person does manufacturing, marketing person does marketing, what is designer going to do? [41]

Thus, Leman similarly indicates that ‘who wears what’ is highly influential on the assumptions regarding who does ‘real’ work and who does not in the interdisciplinary environment. Nixon and Crewe (2004) show that these assumptions include a strong gender symbolism. They argue that by adopting casual dress, male\(^8\) creative workers present a contemporary version

\(^8\) Their research is on the experiences of creative workers working in advertising and magazine publishing industries in the UK. Unlike the context of my study, they indicate that both industries are male-dominated and this is why they only examine masculine identifications of men.
of masculinity based in consumption, creativity and individuality in contrast to the conventional business masculinity represented by suits. However, due to the perception of their job “around a ‘fun’ and ‘funky’ image”, which is supported by their appearance, they also feel the necessity to align themselves with existing gender hierarchies to avoid being considered doing a ‘soft’ work (Nixon and Crewe 2004, 132).

Drawing on a similar comparison in her study on accountants and editors (both members of gender-balanced occupations) in two different magazines, Dellinger (2002) argues that accountants, being considered rational workers dealing with ‘hard facts’ in their suits, are often associated with men and masculinity. Editors, on the other hand, being parts of the creative team and known as ‘idea people’ in their casual clothes, are associated with women and femininity. In line with this, my findings in this section also show that business dress is identified with “a work mentality” (Dellinger 2002, 9), which marks non-designers as masculine, serious, competent and rational workers whose job is valuable for the organisation. In contrast to this, designers look casual and do ‘soft’, ‘arty’, and therefore feminine work, as I will argue in the following section.

6.4.2. Doing ‘arty’ work: association with ‘aesthetic contribution’ and femininity

In addition to dress and appearance norms and their implications for the suitability for managerial positions, the hard/soft duality is also supported by the nature of professional expertise. In Chapter 2 I referred to Faulkner’s (2007, 336) study on building design engineers who work in the same project as architects, to show how engineers’ and architects’ works are defined around a dualistic comparison: “architects want a building that ‘looks good’ while engineers want a building that ‘works’”. Within this comparison, the architect’s job is seen as dealing with aesthetics, a ‘soft’ expertise, whilst the engineer’s job is considered being commercially effective, a ‘hard’ expertise. In a similar vein, among the participants it was common to state that in interdisciplinary work settings they found themselves being perceived as doing ‘arty’ work by the professionals outside of industrial design, due to a general lack of awareness and recognition of ‘what industrial designers do’. According to the participants, as a result of such perception, their contribution was to a certain extent seen as ‘making things good-looking, beautiful and pretty’ by non-designers including their peers and managers. They indicated that their association with ‘arty’ work seems to be further
highlighted in their relationships with engineers who participate in the product design and development process.

For example, recalling his first days in an engineer-dominated company, where no designers had been employed before, Ali talked about his worries regarding his potential association with the notion of ‘arty designer’ as follows:

A: I had a prejudice, a fear when I started working here, that in people’s eyes the man who they call a designer would be seen as a painter, a sculptor, a fine arts fairy. He only knows niceties and nothing else. To prevent them from reacting to me that way, treating me that way, I got involved in every kind of work, much more than necessary. Really, I took on too many tasks, all done, whatever. From technical drawings to the purchasing manager’s job, I mean, searching for manufacturers, to some of the surveys that the marketing people normally do, to exhibition design which is normally outsourced through the marketing department, and this and that, I got involved in everything. (...) [However] I just think that [what I did] was not appreciated so much. I mean, it didn’t generate a positive image at all.

P: Why did you think that you might be seen as a painter, a sculptor?

A: I had thought that it could happen in a place where there were so many engineers and where no designers had been employed before me. Actually there’s something like this in society, too: Designers are not known. And all that’s reflected in the media are those aspects of the designer’s image that are related to beauty, aesthetics and taste. [42]

Some of the participants indicated that such associations weaken in time as the number of the industrial designers increases in the company, and as the management’s attitude towards industrial design changes in a way that values it as a profession. However, in engineer-dominated companies change seems to come slowly, and it is difficult to convince peer engineers that an industrial designer is not an artist or a technician, but a technological professional worker. Cahide, a female participant, expresses her frustrations at the underrating attitude of engineers towards the designers:

Because in [the company I work] everyone apart from us is an engineer, they view us as artists, even though we’re nowhere near it. (laughs) (...) The disadvantage is that for many of the electronic engineers you don’t know much about anything. Among them there are those who wouldn’t even be able to tell where you’re graduated from, I mean, who think that you've
graduated from a vocational school. Or I mean— But actually for example, the work they do— I mean in R&D they don’t all the time develop new products or so on. I mean this is why most of the engineers deal with routine tasks most of the time, I mean at the level of technician’s job. Disregarding that, he thinks that he is doing a b.i..i..i..ig engineering job, but we are making drawings with a pencil and so on. (...) There are people who think so, I mean who try to underrate us. [43]

Like her, many participants stated clearly that from engineers’ point of view designers do not seem to be doing a ‘real’ job. They draw well, generate some creative ideas, but do not make a ‘real’ contribution like engineers. This supports what Dryburgh (1999) encounters in her study with engineering students. As I discussed earlier (see Section 2.3.2 above), she points to a similar ‘arty’ versus ‘real’ comparison, which is used by engineering students to emphasise their superiority and masculinity over the art students. She suggests that engineering students associate themselves with the ‘real, tangible and mechanical world’, as opposed to the ‘ethereal world’ of art and philosophy, so that they are capable of contributing to the ‘physical world of concrete realities’.

Regarding this ‘arty’ versus ‘real’ comparison, participants expressed two concerns, which are linked to each other, caused by this asymmetrical dualism. First, engineers do not ‘listen to’ industrial designers, nor do they acknowledge designers’ technical knowledge of materials and manufacturing techniques. In the process of preparing new designs for manufacturing, engineers find it meaningless to spend extra time trying to solve new technical details, searching for new materials and production techniques only to make a product more user-friendly, or to look in a particular way. For them, it is enough as long as the product ‘works’. Referring to his experiences with electrical engineers in the product development process, Nevzat illustrates this concern:

For example, umm they thought that the product is all about function, and you see, that the customers who buy the product will have to understand it. (smiles) We had a lot of discussions on this. (...) For example, when I talked about the usability of the product, like whether the customer will interpret it this way or that way, they would be cross with me, like “What is this now?”.

(...) And also to be honest our electrical engineers weren’t really interdisciplinary. They had this attitude a lot, like they did it as they liked. He says, for example, “Who cares? I will put it here!” . (shouting) “Can’t you put it here and not there?” “I can, but it’s better this way”, etc. I mean he doesn’t want to explain [his reasoning]. If he did, maybe you’ll agree. [44]
However, for the participants, differentiating the new product from the existing products in the market and addressing the needs and expectations of the user are key concerns. As Nevzat’s story demonstrates, they indicated that from the engineers’ point of view much of these concerns are considered as unnecessary details that cause lost of time and money. So, when the implementation of a new design requires further time spent on research and problem-solving, engineers would easily return it to its designer, claiming that the design is not suitable for manufacture, or they would make some changes to the design without informing its designer. In the following story Kemal describes how in such situations of disagreement proving his knowledge of manufacturing becomes important in his relationship with an engineer (Cem):

Cem started to work [in this company] four years after me. When he came, I already knew manufacturing. I mean, I get annoyed with people who attempt to teach me what I already know, I mean, [when they say] things like, “It’s not like that, but like this.” For example, let’s say I drew this (pointing at an imaginary drawing of a product). Cem would look at it and say, “No, this won’t do.” “Cem, it will.” (annoyed) “It won’t.” Then I would take the drawing to the draughtsmen working under him. (…) When his own draughtsmen say, “Yes, Mr Cem, we can manufacture it”, he wouldn’t be able to say anything. I had this feeling many times, it feels great, I mean, when you score a goal against an engineer. [45]

Some of the participants underlined the importance of the director’s support in making engineers take designer’s decisions into consideration. Cansu said,

You see that, I mean, some people have made uum some devices, things, they have made some systems; so you know that they can be made. It was required to investigate how they could be made. Let’s say, there is a hinge used on a cover. There is only one hinge that [the engineer] knows. He insists on using it. And he hides behind the argument that “There are lots of that hinge in stock, so why don’t we use it?” Otherwise, he has to think further and make a new mechanical design for that new hinge. When you insist (laughs) you can force him to do this, but only if your manager accepts it. [46]

Like Cansu, Defne underlined the importance of the attitude of the design department’s director’s in such conflicts. Ironically, she stated that this is where designers benefit from having a director with an engineering background. She said, engineers do not listen to designers, but cannot be resistant when it is an engineer who tells them that the new design can be manufactured.
[In this company] it has always been the engineers who were the head of industrial design. It is still so, but I mean, the current manager can at least put pressure on engineers on behalf of the designers. (...) When an engineer says to a designer “This can’t get out of the mould”— Of course designers know mould, too, they can put pressure on engineers, too, but they can do it only to a certain extent. But when the head of design is also an engineer and says to the mechanical engineer “Yes, it can be done”, there’s nothing left [to argue]. [47]

Her account provides a clear example of the subtle power asymmetry that is embedded in the relations between the two occupational groups. It is the engineer’s technical knowledge that seems to be accepted as valid by engineers. The following quote from Canan also illustrates this:

If the word ‘engineer’ was included somewhere in my title, I would be treated in a very different way. We had to make a lot of effort to make them listen to us, since we were industrial designers. [48]

The second concern indicated by the participants is that when the designer’s job is defined as bringing aesthetic appeal to products, their designs are usually perceived by engineers as their ‘subjective’ opinions, which are thus difficult to justify. Although some studies argue that creative workers are valued for their ‘subjective’ opinions in certain work contexts (see for example Alvesson 1998; Dellinger 2002; Nixon and Crewe 2004; Rasmussen 2002), participants’ stories show that in interdisciplinary relations with engineers being associated with ‘subjective’ work has negative implications for industrial designers. As I noted in Chapter 2 with reference to feminist technology studies, engineering discourse has been strongly tied up with the apparent certainty afforded by its reliance on maths and science throughout the historical development of the profession (Faulkner 2007; Oldenziel 1999; Wajcman 1991, 2004). Some of the participants indicated that due to this view of ‘certainty’ engineers fail to accept that more than one valid solution can be suggested to satisfy the same set of criteria. They stated that particularly in organisational contexts where the management mostly consists of engineers, this view shapes the problem-solving processes in a way that marks the designer’s approach – which is more comfortable with ‘uncertainty’ and plurality – as ‘subjective’, therefore, less valid and less professional.

Participants illustrated this concern with reference to interdisciplinary meetings where they present their designs to the approval of management and other professional groups who are
involved in the product development process such as engineers and marketing people. Regarding these meetings, particularly where the relations between different professional groups are very competitive due to the presence of the top management, Defne says,

You know how in engineering you can show and prove certain things through calculations, actually in industrial design there are such methods, too. But since these methods aren’t well-recognised, everyone’s personal opinion starts to take the place of design truths. (…) I mean, there is an atmosphere among [the engineers] as if anyone can express their opinion. I mean, from the manual worker to the boss, anyone can say things like, “This is good,” or “This is beautiful.” This is why, we had difficulties in making our designs accepted. [49]

Zeynep shares similar concerns regarding justifying and making accepted her design decisions by comparing industrial design to a couple of professions that rely on science and mathematics:

Being a designer has a disadvantage: Because this is a visual job, other departments, I mean, everyone can make comments on the design. This is the biggest [problem] of design. Everyone can look at it and say that it’s beautiful or it’s ugly. Everyone in the manufacturing department says this, too, and you get annoyed, because you don’t make such comments on their job, because you assume that they know their job well. I have always seen these as professions. You never make comments about a doctor’s job. You never know what a dentist does in your mouth, you can’t see it. Actually, there are huge parameters in manufacturing, too, I mean, machines are difficult things, the theory of fluids, thermodynamics etc., and you are working with glass, a very heavy material. This is why you appreciate what they say [and don’t make comments]. But, anyone can make comments on your job. [50]

Mustafa’s story provides another example for interdisciplinary meetings. He refers to a meeting in a large-scale automotive manufacturing company, where the designer presents his design alternatives to a big group, including the top management of the company.

I mean, the work designers do is not taken very [seriously]— I mean, there are these people who try to cross out [the designer’s work]. (…) Mr Okan, [the designer], had prepared 25-30 sketches, and would present them. We entered the meeting, with directors, general managers, managers etc. Now, after the presentation was over, (laughs) the CEO said, “Let’s prepare an Excel sheet.” We wrote our names [on it]. Someone said, “The front part in [sketch] number 27”, another one said, “The headlight in number 27”, and another one said, “The corner in number 26”. Now, in this way [we kept]
statistics. And the CEO would say the last word. So the decision that came out of the meeting was: the headlight in number 27, the upper corner in number 26, windows in the other one, some such in another one. [The CEO said], “Mr Okan, could you blend all of these and make a car?” [51]

These stories show that the relationship between engineers and designers is constructed around a series of dualisms: ‘real’ and ‘arty’, technological and aesthetic, hard and soft, objective and subjective. There are two important aspects of this relationship. First, the two sides of these dualisms are not equally valued (Attfield 1989; Faulkner 2000b). In the interdisciplinary work settings where scientific and technical rationality is highly valued over taste, aesthetics and visual expertise, participants find themselves in an inferior position in their relationships with engineers. Their ‘hard’ expertise seems to provide engineers with authority not only over materials, products and manufacturing processes, but also over designers. Thus, a hierarchy is implied within this relationship, both symbolically and structurally, between the engineers and designers who are at the same level.

Second, these occupational dualisms are stereotypically gendered through their overlap with another dualism of masculine and feminine. The image of engineering that my analysis suggests accords with the existing feminist literature: Being defined as ‘real’, hard, objective and technological work, engineering is aligned with a hegemonic form of masculinity (Cockburn and Ormrod 1993; Faulkner 2000b, 2007; Oldenziel 1999; Wajcman 2010). Falling into the opposite side, being defined as ‘arty’, soft, subjective and aesthetics-related work, industrial design is associated with a feminine occupational image.

Considering Harding’s triad, these findings invite the following question to explore: what are the implications of these symbolic associations for the gendering of the two occupations at the structural level? In the participants’ accounts it is evident that these associations are influential on, and also influenced in turn by, the stereotypical ideas about individuals’ ‘gender in/authenticity’ for industrial design and engineering jobs (Faulkner 2007). For example, Defne has degrees in both industrial design and mechanical engineering. Referring to her previous job, in which her position required both design and engineering work, she said she could easily become a team with the male designer who was already working there when she started, although she was not accepted as an engineer into the male-only engineering team. Thus, she feels that she is considered ‘gender inauthentic’ for engineering by male engineers, whilst industrial design is welcoming for her.
Umm, the disadvantage of being a woman was that in that engineering team nobody would listen to a woman on engineering issues. It was very clear. I mean, even if you said something about screwing a bolt, nobody would listen to you. At the beginning, I didn’t think this was related to my being a woman; because in mechanical engineering, I had studied with men all the time. I mean umm at university, I had never seen such a discrimination. I had worked together with them in projects all the time. So I thought it was related to my having graduated and started working only recently. But curiously, I never experienced such a thing in anything related to design. It was always in engineering issues that I experienced such things. (...) Because there is this prejudice that women don’t make engineers. They never say this openly, but when you make suggestions on manufacturing, they are completely ignored. [52]

Zehra has worked in a tableware company where she worked before establishing her own design company. According to her, since in the tableware industry the aesthetic contribution of designer is important and since compared to men, women designers are more associated with beauty, taste and aesthetic contribution, the company has always preferred women. On the contrary, for mechanical engineer positions, the company has always preferred men for this position. She said,

Umm, when you design something, there is this advantage of your being a woman, they find you more aesthetic. If people wish to produce something good, aesthetic, beautiful, [a woman] is preferred. But if it is [a job] that weighs towards manufacturing, then a man is preferred. Umm I mean, I’ve observed this in all these processes. [53]

The association of industrial design with aesthetics-related work seems to serve some female participants to get access to good positions in the manufacturing companies which define industrial designer’s role as bringing aesthetic appeal to their products. Like Zehra, Zeynep stated that being a woman is an advantage for an industrial designer, since many companies want to employ “beautiful women who will design beautiful products”.

The feminine image of industrial design is also mentioned by men. Kemal works in a tableware company. He talks very uncomfortably and hesitantly, and placing emphasis on the idea that he does not meet the expectation of the feminine designer:

Things happen in the form of teasing, but I mean it isn’t even worth telling. And also I was the only designer here for years, there was that. Umm I mean a big-mouthed umm a couple of big-mouthed exporter colleagues said
things like "Male designers usually have a feminine side. Why aren't you like that?" and so on. [54]

Ozan works in automotive industry, in a male- and engineer-dominated company. As a designer, he says, he enjoys decorating his working space with his own designs, i.e. with posters he creates using the photos of the products he designed. However, he says, carrying concerns regarding taste and aesthetic appeal opens his masculinity to question in the eyes of the non-designers.

The boss says, "Why are your walls empty? Let's buy something for you to hang up." They go and buy posters from somewhere in the US, get them framed and hang them up on the wall. I don't want them though. I'd rather prefer something I like, something that I made myself. This way of doing what you like, being able to want something and showing that you like it is of course quite unfamiliar to most people. This is especially so in the male-dominated automotive sector. As a result, it can be like "What's this about him?", "He's womanlike" and so on. Unfortunately people can talk like that. [55]

As I showed in Chapter 4, industrial design in Turkey does not seem to be identified as women's or men's work in the literature. Stories examined at the beginning of this chapter also confirmed the lack of a strong gender typing within the profession (see Section 6.2). It does not only vary according to the expectations of different industrial sectors from designers, but also by the place given to design in individual companies within the same industry. Still, stories show that as long as it is defined as an 'arty' job, industrial design is perceived as a feminine profession in the interdisciplinary work environment, regardless of whether the designer is a man or woman. This association is important especially considering that 'aesthetic appeal' is suggested as the primary concern in industrial design practice in Turkey (Korkut and Hasdoğan 1998; see also Er [2005] for the critique of understanding industrial design as 'cosmetics' in Turkish industry). As evident in the stories, due to their shared symbolic gender associations the two dualisms of women-men and designer-engineer perfectly overlap, and design (to the degree that it is an aesthetic job) is seen as 'gender authentic' for women, whilst engineering is 'gender authentic' for men.

In one sense, this can be considered a big advantage for women in industrial design profession. However, the following story by Canan reminds us that these dualisms are not fixed. Canan worked in an engineer- and male-dominated company as one of the two women
industrial designers. She said,

From the beginning, until the very recent years even, whenever they needed a designer, it had better be a woman. It was very similar when they were advertising for us, or at the time of our employment. Umm they want women [as designers]. They want a woman because they think a woman’s approach can be (stops and laughs) more ummm aesthetic (...) I wonder why, design was seen as something that women can do, until the recent years. In recent years particularly because of a director who is very interested in design, they tried to balance the sexes. This is why they hired two or three male designers to go with the existing two or three female designers. [56]

The first part of her story parallels the above accounts: since the industrial designer’s work is defined as ‘making products look aesthetic’, it is seen as a woman’s job. However, when the new approach to design appreciates new terms such as usability and does not limit the contribution of designer to aesthetics, a demand emerges for men. It is important to see that once the link between aesthetic contribution and design weakens, the ‘authentic’ gender for industrial designer is redefined towards a masculine image. Women’s ‘gender authenticity’ for design, which was taken for granted at the beginning is reconsidered after the redefinition of industrial design within the company, as more valued and ‘real’ work, like engineering. This confirms the argument that once dualistic associations are reorganised, so is dualism of gender accordingly, keeping the masculine valued over feminine each time (Cockburn 1988; Evetts 1998; Woodfield 2000).

Moreover, these associations are important for exploration and questioning, also because industrial design practice is more complex and contradictory than it is presented in this dualistic comparison. As we saw in some of the above stories, even when an industrial designer’s work is perceived as ‘dealing with aesthetics’, it is not detached from technical aspects of the design and development of products, which are placed on the other side of the dualism. Depending on the industrial sector, designers may make decisions regarding materials or manufacturing techniques, and as I will discuss in the following chapter, they may also be responsible for producing the model of their designs with the shop floor workers. As a result, in women’s experiences being both gender authentic and inauthentic appear side by side, as Zehra’s story demonstrates. Above, I quoted the beginning of this story, in which she describes how women were preferred for design and men for engineering jobs. She goes on saying,
But to subvert this, I always tried to learn technique very well. (...) I used to go to the shop floor when there weren’t any customers. It was downstairs. In lunch breaks, in the evenings staying there a bit longer I learned how to produce moulds. Ceramic moulds and all, I learned everything on my own. I learned these, so that I wouldn’t have anything less than these men, so that they wouldn’t be able to tell me “You’re a woman” and so on. Only by learning technique that I never experienced any negative discrimination among men. [57]

Although being a woman was a big advantage for her in getting this job, it becomes a disadvantage in the issues regarding manufacturing, which are an essential part of her job. The dualistic association of women with design and men with engineering seems to assign a double technical incompetence to the woman designer, whilst a full competence to the male engineer. This invites another question to explore: what are the implications of this complex and contradictory nature of their work on women participants’ experiences of ‘being a technological worker’ in interdisciplinary work settings? I will deal with this question in the final part of this chapter (see Section 6.5) and throughout Chapter 7. In the following section I will go on exploring another aspect of the industrial designer’s occupational image.

6.4.3. “Design is not a job done to earn money”

In the narratives, preferring to live in big cities, especially in Istanbul, was indicated as an important aspect of the occupational image of the industrial designer. Here it is important to remember that in Turkey industrial design departments are founded in large cities. So, even if they grew up in small cities, industrial designers live in big cities during their university years. In addition to this, industrial design departments both regularly organise or attend national and international activities, such as conferences, exhibitions and design workshops, and encourage students to participate in such activities. After becoming professionals in such an environment, as participants state, working in small industry cities is boring and difficult for industrial designers, and also deprives them of creativity due to the poor social and cultural life these cities offer.

For example, being a woman who grew up in a large city, Hatice stated that she hesitated in accepting a job in a small industry city. When she finally started working there, her plan was to quit in one or two years and move to Istanbul.
H: When I went to that company the first time, when I went to the job interview, I looked around, and told myself, (...) “I can manage to stay here for one year, or one and a half year at most.”

P: Why do you think was that?

H: I mean, I was born and raised in Izmir. [But the city I worked in] was more, umm how do I put it, it was a smaller place. I thought that it wouldn’t be much... I’d come to Istanbul, I’d probably work in Istanbul. (...) [Moving to Istanbul] has been really good for my social life. For example, I’m interested in photography. I’ve improved it very much now, umm, there’s for example this photography school in Istanbul. I’m attending there for advanced photography courses. (...) There are also concerts, and so on, that you can go to. Things are more easily accessible in here, I mean, designers can get nourishment more easily in Istanbul. [58]

Participants considered cultural activities, events and facilities, such as exhibitions, concerts and art clubs, important sources of ‘nourishment’ for designers. As a freelance designer, Oktay, placed more emphasis on activities related to design, which provide a good environment for social networking and thus highly influential in finding new customers.

Istanbul is interesting. I mean, it’s really different. When I moved here umm I was thinking about going abroad. Moving to Istanbul gives you that kind of satisfaction. I mean it is like another world here. (...) Umm there is so much work to do that we can’t keep up with it. I mean you can attend a reception related to design every day. I mean, if you wanted, if you weren’t busy, you could wander from one reception to another, from one opening event to a launch. It’s such a world [in Istanbul]. One exhibition ends and another starts. [59]

Participants suggested that industrial designers would not easily sacrifice metropolitan life for job opportunities in small cities, since they were usually from urban middle-class backgrounds, and as a result of this, they did not need to hurry to earn money. Nevzat believes that he was one of the few designers who would not privilege their comfort when choosing where to work and accept the job in a manufacturing company in an industrial district that is too far from the city centre.

Later on I thought they had employed me because first, the factory was quite far away, OK? I mean, the workplace, it was somewhere too far outside the city. I think there are only a few designers who would put up with that distance. [60]
To illustrate the same argument, Osman refers to a designer-engineer comparison:

In Istanbul, in Ankara there are more choices of both companies and employees. I mean, a company can find lots of designers if they want to, and the designer, too, can find lots of companies [to work in]. But in small cities this is rougher. Umm bringing a designer there— I mean, ours is a smaller community. Compared to mechanical engineering or civil engineering, (...) I mean, there aren't many designers, and maybe more than half of those – if we compare it to mechanical engineering for instance – are too well-off to be willing to go to [a small city to work]. (smiles) (...) If I didn’t have to, I wouldn’t go either. I mean I went there both to earn money and to make a start. [61]

Osman’s argument implies that since designers come from a high socio-economic, urban background, unlike engineering, industrial design is not a profession necessarily done to earn money.9 Zeynep, another participant whose comments support Osman’s, approached this situation from a different angle, which is of particular interest to my analysis. She connected this argument with the fact that industrial design is not a well-paid job in Turkey. According to her, this is why it is preferred by the people who do not prioritise earning money, and, more importantly, this is why there are so many design consultancies led by women industrial designers in Turkey. Drawing on her two year work experience in the design consultancy established by a well-known woman designer, she says,

In Turkey lots of women also work in consultancies [as well as men], I mean, because design is a profession which is a little— Shall I say bourgeois? I mean it looks as if it isn’t done to earn money, especially if you’re working as a freelancer. This is why most of the celebrity designers from Turkey are women. [62]

Berna’s following story shows that this perception of the industrial design profession marks it as a suitable profession for women, but unsuitable for men, in what she characterises as a society where men are seen as the breadwinner. Referring to the same engineering-design comparison as Osman, she described how her interest in industrial design received his father’s consent, whilst her brother’s could not.

For example, in my time— Umm my brother has good drawing skills. I mean, if my brother entered product design, today he would be far beyond myself. But my father said, “What is design? As a real man, what are you

9 I want to note that he makes this assumption merely drawing on his personal observations.
going to earn in [design], are you going to earn money? You will be a mechanical engineer.” They forced him to study engineering. Then what happened? He graduated in eight years. (...) Now, as a family, would you like your son to have such an occupation? And family is so dominant in [our society] in the choice of occupations. I think, they try not to direct boys towards design. For girls, it’s a nice occupation, making drawings, she will get married someday. You know what I mean? There is no such expectation from women. This is why my father never interfered with me. I think this is the thing in Turkey. Design is not a job that brings money. [63]

This story illustrates how the symbolic associations between design and femininity and engineering and masculinity are also supported at the structural level. Men, whose identities are characterised by paid work are seen more appropriate for a prestigious profession that would bring higher income. Women, potential wives and mothers, on the other hand, whose family responsibilities are more important, are seen as ‘free’ to select a job with lower income. This shows that it is not only the ‘arty’ image of design, supported by both the appearance and expertise of designers, that marks it as a ‘gender authentic’ job for women, but also the poor career opportunities and remuneration it offers.

6.5. Intertwining of ‘being a woman’ and ‘being a designer’ in the experience of inferiority

At the beginning of this chapter I indicated that there was a shared belief among women participants: The problems they experience in interdisciplinary work settings are not based on gender, but occupation. So far, I investigated how ‘being a designer’ appears as the reason for their inferior status in the stories. In this, I argued that the experiences of ‘being a designer’ themselves are patterned through symbolic and structural dualistic comparisons between designer and non-designer (particularly engineer), which correspond to the stereotypical dualisms of feminine-masculine and women-men.

In this section, I will go one step further and examine the stories constructed with women participants in which ‘being a woman’ and ‘being a designer’ are intertwined, which means they are inseparable at some points or used interchangeably. Drawing on these stories I will present how women industrial designers’ lower status as professional and technological workers is reinforced further by their status as women in interdisciplinary work settings.
Seher has been working in an engineer-dominated company for five years. Her job requires close relationships with mechanical engineers. The topic of her story is the first meeting of a recently-started project. All members of the project team are male engineers except for her, the only woman and the only designer in the team. There are certain requirements of the project: The final product should be simple, cheap and easy to use. It is also directly related to human ergonomics, which is the designer’s field of responsibility. In the meeting, team members gather and start talking about possible solutions. Seher says,

I make a suggestion, but everyone pretends not to hear. Then someone else repeats my idea, only then do they turn and say “Oh, yes, why not?” I felt very bad there. And I wasn’t a junior, too. And all of them were people I knew. Despite that, I felt really inferior there. I mean, it made me feel so, as if I had no voice. I really believed there that it could be related to my sex. [64]

She goes on indicating that her engineer colleagues were not “macho types”. They were not the kind of men who would think “women would not know anything”. But, she says, probably they did not expect her to know that much nevertheless.

Maybe they just expected me to say “It must be this much in length”, you just look up the standards for that, or probably just to say “The man would fit in this much space” and stop there. (...) They didn’t expect much from me. That’s why the other things I said [were not heard]. Because I also made suggestions about how the mechanism should be, like “Why don’t we place it like this and not like that?” [65]

Seher sees herself as just another one of the members of the team. With a technical background, she is knowledgeable enough to talk about basic technical issues. However, she says, the response she gets from her engineer colleagues signals that she does not play her role properly. She realises that her role was limited to checking ergonomic standards – a task which does not require ‘real’ work. After the meeting, she discusses this situation with another woman designer colleague in the company.

Not because I’m an industrial designer, but because I’m a woman: That was my focus when I was talking to [my colleague]. Like, “They didn’t take me much seriously probably because I’m a woman.” But then when I think about it now, maybe yes, that could be because I’m a designer and they have low expectations from me. [66]
Seher’s story demonstrates a two-fold experience of being looked down upon by her engineer colleagues. She refers both to her gender and occupation as the source of the inferiority assigned to herself. Furthermore, being a woman and being a designer are intertwined to the extent that she cannot distinguish which one is the reason for the low expectations. These are, for Seher, inseparable at the level of experience.

Pelin is the only designer working in a furniture manufacturing company. In this story, she designs a chair and delivers its manufacturing drawings to the engineer who is responsible for producing its model. Her ambivalence between explaining this incident with gender relations and linking it to the designer-manufacturer comparison is evident at the beginning, and remains throughout the story.

Pe: I don’t know if it’s caused by gender, but I felt it was also related to positions. You are a designer, you’re drawing. He doesn’t look eager. You want a model produced for one of your designs, but he doesn’t want to do it. For example, I remember that there was a chair [I designed]. I wanted its backside to be made of metal. (...) He said, “No, it can’t be done” and gave me a lot of trouble. Later, while we were at a meeting, he brought the chair – he had manufactured it – and put it on the table ostentatiously. Everybody said, “Oh, it’s beautiful.” He came forward saying, “I did it.” It was very annoying there, I mean, him trampling over me and [taking the credit for] my idea.

P: And what did you say?

Pe: I couldn’t say anything, because immediately he put on airs. I couldn’t say anything of course. But at the end it was me who did the drawings, and everyone knew this, but— I mean, the one who implements the design tends to be more dominant, or, I don’t know, maybe it’s because he is a man. I designed [the chair], but it was like he took the credit because he made it. [67]

Unlike Seher, Pelin does not attempt to prove herself. Rather she silently accepts the inferior role assigned to her as opposed to the engineer’s superiority due to his doing a ‘real’ job. However, the ambivalence she displays is similar to what we see in Seher’s story. Pelin presents both being a man and being the one who manufactures the product as potential sources of power, comparing them, respectively, to being a woman and dealing with ideas and drawing. As a result, she cannot distinguish between them as the reason of the engineer’s dominance over her.
The third story comes from my interview with Zehra. As I mentioned above (see Section 6.4.2), Zehra works in a tableware company where women, she says, are employed for industrial design and men for engineering posts. Being the first industrial designer ever employed by this company, throughout the interview her emphasis was on the difficulties and the necessity of proving oneself as a designer. She indicated that it was a ‘battle’ she had to go through. However, as we kept talking about her experiences, and as she remembered my focus on gender issues, the battle of designer versus engineer shifted to the battle of women designers versus men engineers, as we see in the following story. According to her, the relationship between designers and engineers overlaps the typical gender relationship in society: men/engineer is superior to women/designer. In this battle Zehra, both as a designer and a woman, is in the inferior position and she has to prove her technical competence among engineers, who are all men.

Now, all of these mechanical engineers are men. And you are three women as designers. There were three of us and we were all women. As a result, just like the man-woman thing in Turkish society, he considers himself superior there, too. He doesn’t think you are very smart. I had an argument with one of them. [He said], “Of course you aren’t expected to make such a detailed drawing.” I said, “What’s that? Tell me, which one is detailed?” He said, “For example you can’t make a mould drawing of this [product]. I mean, it’s very difficult for you to do that.” I said, “I can.” (laughs) “When do you want it? I’ll bring it to you tomorrow.” I mean, believe me, I still keep that drawing. (…) I mean, there was no computer then, you did all these by hand. I made it with all the radiuses, including all those, smallest radiuses, and the angles with the minutes, and put it in front of him. And the drawings they had made were more primitive— I mean, I had made a more advanced drawing there. (both laughing) This is why in the meeting I used this to [overpower] him. We were sitting there, in the meeting, [I said], “I was told such and such, would such a drawing convince you [to the contrary]?” (both laughing) It is an enormous battle. We are laughing now, but it was so annoying. [68]

Aylin is one of the two women designers working in an engineer-dominated company. Like Zehra, her emphasis was on designers’ battle with engineers throughout the interview. At some point she tells the following story:

The workshop associated with our department was for producing the new designs or their prototypes. It would produce one product at a time. The workshop was close to us, just a few offices away from us. When we needed something done, I would go and tell the worker, standing beside the lathe I would tell him “Let’s do it this way”, “It’s too much, let’s do that side like
this” and so on. Umm. Then my chief came and umm he told me “Aylin, I think you should enter the workshop in the company of an engineer.” I said, “Why?” (in mocking anger). He said, “You could be bothered if they looked at you” and so on. I said “Whoa! What’s this now?” This is really something you would encounter only as a woman. Nobody tells a male engineer who has just started to work to take someone with him when he goes to the workshop. [69]

Listening to this story during the interview, I remember my attention being caught by first, her saying “in the company of an engineer”, instead of “in the company of a man” and then, comparing herself as a female designer to a male engineer, but not a male designer. So, I asked her:

P: Were all the engineers men there?

A: Umm there were women engineers. But especially for the first years I can say, it's like, there were one or two tomboys (laughs). But in the following years, I mean, this has changed, too. Because uum they were employing mechanical engineers among METU graduates. (...) There weren't many women mechanical engineering graduates before. In the following years there were, so the situation has changed. (smiles) [70]

This is very similar to what I felt when listening to stories regarding Seher’s relationships with engineers. She also seemed to refer only to men as engineers in the interview. Noticing this, I asked her:

P: Do you have similar experiences with women engineers?

S: Now, from the beginning of our conversation, I was thinking of men engineers all the time as I was talking. I wasn’t thinking that I had also worked with women engineers, to be honest. I was picturing men all along. [71]

After this, she immediately told a story in which she had an argument with a woman engineer who did not take her design decisions into consideration in a project.

In both accounts the engineer is conceptualised as a man, even though there are also women engineers working in these companies. This association can be related to the overrepresentation of men in mechanical engineering. Considering that although Seher worked with women engineers as well, she only refers to men in the stories she tells until I
ask her questions about women engineers, this association can also be related to the masculine image of engineering, which portray men as ‘gender authentic’ for this profession. In a similar vein, Aylin’s story shows that engineering remains a ‘gender authentic’ profession for men in the organisational context of her story, despite the increase in the numbers of women engineers. Of course, it is also possible that since I had indicated my interest in ‘gender’, participants conceptualised this as a division between men and women, and shared their experiences with only male engineers. Still, it is important that they did not name them as ‘male engineers’, but ‘engineers’, nor did they include female engineers in their stories at all, i.e. in comparison to male engineers.

In stories I examined in this section participants do not only present the problems they experienced as designers with engineers, but also as women with men concurrently. Gender and occupation seem to be intertwined in the professional identity of these women participants.

6.6. Conclusion

I started this chapter by examining the career opportunities and barriers that participants encounter in professional life. Overall, participants reported that the industrial design profession offers equal opportunities to women and men in terms of both getting a job and promotion, and division of labour. Even though gender became relevant in some women participants’ stories in a way that privileges men, they denied its significance stating that it is not a primary concern that affects their career. Male participants, on the other hand, expressed disapproval of any discriminatory attitude towards women, whereas some of their accounts exhibited some examples of sexism, gender bias and discriminatory behaviour in their subtle forms. The initial response of participants to the gender in/equality question was that it is not being a woman, but an industrial designer that is the primary source of the problems women, like men, experience in interdisciplinary work settings.

In the rest of the chapter I questioned this denial of gender’s relevance, arguing that ‘being an industrial designer’ is already gendered. In this, I explored the intertwined dissections of occupation and gender in order to understand to what extent and in what ways the occupation-based dualisms, as they appear in interdisciplinary relations, and gender dualisms
constitute and support each other. In the analysis, I operationalised Harding’s gender triad and focused on all three aspects, symbolic, structural and individual, of these dualisms, as well as the links between them.

First, focusing on gender construction at the symbolic level, I examined the occupational image of industrial design, which is suggested as the source of industrial designers’ inferior position in the workplace. It is characterised as a feminine, subjective and aesthetics-related - rather than technological - work, which relies on a soft expertise, in comparison to marketing and engineering. In this way, it contrasts with both the image of professional manager and professional technological worker, each defined in line with a hegemonic form of masculinity through their identification with objective, hard and technical work. This dualistic association is supported by both the casual dress and appearance norms among designers and the non-designers’ perception of designer’s job as bringing aesthetic contributions.

In line with this dualistic association, in Turkey, where ‘aesthetic appeal’ is suggested as the primary concern in industrial design practice, industrial design is defined as a ‘gender authentic’ profession for women in comparison to engineering, which is considered ‘gender authentic’ for men. In practice, however, these associations that lead to structural divisions in organisations (man/engineer and woman/designer) are further complicated and contradicted with first, how industrial design’s role is defined in different industries and organisations. Secondly, even when the designer’s job is formally defined as bringing aesthetic contribution to products, in actual practice it also includes dealing with issues related to manufacturing, which are placed on the other side of the dualism. Therefore, femininity of women, which makes them ‘authentic’ workers for industrial design, can also make them ‘inauthentic’ in certain dimensions of their professional practice.

Women’s ‘gender authenticity’ for design and men’s for engineering are also supported by the poor career opportunities available for industrial designers and the prestigious job prospects for engineers. Participants discussed how since industrial design is perceived as an occupation that is not preferred by the people who prioritise earning money, it is considered suitable for women, whose primary role is defined as being a wife and mother, not a breadwinner in the society (see Section 6.4.3).
The findings of this chapter also suggest that whilst female and male participants share a similar inferior position in interdisciplinary relations, at an individual level, women’s inferiority is deepened and strengthened by their gender so much so that being a designer and a woman can be inseparable in experience. As discussed earlier (see Section 6.5), especially in male-engineer-dominated work environments, the dualistic association of women with design and men with engineering seems to assign a double technical incompetence to women designers to cope with, compared to their male colleagues.

However, the stories examined in this chapter do not present the full picture of the participants’ experiences in the workplace. As I noted in Chapter 3, depending on the needs and expectations of the industries and companies for which they work, industrial designers’ job may include dealing with the production of the models of the new designs. In the interviews, most of my participants who work in manufacturing companies stated that being close to the shop floor to supervise the shop floor workers who build the models of their designs is an essential aspect of their work. Also, as I discussed in Chapter 4, the studies on women in engineering in Turkey have placed much emphasis on the distinction between the office and the production site. In these studies the former is indicated as the preferable place for women professionals, as it offers a ‘clean’ and ‘sterile’ work environment that is free from working-class men as opposed to the latter, which is ‘dirty’ and ‘wild’. This distinction was also highlighted by the participants who argued that contrary to the office, the shop floor is an explicitly challenging environment for women designers. In this regard, for a comprehensive understanding of how the industrial designer’s work is gendered, in the following chapter I will explore the stories regarding the production site.
Chapter 7

Shop Floor Stories: Gendered Relations with Blue-Collar Workers

Feminist research has paid considerable attention to the role gender relations play in women’s disadvantaged status in technology-related professions. However, existing studies have mainly focused on the relations between professional workers in the office environment, and less emphasis has been placed on women’s relationships with manual workers in the production site. This is probably because office is the primary work setting for professional workers. But in the analysis it appeared that even so, for the participants who work in manufacturing companies, their relations with the blue-collar workers on the shop floor constitute an important part of their work experiences. Examining the relations between male industrial designers, female industrial designers and male shop floor workers in the production site, this chapter investigates these questions: First, what are the experiences of participants as technological workers in the production site; second, how and in what ways are these experiences patterned by gender; and third, to what extent are these experiences connected to and influential on participants’ status in the office?

7.1. Significance and visibility of individual gender on the shop floor

As I discussed in the previous chapter, there was a tendency to say that there are no gender-related problems in the office environment among professionals. However, almost all of the participants, both women and men, stated that the shop floor is where being a woman matters strongly and visibly. In the stories, participants made a clear distinction between the office and the shop floor, defining the latter as a male-dominated or male-only environment, where men show strong resistance towards women’s presence, particularly when women were in positions of authority.

I quote two women designers, Belgin and Meltem, below to illustrate their emphasis on the office-shop floor comparison. Both stressed this distinction right at the beginning of the interviews as a general comment, before starting their work life narratives in a chronological order.
B: Actually I think you come across the bit about gender to some degree in the workshop. We don’t go through much that is related to gender in the office. When you go to the workshop, you know, because men dominate that area (laughs), it is there that you seem to come across things related to gender. [1]

M: My professional life started in a factory, in a shop floor environment. In this environment, I experienced the umm disadvantages of being a woman. [Our manager] cared for the work I do and umm my ideas rather than my being a woman. So I didn’t have problems with the upper management, but I had serious problems with the lower echelon. Umm, [there were times] when I wasn’t taken seriously or couldn’t make them listen to myself. [2]

A third example is by Figen, who is a furniture designer. She has spent several years in an industrial district, Tahtasan, a large, male-dominated and manual-worker-based district, where there are a lot of small furniture manufacturers. Whilst a considerable number of these manufacturers do subcontracting work for other companies, in which they receive the designs and drawings from their clients, in some others it is still possible to find an architect or an interior designer employed, or in more recent years, an industrial designer. This architect or designer is possibly the only office worker, responsible for both designing new products and supervising the workshop. Figen works in such a position. She describes being a woman among blue-collar workers in Tahtasan as follows:

F: Being a woman in Tahtasan is a big disadvantage in some respects. Actually it’s like being a woman driver. Because they think they can jam you any moment, that you’ll give way immediately when they honk, and this is how they approach you. I mean, it’s difficult to make yourself accepted in that sense.

P: Who are these? The bosses?

F: No, not the bosses, this is about umm the craftsmen, workers, umm these people who do the manual work there. I mean you wouldn’t experience this much with the bosses, but with the craftsmen or the personnel. (...) Everybody would approach you thinking that they’re superior to you, that “A woman architect wouldn’t know anything.” I mean this is the first sentence that comes to their minds. This is why I give the driver example. I mean, however good a driver you are, they would blame it on your being a woman when you made a mistake. [3]

Like Pelin and Meltem, Figen states that gender is not an issue in the office, whilst it shapes

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10 It is not unusual for an industrial designer to be called an architect in small-scale furniture companies, since furniture design is also done by architects and the practice of industrial design is not as well-rooted as architecture in Turkey.
her relationships on the shop floor. She defines the shop floor in similar terms: it is a male-only and woman-unfriendly environment. Since, like driving a car, involvement in production work is also aligned with men’s interest and ability, due to the symbolic link between manliness and control over machines (Wajcman 1991a), in this environment Figen feels vulnerable to being ascribed with incompetence and unreliability by the workers just because she is a woman.

The analysis of the stories revealed two main themes relating to how women participants define the problems they encounter in the shop floor environment: resistance to women’s presence on the shop floor and rejecting taking orders from women. In the following two sections I will discuss these themes.

7.1.1. Resistance to women’s presence on the shop floor

Although every industrial designer is required to take into consideration the limitations and capabilities of materials and machines that will be used in production of their designs (see Section 3.1 above), some of the participants expressed a particular interest in these issues. They suggested that as they become more familiar with the requirements and possibilities of production, they can create more innovative designs. Observing shop floor workers and practising with the tools and machines enable these designers to see what else can be done using the same materials and production techniques. In the following quote Nihal explains how happy she was with her previous job in a furniture manufacturing company due to having a workshop dedicated to prototype production, despite her overall dissatisfaction with her life in the small industrial city where the company was established.

P: And were you happy with your job there?

N: Mm-hmm. Yes, I can say that easily. It’s because, first of all, you’re practising your profession. In one way or the other you can realise [your design] in a quick and good way. I mean prototyping was a very fast process there. Plus, since the quality was very high, and the craftsmen were very competent at their jobs, they’d find the solutions when you couldn’t, and so you’d learn different things. (...) If you’re planning to continue working in this sector with this material, it’s very stimulating in terms of making innovative [designs] to be in the workshop and to work towards developing and improving the production capacity. [4]
Ceren is another one of these participants who expressed an enthusiasm for being close to the shop floor. At the time of the interview she was working in a small-scale manufacturing company in an industrial district. She underlined that she had never thought of applying for a job in a design consultancy because she believes that by sitting in an office a designer can never know whether her design is completely suitable for production or not. Only being at the production site enables her to create original designs within the limitations of production. This is why she preferred working in a manufacturing company. In the following story she visits an aluminium coating workshop that is one of the subcontractors for the company in which she works.

For example, I was talking to the foreman there: “What other colours can you do? You know, we have six colours, but are there any others you do as well?” (...) Then, for example, I was down on the shop floor, looking at what workers were doing. I mean, how are they making the coating? Are there any other stuff they do? [I wanted to] see these, because manufacturing is very important for me. You must know, too, you have to learn about the production, to see what else you can do [when you design new products]. But then the foreman said to me, “Let’s go upstairs, if you like.” [I said], “I was looking at this” and so on. He said, “No, no, please come”. You know, he doesn’t want you stay downstairs. He didn’t want a woman among the workers. He took me upstairs to the tea room. We sat upstairs, in the tea room (laughs) and waited for the work to be completed. I could just ask then: “What else do you do? Do you make other colours or do you use other coating techniques?” He then explained these to me, verbally. But when I’m downstairs, the workers, for example, look at each other and laugh among themselves. The foreman there, then, doesn’t want you, a woman, to spend time there. This is, for example, a problem. I can’t see the things I could otherwise probably see there. This is an obstacle before my noticing different things happening on the shop floor. [5]

In this male-only shop floor, Ceren is visible as a woman. Being seen and treated as an industrial designer requires a negotiation with the foreman. He agrees to answer her questions regarding the production process, but only outside the shop floor. Ceren is allowed to be present as an industrial designer only in the tea room and to ask her questions only to the foreman. Unlike a male industrial designer, who, according to her, could stay in the workshop among manual workers to make observations and talk to them, she can only ask questions to the foreman and has to be contented with his explanations. By saying “He explained these to me, verbally”, Ceren underlines her limited and second-hand access to the source of practical knowledge that she was seeking and needs for developing her professional skills.
The third story was told by Aysel, who is among the first generation industrial designers in Turkey. She started her career in the late 70s, as the first industrial designer in a manufacturing company. In the interview, she says that she has worked so hard that she does not remember how many products she has designed in her entire professional life. However, she says, in those years it was not easy for a woman to be accepted into the shop floor environment. Like Ceren, Aysel underlines the necessity of being close to the production site. She indicates that learning the technique and the potentialities of the material has brought her two important advantages. First, she became able to work on her models by herself. Whenever she wanted to try a new form, she could go to the workshop and run the spare machines. So, in the meetings she could present these models to the managers, rather than sketches on paper, and this influenced her reputation as a designer in a positive way. Second, when a manual worker claimed that her design was not convenient for production, she was confident enough to insist that her design was producible and even instructed the worker regarding the technique when necessary. This is why, she says, in her first job she had spent one day a week on the shop floor until she learned the production techniques very well.

Her story well illustrates both the manual workers’ resistance and Aysel’s struggle against it. Since this is a very long story, I prefer to summarise its beginning: Having spent a couple of years working in a tableware manufacturing company, Aysel got her second job in another company in the same industry. Here, again, she was the first industrial designer ever employed by the company. Before her, new products used to be designed by Mr Suat, the manager of the Plaster Moulding Department, which was responsible for the production of models for new designs. When she took over the design work and demonstrated her competence with production techniques, Mr Suat was annoyed with this situation, and this was why the models of Aysel’s designs were deliberately produced more slowly than usual. In her first project for the company, she was asked to design a cup. After she completed the drawings, her director called and suggested she build the model if she knew how to do it, since he was aware of Mr Suat’s manner. The story goes on as follows:

I said, “Of course I [can build the model].” I got them to prepare the lathe. My director took me to the shop floor. He said, “Ms Aysel will do it herself.” Now, I looked at the lathe, it’s a large one, it doesn’t look like the one in [my previous workplace]. It’s of course a more advanced version. It’s been some time [since I had worked there]. So, I’m sitting there nervous. But I said,
“Start this at slow speed, please.” You see, the lathe has a speed setting and all. I prepared the template for the product. I went before the machine. (...) Then, I said, “Please turn it on now but,” I said, “please run it at slowest so that I can adjust—”. You see, if you work with it slowly [at first], at the lowest setting, then you can speed it up: There is a period of getting used to the lathe. He started the machine, but at the highest speed! I flew off the lathe and got stuck under. Suddenly, you see, I was caught unawares. It’s very dangerous! My bones could have been broken. All my body was swollen. They ran off [to the director] – since you asked me how I made myself accepted among men – [telling him]: “Ms Aysel doesn’t know [how to work the lathe], she is stuck.” Then I said, “I was trying to help you, this is your job, your duty, you would have done it. I just run [the lathe] to help you. It’s not important at all. I’ll never run the lathe again.” Then [the director] tells them “You’ll do it, if she can’t.” (...) Then they produced the model. And did it well. They used to drink oralet [which is a fruit-flavoured powdered drink popular in Turkey in the past] there, of the cheapest sort. I went and bought the most high-quality, imported one, and said, “Thank you, you did it well,” and gave it to them. Then one of the workers came to me and said, “You embarrassed us so much! We almost killed you!” He said, “We set it to the fastest so that you wouldn’t be able to do it. But you embarrassed us so much.” Can you believe that? After that we had no more problems. After that we worked together every time. You see. They can’t take it, you aren’t supposed to do what they do. You aren’t supposed to be able to. (laughs) [6]

In this story blue-collar workers’ resistance is not to a woman’s presence per se, rather, as Aysel emphasises in her last two sentences, the resistance is to a woman’s attempt to do men’s work in their domain. Although Aysel was introduced by her director and the workers were informed that she would be working there, she was not accepted into the shop floor in this role. She encountered an overt and severe resistance, and was ‘given a good lesson’ not to attempt to do the men’s job again. However, Aysel believed that she had to find a way to be accepted into this environment, since she needed to be in collaboration with these workers for the production of her future designs. To achieve this, she redefined the terms of her position on the shop floor. From then on she visited the shop floor to talk to the manual workers about the models, but did not attempt to work with the machines - to do their job - again.

The following excerpt presents a slightly different story. Another woman designer, Seda, described the resistance of male workers when the company hired a blue-collar woman to work in the male-only workshop. She used this story to explain how she negotiated her own presence in that environment.
S: We hired a woman to [decorate the designs with stones]. We thought at the beginning that it’d be best if she worked [on the shop floor] with the other [blue-collar] workers. That’s because the other workers sometimes talk among themselves in a somewhat rude manner. I never saw it but I was told that they do. If there’s a woman there, both the way they talk would get better and umm the environment would get more peaceful. Also, the work would come along faster, if the woman does her work there, as well, assembly would also be there and everything would come together rather quickly. The woman could stand it for only one day. Next morning she calls the boss to say, “If you don’t take me away from there and put me elsewhere, I won’t be coming to work.”

P: Why?

S: They made her uncomfortable. Verbally. She wouldn’t say what happened exactly. But she says, “They made me uncomfortable.” Boys wouldn’t say anything, too. (…) [I was told] they swore among themselves and so on. They did stuff like that. That’s why we moved her to another floor, to another place where she can work alone. I was furious. I said, “Why? What did you do? Why did you do so?” [I don’t know] if they did this on purpose, to be comfortable. I mean, like “Let’s talk here freely by ourselves. We chat among ourselves here. When this woman comes, she will be a problem” and so on. I don’t know why they did it, if they did it on purpose to make her leave, but we can’t make them work side-by-side with a woman. If, for example, I go and sit there all the time, I’d probably not be able to work, I’d be uncomfortable, too. [7]

Unlike the blue-collar woman, the narrator does not encounter a severe resistance. She explains this difference by her occasional presence which does not pose a threat to the masculine culture of the shop floor. Similar to what we see in Aysel’s story above, in this example, too, women are accepted as ‘guests’, but resisted to be one of the ‘hosts’ of the shop floor.

The last three stories by Ceren, Aysel and Seda illustrate the implicit and explicit forms of resistance women meet in the male-only shop floor setting. The experiences suggest that being a woman is a big disadvantage in the shop floor environment, as it limits access to the knowledge and practice of production site, which is an important aspect of the women’s jobs. Thus, women feel that they have to find a way to overcome this resistance, or at least to keep it on a manageable level, and negotiate their presence with the manual workers in their domain.

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7.1.2. Rejecting taking orders from women

Compared to the previous theme, being rejected as a superior seems to be more emphasised as a serious problem in the accounts of the women participants who work as in-house designers, since it directly affects their reputation within the organisation. Stories present both implicit and explicit examples of this rejection. For example, Aynur states:

We had a model maker [in the workshop], he didn’t want to work with women. I mean, [he didn’t want to be told] “Do this, do that” by a woman. He feels uneasy, uncomfortable, he gives you a hard time. (...) He says, “You didn’t tell me so.” He makes [deliberate] mistakes. He tries to make you look like you have made a mistake. He gives you a hard time so that you won’t work with him any more. After a while we noticed that none of the women designers wants to work with him. I mean, male designers’ models are produced more smoothly, without problems, while with women you have problems. (...) After a while we automatically noticed that the foreman is aware of this and assigns him the task only if it’s a man’s design. Then of course he was fired, both because of this, and other reasons as well. [8]

Although the blue-collar worker’s unwillingness to take orders from a woman is not fully and clearly expressed, women feel it during the uncomfortable experience of working with him. His hostile manner affects the quality of women designers’ models negatively, thus women stop working with him, as he desires. Another woman participant, Serpil, tells a similar story with a different end:

At the beginning it was hard when I asked for something. They didn’t want to do it or they would sulk. And some of the workers were older than me. Actually, most of the workers are older than me. When I requested something of them, they would give me a hard time, like “Yeah, sure, we’ll do it, but...” Then I’d talk to my boss and he’d tell them. When he did, of course they’d do it. There’s always that difference. They’d do it if the boss asks, but when you do, there can be delays. This was so at the beginning, but later it changed. They saw that they have to do [what I say]. (laughs) If, eventually, I go to my boss and tell him that I’m not listened to, he’ll go and tell them off later. They saw this. Since it ends up bad [for them]. I never wanted it to come down to this, so I always asked nicely myself first. But there can be some who make it a matter of pride. [9]

As the first woman in a male-only manufacturing company, she encounters a collective refusal of her order-giving position. Although her managers, who are also the owners of the company, support her in going to the workshop and delivering tasks to the workers, she is not
taken seriously due to her being a young woman. This situation constitutes a problem for Serpil because it directly influences her reputation negatively: She is unable to get her models completed on time.

In the following story another woman designer, Fulya, indicates a similar problem:

Now, everybody tries to exert their superiority. For example, there is one thing I can't forget, a memory from the shop floor. I had drawn [a design], and for its production they told me to go and get it produced at the workshop. Permissions were gotten from the managers. I went in the shop floor. I told them, "You'll make this." The worker looks at you, "I’ll make this? And you're telling me to?" "Yes, I tell you so." Another worker laughs at it. Wow, ha ha, they laugh their guts out. A woman has come, she’ll get us to make those. To be able to establish your authority there, [to convince them that] your work is good, it'll come out well... Now, you shouldn't mind these. It's difficult if you care and start making complaints. I never went there. [10]

Therefore, male shop floor workers find it either funny or frustrating, but certainly inappropriate, for a woman to come to the shop floor and give them orders regarding their job. They develop a range of tactics to avoid the orders given by women, whilst women seek a way to make themselves accepted as these workers’ superiors. Although the extent to which such a rejection becomes a long-term disadvantage varies among the participants’ experiences, it is seen as an important shared problem at the beginning. It is considered a problem due to its direct effect on the quality and punctuality of the work they present to management. Thus, their performance in supervising the shop floor workers plays an important role in their reputation as designers in the office, which is the primary work setting for professional workers. With these concerns women feel that they have to find a way to make themselves recognised and respected in the shop floor environment to succeed in their professional careers.

However, it is important to note that as the concluding sentences of the previous two stories illustrate, most of the women participants expressed an unwillingness to report these problems to their managers. Saying "I never wanted it to come down to this, so I always asked nicely myself first", Serpil emphasises that she initially preferred dealing with the resistance she encountered on the shop floor on her own, but had to share them with her boss “eventually”. In a similar vein, Fulya stated that she never made any complaints about the negative attitudes of the blue-collar workers to her: "It’s difficult if you care and start
making complaints. I never went there.” Rather, she chooses to be patient and to convince the workers to collaborate with her. Going back to the previous section, we can see a similar situation in Aysel’s story. The story shows that she has the support of the manager, who initially takes her to the shop floor and introduces to the workers, and later asks the workers to produce the model of her design. Despite this, she seeks the solution in setting up good and close relationships with the workers. Buying oralet for them, which they like and drink everyday on the shop floor, she attempts to show that she appreciates their good work, and that she shares the success of her design with them. These examples demonstrate how women do not address the resistance they encounter on the shop floor as an issue that should be dealt with by the management at the organisational level, but instead by themselves through personal coping strategies.

I will elaborate on the strategies women participants develop to cope with the resistance they encounter on the shop floor later in this chapter (see Section 7.3). But first, when considered in relation to the previous chapter, these findings invite the following question to explore: According to the participants why do women encounter significant gender-related problems on the shop floor, whilst gender is not an important issue in the office?

7.2. Defining the ideal image of the professional worker on the shop floor

Participants, both men and women, suggested that the problems women experience in the production site have their roots in the masculine culture of this environment. The characteristics of the shop floor culture portrayed in the narratives of participants correspond to that which is defined by Collinson (1988; 1992): being the family breadwinner, doing production work, being a working man, being able to swear and knowing how to give and take jokes. It was common to underline that shop floor workers are different from the designers in terms of lifestyle, family values, political outlook, level of education and gender relations due to their social class. They used this distinction to explain why the shop floor is not a welcoming part of organisations for women, whilst the office space is. Most of them simply mentioned that there are differences without specifying what kind of differences these are. Only a small group of participants (see for example Mehmet below), who worked in small and distinctively conservative cities, where this culture is not limited to the workplace but also influential on people’s lives, provided a relatively detailed, though still rough, description of
working-class men: conservative and religious men who are the authoritative figures in their families, who see themselves as the breadwinner and usually do not ‘let’ their wives work outside, and thus who believe that the home is women’s and the workplace is men’s place. These men also do not know how to socialise with women except their family members, since for their lifestyle it is not usual and normal to have female friends.

Regarding the office-shop floor distinction Aynur says:

For example we have an office environment, and also a shop floor environment. Naturally, this group of people, their outlook, I mean their thoughts, culture, everything is a little bit different, I mean the blue-collar group. [11]

Another woman, Berna, makes an emphasis on level of education:

The person you call the manufacturer, the [place] you call the workshop is made up mostly of men. You have to deal with their all manner of issues and complexes. Actually the people you relate to in person exhibits a very wide range in terms of educational background. You start with the lowest level; I mean, it is the workers at the beginning of a project. Because their level of education is lower, you really have problems with them in making them do what you say. After that, as the level of education goes up, the language becomes the business language, so you are relieved a little. [12]

Mehmet also underlines the importance of educational and cultural statuses. He compares blue-collar workers to himself to explain how education and socialisation in the family and the neighbourhood shape men’s views on and relationships with women in positions of authority.

Level of education is very important. Or the cultural threshold. You never know how a man who can’t go beyond it will treat [a woman]. He can be brash. He makes a joke, she turns red from embarrassment among all other men. Besides, there is no female worker on the shop floor. Umm some of them have women managers. This hurts his pride and he says things and the girl has to listen. (...) In a sense it is also important how the girl views those on the shop floor. Can she open a window there for herself, can she protect herself, it is also important that before going there she makes an analysis of this. I mean, a girl who can’t do this has no place on the shop floor. They can mock her, humiliate her, treat her badly and send her away. This is because you are telling the man what to do. If he were as conscious as me, his pride wouldn’t be hurt. But because he is at a lower level [of consciousness], because he has been raised in that way, at that level of
perception, he can't look from that perspective, he can't see the wider picture. This is why [he can't take] the girl telling him what to do, teaching him, telling him “Don’t do it like this, but like that.” Those boys are—they are 20-25 years old people. These boys, having taught themselves on the shop floor for years, thinking highly of themselves, don't like being taught how to do their job. [13]

In his account, he distinguishes between white-collar and blue-collar men, attributing a civilised and egalitarian manner to the former, whilst identifying the latter with an exaggerated masculinity and misogyny in their relationships with women. Making this contrast, he reaffirms middle-class men’s superiority over working-class men (Pyke 1996, see also Section 2.3.1 above) and concurrently supports the presumption that women do not experience any exclusion or inequality in the office. However, despite his portrayal of himself as an egalitarian man who would not mind being managed by a woman, his account also presents an implied superiority of white-collar men over their women colleagues in the shop floor environment. According to him, women are responsible for finding a way to overcome the blue-collar workers’ resistance towards their presence and those who cannot achieve this “have no place on the shop floor”.

Kerem, another male designer, also states that although he does not approve of blue-collar workers’ sexist attitude, it is women’s responsibility to learn how to live with this attitude and make themselves accepted into the shop floor.

Whether it is right or wrong, whether we like it or dislike it... For example the old man running the whachamacallit machine. Now, if according to his life standards some clothes are teasing, you have to adapt to it. I mean, if you say “Why bother?” it can have a negative outcome. I mean, a woman who is to work there— I don’t think it’s right, OK, I don’t think it’s right either, but the circumstances... The problems experienced here in turn [makes] the upper management or the white-collar [think that] women can’t work in this job. But that’s not true. Some women can manage this well by paying attention to this. In fact, we saw that, too. (...) For example, the previous woman colleague would come to work everyday dressed as if she is coming to a wedding party. That’d of course attract the workers’ attention (laughs) and makes them talk. Or, for instance, she isn't ill-intentioned, she behaves casually. The other party takes it as an invitation. This happens. [14]

Despite the fact that Mehmet and Kerem express a strong disapproval of blue-collars’ ‘hypermasculine’ manner (Pyke 1996), they designate women as the ones who have to adjust
themselves, not the blue-collar workers. In this, they normalise the misogynous atmosphere on the shop floor rather than challenging or attempting to eliminate it. Their accounts illustrate well how discriminatory attitudes, sexual threat, sexual references and jokes in language are simply accepted as “the natural form of shop floor life”, leaving the articulation of manual work with this exaggerated form of masculinity unquestioned (Willis 1979, 196, italics original). Instead, they consider this misogynous environment a different culture that should be recognised and respected.

These two stories have two important implications: First, such an understanding seems to leave the masculine shop floor culture and its resistance to women’s presence unchanged, and therefore reproduces the identification of the technical worker, both blue-collar and white-collar, with men. Second, the shop floor culture seems to serve white-collar men to emphasise their superior position in relation to not only blue-collar men, but also white-collar women. Thus, women’s disadvantageous situation on the shop floor is sustained by the middle-class, as well as working-class men (and masculinity), since the former support the argument that only men are ‘gender authentic’ for this environment.

However, it would be a mistake to assume that all women refer to the discriminatory and hostile manner of the manual workers as the source of their ‘gender inauthenticity’ for the shop floor. Some of the women participants stressed that the workers whom they were supervising had very positive, polite and respectful attitudes towards them. Still, they indicated, being a woman has always been an issue, influencing their relationships in one way or another, and they could never be a ‘gender authentic’ member of the shop floor (as I presented in the previous section), whilst their male colleagues could be.

A story that well illustrates this argument was told by Nihal who is the leader of a design team, consisting of herself and a male designer, Haldun. She is a furniture designer working in a manufacturing company. Next to her office, there is a prototype workshop attached to the Research and Development Department. It is her job to deliver the technical drawings of her designs to the workshop workers after getting the approval from her director and to supervise the production of the prototypes. In the same way, Haldun monitors the production of his own designs. They both spend a lot of time in the workshop among workers. Nihal says that although they became a good team in the end, neither herself nor Haldun were accepted
quickly into the workshop, as she is a woman and Haldun is not a stereotypical man.

N: Haldun is not a man who could be considered a standard male. (...) We are talking about a person who is very different from them [that is, the shop floor workers] but eventually the same sex. With every little thing, there is this unavoidable potential that there can be some labelling\(^{11}\).

P: Like what?

N: You can notice the label, "not one of us".

P: In what way “not one of us”?

N: Umm, Friday prayers is a culture there. He doesn’t go, so let's exclude him. Umm, his reactions are different – this way or that way, it doesn’t matter. He can be too different, he can be too soft, it doesn’t matter. Umm this is what attracts my attention. (...) If you are a woman, there is no— I mean, we are talking about something entirely different. For this reason, that meaningless difference persists all along. You see, it's been so many years, five years now, still when I come across Hasan Usta, – I'm sure we both like each other very much, but he still doesn't know what to do with his hands. After a period of getting to know Haldun, they accepted him among themselves. (...) Once the period is over, he became one of them. [15]

Although both Nihal and Haldun are considered not to fit in the conservative working-class culture of the workshop, the story is finalised by Nihal’s subtle exclusion and Haldun’s visible inclusion. Despite the tensions between the two groups of men due to the differences in their masculine interests, values and practices, ‘being a man’ works as a central unitary reference point. Of course this inclusion requires significant negotiations and takes a certain amount of time. Also, some of the tensions still remain and as Collinson and Hearn (1994) state, these unities are often fragile, precarious and shifting. Still, a white-collar man who is definitely ‘not one of them’ at the beginning may become ‘one of them’ after some time and get a place in the informal shop floor culture. Yet, this is not the situation for a white-collar woman, even when she has close personal relationships and there is no sexist and hostile attitude towards her. In the story below a male participant, Cihan, further illustrates this argument:

I was sent away 21 days after I learnt that I was going to be sent away. In these three weeks, I tried to develop my [skills and knowledge]. Here, there is a huge advantage to keeping your relationships close [with the workers].

\(^{11}\) In the interview I felt that she was deliberately subtle here. This is why I pushed her to say more.
That’s because, umm, the men on the shop floor are, eventually, from [a conservative small city]. I mean, it’s clear which political parties they vote for, what their wives statuses are, their point of view is obvious. I approached these people as I am, just as in [the previous companies I worked]. That’s my nature. And they didn’t reject me. I mean, we’ve gone to so many fairs, umm, to so many different countries to set up exhibition stands. There is, first of all, the getting-close that comes with travelling together. After all this [time spent together] I never had any trouble going to the [prototype workshop] and finding people who can teach me things [about manufacturing]. Umm “Abdullah Abi, let me run the machine, let me edge that piece [of chipboard], let me turn on the power switch so that I can see, let me clean that,” and even “let me sweep the floor.” I mean, if it were a girl there, they’d actually say “What’s she doing here?” especially in a city like that. (smiles) I had a huge advantage of this.

Communication is presented as a reason for the easier acceptance of men. Male designers are considered to ‘communicate’ with blue-collar workers more easily, whilst ‘understanding each other’ is mentioned as a problem between women and shop floor workers. Aykut compares himself to his female colleagues:

I had never noticed that it was so important, once again it’s about gender... If it were a girl [instead of me], a recently-graduated girl, she might not have been able to set up such close relationships with the workers. Now in [the jewellery company I worked in the past] these boys working with gold, or silver, or wax, coming from Kasımpaşa or from strange neighbourhood in the middle of Merter. She wouldn’t be able to have her way with them. And I had female friends who had a hard time doing this.

Ceren, a woman, supports this comment:

When one of your designs is being produced you have much dialogue with the [shop floor] workers. Because they produce the mould. It takes quite a long time to persuade them, I mean to understand each other, to communicate with them. Because you are a woman, they approach you— At the beginning between you and them there is definitely a prejudice, a strangeness...

Another male participant, Nevzat, illustrates how the managers would question whether a woman can be tough enough to argue with men when necessary, since such a behaviour is

12 Here, he means that these men vote for conservative and religious parties and regarding their wives, I think, he implies that they wear headscarves and are not ‘allowed’ to work out of the house by their husbands.

13 Abi corresponds to ‘older brother’. It is used in informal relationships with older men following the forename, includes both respect and friendliness.
not identified with femininity.

There is a prejudice [against women] because of this: For example, she can’t talk to the blue-collar worker, she can’t do this with him, she can’t do that with him... That kind of a prejudice. No one says she doesn’t know about production, but everyone says: “What? Is she going to argue with the blue-collar worker?” for example. [19]

Thus, it can be summarised that according to the male participants women designers have to demonstrate social competence to exercise authority over blue-collar workers if they want to work in manufacturing companies. Women have to know, for example, how to present themselves (i.e. dressing in a way that would de-emphasise their sexuality), how to respond to men's inappropriate jokes, and how to be tough and argue with the workers when necessary. In the previous section I noted that women participants expressed an unwillingness to report the problems they encounter on the shop floor to their managers, even when they had their support. In light of this section's findings, I suggest that this notion of social competence is influential on women's preference of dealing with these problems through individual strategies. Women see overcoming blue-collar workers' resistance on their own as a means to prove the management, and possibly their male colleagues as well, that they are socially competent enough to work in a manufacturing company as a technological professional worker. I will further discuss and evidence this argument in the following sections.

Whilst male participants underlined the necessity of demonstrating social competence, in female participants' stories another type of competence was emphasised. Women stated that in order to gain the respect of shop floor workers as their superiors they have to prove their technical competence for production. I will elaborate on this theme, women’s double competence problem on the shop floor, in the following section.

7.3. Women’s competence on the shop floor: “As a woman, you have to prove yourself”

For a woman, ‘proving herself’ corresponds to making the shop floor workers believe that she has the knowledge of production and the machines used on the shop floor as well as
technical details, so that she is competent enough to recommend a technique, tool or method for production. Among women participants it was a shared belief that if a woman can demonstrate her knowledge, skills and competence, it is possible for her to overcome the resistance of shop floor workers. Leman illustrates this:

There is a discussion going on about a cored mould, whether [it] works or not. When you comment, at the beginning, there can be this assumption that you wouldn’t know [about moulds]. But then you can solve this problem through your relationships. (…) Then you can overcome this with your effort, your experience. [20]

Yasemin also underlines the advantage of explicitly demonstrating technical knowledge in her relationships with shop floor workers when they claim that what she asks them to do is impossible. Although here she does not link it particularly to being a woman, she tells this story to illustrate how learning the technique is crucial for a woman to survive on the shop floor. Proving her knowledge enables her to make the workers comply:

For example in cutting, you say, “Could you do it like this?” He says, “I can’t.” “Why can’t you?” He says, “You can’t do it.” You say, “Look, if you tilt the stone like this, and hold the glass this way, you can cut it.” They can’t really do much. One or two can be very talented. Others can’t go above the standard. I mean, to make them go above it, you need to do it yourself and show them it can be done. It was like that in our times, we are talking about that period. [21]

Some of the participants indicated that when a woman demonstrates her knowledge and competence, it does more than change men’s prejudiced attitude towards her. It also helps her earn their respect. For example, Berna says:

[Men] think you wouldn’t know about most things. (…) I always get prepared beforehand. I prepare very well. I prepare my questions very well. And they are surprised. I mean, for example, he doesn’t expect me to ask those questions. Or sometimes I say, “You used this material here, so in between you need to use something flexible.” I say, “Because you know, a yacht is made of wood, and wood tends to warp.” He just looks at me, surprised that I could think of it. You surprise them as a woman. I don’t know why, they consider it normal if a man says it. I mean, it’s thought that you wouldn’t know about details, engines and so on. Then you look really charismatic (laughs out loud). [22]

Ezgi furthers Berna’s suggestion stating that once she proves her knowledge and
competence, she is respected even more than a male designer.

Of course, [the workers] would speak more casually with a man. But [being a woman] has its advantages, too, I can feel it. That respect— if you make them realise that you know manufacturing and technique well, which is the requirement of the job any way. I mean, no one, man or woman, can say “I don’t know about this.” [if he or she is] an industrial designer. Umm, if you are a girl, it may be assumed that you wouldn’t understand, but if you make them notice that you do know, then you earn [their] respect — an even higher respect [when compared to a man], since they get too close to you. [23]

Figen supports the above comments. Her account underlines the significance of not only proving technical competence, but also demonstrating social competence concurrently:

[The woman architect working before myself] would take— [The workers] are telling me this. She would draw [the new design] and take it to the shop floor, to the foreman. Since she is a woman and is considered not to know the job, she goes there already in disadvantage. The foreman would hold the drawing and say "Why don't we do it like this, but like that?" "No, let's not do that." A dialogue in which she talks as if she is begging him. At the end the foreman says "OK, let's do it [as I say], it's better this way." And every time it is concluded with the foreman's victory. (laughs) When I went [to the shop floor], it had been one-and-a-half to two months, I guess, I had designed a product, a bedroom furniture set. (...) The foreman tried it on me, too: "Ms Figen, why don't we not do it like this, but like that?" and so on. "No, we won't." For one or two months he made attempts on me, assuming he would get a similar victory, but in the following three-and-a-half to four years such a thing never happened again. (...) I mean, umm, when it was me that described how to produce [the product], or when it was them doing the describing and me saying it is right or wrong — they already know what is right and what is wrong anyway — they test it [against what they know] and when they did, they may have given up considering the answer they got. I can say that I started with the disadvantage of being a woman and continued with the advantage of knowing the job. [24]

She puts much emphasis on her tough attitude towards the worker, comparing herself to the woman architect doing the same job before herself. It is also reminiscent of what Howard and Setliff (2000) argue in their study of 'exceptional' women in industrial design profession in the US: Women have to prove their competence and aptness not only for the job, but also for their relationships with the workshop workers. Similarly, Figen 'wins the battle' using both her technical competence for the job and social competence for managing workers, although she was assumed to be the loser at the beginning. Doing this, she supports the male participants’
argument discussed above.

However, in order to prove their competence, first women have to find a way to start a dialogue with the shop floor workers. In other words, women have to be socially competent to be able to prove their technical competence, i.e. they have to know how to present themselves on the shop floor, and how to approach the blue-collar workers. In the analysis of the stories two contrasting strategies for coping were identified. First, adopting the role of a female family member, such as a mother, sister and daughter, enabled some of the women to define their unusual presence in familiar and acceptable terms. Second, presenting oneself as an atypical woman with masculine traits and attitudes is suggested as a useful strategy to succeed in the technical work settings. In the following two sections I will examine these strategies.

7.3.1. Stereotypical family roles: a mother, sister or daughter

Adopting certain attitudes and behaviours that typically characterise family life in their relationships with the manual workers is presented as a useful way of coping with the resistance on the shop floor. Although some participants did not assign a specific role to themselves, in the interviews it was not rare for me to hear different versions of this expression: “But we are like a family now and most of the problems disappeared.”

For example, Filiz narrates that she was referred to as “abla”, which means older sister in Turkish, by the younger workers on the shop floor. According to her, this shows the workers’ respectful and positive attitude towards her, which she gained by her distanced stance.

There were young boys [on the shop floor] and they called me for example “big sister” (abla). (laughs) I had good relations with them, we still see each other. They invite me everywhere as a big sister. (smiles) It was good with them. You know I didn’t have any problems. I think it depends a little on your attitude towards them. If you keep more, umm, distanced, I think you don’t experience any problems. [25]

Zehra illustrates this strategy too, but unlike Filiz she displays an empathetic character, like a mother or a sister, who listens to workers’ problems regarding their families and monetary
issues:

I always treated them well, listened to them. Because they all have problems. They all have monetary problems, they all have problems regarding their families, their children. You should listen to them, share their problems a little. You should say “don’t worry”, you should calm them down. You should get close to them by doing things like that. [26]

Her account evidences that adopting such a role facilitates women’s inclusion into masculine work settings. Ollilainen and Calasanti (2007) argue that in particular the mother role provides a source of power for women, as it emphasises age and experience, which are features that call for familial respect. However, they indicate that at the same time it highlights the traditional role of mother who sacrifices herself for the good of others. Thus, the power of being accepted as mother can be limited to instructing and influencing men within the existing gender and power structures that privilege men.

In the below quote, Nihal describes how she adopts the role of a child:

Umm, whether you like it or not, however friendly you treat them, however much love you feel towards them, you just can’t go past the sex difference. I can always say this confidently for myself. Of course you also need to ask the other party how true this is. But, I always present myself, not through my gender, but as a human-being. I mean, if necessary you carry the chipboard, if necessary you pour the glass bla bla bla, it doesn’t matter. There is only one reason that I do this, or that I talk rather casually and straightforward, [it is that] the men are already predisposed towards [seeing me as a woman, so] I try to prevent this as much as I can, at most they should see me as a child so that I don’t have any problems. This is what I developed as a defence mechanism. [27]

Adopting the role of a female family member serves Nihal to remove any sexual connotations from her relationships with the manual workers to whom she works closely. Presenting herself as a ‘cheerful child’, who is helping men with their job, enables her to disguise her sexuality and to keep her relationships close and positive simultaneously. Being treated as a female family member in the workplace translates women’s unusual presence in familiar and acceptable terms. Still, it does not necessarily work to the advantage of women. Simultaneously, as some studies show, adopting such roles deflects from rather than strengthening others’ belief in women’s professional competence (Kleinman, 1996; McLaughlin, 1999), and such a ‘role entrapment’ very effectively reinforces the symbolic and
structural dualisms between women and men (Kanter, 1977). This is visible in Ceren’s case:

C: For example there is this woodcarver. He is a very sweet person. I mean he is a really good woodcarver. I mean he is very competent in what he does. You know, he came and we were trying to do something together, trying to talk about it. He says things like “You are a university graduate but... I’m sure you know better but...” (imitates the sarcasm), such sarcastic talk. (laughs) He says, “My daughter [lit.]^[14]" but mind you, “My daughter”! Calling me so he asks, “What are you doing here? What is your job here? Are you here for accountancy?” You see, people from there don’t have this consciousness that a woman can come and do things there, at a different position, as a white-collar, that a woman can take role in the management.

P: And when you said you are a designer, would they understand?

C: That woodcarver person did understand. He said, “Oh, you’re drawing on the computer, aren’t you?” He knew that. But, you know, “You’re just graduated, my daughter..”, he would talk about those too. (we laugh) I would tell him [what to carve], but he wouldn’t listen. He would carve the wood as he liked. Then we had to make him do it from the beginning. This time, when he had to do it again, he started listening to me. I mean, at the beginning there is always resistance from people. It comes to things like “You don’t really know the job.” [28]

Unlike Nihal, Ceren does not seem to be happy with the role of a daughter. At this point, examining who assigns such roles to women may be helpful to explain the difference between the comments of Nihal and Ceren: In the first case, it is Nihal who chooses that role, as she thinks that it is a useful strategy. In Ceren’s case, however, the appropriate role is assigned by the craftsman to show her the place available for a young woman on the shop floor. Calling her ‘my daughter’ appears to enable the craftsman to underline his superiority that is marked by his sex, age and experience in the job. Doing this, he contrasts himself with her and seems to use this contrast to compensate for his lack of professional degree. His emphasis on Ceren’s incompetence in the job is also evident in his resistance to carving the models as she wants. So, being offered the role of a daughter does not make the situation easier for Ceren, but rather it stresses her inappropriate presence on the shop floor and disguises her higher position in the organisational hierarchy.

^[14] “My daughter” is the literal translation of “kızım”. Basically, it is how parents refer to their daughters. However, it is also usual for a woman to be called as “kızım” at any age by an older person in an informal conversation, for example, by teachers at school or by an older person who wants to ask an address on the street. In work life it is usually used by older employees to refer to women in unprofessional occupations, particularly secretaries.
7.3.2. “I’m not a typical woman”

Some of the women participants suggested that they could easily overcome the prejudices and resistance on the shop floor due to their atypical gender traits and characteristics. They were aware of the problems women face in the shop floor environment, but indicated that they did not share such experiences frequently. For example, Melek says:

Not all women are the same. (stops and thinks for a while) Unlike me, it could be a woman who can’t enter the shop floor easily and drink tea with workers. I mean, it could be a more weak, fragile and shy woman. Then it is more difficult for her really. I have never been worried thinking “Would they treat me that way because I’m a woman?” so I enter that environment hustling and bustling (laughs), maybe that’s why I don’t see it much. Maybe there is such an attitude towards myself but I don’t perceive it. Or I don’t want to see it, I don’t know, I didn’t have such a problem. (laughs) [29]

Similarly, Zeynep defines herself as “a girl like a boy”:

It may be important for you that I was already considered a tomboy [lit. “girl like a man”]. I mean [when I was working there] I had this attitude that I don’t hold back, I don’t hold back with other people, even aggressive to some extent, you could call it “shrew” [lit. “witch-like”]. Neither did I shy away from going to [the production site]. That’s why I was considered “like a man”. (…) You see, in Turkey a girl can be seen with a different eye. A more protective approach. For example I never needed that kind of thing. [30]

These women do not associate themselves with ‘other’ women who are weak, fragile, shy and need protection. Instead, they are strong, self-confident and self-sufficient, so can easily earn men’s respect and quick acceptance into male-dominated work settings. In the example below, Figen criticises the image of the fragile and weak woman in high-heeled shoes indicating that she is not that kind of a woman:

In that period I participated in a project. I worked in [the construction of an office floor in a business centre in Istanbul]. Until then I had never lived in Istanbul. The longest time period I have ever stayed in Istanbul alone was then, it was for a month and a half. I stayed in the neighbourhood close to [where I work], on my own. There was a green Skoda umm truck, I was driving it. I was going to Kağıthane and Çağlayan. Doing such things may be hard for many women, but I had some affinity to construction in my soul. [31]
She describes the requirements of this specific project as a list of unfeminine tasks: living alone in a big city, driving a truck to go to several places during the day and staying overnight alone in a neighbourhood where she has not lived before. She is proud of herself as she is capable of handling the job, which would be difficult for ‘many other women’.

Typical feminine characteristics and behaviours, such as being shy and weak, having lack of confidence and need of protection, are not only defined as the reasons for women’s inferiority, but in some accounts, they are also explicitly devalued. In the below example, Banu criticises the image of the fragile and weak woman in high-heeled shoes indicating that she is not that kind of a woman:

I am a person who can replace her car’s tyre when it blows out. You know, I’m not a person that calls her partner or lover and complains. Maybe that’s why. This is why in [an industrial district]... Before I started working here, I used to run my own business in [this industrial district]. Then, too, I used to subcontract with workshops and oversee them. But, you know, [when I went to those workshops] I wasn't that fragile type of woman designer, with high-heels and so on. (...) I mean, I don’t know whether it was because I behaved in this manner that I was accepted quickly. I mean I’ve never been a person who complains a lot and keeps making people feel that she is a woman and causes problems. I’ve never been that. I can tell that objectively. [32]

Pelin’s account is slightly different from the ones above. Her emphasis is on taking a masculine stance, rather than ‘being like a man’. She puts more emphasis on presenting herself as tough and formal, without mentioning whether such a stance matches her personality or not.

P: And the relationships with workers, how were they there?

Pe: Of course, it was good. Umm, of course they look at women a little differently, I mean, like “What’s she doing here?” But of course it may be all related with [your] manners. I don’t know, I would look a little more, like, more formal. I wouldn’t laugh much at the jokes and so on, for example. That is to emphasise my authority. What kind of jokes? I wouldn’t laugh at jokes like, I mean, you know, nasty jokes, for example. I would take up an attitude, and try to distant myself. I didn’t want to associate too closely with them. I mean [only] business-related conversations, “How are you?” and so on. It was more superficial. You see, in their dealings with other people I observed that after a while, as they get closer, there would be gossips, talking behind people’s back. And that bothered me. This is why I took up an
attitude from the start. (...) I didn’t have a problem. It seems maybe that it depends on one’s attitude. If you look a little more, umm, say, manly, or more distanced, disciplined, it seems to me that there would be no problems. [33]

At this point I want to go back to Mehmet and Kerem’s above quotes to show how these women’s accounts tend to converge with their comments: The shop floor is not for ‘every woman’. It is for only the women who are socially competent, especially who can be ‘man enough’, to be accepted into the masculine culture of technical work settings. Below are the quotes from two male designers’ accounts to illustrate how men also appreciate their colleagues when they can be ‘a woman like a man’.

Selim: But in [that company] I haven’t observed any bad, how shall I put it, any bad attitude [towards women]. There was only this small prejudice, but there have also been female colleagues who overcame it. Of course, there was especially Ms Oya, like a man in terms of, umm, character. [She was tough] like a rock. She destroyed these prejudices successfully. (laughs) [34]

Aykut: I haven’t seen this directly but at the end there is a general attitude, you feel it; I mean, like I can or can’t stay in that environment. Girls, most of them, had made that choice. For example, there is Ada. She never— She is also like a man. That is her advantage. She says, “Get off my way, I’ll go in [the shop floor], no, I’ll go.”[35] She is like that. I mean, most of the time, we would go there arm in arm. (smiles) She would go to one worker, I, to another. We would again meet on the way back. I mean, she’d take care of herself. [35]

In this regard, this strategy helps individual women prove their superior position in these masculine and male-dominated work settings to shop floor workers and gain the respect of their male colleagues. However, at the same time it fails to improve the collective status of women, since it devalues the traits and characteristics that are associated with typical women. Powell et al. (2009) argue that such a career success is unlikely to promote women’s interests, even when a sufficient proportion of women is achieved in the profession. My findings exactly illustrate this: Classifying themselves together with men as the competent professionals, these atypical women support the hegemonic masculine image of the technological worker and women’s ‘gender inauthenticity’ for such roles even in a context where women constitute almost half of the industrial designers.

15 Before this paragraph he explains that it was usually male designers who visited the shop floor to deliver the drawings of the new designs to workers. He says that women would usually ask their male colleagues to take their drawings to the workers as well, so that they would avoid entering the shop floor.
In the previous chapter, I presented the extent to which the industrial designers’ concerns have changed, and to what extent they have remained as the same, following the increasing recognisability and employment of industrial designers in the Turkish industry in the last decade (see Section 6.1). I indicated that although finding a job was not mentioned as a problem in younger participants’ accounts, for those who work in SMEs struggling to introduce the profession and doing any kind of job that was considered to be relevant to design were important concerns. So, generational change and the size of the company appeared as two important factors that shape the work experiences of the participants.

These two factors also seem relevant to women’s experiences in manufacturing companies. Some of the women participants who have been in professional life since the 1980s or before discussed the importance of generational change by comparing their experiences as industrial designers on the shop floor in the past to younger women’s experiences today. These first generation women designers suggested that due to the small representation of women in industry in the past, the disadvantage of being an industrial designer was doubled by being a woman. So they had to prove themselves on both accounts. Meltem summarised this clearly:

My problem, as I said, has two sides to it: First, I had problems explaining to people what design profession is. Second, of course, there is being a woman — Umm, but now, when I compare today with the years I worked [in a manufacturing company], now of course the number of working women in Turkey has increased quite a lot. I mean, in most companies you see that the number of women is almost higher than the number of men. So I'm sure they don't go through as a woman now what I had gone through in that period. [36]

One of the male participants also emphasised this generational change. At the end of our interview I ask Berk if he would like to add anything else. He said,

What I want to say is that, uum, the country is changing, too. I mean it seems like Turkey is becoming a more conservative place, or there is such a general belief when you consider the overall situation in Anatolia. But when you go in detail, I think it's just the opposite. I mean when I consider our visits to subcontractors in [one of the industrial districts in Ankara], in the past it used to meet disapproval when a woman goes there, you know, work
there. Now people are more relaxed about these issues. I mean, both our woman colleagues in the company who go there to work, and the people there like craftsmen and workers are much more comfortable now. I mean such prejudices are disappearing day by day. They can work together in the same environment much more comfortably. [37]

Although he said that he could not tell a specific story to illustrate this argument, he stated that he observed a significant change in a positive way in the relationships between his female colleagues and the blue-collar men working in the workshops which are the subcontractors for the company for which he works.

Like Meltem, during our interview Nehir repeated many times that in the past it was a challenge to be a woman in industry as well as being an industrial designer, whilst today she does not observe any problems in young women designers’ relationships with shop floor workers in the same company. She says that in those years for a woman it was difficult to be accepted into the shop floor, but today since the designer’s job is better known and well-defined by certain job allocation procedures, the personal relationship between the designer and the model-making worker is not that important any more. Thus, according to her, the improvement of the women’s experiences on the shop floor parallels the improvement of their status as industrial designers:

While studying at university, one of our teachers used to say, "It’s all about the craftsmen. They’re the ones who’ll do the work in the best manner or ruin it. So, be in good terms with them." (...) In the past it used to be all about the craftsmen. I mean, of course there is the manager or so on, it’s not like that today. I mean, [today] the process goes top-down. Now the craftsman is just the last stage. [38]

I want to highlight that the problems presented in this chapter are narrated by the participants who have direct relationships with the production site. As I noted earlier, some designers, on the other hand, are not responsible for the model production process depending on the industrial sector in which they work, since this process may require intense engineering work. This is usually the case in large-scale manufacturing companies. In these companies, designers complete their designs and drawings and deliver them to the manufacturing department following the related procedures. Thus, it is the engineer’s job to deal with the model production process, not the designer’s. Narratives by a group of younger women participants, who work in large-scale companies and whose work is organised in this
way, supported Nehir’s observations. These women stated that in their current jobs they never had problems with the blue-collar workers due to the well-defined job allocation procedures. For example, Seher says,

Actually, my relationship [with the workers] is quite good. (laughs) (...) But in fact there are already some things in place. There are certain procedures for delivering tasks to those people. Other than that, if it’s a simple thing, something that they could do for a kind request, they do it. No problems there. Any ways, I don’t have such needs very often. [39]

Defne compares the middle-scale company (Demirci) she worked in previously to the large-scale company (Tekno) where she got her second job, and says that she was really surprised when she saw how respectful the shop floor workers were towards her in the latter.

I, for instance, in Tekno saw this, too: The workers on the assembly line or, umm, the non-white collars, they had much respect towards the white collars. I mean, people who have worked in Tekno since their graduation don’t see this. I mean I can tell this after seeing the environment at Demirci. Umm, there have been, for example, occasional problems on the assembly line. Say, a television set I designed. They’d call me, they’d definitely ask my opinion, [saying] ”We are doing something like this.” The solution they came up with is actually right, because that man handles 200 television sets a day. He’s actually more knowledgeable than me in this matter. [He says,] ”I’m doing something like this, but what do you think? Would it be alright?” (...) I’ve seen them come to you, help you and treat you without seeing any difference between people. Which is a very good thing. You see, then I could make decisions more comfortably there. Also I could see what they did [on the assembly line] and learn more [about manufacturing]. [40]

Drawing on these accounts it can be assumed that today women designers working in large-scale companies in the Turkish industry rarely encounter the problems discussed in this chapter, since they do not enter the shop floor often. Even so, it is important to remember that, as noted above, in Turkey the industry mainly consists of SMEs (see Section 4.4). This means that most of the women industrial designers who choose to work in industry, rather than design consultancies, have to get jobs in SMEs. Moreover, as I discussed above (see Section 7.1), for some participants being close to the production site is the most important and enjoyable aspect of the industrial designer’s work. For them, the shop floor is not a work environment from which they would like to stay away, but rather of which they wish to be an ‘authentic’ member like their male colleagues. Thus, removing the model production process from their job and minimising their contact with the shop floor workers would not be a
solution for these women.

Furthermore, when it is the engineers who carry out the model production, different types of power issues arise in the interaction between designers and engineers. As I showed in Chapter 6, although female and male designers share a similar inferior position in these interdisciplinary relations, particularly in male-engineer-dominated organisations women’s inferiority is deepened and strengthened by their individual gender. Therefore, compared to the shop floor, the office may offer a more ‘sterile’ and ‘civilised’ work environment to women as discussed in Chapter 4, but it does not necessarily provide them with equal terms with their male colleagues.

7.5. Conclusion

In the stories explored in this chapter, the occupational image of the industrial designer was not addressed by the participants as a concern. Instead, much emphasis was placed on the visibility and the significance of individual gender, being a woman or man, on the shop floor. The findings of this chapter suggest that contrary to the mixed-gender office environment, the male-dominated shop floor is an explicitly challenging work setting for women who enter there in positions of authority – at least until they prove their competence – due to the attitude of blue-collar workers. In the analysis two main themes were identified regarding the problems women encounter in their relationships with blue-collar workers, which are resistance to women’s presence on the shop floor and rejecting taking orders from women.

However, the disadvantageous situation of women is not only created by the resistance of male shop floor workers to women’s superior position. At the symbolic level, it is also sustained by male industrial designers’ consideration of the superior positions on the shop floor as only proper for those who can display the necessary masculinity (see Section 7.2). Doing this, male designers identify the image of the ideal professional worker on the shop floor with a hegemonic form of masculinity, which is characterised by aggression, self-sufficiency and toughness, and thus reinforce the ‘gender inauthenticity’ of women for this image. This image is clearly distinguished from the less ‘civilised’ and less educated working-class masculinity, and the weak and fragile femininity; and privileges male industrial designers, and their middle-class masculinity, over not only blue-collar workers, but also
women industrial designers.

In Chapter 6, participants argued that in the egalitarian climate of the office, women industrial designers’ competence for their job is usually taken for granted – especially when it is defined as an aesthetics-related and ‘soft’ job. However, the stories examined in this chapter showed that when women enter the shop floor, their competence is questioned by both blue-collar workers and male industrial designers, and they are expected to demonstrate two different types of competence. In this work setting, in line with Collinson’s (1992) argument, technical competence for the ‘hard’ production work appears as an important issue among blue-collar workers. Women feel that they have to prove that they are competent with machines and production techniques in order to gain the respect of shop floor workers as their superiors. For male industrial designers, on the other hand, what matters on the shop floor for a professional worker is social competence. From their point of view, the question is not whether a woman industrial designer has technical competence, since this is already taken for granted by them, but whether she is socially competent enough to exercise authority over blue-collar workers. Thus, in the production site women are expected to meet a double competence to prove themselves to two groups of men.

This chapter also revealed that women’s status in this work setting has impact on their status in the office, which is the primary work setting for professional workers. Women’s concerns were clearly indicated in the stories: The quality and the punctuality of the models of their designs is directly related to the success of the work they present to management. Thus, their performance in supervising shop floor workers plays an important role in their reputation as industrial designers in the office. However, most of the women participants indicated that they prefer dealing with the resistance of workers by individually developed strategies, rather than reporting it to the management, since they see overcoming men’s resistance as their responsibility and as a means to prove their competence as professionals. Doing this, they support the argument of their male colleagues that ‘the shop floor is not for every woman’.

As the stories that are explored in Section 7.3.1 and Section 7.3.2 demonstrated, the individual strategies women develop help them cope with the situation to a certain extent. Some of them preferred to adopt the role of a female family member in order to define their unusual presence in familiar and acceptable terms. For some others, presenting oneself as an
atypical woman with masculine traits and attitudes served as a useful strategy to exercise authority over blue-collar workers. These coping strategies enabled most of the women participants to handle the resistance they face on the shop floor individually, yet they do not seem to challenge the ‘gender inauthenticity’ of women for the production site at a structural level. However, the last section of this chapter (Section 7.4) showed that indeed organisational structures and organisation of manufacturing work have considerable impact on the kinds of gender relations that exist between professional workers and blue-collar workers. Management’s support and development of strategies for making the production site a woman-friendly environment is, therefore, crucial to improve women’s experiences in the production site.

The stories I explored in this chapter demonstrated that there are important differences between the experiences of gender in the office and on the shop floor, whilst at the same time these experiences in the two sites of work are connected to and influential on each other. I will further discuss the links and contradictions between the experiences of gender in these two work settings in the next chapter.
Chapter 8

Conclusion

This thesis investigated the role of gender in industrial designer’s work in the context of Turkey. But it addresses a broader audience as the questions it is concerned with are unique to neither Turkey, nor industrial design profession. Rather, this thesis takes industrial design in its current situation in Turkey as an original example of technology-related work, which enables us to raise new questions for the old and enduring problem of gender inequality in technology-related work.

To this end, the first task of Chapter 2 was to make a review of how the gendering of technology-related work has been theorised and investigated in the extant literature. In this review, I brought together two bodies of feminist work from technology and organisation studies that to date have been separate, proposing that gendering of technology-related work can be understood neither in isolation from various aspects of organisational life (e.g. access to power, definitions of roles and responsibilities within the organisations), nor without taking into account the strong association between masculinity and technology. In other words, for a comprehensive analysis of gender inequalities in technology-related work we need to deal with the gendering of both technology and work.

A second task for Chapter 2 was to suggest and set out a theoretical and conceptual framework that addresses this concern. Two parallel theories of gender from technology studies and organisation studies informed this study’s framework. First one is Harding’s (1986) gender triad, which proposes that an adequate analysis of gender requires recognising its construction at symbolic, structural and individual dimensions of social life. This gender triad has been adopted by many feminist technology scholars to examine the complex relations between gender and technology. Second one is the theory of gendered organisations (Acker 1990, 1992), and the three gendering processes it pinpoints: construction of gender through symbols and images, division of labour and interactions between individuals in the workplace. Combining these two approaches, both of which acknowledge the instability, complexity and multiplicity of gender construction, I developed Harding’s triad to examine the symbolic, structural and interactional dimensions of the complex relations between gender,
technology and work.

Furthermore, reviewing the literature, Chapter 2 identified the three concerns that feminist research has pointed to explain women’s disadvantaged position in engineering and IT: male-dominance in technological occupations, the masculine culture of technology and technology-related work, and the masculine image of the ideal technological worker. The first two concerns, but especially the former, have also been highlighted by feminist design scholars. Chapter 3 showed that in these studies, which have focused on western countries, particularly the UK and the US, industrial design is described as the most male-dominated and masculine field of design due to its relationship with technology, like engineering and IT. However, looking at the situation of industrial design in Turkey in Chapter 4, we saw a contradictory picture. Chapter 4 revealed that in the context of Turkey, women’s entry to technology-related professions has a different history to that of many western countries, and provides a useful example in the investigation of the gendering of technology-related work, particularly industrial design. This is because, contrary to the literature reviewed in Chapter 2 and Chapter 3, this example enabled us to ask what happens in terms of the experience of gender in/equality, once a technology-related profession is not explicitly gendered in terms of numbers, occupational culture and the image of the ideal worker.

This thesis sought to answer the following research questions, which were outlined in Chapter 5:

• How and to what extent are the industrial design professional’s experiences shaped by the gendered images, structures and interactions in the workplace?

• What are the industrial design professional’s experiences in the workplace?

• How can these experiences be understood and in what ways are they patterned in terms of professional and organisational contexts?

• In what ways is the industrial designer’s work gendered in a range of industries and work environments?
• What are the implications of those experiences and framings for understanding the gendering of industrial design as an example of technology-related work?

In the investigation of these questions this study employed narrative analysis as its research method to analyse the interview-based narratives constructed with 32 industrial designers working in Turkey regarding their work experiences. The two analysis chapters, Chapter 6 and Chapter 7 examined these narratives focusing on the participants’ experiences in the office and the shop floor environment respectively, and each provided an individual summary of its findings. This chapter is organised in two main sections. In the first one, I will tie together and synthesise the findings of these two chapters to discuss the research questions. Doing this, I will also discuss the contributions that these findings make to theory, methodology and practice. In the last part of this chapter, I will highlight the limitations of this study to make recommendations for future research.

8.1. The gendering of the industrial designer’s work

The findings of this study revealed that, in line with the lack of a numerical gap, the industrial design profession offers equal opportunities to women and men in terms of getting a job, promotion and division of labour. Even the women participants who encountered gender-related problems at some point in their working life preferred not to place much emphasis on them, since they did not consider these problems significant enough to prevent them from pursuing a successful career. Overall, rather than gender, it is the performance of individual designers and the quality of their designs that are taken into consideration by management in the processes of recruitment, promotion, and division of labour in the design team. In this regard, in line with the literature, women hesitate or fail to acknowledge and report subtle discrimination and sexism in the workplace as long as such behaviour does not have material consequences for them (see for example Martin 2006). This also supports Acar’s (1994) assertion that in Turkey women have a ‘formalistic’ view of equality, which means they define equality in terms of being given equal rights to men, so that they do not identify discriminatory behaviour they face in everyday life at work.

However, these findings are valuable as they reveal that when designers’ experiences are examined within the professional context, the findings contradict the argument shared by
feminist studies that in technology-related professions women are likely to be seen appropriate for the roles which are less valued, and are segregated into the positions which would not threaten or challenge men’s advantaged status (Ayre et al. 2011; Evetts 1998; Peterson 2007). The findings also confirm that once quantitative equality is provided in a technology-related profession, the visibility and the significance of individual gender can weaken. However, when the analysis also takes into account the particularities of different organisational contexts, the findings reveal that such an egalitarian atmosphere is limited to designer-only work settings, and women industrial designers still have to struggle to be on equal terms with men in their relations with different occupational groups in different work settings.

In this thesis, relations in two work settings were explored: interdisciplinary relations with engineers and marketing people in the office (Chapter 6), and production relations with blue-collar workers on the shop floor (Chapter 7). The findings of the two analysis chapters showed that the experiences of gender in these two frames have different implications for understanding the gendering of industrial design as an example of technology-related work.

Chapter 6 addressed interdisciplinary relations, especially with engineers, as an important site of gendering. It demonstrated how occupation-based dualisms and gender dualisms constitute and support each other through these relations in a way that characterises the industrial designer’s work as a feminine, subjective, and aesthetics-related – rather than technological – work, in comparison to engineering. This association is shaped by both the casual dress and appearance norms among designers, and the overall perception of the industrial designer’s job as bringing aesthetic contributions by those outside the profession. In this way, the occupational image of the industrial designer contrasts with both the image of professional manager and professional technological worker, each defined in line with a hegemonic form of masculinity through their identification with objective and ‘hard’ and ‘real’ technological work.

As a result, at the structural level, these symbols and images explain, justify and reinforce the superior status of engineers to industrial designers, in terms of getting access to powerful and privileged positions in the organisation. Considering that engineering is both male-dominated and seen as ‘gender authentic’ for men as opposed to mixed-gender industrial design, which
is perceived as ‘gender authentic’ for women, the findings show how men’s ‘gender authenticity’ for higher status, authority and higher income is sustained through the unequal valuation of these two professions in the organisational contexts where such dualistic associations apply. Thus, the argument that was contradicted above within the professional context (i.e. women are clustered into the roles with less power, value and income) is supported at an organisational level by what this study finds by exploring interdisciplinary work settings.

A second argument derived from the feminist literature on engineering and IT was that women experience a (feminine) gender image and (masculine) professional image clash in these occupations (Demaiter and Adams 2009; Dryburgh 1999; Evetts 1998; Miller 2004; Phipps 2002; Powell et al. 2009; Sinclair 2005). The findings of Chapter 6 showed that for women industrial designers, the relationship between these two images is more complicated. At some points, i.e. entering the profession, the femininity of the woman and the industrial designer perfectly overlap and can create an advantage for women by defining them as ‘gender authentic’ for this profession. This is due to the belief that women would be more successful at designing aesthetic products. Yet, at some other points, i.e. working with engineers, this overlap itself undermines their position as professional and technological workers. As a result, they have to cope with not only their individual gender, but also occupational gender to ‘fit in’ male-engineer-dominated interdisciplinary work settings. In this sense, women industrial designers find themselves in a double-disadvantaged situation compared to both women engineers examined in the existing literature, who have to cope with their individual gender, and male industrial designers examined in this study, who have to cope with their occupational gender, in such work settings.

Chapter 7 provided further evidence for the complicated and contradictory nature of the industrial designer’s work by exploring designers’ relations with blue-collar workers in shop floor settings. It is important to understand designers’ experiences in the production site, since in many organisational contexts the designer’s job also includes dealing with issues related to manufacturing. This means that in such contexts whilst the office is still the primary work site for designers, they also occasionally need to visit the shop floor to supervise the blue-collar workers who build the models of their designs.
In the production site the disciplinary distinctions discussed above disappear, and the relation of industrial designer’s work to technology and technical knowledge becomes stronger. In this work setting we encounter a more generic ideal professional worker image, which is characterised by technical competence, aggression, self-sufficiency and toughness, which are necessary to exercise authority over blue-collar men. As I stated above, in the interdisciplinary office settings male designers fall behind male engineers in matching the ideal image of the professional worker due to the symbolic associations of industrial design. In such work settings, they share an inferior professional status with their female colleagues to a certain extent. However, in the production site, where it is only the individual gender that matters, due to their middle-class masculinity, which is marked by higher educational and cultural status (Pyke 1996), male designers are aligned with this ideal image. Women designers, on the other hand, encounter an explicit resistance from blue-collar workers, and find it difficult to be accepted on the shop floor in positions of authority, since it is only men’s superiority that is accepted as ‘gender authentic’ by the workers doing a technical job. Thus, again, the femininity of women, which makes them ‘gender authentic’ workers for industrial design in many industries in Turkey, becomes the source of their ‘gender inauthenticity’ for production settings.

Examining industrial designers’ experiences in two different work settings, this study revealed that the image of the ideal worker that the industrial designer attempts to match is not fixed – even in the same organisation. Rather, it changes depending on how the industrial designer’s work is defined in each work setting, not only via formal job descriptions, but also through everyday work relations with different occupational groups. In these contextual definitions, industrial design’s relation to technology plays a crucial role. In the engineer-dominated work settings the link between industrial design and technology seems to get weaker through the stereotypical associations of technology with engineering, and industrial design with aesthetic contribution. Industrial designers feel that in their collaboration with engineers, their expertise in technology is underestimated, while that of engineers’ is simultaneously exaggerated. However, when we focus on the production site, we see that industrial designers’ work is defined as ‘real’ technological and technical work, which is based on technical competence and knowledge of production, material and techniques.

These constructions have important consequences for women designers’ work experiences. Whilst women do not encounter any significant barriers or hesitance by management in
entering manufacturing companies on equal terms with male designers, in the very same organisations, their ‘gender inauthenticity’ for technological and technical work settings is emphasised through their relations with engineers and production workers: the two occupational groups whose activities have come to be conceptualised as the ‘real’ technology and as ‘men’s work’ throughout historical and cultural processes (Oldenziel 1999; Wajcman 1991, 2010). Thus, the masculine culture of technology shapes women industrial designers’ work experiences in a way that puts them in a disadvantaged position compared to their male colleagues, even though their profession is not dominated by this culture. This affirms my suggestion regarding the significance of taking into account both various aspects of organisational life and the association of technology with men and masculinity for a comprehensive understanding of gendering of technology-related work.

Through its in-depth investigation of the gendering of the industrial designer’s work experiences via the complex relations between gender, technology and work, and their symbolic, structural and interactional dimensions, this study has made significant contributions to theory, methodology and practice. These contributions will be discussed in the following three sections.

8.1.1. Understanding gender, technology and work

This thesis has contributed to the theory of gender, the theory of gendered organisations, and the feminist literature on the relations between gender and technology on five counts. First, existing studies have mainly been concerned with engineering and IT, the two typical examples of technology-related work. Examining these occupations, they pointed to the male dominance in technological occupations, the masculine culture of technology-related work, and the masculine image of the ideal technological worker, to explain the gender-based problems women professionals encounter in the workplace. This thesis, on the other hand, explored the gender inequality question in an example of technology-related work, industrial design in Turkey, that is neither dominated by men, nor identified with a masculine occupational culture and a masculine worker image. Doing this enabled us to see that in such an example gender asymmetry still persists in a way that puts women in a disadvantaged status. However, the gender-related problems women face in such an example differ from what the existing studies found by examining typical examples of technology-related work.
Women industrial designers’ work experiences are gendered in more subtle and ambiguous ways, due to the complicated and contradictory nature of the relationship between their individual femininity (which means being a woman), the femininity of their occupation (in the contexts where it is defined as aesthetics-related work), and the masculinity of technological and technical work settings (where they are in close relations with engineers and production workers).

Moreover, in the existing literature there are two bodies of work, namely feminist technology studies and feminist organisation studies, that are concerned with gender inequality in technology-related work. Although recent studies in both fields parallel each other in that they conceptualise gender as processual, multiple and complex in character, and underline its symbolic, structural and individual dimensions, they are not in dialogue. As a result, ‘technology’ seems to remain undertheorised in feminist organisation studies, as does ‘work’ in feminist technology studies. This study brought together these two separate bodies of literature addressing this gap. In the analysis, the significance of taking into account both ‘work’ and ‘technology’ was evidenced particularly in the discussion of the ‘ideal worker image’. As I discussed in Chapter 6, in the office environment, the ideal image of the professional worker is characterised as serious, rational and doing ‘real’ and ‘objective’ work. Industrial designers, who meet this image in terms of neither appearance and dress norms, nor the nature of the expertise, find it difficult to prove their competence for managerial roles. However, the analysis showed that this image, and the industrial designer’s unsuitability for it, are sharpened in organisational contexts that are dominated by engineers. This is because in such contexts the ideal image of the professional worker is reinforced by the ideal images of technology. This is where theorising technology and incorporating its ideal images, which are discussed by feminist technology scholars, into analysis become essential.

Faulkner (2001) helps us elaborate on the ideal images of technology which shape the thought of engineering and IT. She states that the association of technology, as it is defined in these two fields, with scientific methods brings along some long-standing dualisms: on one side there is “an objectivist rationality associated with emotional detachment and with abstract theoretical (especially mathematical) and reductionist approaches to problem solving”, whilst there is “a more subjective rationality associated with emotional connectedness and with concrete, empirical, and holistic approaches to problem solving” on the other side (85). She underlines that although both sides are required within engineering
and IT practice, the ideal images of technology are linked to the former in a way that values the objective over subjective, and rational over emotional. In this thesis looking at the stories of the participants working in engineer-dominated companies, we see that this ideal image of the technological worker strengthens the above-defined image of the professional worker, which is defined as serious, rational and doing ‘real’ and ‘objective’ work. As the findings demonstrated, in organisational contexts where the management consists of engineers, the strong ties of engineering with the ‘certainty’ afforded by its reliance on the so-called scientific and objective problem solving approach can mark the designer’s approach, which is more comfortable with uncertainty, as subjective, less valid and less professional. Drawing on these findings, this study contributes to the investigation of the gendering of technology-related work, highlighting the role that the popular images of technology play in the construction of the ideal professional worker image in organisational contexts.

Furthermore, and as an implication of this, the findings of this thesis suggest the need to rethink how Harding’s (1986) gender triad is used in feminist technology studies. The significance of examining the relations between the symbols, structures and identities of gender and technology has been underlined in these studies (see for example Cockburn and Ormrod 1993; Faulkner 2000a, 2001; Henwood and Hart 2003; Lie 1995; Mellström 2002; Webster 1995). Such an analytical framework enabled these studies to explore the association of technology with masculinity through historical and cultural processes, women’s exclusion from technology-related occupations, and women’s hesitance and unwillingness to enter such occupations. However, the findings of this thesis demonstrated that the gendered experiences of individuals in a technology-related occupation (as well as the definition of technology-related work) are dependant on work context, too. It varies depending on, for example, the industry, the type of organisation, and the interaction between different occupational groups. This thesis argues that research focusing on gender inequality in technological areas should take into consideration the symbolic, structural and interactional dimensions of ‘work’, too; since both gender and technology are constructed in different ways in various work settings. For instance, as the link between the industrial designer’s work and technology dramatically changed in the engineer-dominated office and the shop floor, so did the gender associations of the ideal image of the industrial designer. Therefore, we should apply the triad of symbols, structures and interactions to another triad of gender, technology and work to capture the complexity of the gendering of technology-related work.
In the above-mentioned feminist technology studies, Harding’s triad has been taken as a basic analytical tool. Whilst these studies have emphasised the interdependency of the three dimensions, they do not provide us with a detailed description of the nature of this interdependency. The following figure illustrates my interpretation of the relationship between symbols, structures and interactions.

Figure 8.1. The relationship between the three dimensions of the symbols-structures-interactions triad

Figure 8.1 stresses that all three dimensions are influential on each other. It is not possible to fully account for one dimension without taking into account the other two. If we examine the shop floor as an example, the ideal image of the industrial designer is associated with masculinity through its characterisation by aggression, self-sufficiency and toughness. This symbolic association is both supported by the male domination in production work, and shapes the male and female designers’ choices regarding working in the production site. At the structural level, it does not offer a welcoming environment to women, whilst it addresses men as the gender authentic members of the production site. Experiencing this strong association, and being aware of the problems that women encounter on the shop floor, both female and male industrial designers indicate that ‘the shop floor is not for every woman’. According to men, shop floor is only for the women who can demonstrate the necessary masculinity. Some women also share this view, arguing that fragile, weak and shy women have no place in the production site. This conforming attitude of professionals at the individual level, in turn, supports the masculine image of the ideal worker on the shop floor at the symbolic level, and justifies the ‘gender inauthenticity’ of ‘typical’ women for the production site at the structural level.
I used this example to illustrate the relationship between the three dimensions of my interpretation of Harding’s triad. However, above I suggested that we should go further and apply this triad to another triad of gender, technology and work to capture the complexity of the gendering of technology-related work. Figure 8.2 aims to represent this:

Figure 8.2. Unpacking the layers of symbols, structures and interactions with the gender-technology-work triad

As the figure shows, applying the symbols-structures-interactions triad to the gender-technology-work triad makes it possible to study each dimension of symbols, structures and interactions as multi-layered. Previously in this section I highlighted the strong link between the ideal image of the professional worker and the ideal images of technology in that specific organisational context. Yet, these images are also connected to certain gender images. My analysis showed that to what extent the industrial designer’s work is considered technological is closely related to its association with femininity, as well as its image as a profession in the organisation. Identifying and unpacking these layers is particularly important when the gendering of work operates in more subtle and implicit ways (i.e. when the work is neither
dominated by one sex, nor has an explicitly gendered culture), and is not recognised easily by individuals, as is the case among the participants of this study.

Furthermore, within this framework, this study examined the intertwined dissections of occupation and gender to understand to what extent and in what ways occupation-based dualisms and gender dualisms constitute and support each other. There are few studies that have explored how the masculine and the superior image of the engineer is defined in contrast to other professions that do not have such a strong link to technology (see for example Dryburgh 1999; Faulkner 2007). However, in these studies this question was peripheral to the research, and was not examined in detail, as their focus was not on interdisciplinary relations. This thesis was inspired by the findings of these studies, but addressed this question with an in-depth analysis of interdisciplinary relations, and from the perspective of the less powerful occupational group.

Finally, although existing feminist studies have drawn considerable attention to the role that everyday relations between workers play in maintaining women’s disadvantaged status in technology-related professions, they have mostly focused on the office environment and the interaction between peers and management. There are few studies interested in professional women’s relationship with manual workers in the production site (see for example Poggio 2000). This is possibly because the office is the primary work setting for professional workers. This thesis addressed this gap by investigating gender relations in the shop floor environment. Demonstrating how the experiences of gender change dramatically in the office and on the shop floor, this thesis highlighted the contextual and situated nature of gender construction at work. In light of these findings, it argues that placing all emphasis on only one of these settings, possibly the most visible one, limits our analysis of gender inequality experienced by the members of that occupation. In order to expand our understanding of the gendering of work, research should address context-specific work settings as the unit of analysis, rather than occupations and organisations per se; and should analyse the links and contradictions between the experiences of gender in these different settings.

8.1.2. Methodological issues

This thesis has also contributed to the study of personal experiences in feminist research on
two grounds. First, examining different work settings, it illustrated how the experiences of ‘being a woman’ diversify depending on the various roles a woman adopts even in the same organisation: as a woman designer who is the leader of the design team, as a woman designer who is working among engineers, as a woman designer supervising shop floor workers for example. In this regard, this study elaborated on, and provided empirical evidence for, Harding’s (1987) argument that the contradictions between the different identities of women offer a rich resource for feminist research, within the context of the study of work.

Secondly, feminist research on technology-related work has mainly focused on women’s experiences. Although in recent studies there is a tendency to recognise the significance of men’s experiences, particularly due to the increasing popularity of the concept of hegemonic masculinity, most interview-based studies still rely on women’s accounts. This thesis evidenced the importance of exploring men’s experiences for feminist research. Men’s accounts enabled us to see, for example, how women industrial designers’ disadvantaged status on the shop floor is also sustained by their male colleagues’ consideration of the superior positions as only proper for those who can exhibit the necessary masculinity. With these findings, this study supports the argument that in order to understand the gender-related problems that women encounter in the workplace, feminist researchers need to study men’s experiences as well.

Although narratives have been utilised in organisational research for a couple of decades, the use of narrative research as a distinct research method in the study of gender and work is more recent (see for example Gherardi and Poggio 2001; Murgia and Poggio 2009). In this sense, this thesis also contributes to the development of narrative research in feminist studies of work by drawing on professionals’ personal experiences in different organisational contexts. Moreover, through the use of a visual mapping tool, this thesis proposes a new model for analysing narratives thematically. Although visual analysis of narratives is also mentioned as a specific approach in Riessman’s (2008) book, here she discusses using visual images such as photographs, paintings and videos, and incorporating them into narrative research. In this thesis, on the other hand, developing a visual approach to data analysis corresponds to transferring interview transcripts, each of which constitute one single narrative, into a map of the narrative. Since I take narrative as the personal account of a participant and fragment it into stories, which are then used as the unit of analysis, maps
consist of boxes each of which represents a story with my interpretation of the story as well as the notes I took during the interview. These boxes, then, are clustered around emergent themes. This model has two main advantages compared to working with written transcripts. First, it offers a practical way of analysis for the narrative-based studies with a larger scale, since it enables the researcher to sort out all relevant data derived from one narrative on one page, rather than reading through pages of transcripts throughout the whole analysis process. Secondly, and in relation to this, the model facilitates looking for commonalities and differences among participants by examining all maps together at the same time. Then, identifying what is shared and what is not, the researcher can see how and to what extent individual concerns can be used to construct a collective narrative. For example, in my case the sharp distinction between the office and the shop floor settings was shared by almost all participants and this consensus led me to analyse the stories under two umbrella themes: ‘relationships with blue-collar workers’ and ‘being a designer in interdisciplinary work settings’. Although this distinction could perhaps be identified through the use of a transcript-based analysis, too, the visual model is more practical as it enables me to see easily how heavily stories are clustered around these themes.

8.1.3. Industrial design research and practice

Existing feminist design literature has been dominated by the ‘women designers’ approach. This approach, inspired by either liberal or radical feminist perspectives, fails to see the full picture of ‘the problem of gender inequality’, as it focuses on documenting and revealing women’s successful involvement in the industrial design profession, and disregards the symbolic and cultural association of industrial and technological work with masculinity (see for example Kirkham and Walker 2000). This thesis contributes to the feminist design literature by highlighting the importance of paying attention to the gendered images (e.g. identification of the industrial designer’s work as aesthetics-related, soft and feminine in the interdisciplinary office, whilst technical, hard and masculine in the production site), structures (e.g. the lower professional status of industrial designers in terms of available managerial positions and income) and interactions (e.g. power asymmetries between disciplinary groups in the office, the intersection of class and gender relations on the shop floor) that shape the disadvantaged status of women designers, rather than bringing out their individual success stories.
Secondly, when argued with reference to the design management literature, the findings of this thesis evidenced that the relations of engineers and industrial designers cannot be reduced to mere ‘disciplinary differences’ between the priorities, interests and the educational backgrounds of two professional groups (Cagan and Vogel 2002). There are significant power asymmetries between these two groups that privilege engineers over designers due to the former’s reliance on a certainty that flows from engineering’s reliance on science and mathematics. Moreover, managers’ attitudes are highly influential on the strength of this dualism. These findings have important implications for practice. Management of interdisciplinary teams should identify and challenge such power asymmetries that are constructed around a hard/soft dualism, in order to create a more egalitarian atmosphere. Such an atmosphere, in which the subjective and aesthetics-related work of the industrial designer is as equally valued as the objective and technology-related work of the engineer, would play an important role in improving industrial designers’ status at the organisational level.

Moreover, some studies have pointed to the lower professional status of designers compared to other well-rooted disciplines in terms of their roles within the organisations they work and the level of remuneration (see for example Molotch 2002). However, the gender-blind approach of these studies has mostly failed to acknowledge that women professionals are in a more disadvantaged position than their male colleagues (but see Smith and Whitfield [2005] for a short comment on the gender pay gap in Australia). Examining interdisciplinary relations with a gender lens, this thesis also enables us to see the double inferior status of women in interdisciplinary work settings due to being both a woman and a designer, which is disregarded in these studies.

When we focus on the context of this study, although there is an extensive literature that investigates women’s status in different fields of engineering in Turkey (Arslan and Kivrak 2004; Healy et al. 2005; Küskü et al. 2007; Smith and Dengiz 2010; Zengin 2002, 2010), this thesis is the first study that has been interested in the role of gender in industrial design practice. Moreover, due to the lack of in-depth research on industrial design practitioners in Turkey, this study has made an important contribution to understanding industrial designers’ status in Turkish industry. Highlighting different problems that industrial designers encounter as an occupational group in large-scale companies and SMEs, this thesis provides useful insight for the policy-making processes of professional organisations such as ETMK (Industrial
8.2. Routes for future research

Whilst this study made some important contributions to knowledge, it also has some limitations. The limitations regarding the methodological approach were discussed in Chapter 5. In this section I will note the limitations of the focus of this thesis along with suggestions for future research.

This thesis revealed the important role that interdisciplinary relations play in the gendering of work. However, it explored the relations of industrial designers with engineers and marketing people from the viewpoint of industrial designers, since it draws on industrial designers’ narratives. But we do not know yet, for instance, whether all engineers benefit from the superior image of engineering in interdisciplinary work settings equally, or whether some of them would find egalitarian organisational models more desirable. Further research that examines the stories of other professional groups, those of not only peers but also managers, may enable us to expand our understanding of the gender inequalities constructed through these relations. Different perspectives may provide insight as to how to destabilise and subvert the dualistic associations that lead to the power asymmetries between not only industrial designers, engineers and marketing people as disciplinary groups, but also women and men as individuals.

Secondly, this thesis focused on participants’ work narratives. However, feminist studies have underlined how women’s disadvantaged status as professional workers is also reinforced by the unequal share of family and childcare responsibilities between men and women (see for example Ayre et al. 2011; Kelly et al. 2010; Line and Mellström 2011). Also, in Turkey women professionals have always had to develop effective strategies to balance work and family, since their active participation in professional life did not challenge their traditional role in the family as mothers and wives (Durakbasa and Ilyasoglu 2001; Öncü 1981; Tüzel 2004). Thus, it is also important to investigate the impact of industrial designers’ roles in the family on their careers. I suggest that particularly research that focuses on industrial designers who run their own design consultancies would be fruitful in addressing this question, since, on one hand, managing one’s own business can be more demanding than working as an in-house designer.
in terms of working for long and unpredictable hours to meet project deadlines, travelling to visit clients, and the responsibilities being an employer brings. On the other hand, it can enable designers to plan their schedule more freely, and this can serve them as a good strategy to manage their work and family commitments. Future research can investigate, for example, the impact of family commitments on (both male and female) industrial designers’ choices of particular forms of employment, and the implications of these choices for their careers.

This thesis has contributed to the field of industrial design in Turkey with an in-depth exploration of professionals’ experiences in the workplace. Doing this, it also highlights the need for statistical data in the field. First, the findings of this thesis showed that industrial designers hold a lower professional status compared to other disciplines, in terms of both available managerial positions and income. This comparison was underlined by most of the participants as a significant concern. However, there is no statistical data available on these issues in Turkey. What is the pay gap between industrial designers and their counterparts in engineering and marketing? How does this pay gap vary in different industries? How many design teams are led by engineers, how many by marketing people, and how many by industrial designers? How many industrial designers take part in top management in the companies they work? These questions are important as their answers help us see the broader picture of the industrial designer’s work in Turkey more clearly. Second, we need statistical data on industrial design profession in Turkey by gender, in terms of participation, promotion and income. For example, how many industrial design consultancies in Turkey are owned and led by women and how many by men? Do the answers of the above questions regarding in-house employment differ for male and female industrial designers? Future research should consider these questions.

Although industrial design is still an emerging profession in Turkey, stories of industrial designers have shown how as the profession develops and becomes more established, patterns of gender inequality are also being established. But the context is rapidly changing. In the last couple of years the number of the universities with industrial design departments has steadily increased. Some of the recent ones are being established even in smaller cities with industrial districts. In the following decades, this situation can transform the ‘metropolitan’ image of the profession, or we may witness the emergence of an alternative occupational image. In either case, we will need new stories to understand how change in the
context impacts on the experiences of gender within this profession.


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Appendices

Appendix A: Interview Schedule

1. Could you briefly tell me how your professional life started after graduation, how it continued and how you came to your current job?

   - What are the participant’s choices/expectations regarding professional life?
   - Did they change through the years?
   - What kind of problems did the participant live and why did s/he look for new jobs?
   - How does the participant describe these jobs/industrial sectors?
   - Does the participant talk about ‘technology’?
   - Does the participant link them to a gender issue?
   - Does the participant find her/himself more suitable for certain types of job? If yes, how does s/he explain this suitability?

16 The interview schedule was first prepared in English. After being discussed with my thesis supervisor, the questions were also prepared in Turkish to be used in the interviews.
2. Could you tell me about

- the job advertisement,

- the job interview,

- your first impressions about the work environment and the company, and the people you will work with?

How do you think gender appeared as an issue in all these processes? (For example, was your gender important for your employer(s) when making their decisions while employing you? If the participant is an employer, is it important for her/him?)
3. I would like to know what you do in your current job (as well as your previous jobs).

- What are your duties and responsibilities in your current position?

- Who are the people you work with or communicate during day?

- Did it differ in time, if yes, how?

- Do you see your gender relevant in the shaping of these relationships? How/why? What is the relevance/importance of gender in your work experience in this workplace?

- Does the participant’s job include interdisciplinary relations? Is s/he the only designer in that company?

- Does s/he mention ‘technology’ as an issue?
Appendix B: Quotes in the original language

Chapter 5


Chapter 6


[3] E: Benim meslek hayatına başladığı sene 87. 87’den belki 90’ların sonuna kadar bizlerin diğer bir misyonu endüstriyel tasarım nedir, meslek nedir, endüstriyel tasarımıcını kimdir; eem yaşamımızın büyük bir kısmını bu şekilde geçmişti. (gülerek konuşuyor) (…)

P: Peki siz ordaki ilk tasarımçı mıydınız?

E: Evet ilk tasarımçıydim.

P: Peki ilanla mı gitmiştiniz?


mimari projeden de. Öyle saçma sapan bir şeyler olduğu yeni.


M: Hiçbirini.

P: Hiçbirini. Yani eem bir kadın olarak bu sanayiyle bir araya geldiğiniz zaman hiç bu size bir dezavantaj olarak döndemi?

M: Yok, bence döndemi. Yani öyle bir şey hiç hissetmedim.


[18] Sonradan ikı kız işe girdi, biz de iki erkektik zaten. Toplamda 4 kişi oldu. Çok güzel bir ekipti. Çok modern bir zihniyet hakimdi ortamda. (...) Ben zaten eem iki cinsiyetin de bulunduğu ortamlardan ben zaten şahsı daha çok keyif aliyorum.


P: Niye bir bayan olması gerekıyordu?

M: İşte zengin gösteren, firma daha prestijli olsun, bir şekilde prezentabl olalım. Tamam bir erkek var, hani o tasarımcı ama şirketi temsil eden ikinci kişi özellikle bayan olabilirse daha iyi olur diyorduk.


P: Yani başvuran olmuş da mı almamışlar?

B: Eee başvuran olmuş mu olmamış mı onu bilmiyorum ama genelde başvurular erkek oluyor. Ama yani sırf hani böyle seni tanıdık şeyiyle geldin o yüzden çağrılmış gibi konuştu iş görüşmesinde. Bir de bayanların işte hani erkek ortamında çalışması daha zor diye düşünüyorlardı.


S: Yoo, onu sormadılar aslında. Öyle bir şey olmadı.

P: Yani patronların öyle bir kaygısı...


yapamıyorum.” Ben tabi hani önce işte kendimi anlatmaya çalıştım bilmem ne falan, hani böyle “Evet ha evet evet” diyorlar ama şey yok böyle, bir ilgi olmadığı belli yani. (...) Neyse sonra, eem yani işte dinledikten sonra beni şey dediler, “Yani biz uymulu çalışmayacağımızı düşünüyoruz, böyle bir kötü tecrübemiz oldù ve işte bu sektör kadınlara çok uygun değil. Yani sen gel vazgeç bu işten.”


[27] H: Yani şey, şimdi aslında çok net olarak böyle erkeklerle kızlar arasında bir gruplaşma oluşmaya başladı. Ama hangi kızlar, hangi erkekler? Hani eski, benim gibi böyle beş-altı sene senedir çalışan kızlarla, diğer işte erkekler grubu, erkeklerin çoğu zaten eski. Bilmiyorum, ortak şeyler mi, paylaşımlar mı desem, kişilikle mi ilgili şeyler desem... Yani böyle birtakım problemli şeyler var.

P: Örnek verebilir misin?


[28] Yanı kayırlma görüryor açık olarak mesela. Bazı önemli projeler— mesela önemli bir proje, gubumuzda beş tane bayan artı iki erkek varken o iki erkeğe verildi. Biri çok yeni, biri daha üst düzeyde olmasına rağmen. E daha üst düzeyde bir de bayan var, niye o ikisine verilmedi o?


alıyorum? Ben daha eskiyim, ben de onun kadar alacağım.” gibi muhabbetlere kadar gidip en son patron müdahale edip, bir toplantı yapıp hani bayağı bir kızı yani “Bu muhabbetler nasıl çıkıyor?” falan diye.


[34] E: Tasarımcıların, işte mesela, bir mühendis işte beş yılda bir terfi eder gibi bir şey varsa, eem tasarımıcının ne bileyim işte yedi-sekiz yılda bir terfi ediyor. Ve tasarımının çıkabileceği üç kademe var, onun üstüne çıkıyor.

P: Neden peki? Onu nasıl açıklıyorlar peki?

E: Açıklamıyorlar. Ne kavgalar ettik. (…) Eem hani, adı yönetici olduğum dönemde eem şey o prosedürlerin yazıma işinin içindeydim. (…) Eem hani ben normal şeyi yazıyorum, beş kademe gibi süreç prosedür yazııyorum. Yukarıda gidiliyor, anında üç kademi siliniyor, tasarımıcısı bu kadar yükselemez diye. Çünkü bundan sonraki kademesi yöneticisi yönetici ve yönetici altında mühendis de çalışabilir duruma geliyorsun. Onu sana vermemek için…
35) Ya mesela kot giyim mecbur emekli olduğun için niye giyip hani bazen laf dokundurursalar bile kabul edebiliyorlar. Ama bir pazarlamacı giyince daha büyük sorun oluyor.


P: Yani giyinseler sizin gibi giyinebilirler mi?


40) Hani daha böyle kovu kıyafetler, biraz daha hani resmi kıyafetler, işe şu an üstümdeki gibi, hani çok sıkı olmasa da birtakımbeklentileri oluyor. [Daha rahat] kıyafetler giyip gelsem ne olacak? Yani kendin yönetiminin de bana kalıp bir şey diyeceği sanıyoruz açığa. Ama bir toplantıya girdiğinde insanlarda bir ön yargı oluşmasına sebep oluyor hakikaten. Tasarımçılar


P: Peki bir ressam, heykeltraş gibi algılanma ihtimali nerden gelmişti aklınıza?

A: Bu kadar çok mühendisin olduğu ve daha önce hiç tasarımcının çalıştığı bir ortamda bu olabilir diye düşünürdüm. Zaten toplumda da genelde böyle bir şey var, tasarımcı tanınmıyor. Bir few medya yansıyan uzantıları da tasarımcı imajının çok, işte güzellik, estetik, zevk kısmı yansıyor.


Yani bir şekilde sifatının bir yerlerinde mühendis lafi geç扫一rdı, çok farklı davranılacaktır. Endüstriyel tasarım olduğun için çok fazla lafımızı dinletmek için çok çaba göstermemiz gereki.

Mühendislikte nasıl bir takım şeyler hesap kitapla ortaya koyup kanıtlayabilirsin, aslında endüstriyel tasarımda da bir takım şöyle yöntemler var. Ama bu yöntemler çok kabul görmemiği için herkesin kendi fikri olmaya başloyor tasarım doğruları. (...) Hani onlarda herkes sanki fikir yürütebiliyör gibi bir ortam var. İşte işçisinden patronuna herkes işte "Bu iyidir," veya "güzeldir" diyebilirmiş gibi bir takım şeyler. O açıdan hani tasarımlarınız kabul ettirmekte zorlandık açıkçası.


Eem bir kere yani bir şey tasarladığınız zaman bayan olmanızın şöyle bir avantajı var, daha estetik buluyorlar sizi. İyi bir şey, estetik, güzel bir şeyler üretmek istiyorsa kişiler siz tercih ediliyorsunuz ama üretim ağırlıklı bir şey olursa o zaman bir bay tercih ediliyor. Eem yani ben bütün bu süreçlerde bunu gördüm.

Takılma anlamında şeyler olur ama bunu hani anlatmak bile hani çok şey değil. Bir de ben yıllar boyunca tek tasarımçымydım ya öyle bir şey de vardı. Eem yani boşboğaz bir eem boşboğaz birkaç eem ihraçatçı arkadaş "Ya tasarımcı erkeklerde böyle hep böyle bir işte feminen bir yan olun sen niye böylesin?" falan dediği olmuştur.


yıllarda iki-üç tane erkek tasarımçı alındı zaten hani var olan iki-üç kadın tasarımçıya şey...


P: O nedendi sence?


Endüstriyel tasarımçı olduğum için de biraz daha şadde: “Kadın olduğum için herhalde çok ciddiye alındılar” falan dedi. Ama şimdi düşününce belki de, evet, tasarımçı olduğum ve benden beklentiler asında daha az olduğu için de olumsuz olabilir.


P: Siz ne dediniz peki?

Pe: Bir şey diyemedim. Çünkü hani birdenbire böyle o bir havaya girdi. Bir şey diyemedim tabii ki. Ama sonucu çizimler benim yaptığım çizimler, herkes biliyor ama... Hani uygulamacı olan daha, ya da belki erkek olduğu için bilmiyorum, hani daha baskı <<= oruluyor. Hani ben tasarılamışım ama o yaptığı için bazıları sahiplendi gibi olmuştu.
Şimdi o makine mühendislerinin hepsi erkek. Siz de tasarımcı olarak 3 tane bayansınız.


P: Peki ordaki bütün mühendisler erkek miydii?


P: Peki hiç kadın mühendislerden bu tür şeyler duyuyor musunuz?


Chapter 7

[1] Aslında bence cinsiyetle ilgili kısıt atölyelerde biraz karşımıza çıkarıyor. Hani ofislerde böyle cinsiyetle ilgili bir şey yaşamıyoruz gibi de... Atölyelere gidince işte orda daha çok
erkekler hakim olduğu için o bölgeye, (gülüyör) orda daha çok sanki cinsiyetle ilgili şeyler çıkıyor.


P: Kimler peki bunlar? Patronlar mı?


N: Hı hı. Evet, bunu çok rahat söylüyorum. Çünkü bir, her şeyden önce mesleğini yapıyorsun. Öyle ya da böyle elindeki bir şeyi hızlı ve iyi şekilde gerçekleştirebilirsin. Hani prototip süreci çok hızlı gelişen bir süreçti. Artı, kalite çok iyi olduğu için ve ustalar çok işlerine hakim oldukları için senin bulamadığın bir çözüm onların üretmesi, ve dolayısıyla senin farklı şeyler öğrenmen... (...) Atölyenin bu kadar içinde olmak, üretim kapasitesi de iyileştirilmesi ve geliştirilmesi de, eğer bu sektörde bu malzemeyle devam ediyorsan alternatif çözüm üretmek adına gerçekten ufku açan bir şey.


P: Neden peki?


P: Ne gibi?

N: Bizden değil yakıştırmamasını görebiliyorsun.

P: Ne açıdan bizden değil?


İşte maçalı üretim, bu çıkmaz şudur budur konuşuluyor. Siz müdahale ettiği zamanla hani belki anlamanın dörmüş söz konusu olabilir gibi bir başka açıklık olabiliyorsun ama ilişkilerde bünleri çözüyorsunuz. (...) Daha sonra hani kendi uğraşını, bilgi birikiminize bunu kırabiliyorsunuz.


Şöyle bir şey var. Senin bir çok şeyi anlamayacağını düşünüyorlar. (...) Ve detay


[27] Eem ister istemez hani ne kadar yakın davranırsan davran, ne kadar sevgi duyarсан duy,


P: Peki tasarımçıyım deyince anlıyorlar mıydı?


[33] P: Orda nasıldı peki ustalarla ilişkiler?


[36] Benim işle problemim dediğim gibi bir, iki yön, yani bir tasarım mesleğini anlatmaya
çalışmaktan bir sıkıntı vardı. Bir de tabii işte bayan olmanın şeysiyle böyle bir eem var ama ama şimdi benim kullandığım yıllara iyiası geliyor zaman şimdi tabii kadın kadın çalışan sayısını Türkiye'de çok çok arttı. Yani hemen hemen bir çok işletme bakiyorsunuz neredeyse kadın sayısı erkek sayısından daha fazla. Dolayısıyla benim yaşadığım problemleri, eminim o dönemde yaşadıkları şu andakiler zaten bir kadın olarak yaşamıyorlar.


